CITY OF
Federal Way

BID AND CONTRACT DOCUMENTS
AND SPECIFICATIONS
FOR

CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3

PROJECT # 202 and 216
RFB # 19-011
GRANT FUNDING # CM-HSIP-000S(464) and CM-9917(031)

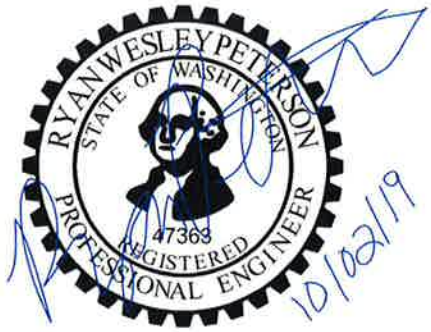
City of Federal Way
PUBLIC WORKS DEPARTMENT
33325 8th Avenue South
Federal Way, WA 98003

BID AND CONTRACT DOCUMENTS AND SPECIFICATIONS FOR CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3

PROJECT # 202 and 216
RFB # 19-011
GRANT FUNDING # CM-HSIP-000S(464) and CM-9917(031)

Bids Accepted Until 10:00 a.m., October 25, 2019 at
City of Federal Way
33325 8th Avenue South
Federal Way, WA 98003

Prepared By:
Transpo Group
12131 113th Ave NE #203
Kirkland, WA 98034



The contract plans and specifications for this Project have been reviewed and approved by:

Public Works Director / Deputy Public Works Director

TABLE OF CONTENTS

PAGE

ADVERTISEMENT FOR BIDS....3
INSTRUCTIONS TO BIDDERS & CHECKLISTS....4
BID PROPOSAL....6
BID BOND....16
SUBCONTRACTOR LIST....17
CONTRACTOR WAGE LAW COMPLIANCE CERTIFICATION....18
PROPOSAL FOR INCORPORATING RECYCLED MATERIALS....19
PUBLIC WORKS CONTRACT....20
SAMPLE CONTRACT CHANGE ORDER....27
CERTIFICATE OF INSURANCE....29
PERFORMANCE AND PAYMENT BOND....30

AMENDMENTS TO THE STANDARD SPECIFICATIONS....GREEN PAGES
SPECIAL PROVISIONS....BLUE PAGES
FHWA 1273....COLOR PAGES
PREVAILING WAGES AND BENEFIT CODE KEY....COLOR PAGES
STANDARD PLANS AND DETAILS....COLOR PAGES
PROJECT PLANS....BOUND SEPARATELY

ADVERTISEMENT FOR BIDS

CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3

SUBMITTAL OF SEALED BIDS: Notice is hereby given that the City of Federal Way will receive sealed bids through October 25, 2019, at 10:00 a.m. at the City Hall Finance Department at 33325 8th Avenue South, Federal Way, Washington 98003. Proposals received after said date and time will not be considered. All timely bids will be opened and read publicly aloud in the Hylebos Conference Room, City Hall 33325 8th Avenue South, Federal Way, Washington 98003 at 10:05 a.m. on October 25, 2019.

This project shall consist of: furnishing and installing traffic signal system detection and communications improvements at various intersections throughout the City of Federal Way, in support of its upcoming SCOOT Adaptive Signal Control (ASC) system.

The City anticipates awarding this project to the successful bidder and intends to give Notice to Proceed as soon as the Contract and all required documents are executed in full. Regardless of the date of award or Notice to Proceed, the Contractor must complete all work within 60 working days.

BID DOCUMENTS: Plans, Specifications, Addenda, and plan holders list are available on-line through Builders Exchange of Washington at www.bxwa.com. Click on: "Posted Projects," "Public Works," and "City of Federal Way." It is recommended that Bidders "Register" in order to receive automatic e-mail notification of future addenda and to place themselves on the "Bidders List." Bidders that do not register will need to periodically check on-line for addenda issued on this project. Contact Builders Exchange of Washington at (425) 258-1303 if you require assistance with access or registration. An informational copy of plans, specifications, and addenda are available for viewing only at the City of Federal Way Finance Department.

QUESTIONS: Any questions must be directed to Naveen Chandra, P.E., Senior Capital Engineer, by email at Naveen.Chandra@cityoffederalway.com, or by letter addressed to same. Questions must be received by the City no later than 5:00 p.m. three business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of bids.

OTHER PROVISIONS: All bids and this Project shall be governed by the Contract, as defined by the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction 2018 (Standard Specifications), which is incorporated by this reference as though set forth in full.

All bid proposals shall be in accordance with the Contract and all bid proposals shall be accompanied by a bid deposit or bond in the amount required in the Contract. Forfeiture of the proposal bond or deposit to the City shall be in accordance with the Contract.

The City, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49 C.F.R., 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. The City encourages minority and women-owned firms to submit bids consistent with the City's policy to ensure that such firms are afforded the maximum practicable opportunity to compete for and obtain public contracts.

The City of Federal Way reserves the right to reject any and all bids, waive any informalities or minor irregularities in the bidding, and determine which bid or bidder meets the criteria set forth in the bid documents.

DATES OF PUBLICATION:

Daily Journal of Commerce	Publish October 4, 2019 and October 11, 2019
Federal Way Mirror	Publish October 4, 2019 and October 11, 2019

INSTRUCTIONS TO BIDDERS & CHECKLISTS

(1) ADVERTISEMENT FOR BIDS AND CONTRACT DOCUMENTS

The Advertisement for Bids and Contract Documents contain bidder instructions that must be complied with.

(2) EXAMINATION OF BID AND CONTRACT DOCUMENTS – BIDDER RESPONSIBILITIES

The submission of a bid shall constitute an acknowledgment upon which the City may rely that the bidder has thoroughly examined and is familiar with the bid and Contract Documents, the Project site, the availability of materials and labor, publically available information, and has reviewed and inspected all applicable federal, state, and local statutes, regulations, ordinances and resolutions dealing with or related to the equipment and/or services to be provided herein. The failure or neglect of a bidder to examine such documents, statutes, regulations, ordinances or resolutions shall in no way relieve the bidder from any obligations with respect to the bidder's bid or the contract documents. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any contract documents, statutes, regulations, ordinances or resolutions. Bidders shall visit delivery and service locations(s) as required. Bidders shall become familiar with and verify any environmental factors, which may impact current or future prices for this requirement.

(3) INTERPRETATION OF BID AND CONTRACT DOCUMENTS

No oral clarifications, interpretations, or representation will be made to any bidder as to the meaning of the bid or Contract Documents. Bidders shall not rely upon any oral statement or conversation they may have with City's employees, agents, representatives, consultants, or design professionals regarding the Contract Documents, whether at the pre-bid meeting or otherwise and no oral communications will be binding upon the City. Any questions must be directed to Naveen Chandra, P.E., Senior Capital Engineer, by email at Naveen.Chandra@cityoffederalway.com, or by letter addressed to same. The questions must be received by the City no later than 5:00 p.m. three business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their bids. Any interpretation deemed necessary by the City will be in the form of an Addendum to the bid documents and when issued will be sent as promptly as is practical to all parties to whom the bid documents have been issued. All such Addenda shall become part of the bid.

(4) BID PRICE

The bid price shall include everything necessary for the completion of the Contract and the Work including, but not limited to, furnishing all materials, equipment, tools, freight charges, facilities and all management, superintendence, labor and service, except as may be provided otherwise in the Contract Documents. All Washington State sales tax and all other government taxes, assessments and charges shall be included in the various Bid item prices as required by law. The offer shall remain in effect ninety (90) days after the bid opening.

(5) POSTPONEMENT OF BID OPENING

The City reserves the right to postpone the date and time for the opening of bids by Addendum at any time prior to the bid opening date and time announced in these documents.

(6) REJECTION OF BIDS

The City reserves the right to reject any bid for any reason including, but not limited to, the reasons listed in Special Provisions Section 1-02.13. The City further reserves the right to reject any portion of any bid and/or to reject all bids. In consideration for the City's review and evaluation of its bid, the bidder waives and releases any claims against the City arising from any rejection of any or all bids. If, in the opinion of the City, there is reason to believe that collusion exists among bidders, none of the bids of the participants in such collusion will be considered.

(7) RECYCLED PRODUCTS

The Contractor shall use recycled paper for proposals and for any printed or photocopied material created pursuant to a contract with the City whenever practicable and use both sides of paper sheets for reports submitted to the City whenever practicable.

(8) BIDDER'S CHECKLIST

The bidder's attention is especially called to the following forms, which must be executed in full as required. Failure to comply may result in rejection of any bid not so complying.

☐ **Bid Proposal:** The Bid Proposal shall be completed and fully executed, including filling in the total bid amount.

☐ **Bid Bond:** This form is to be executed by the bidder (and the surety company as appropriate, depending upon the option selected by the bidder).

☐ **Subcontractor List:** The Subcontractor List shall be filled in by the bidder.

☐ **Contractor Certification – Wage Law Compliance:** This form shall be filled in and fully executed by the bidder.

☐ **Proposal for Incorporating Recycled Materials:** This form shall be filled in and executed by the bidder.

(9) CONTRACT CHECKLIST

The following documents are to be executed and delivered to the City after the Bid is awarded:

☐ **Public Works Contract:** The successful bidder will fully execute and deliver to the City the Public Works Contract ("Contract") from these Bid Documents.

☐ **Certificate of Insurance:** The successful bidder will provide a Certificate of Insurance evidencing the insurance requirement set forth in the Contract.

☐ **Performance/Payment Bond:** The successful bidder will provide a fully executed Performance/Payment Bond as appropriate.

☐ **Business License:** The successful bidder will provide a copy of a current Business License with the City of Federal Way.

BID PROPOSAL

CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3

PROPOSAL SUBMITTED TO:

City of Federal Way
33325 8th Ave South
Federal Way, Washington 98003-6325

PROPOSAL SUBMITTED BY:

Bidder: _____
Full Legal Name of Firm

Contact: _____
Individual with Legal Authority to sign Bid and Contract

Address: _____
Street Address

_____
City, State Zip

Phone: _____

E-Mail: _____

Select One of the Following:

- □ Corporation
- □ Partnership.
- □ Individual
- □ Other

State Contractor's License No.: _____

State Contractor's License Expiration Date: _____/_____/_____
Month Day Year

State UBI No.: _____

State Worker's Comp. Account No.: _____

NOTE: All entries shall be written in ink or typed. Unit prices for all items, all extensions, and total amount of bid shall be shown. Enter unit prices in numerical figures only, in dollars and cents to two (2) decimal places (including for whole dollar amounts). All figures must be clearly legible. Bids with illegible figures in the unit price column will be regarded as nonresponsive. Where conflict occurs between the unit price and the total amount specified for any item, the unit price shall prevail, and totals shall be corrected to conform thereto. The Bidder shall complete this entire Bid Form or this bid may be considered non-responsive. The City may correct obvious mathematical errors. The City of Federal Way reserves the right to reject any and all bids, waive any informalities or minor irregularities in the bidding, and determine which bid or bidder meets the criteria set forth in the bid documents.

SCHEDULE A: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 (BASE BID) *All unit prices shall include applicable sales tax (Roadway Improvements)*						
Item No.	**Spec. Div.**	**Bid Item Description**	**Unit**	**Plan Qty**	**Unit Price**	**Amount**
1	1-04	UNEXPECTED SITE CHANGES	FA	1	$5,000	$5,000
2	1-09	MOBILIZATION	LS	1	$	$
3	1-10	PROJECT TEMPORARY TRAFFIC CONTROL	LS	1	$	$
4	1-10	OFF-DUTY UNIFORMED POLICE OFFICER	HR	28	$	$
5	8-02	PROPERTY RESTORATION	FA	1	$5,000	$5,000
6	1-07	SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN	LS	1	$	$
7	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & 25TH AVE S/GATEWAY CENTER BLVD	LS	1	$	$
8	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & I-5 SB	LS	1	$	$
9	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & 23RD AVE S	LS	1	$	$
10	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & I-5 NB	LS	1	$	$
11	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & PETE VON REICHBAUER WAY S/20TH AVE S	LS	1	$	$
12	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & SR 99	LS	1	$	$
13	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & 32ND AVE S	LS	1	$	$
14	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & WEYERHAEUSER WAY S	LS	1	$	$
15	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST/S PEASLEY CANYON RD & MILITARY RD S	LS	1	$	$
16	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S PEASLEY CANYON RD & S 321ST ST	LS	1	$	$
17	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 356TH ST	LS	1	$	$

18	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 352ND ST	LS	1	$	$
19	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 348TH ST (SR 18)	LS	1	$	$
20	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 344TH ST	LS	1	$	$
21	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & 16TH AVE S/S 340TH PL	LS	1	$	$
22	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 336TH ST	LS	1	$	$
23	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 330TH ST	LS	1	$	$
24	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – ENCHANTED PKWY S (SR 161)/16TH AVE S & S 356TH ST	LS	1	$	$
25	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – ENCHANTED PKWY S (SR 161) & S 352ND ST	LS	1	$	$
26	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 344TH ST & 16TH AVE S	LS	1	$	$
27	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 18 & I-5 SB	LS	1	$	$
28	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – ENCHANTED PKWY S (SR 161) & SR 18 WB	LS	1	$	$
29	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – ENCHANTED PKWY S (SR 161) & MILTON RD S	LS	1	$	$
30	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – ENCHANTED PKWY S (SR 161) & 19TH WAY S	LS	1	$	$
TOTAL – SCHEDULE A						$

SCHEDULE B: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 3 (BASE BID) *All unit prices shall include applicable sales tax (Roadway Improvements)*						
Item No.	**Spec. Div.**	**Bid Item Description**	**Unit**	**Plan Qty**	**Unit Price**	**Amount**
1	1-04	UNEXPECTED SITE CHANGES	FA	1	$5,000	$5,000
2	1-09	MOBILIZATION	LS	1	$	$
3	1-10	PROJECT TEMPORARY TRAFFIC CONTROL	LS	1	$	$
4	1-10	OFF-DUTY UNIFORMED POLICE OFFICER	HR	40	$	$
5	8-02	PROPERTY RESTORATION	FA	1	$5,000	$5,000
6	1-07	SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN	LS	1	$	$
7	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 316TH ST & SR 99	LS	1	$	$
8	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 312TH ST & SR 99	LS	1	$	$
9	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE –S 312TH ST & 14TH AVE S	LS	1	$	$
10	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – DASH PT RD & 11TH PL S	LS	1	$	$
11	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – DASH PT RD & 16TH AVE S	LS	1	$	$
12	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & DASH PT RD	LS	1	$	$
13	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 276TH ST	LS	1	$	$
14	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 288TH ST	LS	1	$	$
15	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 304TH ST	LS	1	$	$
16	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – SR 99 & S 308TH ST	LS	1	$	$
17	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 288TH ST & 18TH AVE S	LS	1	$	$
18	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 304TH ST & 28TH AVE S	LS	1	$	$

19	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – MILITARY RD S & S STAR LAKE RD	LS	1	$	$
20	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – MILITARY RD S & 31ST AVE S	LS	1	$	$
21	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – MILITARY RD S & S 288TH ST	LS	1	$	$
22	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – MILITARY RD S & S 304TH ST	LS	1	$	$
TOTAL – SCHEDULE B						$

SCHEDULE C: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 (ALTERNATIVE 1) *All unit prices shall include applicable sales tax (Roadway Improvements)*						
Item No.	**Spec. Div.**	**Bid Item Description**	**Unit**	**Plan Qty**	**Unit Price**	**Amount**
1	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 324TH ST & SR 99	LS	1	$	$
2	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 320TH ST & 11TH PL S	LS	1	$	$
3	8-20	TRAFFIC SIGNAL SYSTEM, COMPLETE – S 348TH ST (SR 18) & ENCHANTED PKWY S (SR 161)/16TH AVE S	LS	1	$	$
TOTAL – SCHEDULE C						$

SCHEDULE D: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3 (ALTERNATIVE 2) *All unit prices shall include applicable sales tax (Roadway Improvements)*						
Item No.	**Spec. Div.**	**Bid Item Description**	**Unit**	**Plan Qty**	**Unit Price**	**Amount**
1	8-20	HYBRID RADAR/VIDEO DETECTION SYSTEM (MATERIAL ONLY)	EA	1	$	$
TOTAL – SCHEDULE D						$

BID SUMMARY (BASE BID)	
ITEM	**BID AMOUNT**
SCHEDULE A: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 (BASE BID)	$
SCHEDULE B: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 3 (BASE BID)	$
TOTAL BID AMOUNT *(including Washington State sales tax, all other government taxes, assessments and charges)*	$

BID SUMMARY (ALTERNATIVES)	
ITEM	**BID AMOUNT**
SCHEDULE C: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3 (ALTERNATIVE 1)	$
SCHEDULE D: CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3 (ALTERNATIVE 2)	$
TOTAL BID AMOUNT *(including Washington State sales tax, all other government taxes, assessments and charges)*	$

The documents incorporated by reference, as if fully set forth, are the Advertisement for Bids, the Instructions to Bidders and Checklists, the Contractor's Bid Proposal (including all forms and supplemental information listed on the Bidders Checklist), the Contract Documents (including Project Plans, Specifications, and all Appendices, Amendments, and Supplemental Reports & Information), the Contract Provisions (including all forms and supplemental information listed on the Contract Checklist), the version of the Washington State Standard Specifications for Road, Bridge, and Municipal Construction identified herein, and any other documents provided to bidders and/or referenced in or referred to by the Contract Documents.

Pursuant to and in compliance with the Advertisement for Bids for the Project, and other documents relating thereto, the undersigned has carefully examined all of the bid and contract documents, considered conditions which may affect the delivery, supply and maintenance for the Project, and hereby proposes to furnish all labor, materials and perform all work as required in strict accordance with the contract documents, for the referenced bid amount, inclusive of Washington State sales tax and all other government taxes, assessments and charges as required by law.

NON-COLLUSION AFFIDAVIT

By signing this proposal, the undersigned acknowledges that the person(s), firm, association, or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this project.

To report rigging activities, call 1-800-424-9071. The U.S. Department of Transportation (USDOT) operates the toll-free hotline Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the hotline to report such activities. The hotline is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

CONFLICTS OF INTEREST, GRATUITIES, & NON-COMPETITIVE PRACTICES

By signing this proposal, the undersigned agrees as follows:

(1) That it has no direct or indirect pecuniary or proprietary interest, that it shall not acquire any interest which conflicts in any manner or degree with the work, services, equipment or materials required to be performed and/or provided under this contract and that it shall not employ any person or agent having any such interests. In the event that the Contractor or its agents, employees or representatives hereafter acquires such a conflict of interest, it shall immediately disclose such interest to the City and take action immediately to eliminate the conflict or to withdraw from this contract, as the City may require; and

(2) That no person or selling agency except bona fide employees or designated agents or representatives of the Contractor have been employed or retained to solicit or secure this contract with an agreement or understanding that a commission, percentage, brokerage, or contingent fee would be paid; and

(3) That no gratuities in the form of entertainment, gifts or otherwise, were offered or given by the Contractor or any of its agents, employees or representatives, to any official, member or employee of the City or other governmental agency with a view toward securing this contract or securing favorable treatment with respect to the awarding or amending, or the making of any determination with respect to the performance of this contract.

AFFIDAVIT OF ELIGIBILITY

The Contractor certifies that it is properly licensed and registered under the laws of the State of Washington and has not been determined to have been in violation of RCW 50.12.070(1)(b), RCW 51.16.070(1)(b), or RCW 82.32.070(2) within the last two years. The Contractor further certifies that it has not been determined, within the last one year, to have committed any combination of two of the following violations or infractions within a five year period: (1) Violated RCW 51.48.020(1) or 51.48.103; or (2) Committed an infraction or violation under Chapter 18.27 RCW.

CERTIFICATION OF LAWFUL EMPLOYMENT

The Contractor hereby certifies that it has complied with all provisions of the Immigration and Nationality Act now or as herein after amended, 8 U.S.C. 1101 et. Seq., and that all employees, including subcontractor employees, are lawfully permitted to perform work in the United States as provided in this agreement with the City of Federal Way.

Receipt of the following Addendums is hereby acknowledged:

Addendum No. ___ Date Issued: _____

Addendum No. ___ Date Issued: _____

Addendum No. ___ Date Issued: _____

The undersigned individual represents and warrants that he or she is dully authorized to execute the bid and all bid documents on behalf of any partnership, joint venture or corporation.

By: _____
Signature

_____
Printed Name

_____
Title

Subscribed and sworn to before me this _____ day of _____, 20___.

_____
Signature of Notary

_____
Printed name of Notary
Notary Public in and for the State of Washington
My commission expires: _____

BID BOND

CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3

OPTION 1: BID BOND DEPOSIT

Attached is a deposit in the form of a certified check, cashier's check, or cash in the amount of $_____, which amount is not less than five percent (5%) of the total bid.

_____

Principal – Signature of Authorized Official *Date*

_____

Title

—OR—

OPTION 2: BID BOND

KNOW ALL PERSONS BY THESE PRESENTS that we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the City of Federal Way, as Obligee, in the sum of five (5) percent of the total amount of the bid proposal for the payment of which the Principal and the Surety bond themselves, their heirs and 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 the above-mentioned Project according to the terms of the proposal or bid made by the Principal therefore, 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 the faithful performance thereof, with Surety or Sureties approved by the Obligee; or if the Principal shall in case of failure so to do, 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 – Signature of Authorized Official *Surety – Attorney in Fact*
(Attach Power of Attorney)

_____

Title

Name and Address of Local Office/Agent of Surety Company is:

_____

_____

_____

SUBCONTRACTOR LIST

Local Agency Name
CITY OF FEDERAL WAY
Local Agency Address
33325 8TH AVE S FEDERAL WAY, WA 98003

Local Agency Subcontractor List

Prepared in compliance with RCW 39.30.060 as amended

To Be Submitted with the Bid Proposal

Project Name _____

Failure to list subcontractors with whom the bidder, if awarded the contract, will directly subcontract for performance of the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical, as described in Chapter 19.28 RCW or naming more than one subcontractor to perform the same work will result in your bid being non-responsive and therefore void.

Subcontractor(s) with whom the bidder will directly subcontract that are proposed to perform the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. The work to be performed is to be listed below the subcontractor(s) name.

To the extent the Project includes one or more categories of work referenced in RCW 39.30.060, and no subcontractor is listed below to perform such work, the bidder certifies that the work will either (i) be performed by the bidder itself, or (ii) be performed by a lower tier subcontractor who will not contract directly with the bidder.

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

* Bidder's are notified that is the opinion of the enforcement agency that PVC or metal conduit, junction boxes, etc, are considered electrical equipment and therefore considered part of electrical work, even if the installation is for future use and no wiring or electrical current is connected during the project.

SR

DOT Form 271-015A EF
Revised 08/2012

CONTRACTOR WAGE LAW COMPLIANCE CERTIFICATION

FAILURE TO RETURN THIS CERTIFICATION AS PART OF THE BID PROPOSAL PACKAGE WILL MAKE THIS BID NONRESPONSIVE AND INELIGIBLE FOR AWARD.

I hereby certify, under penalty of perjury under the laws of the State of Washington, on behalf of the firm identified below that, to the best of my knowledge and belief, this firm has **NOT** been determined by a final and binding citation and notice of assessment issued by the Washington State Department of Labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, and 49.52 RCW within three (3) years prior to the date of the Request for Bids.

Bidder Name: _____
Print Full Legal Name of Firm

By: _____ _____
Signature of Authorized Person *Print Name of Person Making Certifications for Firm*

Title: _____ Place: _____
Title of Person Signing Certificate *Print City and State Where Signed*

Date: _____

PROPOSAL FOR INCORPORATING RECYCLED MATERIALS

APWA-WA Division 1 Committee rev. 1/8/2016

Proposal for Incorporating Recycled Materials into the Project

In compliance with a new law that went into effect January 1, 2016 (SHB1695), the Bidder shall propose below, the total percent of construction aggregate and concrete materials to be incorporated into the Project that are recycled materials. Calculated percentages must be within the amounts allowed in Section 9-03.21(1)E, Table on Maximum Allowable Percent (By Weight) of Recycled Material, of the Standard Specifications.

Proposed total percentage: _____ percent.

Note: Use of recycled materials is highly encouraged within the limits shown above, but does not constitute a Bidder Preference, and will not affect the determination of award, unless two or more lowest responsive Bid totals are exactly equal, in which case proposed recycling percentages will be used as a tie-breaker, per the APWA GSP in Section 1-03.1 of the Special Provisions. Regardless, the Bidder's stated proposed percentages will become a goal the Contractor should do its best to accomplish. Bidders will be required to report on recycled materials actually incorporated into the Project, in accordance with the APWA GSP in Section 1-06.6 of the Special Provisions.

Bidder: _____

Signature of Authorized Official: _____

Date: _____

PUBLIC WORKS CONTRACT

THIS PUBLIC WORKS CONTRACT ("Contract") is dated effective this _____ day of _____, 20___ and is made by and between the City of Federal Way, a Washington municipal corporation ("City or Owner"), and _____, a _____ ("Contractor"), for the project known as _____ (the "Project").

A. The City desires to retain an independent contractor to furnish all labor and materials necessary to perform work necessary to complete the Project; and

B. The Contractor has the requisite skill and experience to perform such work.

NOW, THEREFORE, the parties ("Parties") agree to the following terms and conditions:

1. SERVICES BY CONTRACTOR

Contractor shall perform all Work and furnish all tools, materials, supplies, equipment, labor and other items incidental thereto necessary for the construction and completion of the Project. Contractor shall perform the Work in a manner consistent with accepted practices for other properly licensed contractors and in accordance with and as described in the Contract Documents, which Work shall be completed to the City's satisfaction, within the time period prescribed by the City and pursuant to the direction of the Mayor or his or her designee.

2. TERM

2.1 This Contract shall commence on the effective date of this Contract and continue until the Project is formally accepted as complete by the City Council, Notice of Project Completion is filed with State agencies, and all bonds for the Project are released by the City.

2.2 The Contractor must complete the Work in accordance with the number of Working Days for the Project as identified in the Contract Documents. With regard to obtaining Substantial Completion and the Completion Date by the Contractor, time is of the essence. In the event the Work is not substantially completed within the time specified in the Contract Documents, Contractor agrees to pay to the City liquidated damages in the amount set forth in the Contract Documents. The parties acknowledge that delays inconvenience the public and cost taxpayers undue sums of money, adding time needed for administration, inspection, and supervision of the Project and diverting City resources from other projects and obligations. It is impractical and difficult to calculate the actual costs and impacts of such delays. The parties therefore agree that the formula for calculating liquidated damages as set forth in the Contract Documents is an appropriate formula and will result in a reasonable approximation of the City's damages in the event of delay.

2.3 If the Contractor is unreasonably delayed by others, notification shall be made in writing to the Engineer in accordance with the Contract Documents. Any request for a time extension or additional compensation (including expectancy or consequential damages) allegedly resulting from such delay shall be made in accordance with the procedures of the Contract Documents. Failure to follow the notice procedures in the Contract Documents is a full and complete waiver of Contractor's right to additional time, money, damages, or other relief (including expectancy or consequential damages) as a result of the event or condition giving rise to such request.

3. COMPENSATION

3.1 In consideration of the Contractor performing the Work, the City agrees to pay the Contractor an amount not to exceed _____ and ____/100 Dollars ($ _____), which amount shall constitute full and complete payment by the City ("Total Compensation"). The Contractor shall be solely responsible for the payment of any taxes imposed by any lawful jurisdiction as a result of the performance and payment of this Contract.

3.2 The City shall pay the Contractor for Work performed under this Contract as detailed in the Bid Proposal, which is incorporated herein and made a part hereof by this reference, and as detailed in the Contract Documents. The City shall have the right to withhold payment to the Contractor for any of the Work not completed in a satisfactory manner, in the City's sole and absolute discretion, which shall be withheld until such time as Contractor modifies or repairs the Work so that the Work is acceptable to the City. Payment to the Contractor for partial estimates, final estimates, and retained percentages shall be subject to controlling laws.

3.3 In addition to the requirements set forth in the Contract Documents, the Contractor shall maintain Project cost records by cost codes and shall contemporaneously segregate and separately record, at the time incurred, all costs (1) directly associated with each work activity, (2) directly or indirectly resulting from any event, occurrence, condition, or direction for which Contractor seeks an adjustment in Contract price Contract time, or related to any other Claim or protest. Any work performed for which Contractor intends to seek an adjustment in Contract Price or Contract Time, or related to any other Claim or protest, shall be recorded on the same day the work is performed and kept separate so as to distinguish it from Contract Work.

4. INDEPENDENT CONTRACTOR

4.1 It is the intention and understanding of the Parties that the Contractor shall be an independent contractor and that the City shall be neither liable nor obligated to pay Contractor sick leave, vacation pay or any other benefit of employment, nor to pay any social security or other tax which may arise as an incident of employment. The Contractor shall not conduct itself as nor claim to be an officer or employee of the City. The Contractor shall pay all income and other taxes due. Industrial or any other insurance that is purchased for the benefit of the City, regardless of whether such may provide a secondary or incidental benefit to the Contractor, shall not be deemed to convert this Agreement to an employment contract. It is recognized that Contractor may or will be performing professional services during the Term for other parties; provided, however, that such performance of other services shall not conflict with or interfere with Contractor's ability to perform the Services. Contractor agrees to resolve any such conflicts of interest in favor of the City. Nothing contained in this Contract shall create a contractual or direct relationship with or a cause of action in favor of a Subcontractor or third party against the City, or by the Contractor against the Engineer, or against any of their agents, employees, engineers, or consultants.

4.2 If the Contractor is a sole proprietorship or if this is a contract with an individual, the contractor agrees to notify the City and complete any required form if the Contractor retired under a State of Washington retirement system and agrees to indemnify any losses the City may sustain through the Contractor's failure to do so.

5. INDEMNIFICATION

5.1 Contractor Indemnification.

5.1.1 The Contractor shall indemnify, defend, and hold the City, its elected officials, officers, employees, agents, consultants, and volunteers (collectively "the Indemnified Parties") harmless from any costs or losses, and pay and damages or judgments, related to any claim brought by any person employed in any capacity by the Contractor or subcontractor or supplier (of any tier) performing the Work, with respect to the payment of wages, salaries, or other compensation or benefits including but not limited to benefits such as medical, health, retirement, vacation, sick leave, etc.

5.1.2. To the fullest extent permitted by law, the Contractor shall defend, release, indemnify, and hold harmless the City and the Indemnified Parties for, from, and against any and all claims, demands, losses, costs, damages, suits, actions, expenses, fines, penalties, response costs, and liabilities (including costs and all attorney and expert fees and internal personnel costs of investigation) of whatsoever kind or nature to the extent arising from, resulting from, connected with, or incident to the Contractor's performance or failure to perform this Contract or the Work or its breach of this Contract; provided, however, that if the provisions of RCW 4.24.155 apply to the Work and any injuries to persons or property arising out of the performance of this Contract are caused by or result from the concurrent negligence of the Contractor or its subcontractors, agents, employees, or anyone for whom they are legally liable, and an Indemnified Party, the indemnification and defense obligations under this Section 5.1.2 apply only to the extent of the negligence of the Contractor, its subcontractors, agents, employees, and anyone for whom they are legally liable.

5.1.3 Contractor specifically assumes potential liability for actions brought by the Contractor's own employees or former employees against any Indemnified Party, and for that purpose Contractor waives any immunity that may be granted to it under the Washington State Industrial Insurance Act, Title 51 RCW. Contractor's indemnification shall not be limited in any way by any limitation on the amount of damages, compensation or benefits payable to or by any third party under workers' compensation acts, disability benefit acts or any other benefits acts or programs. Provided, however, the Contractor's waiver of immunity by the provisions of this paragraph extends only to claims against the Contractor by any Indemnified party, and does not include, or extend to, any claims by the Contractor's employee directly against the Contractor. The Contractor recognizes that this waiver was specifically entered into.

5.2 Contractor Release. Any deviation, alteration, variation, addition, or omission in the Work by Contractor from the Contract Documents shall preclude Contractor from bringing any Claim or request for additional time or compensation on the basis of an alleged defect or error in the Contract Documents related to or arising, in any way, from that deviation, alteration, variation, addition, or omission. The Contractor further warrants that any alteration, variation, deletion, or omission fully complies with or exceeds all requirements of the Contract Documents and assumes all risk thereof.

5.3 Survival. The provisions of this Section shall (1) survive the expiration or termination of this Contract with respect to any event occurring prior to such expiration or termination, final payment hereunder, and any applicable statute of repose with respect to claims, fines, costs or damages brought or made against any Indemnified Party; (2) shall not be limited by RCW 4.16326(g); and (3) are in addition to any other rights or remedies which the City and/or any of the Indemnified Parties may have by law or under this Contract.

5.4 Offset. In the event of any claim or demand made against any Indemnified Party hereunder, the City may, in its sole discretion, reserve, retain or apply any monies due to the Contractor under the Contract or any other agreement or contract with the City for the purpose of resolving such claims; provided, however, that the City may, in the City's sole discretion, release such funds if the Contractor provides the City with adequate assurance of the protection of the City's and the other Indemnified Parties interests.

5.5 The Contractor shall ensure that each Subcontract includes a provision requiring each Subcontractor to indemnify and defend the City and the Indemnified Parties in the same manner, to the same extent, and for the same duration as Contractor agrees to indemnify and defend the City and the Indemnified Parties in this Section 5.

6. OWNERSHIP OF DOCUMENTS

All originals and copies of work product, including plans, sketches, layouts, designs, design specifications, records, files, computer disks, magnetic media, all finished or unfinished documents or material which may be produced or modified by Contractor while performing the Work, whether or not required to be furnished to the City, shall become the property of the City, shall be delivered to the City at its request, and may be used by the City without restriction.

7. PATENTS, COPYRIGHTS, AND RIGHTS IN DATA

7.1 Any patentable result or material suitable for copyright arising out of this Contract shall be owned by and made available to the City for public use, unless the City shall, in a specific case where it is legally permissible, determine that it is in the public interest that it not be so owned or available.

7.2 The Contractor agrees that the ownership of any plans, drawings, designs, specifications, computer programs, technical reports, operating manuals, calculations, notes and other work submitted or which is specified to be delivered under this Contract, whether or not complete (referred to in this subsection as "Subject Data"), is hereby irrevocably transferred and assigned to the City and shall be vested in the City or such other local, state or federal agency, if any, as may be provided by separate contract with the City. The Contractor shall execute and deliver such instruments and take such other action(s) as may be requested by the City to perfect or protect the City's rights to such Subject Data and work product, and to perfect the assignments and transfers contemplated in Sections 6 and 7.

7.3 All such Subject Data furnished by the Contractor pursuant to this Contract, other than documents exclusively for internal use by the City, shall carry such notations on the front cover or a title page (or in such case of maps, in the same block) as may be requested by the City. The Contractor shall also place their endorsement on all Subject Data furnished by them. All such identification details shall be subject to approval by the City prior to printing.

7.4 The Contractor shall ensure that substantially the foregoing paragraphs in Sections 6 and 7 are included in each subcontract for the work on the Project.

8. GENERAL PROVISIONS

8.1 Entire Contract. The Contract Documents contain all of the agreements of the Parties with respect to any matter covered or mentioned in this Contract and no prior agreements or understandings pertaining to any such matters shall be effective for any purpose. In entering into this Contract, neither party has relied upon any statement, estimate, forecast, projection, representation, warranty, action or agreement of the other party except for those expressly contained in the Contract Documents.

8.2 Documents. The documents incorporated by reference, as if fully set forth in this Contract, are the Advertisement for Bids, the Instructions to Bidders and Checklists, the Contractor's Bid Proposal (including all forms and supplemental information listed on the Bidders Checklist), the Contract Documents (including Project Plans, Specifications, and all Appendices, Amendments, and Supplemental Reports & Information), the Contract Provisions (including all forms and supplemental information listed on the Contract Checklist), the version of the Washington State Standard Specifications for Road, Bridge, and Municipal Construction identified herein, and any other documents provided to bidders and/or referenced in or referred to by the Contract Documents.

8.3 Modification. No provisions of this Contract, including this provision, may be amended or added to except by agreement in writing signed by the Parties or their respective successors in interest in accordance with the Contract Documents.

8.4 Change Orders. In addition to its rights under the Contract Documents, the City may unilaterally issue a Change Order at any time making changes within the general scope of the Contract, without invalidating the Contract and without providing notice to sureties. The City's issuance of a unilateral Change Order shall not be construed as a waiver of any rights afforded the City, including its right to reject a prior protest or request for change or Claim due to untimeliness or the Contractor's failure to fully comply with the requirements of the Contract Documents, or to void the unilateral Change Order due to unilateral mistake, misrepresentation, or fraud.

8.5 Total Cost Method / Claims. In no event shall a Total Cost Method or a modified Total Cost Method be used by the Contractor to calculate any adjustments to the Contract price. For the purpose of this provision, any cost method, or variety of cost methods, using the difference between the actual cost of the Work and the Bid or Contract price of the Work to calculate any additional compensation or money owed to the Contractor shall be considered a Total Cost Method. In addition, the City shall not be responsible for, and the Contractor shall not be entitled to, any compensation for unallowable costs. Unallowable costs include, but are not limited to: (i) interest or attorneys' fees, except as mandated by statute; (ii) Claim preparation or filing costs; (iii) the costs of preparing notices or protests; (iv) lost profits, lost income, or lost earnings; (v) costs for idle equipment when such equipment is not at the Site, has not been employed in the Work, or is not scheduled to be used at the Site; (vi) claims consulting costs; (vii) expert fees and costs; (viii) loss of other business; and/or (ix) any other special, consequential, expectancy, incidental, or indirect damages incurred by the Contractor, Subcontractors, or suppliers.

8.6 Warranties and Guarantees. In addition to the requirements of the Contract Documents, the Contractor warrants that all portions of the Work that will be covered by a manufacturer's or supplier's guarantee or warranty shall be performed in such a manner so as to preserve all rights under such guarantees or warranties. If the City attempts to enforce a claim based upon a manufacturer's or supplier's guarantee or warranty and such manufacturer or supplier refuses to honor such guarantee or warranty based, in whole or in part, on a claim of defective installation by the Contractor or a Subcontractor, the Contractor shall be

responsible for any resulting loss or damage, and repairs, incurred by the City as a result of the manufacturer's or supplier's refusal to honor such guarantee or warranty. This obligation survives termination of this Contract.

8.7 Full Force and Effect. Any provision of this Contract, which is declared invalid, void or illegal, shall in no way affect, impair, or invalidate any other provision hereof and such other provisions shall remain in full force and effect.

8.8 Assignment. The Contractor shall not transfer or assign, in whole or in part, any or all of its obligations and rights hereunder without the prior written consent of the City. In the event the City consents to any such assignment or transfer, such consent shall in no way release the Contractor from any of its obligations or liabilities under this Contract.

8.9 Successors In Interest. Subject to the preceding Subsection, this Contract shall be binding upon and inure to the benefit of the Parties' successors in interest, heirs and assigns.

8.10 Time Limitation and Venue. For the convenience of the parties to the Contract it is mutually agreed by the parties that any claims, causes of action, or disputes which the Contractor has against the City arising from the Contract shall be brought within the following time period: (i) 180 calendar days from the date of Substantial Completion for those claims, causes of action, or disputes arising prior to the date of Substantial Completion, and (ii) 180 calendar days from the date of Final Acceptance of the Contract by the City for those claims, causes of action, or dispute arising after the date of Substantial Completion. It is further agreed that the venue for any claim, cause of action, or dispute related to this Contract shall be King County, Washington, which shall have exclusive jurisdiction over any such case, controversy, or dispute. 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, causes of action, or disputes which the Contractor asserts against the City arising from the Contract are filed with the City or initiated in court, the Contractor shall permit the City to have timely access to any records deemed necessary by the City to assist in evaluating the claims, action, or dispute.

8.11 No Waiver. Failure of the City to declare any breach or default immediately upon occurrence thereof, or delay in taking any action in connection with, shall not waive such breach or default. Failure of the City to declare one breach or default does not act as a waiver of the City's right to declare another breach or default.

8.12 Sole Authority/Discretion/Judgment. Where the Contract Documents provide the City or its Engineer with "sole" authority, discretion, or judgment, such authority, discretion, or judgment shall be considered unconditional and absolute.

8.13 Governing Law. This Contract shall be made in and shall be governed by and interpreted in accordance with the laws of the State of Washington.

8.14 Authority. Each individual executing this Contract on behalf of the City and Contractor represents and warrants that such individuals are duly authorized to execute and deliver this Contract on behalf of the Contractor or City.

8.15 Engineer. The Engineer is the City's representative who directly supervises the engineering and administration of a construction Contract. The Engineer's authorities, duties, and responsibilities are limited to those specifically identified in the Contract Documents. Designation of an individual or entity as the Engineer for the Project is solely to identify the representative of the City as the entity to act as the Engineer as described in the Contract Documents. Using the term "engineer" does not imply that such entity or person is a licensed professional engineer or an engineering company and does not import any additional obligations upon the actions of the Engineer that may govern licensed professional engineers when performing engineering services.

The Engineer for this Project is designated as: Naveen Chandra, P.E., Senior Capital Engineer

8.16 Notices. Any notices required to be given to Contractor or to the Engineer shall be delivered to the Parties at the addresses set forth below. Any notices may be delivered personally to the addressee of the notice or may be deposited in the United States mail, postage prepaid, to the address set forth herein. Any notice so posted in the United States mail shall be deemed received three (3) days after the date of mailing.

CONTRACTOR: Company: _____
Attn: _____
Street Address: _____
City, State, Zip: _____

ENGINEER: City of Federal Way
Attn: Naveen Chandra, P.E., Senior Capital Engineer
33325 8th Ave S
Federal Way, WA 98003

8.17 Captions. The respective captions of the Sections of this Contract are inserted for convenience of reference only and shall not be deemed to modify or otherwise affect in any respect any of the provisions of this Contract.

8.18 Performance. Time is of the essence of this Contract and each and all of its provisions in which performance is a factor. Adherence to completion dates is essential to the Contractor's performance of this Contract.

8.19 Compliance with Ethics Code. If a violation of the City's Ethics Resolution No. 91-54, as amended, occurs as a result of the formation and/or performance of this Contract, this Contract may be rendered null and void, at the City's option.

9. PERFORMANCE/PAYMENT BOND

Pursuant to RCW 39.08.010, the Contractor's payment and performance bonds must be conditioned upon: (i) faithful performance of all of the provisions of the Contract, including warranty obligations; (ii) the payment of all laborers, mechanics, Subcontractors, and Suppliers, and all persons who supply such persons with provisions or supplies in carrying out the Work; and (iii) payment of any taxes, liabilities, increases, or penalties incurred on the Project under Titles 50, 51, and 82 RCW which may be due on (a) projects referred to in RCW 60.28.011(1)(b), and (b) projects for which the bond is conditioned on the payment of such taxes, liabilities, increases, or penalties. Contractor's obligations under this Contract shall not be limited to the dollar amount of the bond.

DATED the day and year set forth above.

CITY OF FEDERAL WAY

_____
Jim Ferrell, Mayor
33325 8th Avenue South
Federal Way, WA 98003-6325

ATTEST:

_____
Stephanie Courtney, CMC, City Clerk

APPROVED AS TO FORM:

_____
J. Ryan Call, City Attorney

CONTRACTOR

_____
Signature of Authorized Individual

_____
Printed Name of Authorized Individual

_____
Street Address

_____
City, State, Zip

NOTARY OF CONTRACTOR'S SIGNATURE

STATE OF WASHINGTON)
) ss.
COUNTY OF _____)

On this day personally appeared before me _____, to me known to be the _____ of _____ that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument and that the seal affixed, if any, is the corporate seal of said corporation.

GIVEN my hand and official seal this _____ day of _____, 20__.

_____
_____
(typed/printed name of notary)
Notary Public in and for the State of Washington.
My commission expires _____

SAMPLE CONTRACT CHANGE ORDER

PROJECT NUMBER	AGREEMENT NUMBER	CHANGE ORDER NUMBER	EFFECTIVE DATE

PROJECT TITLE	CONTRACTOR

SUMMARY OF PROPOSED CHANGES:
This Change Order covers the work changes summarized below:

The time provided for completion in the Contract is
- ☐ Unchanged
- ☐ Increased by ___ Working Day(s)
- ☐ Decreased by ___ Working Day(s)

This Document shall become an Amendment to the Contract and all provisions of the Contract not amended herein will apply to this Change Order.

Will this change affect expiration or extent of Insurance coverage? ☐ Yes ☐ No
If "Yes" Will the Policies Be Extended? ☐ Yes ☐ No

MODIFICATIONS TO UNIT PRICES:

ITEM NO.	ITEM	QTY	PREVIOUS UNIT PRICE	REVISED UNIT PRICE	ADD OR DELETE

THESE ITEMS ARE APPROXIMATE OR ESTIMATED QUANTITIES INVOLVED IN THIS CHANGE:

ITEM NO.	ITEM	QTY	UNIT PRICE	ADD OR DELETE

TOTAL NET CONTRACT: **INCREASE $** **DECREASE $**

DEPARTMENT RECAP TO DATE:

ORIGINAL CONTRACT AMOUNT	$_____
PREVIOUS CHANGE ORDERS	$_____
THIS CHANGE ORDER	$_____
NEW CONTRACT AMOUNT	$_____

STATEMENT:
Payment for the above work will be in accordance with applicable portions of the standard specifications, and with the understanding that all materials, workmanship and measurements shall be in accordance with the provisions of the standard specifications, the contract plans, and the special provisions governing the types of construction. The execution of this Change Order shall constitute full satisfaction and a waiver of any and all

claims by the Contractor arising out of, or relating in any way to, the Work identified, to be performed, or deleted pursuant to Change Order except as specifically described in this Change Order.

_____

CONTRACTOR'S SIGNATURE DATE

_____

PUBLIC WORKS DIRECTOR DATE

Contract Change Order provided for Contractor's reference. Change orders executed during the project will use this form.

CERTIFICATE OF INSURANCE

Contractor's Certificate of Insurance to be inserted here during Contract Execution

PERFORMANCE AND PAYMENT BOND
CITYWIDE ADAPTIVE SIGNAL CONTROL SYSTEM – ITS IMPROVEMENTS – PHASE 1 & 2 AND PHASE 3

The City of Federal Way ("City") has awarded to _____ ("Principal"), a contract for the construction of the above referenced project, and said Principal is required to furnish a bond for performance of all obligations under the Contract and for payment in accord with Chapter 39.08 Revised Code of Washington (RCW) and (where applicable) Chapter 60.28 RCW.

The Principal, and _____ ("Surety"), a corporation organized under the laws of the State of _____ and licensed to do business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., are jointly and severally held and firmly bound to the City of Federal Way, in the sum of _____ US Dollars ($_____) Total Contract Amount, subject to the provisions herein.

This bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall:

1) Well and faithfully perform all of the Principal's obligations under the Contract and fulfill all terms and conditions of all duly authorized modifications, additions, and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in force and effect; and
2) Pay all persons in accordance with Chapters 39.08, 39.12, and 60.28 RCW including all workers, laborers, mechanics, subcontractors, and materialmen, and all person who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Titles 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

This bond shall be signed by duly authorized officers and will only be accepted if accompanied by a fully executed, original power of attorney for the office executing on behalf of the surety.

PRINCIPAL:	**SURETY:**
_____	_____
Principal Signature *Date*	*Surety Signature* *Date*
_____	_____
Printed Name	*Printed Name*
_____	_____
Title	*Title*

LOCAL OFFICE/AGENT OF SURETY:

_____
Name

_____
Street Address

_____
City, State, Zip

_____
Telephone

BOND NO.: _____

APPROVED AS TO FORM: _____
J. Ryan Call, City Attorney

AMENDMENTS TO THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (REVISED JUNE 3, 2019)

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
June 3, 2019

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 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.

1-02.13 Irregular Proposals

Item 1(h) is revised to read:

h. The Bidder fails to submit Underutilized Disadvantaged Business Enterprise 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;

Item 1(i) is revised to read the following three items:

i. The Bidder fails to submit a UDBE Bid Item Breakdown form, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;

j. The Bidder fails to submit UDBE Trucking Credit Forms, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions; or

k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.

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 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.
∑x = summation of individual compaction test values
n = total number test values

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

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

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):

   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.

1-07.AP1

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.

6. Ensure continuous stream flow downstream of the Work area.

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:

1. Comply with Washington State Water Quality Standards.

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, sediments, 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:

2. **Mandatory Supplement to EEOC P/E-1** published by US Department of Labor. Post for projects with federal-aid funding.

3. **Pay Transparency Nondiscrimination Provision** published by US Department of Labor. 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:

An SPCC Plan template and guidance information is available at http://www.wsdot.wa.gov/environment/technical/disciplines/hazardous-materials/spill-prevent-report.

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 ProgressJanuary 7, 2019

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.

Placement Tolerances		
	Dowel Bars	**Tie Bars**
Vertical: Center of Bar to Center of Slab Depth	± 1.00 inch max	± 1.00 inch max
Dowel Bar Centered Over the Transverse Joint	± 1.00 inch max	N/A
Tie Bar Centered Over the Longitudinal Joint	N/A	± 1.00 inch max
Parallel to Centerline Over the Length of the Dowel Bar	± 0.50 inch max	N/A
Perpendicular to Longitudinal Joint Over the Length of the Tie Bar	N/A	± 1.00 inch max
Parallel to Roadway Surface Over the Length of the Bar	± 0.50 inch max	± 1.00 inch max

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 2
Locations Requiring MRI Testing

Travel lanes where cement concrete grinding is shown in the plans	Control profile
Additional locations designated by the Engineer	Control profile
Travel lanes with completed cement concrete pavement grinding	Acceptance profile
Bridges, approach panels and 0.02 miles before and after bridges and approach panels and other excluded areas within lanes requiring testing	Control and acceptance profile
Ramps, Shoulders and Tapers	Do not test

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 3
Areas Excluded from MRI Acceptance Requirements

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

Control Profile MRI per 0.10 Mile	Maximum MRI of Acceptance Profile per 0.10 Mile
≤130 inches/mile	78 inches/mile
>130 inches/mile	0.6 x Control Profile MRI

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 ⅛ 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 ¼ 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".

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:

⅜ inch	0.25 feet	0.30 feet

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:

VMA	Minimum PF_i of 0.95 based on the criteria in Section 5-04.3(9)B4[2]	None[4]

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 V_a" is revised to read "Gradation, Asphalt Binder, VMA, and V_a"

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, "V_a" is revised to read "VMA and V_a"

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**
When CPF > 1.00	CPA = [1.00 x (CPF – 1.00)] x Q x UP
When CPF = 1.00	CPA = $0
When CPF < 1.0	CPA = [0.60 x (CPF – 1.00)] x Q x 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 sublot 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 sublot.

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(1)A.

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.

Price Adjustment Schedule

MRI for each 528 ft. section	Pay Adjustment Schedule
in. / mi.	**$ / 0.10 mi.**
< 30	2400
30	2400
31	2320
32	2240
33	2160
34	2080
35	2000
36	1920
37	1840

38	1760
39	1680
40	1600
41	1520
42	1440
43	1360
44	1280
45	1200
46	1120
47	1040
48	960
49	880
50	800
51	720
52	640
53	560
54	480
55	400
56	320
57	240
58	160
59	80
60	0
61	0
62	0
63	0
64	0
65	0
66	0
67	0
68	0
69	0
70	0
71	0
72	0
73	0
74	0
75	0
76	-80
77	-160
78	-240
79	-320
80	-400
81	-480
82	-560
83	-640
84	-720
85	-800
86	-880

87	-960
88	-1040
89	-1120
90	-1200
91	-1280
92	-1360
93	-1440
94	-1520
95	-1600
96	-1680
97	-1760
98	-1840
99	-1920
100	-2000
101	-2080
102	-2160
103	-2240
104	-2320
105	-2400
106	-2480
107	-2560
108	-2640
109	-2720
110	-2800
111	-2880
112	-2960
113	-3040
114	-3120
115	-3200
116	-3280
117	-3360
118	-3440
119	-3520
120	-3600
121	-3680
122	-3760
123	-3840
124	-3920
≥125	-4000

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:

Thickness Testing of Cement Concrete Pavement	
Thickness Lot Size	15 panels maximum
Thickness test location determined by	Engineer will select testing locations in accordance with WSDOT TM 716 method B.
Sample method	AASHTO T 359
Sample preparation performed by	Contractor provides, places, and secures disks in the presence of the Engineer[1]
Measurement method	AASHTO T 359
Thickness measurement performed by	Contractor, in the presence of the Engineer[2]
[1]Reflectors 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. [2]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 2 Thickness Deficiency	
0.04' < Thickness Deficiency ≤ 0.06'	10
0.06' < Thickness deficiency ≤ 0.08'	25
Thickness deficiency > 0.08'	Remove and replace the panels or the panels may be accepted with no payment at the discretion of the Engineer.

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):

Primer Coat – Inorganic Zinc Rich	9-08.1(2)M
Intermediate Coat – Epoxy	9-08.1(2)M
Intermediate Stripe Coat – Epoxy	9-08.1(2)M
Top Coat – Polyurethane	9-08.1(2)M

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 $\frac{1}{16}$ 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-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

Paints 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.

6-09.3(14) Checking for Bond

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

After the requirements for curing have been met, the entire overlaid surface shall be sounded by the Contractor, in a manner accepted by and in the presence of the Engineer, to ensure total bond of the concrete to the bridge deck.

The last sentence of the first paragraph is deleted.

The second paragraph is deleted.

6-10.AP6

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.

6-11.AP6

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

6-12.AP6

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:

Noise Barrier Wall Access Door 9-06.17

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 ± 1/16 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”.

6-18.3(4) Qualifications of Contractor’s Personnel

In the last sentence of the second paragraph, “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

a. 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

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

e. May be neutralized, treated, and discharged to surface waters in accordance with the CSWGP, with the exception of water-only shaft drilling slurry. Water-only shaft drilling slurry may be treated, neutralized, and infiltrated but not discharged to surface waters (Refer to Special Conditions S1.C. Authorized Discharges and S1.d Prohibited Discharges of the CSWGP)

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:

Western Washington (West of the Cascade Mountain Crest)	
May 1 through September 30	17 Acres
October 1 through April 30	5 Acres

Eastern Washington (East of the Cascade Mountain Crest)	
April 1 through October 31	17 Acres
November 1 through March 31	5 Acres

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.

Western Washington (West of the Cascade Mountain Crest)	
October 1 through April 30	2 days maximum
May 1 to September 30	7 days maximum

Eastern Washington (East of the Cascade Mountain Crest)	
October 1 through June 30	5 days maximum
November 1 through March 31	10 days maximum

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 meets 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 application 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.

4. Submittal of the Washington State Department of Ecology Transfer of Coverage form (Ecology form ECY 020-87a) to the Engineer.

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. <u>Limiting impacts to roadsides:</u>

   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. <u>Roadside Restoration:</u>

   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
   Western Washington (West of the Cascade Mountain Crest) – October 1 to March 1.
   Eastern Washington (East of the Cascade Mountain Crest) – October 1 to November 15.

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:

Western Washington[1] (West of the Cascade Mountain Crest)	Eastern Washington (East of the Cascade Mountain Crest)
March 1 through May 15 September 1 through October 1	October 1 through November 15
[1]Seeding 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 hydroseeder 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:

Western Washington (West of the Cascade Mountain Crest)	Eastern Washington (East of the Cascade Mountain Crest)
March 1 through May 15 September 1 through October 1	October 1 through November 15
When irrigation system is operational March 1 through October 1	When irrigation system is operational March 1 through November 1

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 the specified Work.

"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:

June 30th	80 percent
September 30th	90 percent
Completion of first-year plant establishment or after all replacement plants have been installed, whichever is later.	100 percent

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.

8-09.AP8

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.

8-11.AP8

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.

8-20.AP8

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:

		Additional Requirements by Performance Grade (PG) Asphalt Binders					
Property	**Test Method**	**PG58S-22**	**PG58H-22**	**PG58V-22**	**PG64S-28**	**PG64H-28**	**PG64V-28**
RTFO Residue: Average Percent Recovery @ 3.2 kPa	AASHTO T 350[1]			30% Min.	20% Min.	25% Min.	30% Min.
[1]Specimen conditioned in accordance with AASHTO T 240 – RTFO.							

The third paragraph is revised to read:

The RTFO J_{nrdiff} 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.AP9

Section 9-03, Aggregates
January 7, 2019

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:

Mix Criteria	HMA Class							
	⅜ inch		½ inch		¾ inch		1 inch	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Voids in Mineral Aggregate (VMA), %	15.0		14.0		13.0		12.0	
Voids Filled With Asphalt (VFA), %								
ESAL's (millions)	VFA							
< 0.3	70	80	70	80	70	80	67	80
0.3 to < 3	65	78	65	78	65	78	65	78
≥ 3	73	76	65	75	65	75	65	75
Dust/Asphalt Ratio	0.6	1.6	0.6	1.6	0.6	1.6	0.6	1.6

Test Method	ESAL's (millions)	Number of Passes
Hamburg Wheel-Track Testing, FOP for AASHTO T 324 Minimum Number of Passes with no Stripping Inflection Point and Maximum Rut Depth of 10mm	< 0.3	10,000
	0.3 to < 3	12,500
	≥ 3	15,000
Indirect Tensile (IDT) Strength (psi) of Bituminous Materials FOP for ASTM D6931		175 Maximum

	ESAL's (millions)	N initial	N design	N maximum
% Gmm	< 0.3	≤ 91.5	96.0	≤ 98.0
	0.3 to < 3	≤ 90.5	96.0	≤ 98.0
	≥ 3	≤ 89.0	96.0	≤ 98.0
Gyratory Compaction (number of gyrations)	< 0.3	6	50	75
	0.3 to < 3	7	75	115
	> 3	8	100	160

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:

Tier 1	
Approval Requirements	Approval of the Reclamation Facility is not required.
Acceptance Requirements	Certification of toxicity characteristics in accordance with Section 9-03.21(1). Field acceptance testing in accordance with Section 3-04.
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

1

Tier 2	
Approval Requirements	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.
Acceptance Requirements	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.
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	

2

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

9-04.AP9

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”.

9-05.AP9

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 1½ 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 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:

Test	Method	Specification
Gouge Resistance	NACE TM0215, 30 kg wt., LS-1 bit @ 25°C	< 0.22 mm
Gouge Resistance	NACE TM0215, 50 kg wt., LS-1 bit @ 25°C	< 0.44 mm

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.

Color	Semi-Gloss
Washington Gray	26357
Mt. Baker Gray	26134
Mt. St. Helens Gray	26306
Cascade Green	24158

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.AP9

Section 9-13, Riprap, Quarry Spalls, Slope Protection, and Rock for Erosion and Scour Protection and Rock Walls
April 2, 2018

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:

Water Holding Capacity	ASTM D 7367	800 percent minimum
Organic Matter Content	AASHTO T 267	90 percent minimum
Seed Germination Enhancement	ASTM D 7322	Long Term 420 percent minimum

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:

Compressive Strength	ASTM Test Method	Specification
at 3 hours	C 39	Minimum 3,000 psi
at 24 hours	C 39	Minimum 5,000 psi
Length Change		
at 28 days	C 157	0.15 percent maximum
Total Chloride Ion Content	C 1218	1 lb/yd^3 maximum
Bond Strength		
at 24 hours	C 882 (As modified by C 928, Section 9.5)	Minimum 1,000 psi
Scaling Resistance (at 25 cycles of freezing and thawing)	C 672 (As modified by C 928, Section 9.4)	1 lb/ft^2 maximum

9-20.1(2) Patching Mortar Extended with Aggregate

Patching mortar extended with aggregate shall meet the following requirements:

Compressive Strength	ASTM Test Method	Specification
at 3 hours	C 39	Minimum 3,000 psi
at 24 hours	C 39	Minimum 5,000 psi
Length Change		
at 28 days	C 157	0.15 percent maximum
Bond Strength		
at 24 hours	C 882 (As modified by ASTM C928, Section 9.5)	Minimum 1,000 psi
Scaling Resistance (at 25 cycles of freezing and thawing)	C 672	2 Maximum Visual Rating
Freeze thaw	C 666	Maximum expansion 0.10% Minimum durability 90.0%

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:

Slip Resistant Lid	ASTM A36 steel
Frame	ASTM A36 steel
Slip Resistant Frame	ASTM A36 steel

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

In the second paragraph, “AASHTO M232” is revised to read “ASTM F 2329”.

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:

Class	Max. Wattage
200W	110W
250W	165W
310W	210W
400W	275W

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.

The list of pre-approved LED Conventional Roadway Luminaires is available at http://www.wsdot.wa.gov/Design/Traffic/ledluminaires.htm.

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(1)A Heat Shrink Splice Enclosure

This section is deleted in its entirety.

9-29.12(1)B 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(10)D 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.

Item number 8 is revised to read:

8. Lighting contactors shall meet the requirements of Section 9-29.24(2).

The last sentence of item number 10 is revised to read:

Dead front panels shall prevent access to any exposed, live components, and shall cover all equipment except for circuit breakers (including blank covers), the photocell test/bypass switch, and the GFCI receptacle.

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 be rated for tungsten or ballasted (such as sodium vapor, mercury vapor, metal halide, and fluorescent) lamp loads. Contactors for 120/240/277 volt circuits shall be rated at 240 volts maximum line to line voltage, or 277 volts maximum line to neutral voltage, as applicable. Contactors for 480 volt circuits shall be rated at 480 volt maximum line to line voltage.

9-33.AP9

Section 9-33, Construction Geosynthetic
August 6, 2018

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:

Vehicle Composition	ASTM D 2621	100% acrylic emulsion	100% cross-linking acrylic[4]	100% acrylic emulsion
Freeze-Thaw Stability, KU	ASTM D 2243 and D 562	@ 5 cycles show no coagulation or change in viscosity greater than ± 10 KU	@ 5 cycles show no coagulation or change in viscosity greater than ± 10 KU	@ 3 cycles show no coagulation or change in viscosity greater than ± 10 KU
Heat Stability	ASTM D 562[2]	± 10 KU from the initial viscosity	± 10 KU from the initial viscosity	± 10 KU from the initial Viscosity
Low Temperature Film Formation	ASTM D 2805[3]	No Cracks*		No Cracks
Cold Flexibility[5]	ASTM D522	Pass at 0.5 in mandrel*		
Test Deck Durability[6]	ASTM D913	≥70% paint retention in wheel track*		
Mud Cracking	(See note 7)	No Cracks	No Cracks	

After the preceding Amendments are applied, the following new column is inserted after the “Standard Waterborne Paint Type 1 and 2” column:

Semi-Durable Waterborne Paint Type 3			
White		**Yellow**	
Min.	**Max.**	**Min.**	**Max.**
Within ± 0.3 of qualification sample			
80	95	80	95
60		60	
77		77	
	65		65
43		43	
	1.25		1.25
3		3	
0.98		0.96	
88		50	
100°		100°	
9.5		9.5	
	10		10
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[1]”.

9-34.4 Glass Beads for Pavement Marking Materials

In the Test Method column of the table titled Metal Concentration Limits, “EPA 3052 SW-846 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.

SPECIAL PROVISIONS

INTRODUCTION TO THE SPECIAL PROVISIONS

(August 14, 2013 APWA GSP)

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.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

(March 8, 2013 APWA GSP)
(April 1, 2013 WSDOT GSP)
(April 12, 2018 CFW GSP)
*(***PROJECT-SPECIFIC SPECIAL PROVISION***)*

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
- WSDOT Standard Plans
- City of Federal Way Public Works Development Standards
- National Electric Code, current edition

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

DIVISION 1
GENERAL REQUIREMENTS

DESCRIPTION OF WORK
(March 13, 1995 WSDOT GSP)

This Contract provides for the improvement of the Citywide Adaptive Signal Control System – ITS Improvements and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

1-01.3 Definitions
(January 4, 2016 APWA GSP)

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

Dates

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

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

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

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

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

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

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

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

Supplement this Section with the following:

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

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

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

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

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

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

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

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

Contract Documents
See definition for “Contract.”

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

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

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

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

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder

(January 24, 2011 APWA GSP)

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

1-02.2 Plans and Specifications

(June 27, 2011 APWA GSP)

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the Contract, Plans and specifications will be issued to the Contractor at no cost as detailed below:

To Prime Contractor	No. of Sets	Basis of Distribution
Reduced Plans (11" x 17")	6	Furnished automatically upon award.
Contract Provisions	6	Furnished automatically upon award.
Large Plans (e.g., 22" x 34")	2	Furnished only upon request.

Additional Plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

1-02.4 Examination of Plans, Specifications, and Site Work

(June 27, 2011 APWA GSP)

1-02.4(1) General

(August 15, 2016 APWA GSP, Option B)

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

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business three (3) business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.

1-02.5 Proposal Forms

(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

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

completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

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

1-02.6 Preparation of Proposal

(July 11, 2018 APWA GSP)

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.

(June 3, 2019 WSDOT GSP, OPTION 10)

The fourth paragraph of Section 1-02.6 is revised to read:

The Bidder shall submit with the Bid a completed Underutilized Disadvantaged Business Enterprise (UDBE) Utilization Certification, when required by the Special Provisions. For each and every UDBE firm listed on the Bidder's completed Underutilized Disadvantaged Business Enterprise Utilization Certification, the Bidder shall submit written confirmation from that UDBE firm that the UDBE is in agreement with the UDBE participation commitment that the Bidder has made in the Bidder's completed Underutilized Disadvantaged Business Enterprise Utilization Certification. WSDOT Form

422 031U (Underutilized Disadvantaged Business Enterprise Written Confirmation Document) is to be used for this purpose. Bidder must submit good faith effort documentation only in the event the bidder's efforts to solicit sufficient UDBE participation have been unsuccessful. The Bidder shall submit a UDBE Bid Item Breakdown form defining the scope of work to be performed by each UDBE listed the UDBE Utilization Certification. If the Bidder lists a UDBE Trucking firm on the UDBE Utilization Certification, then the Bidder must also submit a UDBE Trucking Credit Form (WSDOT Form 272-058) documenting how the UDBE Trucking firm will be able to perform the scope of work subcontracted to them. Directions for delivery of the Underutilized Disadvantaged Business Enterprise Written Confirmation Documents, Underutilized Disadvantaged Business Enterprise Good Faith Effort documentation, UDBE Bid Item Breakdown Form and the UDBE Trucking Credit Form are included in Section 1-02.9.

(August 2, 2004 WSDOT GSP, OPTION 15)

Section 1-02.6 is supplemented with the following:

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

(April 2, 2018)

Alternative Bids

The bidding proposal on this project permits the bidder to submit a bid on one or more alternatives for the construction of ITS improvements at three additional intersections that are not included as part of the Base Bid, as well as the supply of materials only for the Hybrid Radar/Video Detection Systems.

Bid Proposal

The bid proposal is composed of the following parts: Base Bid, Alternative 1, and Alternative 2.

The base bid includes all items that do not change as to quantity, dimension, or type of construction, regardless of which alternative is bid.

The Alternative portions of the bid proposal contain all items which change as to quantity, dimension, or construction method, depending on which alternative is bid.

Alternative 1

Alternative 1 is based on constructing the ITS improvements at the following three additional intersections that are not included as part of the Base Bid:

- S 324th St & SR 99
- S 320th St & 11th Pl S
- S 348th St (SR 18) & Enchanted Pkwy S (SR 161)/16th Ave s

The bid items for Alternative 1 are as listed in the bid proposal.

Alternative 2

Alternative 2 is based on the supply of materials only for the Hybrid Radar/Video Detection System.

The bid items for Alternative 2 are as listed in the bid proposal.

Bidding Procedures

The bidder shall submit a price on each and every item of work included in the base bid. The bidder shall also submit prices on each and every item under the alternative on which the bidder chooses to bid, or, if the bidder chooses to bid on more than one alternative, the bidder shall submit prices for each and every item under each alternative chosen. If the bidder chooses to bid on more than one alternative, the bidder shall submit their sealed bid in the envelope provided by the Contracting Agency using the Proposal Form provided. If the bidder chooses to bid on more than one alternative, the bid cannot be accepted electronically via Trns·Port Expedite® software and BidExpress®.

The successful bidder will be determined by the lowest total of an alternative plus the base bid. Award will be based on the lowest total subject to the requirements of Section 1-03.

Add the following new section:

1-02.6(1) Recycled Materials Proposal

(January 4, 2016 APWA GSP)

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

1-02.7 Bid Deposit

(March 8, 2013 APWA GSP)

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

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

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

1-02.9 Delivery of Proposal

(May 17, 2018 APWA GSP, OPTION A)

Delete this section and replace it with the following:

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Call for Bids clearly marked on the outside of the

envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery 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 for Bids for receipt of Bid Proposals, or received in a location other than that specified in the Call for Bids. The Contracting Agency will not open or consider any "Supplemental Information" (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 for Bids.

1-02.10 Withdrawing, Revising, or Supplementing Proposal
(July 23, 2015 APWA GSP)

Delete this section, and replace it with the following:

After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

1-02.13 Irregular Proposals
(June 20, 2017 APWA GSP)
Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
   a. The Bidder is not prequalified when so required;
   b. The 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.

1-02.14 Disqualification of Bidders
(May 17, 2018 APWA GSP, OPTION B)
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.

Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1), and Supplemental Criteria 1-2. Evidence that the Bidder

meets Supplemental Criteria 3-7 shall be provided by the Bidder as stated later in this Section.

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

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

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

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

3. **Subcontractor Responsibility**
   A. Criterion: The Bidder's standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder's subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also "responsible" subcontractors as defined by RCW 39.06.020.

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

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

   B. Documentation: The Bidder, if and when required as detailed below, shall submit a list of the public works projects completed in the three years prior to

the bid submittal date that have had claims against retainage and bonds and include for each project the following information:

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

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

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

6. **Termination for Cause / Termination for Default**
   A. Criterion: The Bidder shall not have had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

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

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

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

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

The basis for evaluation of Bidder compliance with these mandatory and supplemental criteria shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

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

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

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(January 23, 2006 APWA GSP)

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy

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

1-03.1(1) Identical Bid Totals
(January 4, 2016 APWA GSP)
Revise this section to read:

After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the highest percentage of recycled materials in the Project, per the form submitted with the Bid Proposal. If those percentages are also exactly equal, then the tie-breaker will be determined by drawing as follows: Two or more slips of paper will be marked as follows: one marked "Winner" and the other(s) marked "unsuccessful." The slips will be folded to make the marking unseen. The slips will be placed inside a box. One authorized representative of each Bidder shall draw a slip from the box. Bidders shall draw in alphabetic order by the name of the firm as registered with the Washington State Department of Licensing. The slips shall be unfolded and the firm with the slip marked "Winner" will be determined to be the successful Bidder and eligible for Award of the Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest responsive Bid, and with a proposed recycled materials percentage that is exactly equal to the highest proposed recycled materials amount, are eligible to draw.

1-03.3 Execution of Contract
(October 1, 2005 APWA GSP)
Revise this section to read:

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

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

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

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the

Contracting Agency may grant up to a maximum of 5 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond
(July 23, 2015 APWA GSP)
Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
   a. Is registered with the Washington State Insurance Commissioner, and
   b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
   a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
   b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

1-03.7 Judicial Review
(November 30, 2018 APWA GSP)
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.

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

(March 13, 2012 APWA GSP)

Revise the second paragraph to read:

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

1. Addenda,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. 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.

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in Contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency's rights provided by this section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the work as required.

1-05.11 Final Inspection
(October 1, 2005 APWA GSP)
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 therefore.

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

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

1-05.11(2) Final Inspection and Physical Completion Date
When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

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

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

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

1-05.11(3) Operational Testing

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

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

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

1-05.13 Superintendents, Labor and Equipment of Contractor
(August 14, 2013 APWA GSP)

Delete the sixth and seventh paragraphs of this section.

1-05.14 Cooperation with Other Contractors
(*March 13, 1995 WSDOT GSP, OPTION 1*)

Section 1-05.14 is supplemented with the following:

Other Contracts or Other Work

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

- Zayo is currently performing communications upgrades at multiple intersections throughout the City. It is anticipated that Zayo will continue work through the course of this project.

1-05.15 Method of Serving Notices
(March 25, 2009 APWA GSP)
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.

Add the following new section:
1-05.16 Water and Power
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the Contract includes power and water as a pay item.

1-06 CONTROL OF MATERIAL
(August 6, 2012, WSDOT GSP, OPTION 1(A))
Section 1-06 is supplemented with the following:

Buy America

In accordance with Buy America requirements contained in 23 CFR 635.410, the major quantities of steel and iron construction material that is permanently incorporated into the project shall consist of American-made materials only. Buy America does not apply to temporary steel items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

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

American-made material is defined as material having all manufacturing processes occurring domestically. To further define the coverage, a domestic product is a manufactured steel material that was produced in one of the 50 States, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

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

Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include

rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.

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

The following are considered to be steel manufacturing processes:

1. Production of steel by any of the following processes:
    a. Open hearth furnace.
    b. Basic oxygen
    c. Electric furnace.
    d. Direct reduction.
2. Rolling, heat treating, and any other similar processing.
3. Fabrication of the products.
    a. Spinning wire into cable or strand.
    b. Corrugating and rolling into culverts.
    c. Shop fabrication.

A certification of materials origin will be required for any items comprised of, or containing, steel or iron construction materials prior to such items being incorporated into the permanent work. The certification shall be on DOT Form 350-109EF provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as DOT Form 350-109EF.

1-06.6 Recycled Materials

(January 4, 2016 APWA GSP)

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor's report shall be provided on DOT form 350-075 Recycled Materials Reporting.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

(October 1, 2005 APWA GSP)

Supplement this section with the following:

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

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

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

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

Section 1-07.1 is supplemented with the following:

(April 3, 2006 WSDOT GSP, OPTION 3)

Confined Space

Confined spaces are known to exist at the following locations:

Existing storm drainage, sanitary sewer, and other utility systems, vaults, and structures, along with all new similar new construction items that meet the requirements of WAC 296-809-100.

The Contractor shall be fully responsible for the safety and health of all on-site workers and compliant with Washington Administrative Code (WAC 296-809).

The Contractor shall prepare and implement a confined space program for each of the confined spaces identified above. The Contractors Confined Space program shall be sent to the contracting agency at least 30 days prior to the Contractor beginning work in or adjacent to the confined space. No work shall be performed in or adjacent to the confined space until the plan is submitted to the Engineer as required. The Contractor shall communicate with the Engineer to ensure a coordinated effort for providing and maintaining a safe worksite for both the Contracting Agency's and Contractor's workers when working in or near a confined space.

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

1-07.2 State Taxes

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

1-07.2 State Sales Tax

(June 27, 2011 APWA GSP)

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a Bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit Bid prices or other Contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all Contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this Contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit Bid item prices, or other Contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full Contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit Bid

item prices, or in any other Contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit Bid item prices or in any other Contract amount.

1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any Contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.7 Load Limits

(March 13, 1995 WSDOT GSP, OPTION 6)

Section 1-07.7 is supplemented with the following:

If the sources of materials provided by the Contractor necessitate hauling over roads other than State Highways, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes.

1-07.9 Wages

1-07.9(1) General

(January 9, 2019 WSDOT GSP, OPTION 1)

Section 1-07.9(1) is supplemented with the following:

The Federal wage rates incorporated in this contract have been established by the Secretary of Labor under United States Department of Labor General Decision No. WA190001.

The State rates incorporated in this contract are applicable to all construction activities associated with this contract.

(April 2, 2007 WSDOT GSP, OPTION 4)

Application of Wage Rates For The Occupation Of Landscape Construction

State prevailing wage rates for public works contracts are included in this contract and show a separate listing for the occupation:

Landscape Construction, which includes several different occupation descriptions such as: Irrigation and Landscape Plumbers, Irrigation and Landscape Power Equipment Operators, and Landscaping or Planting Laborers.

In addition, federal wage rates that are included in this contract may also include occupation descriptions in Federal Occupational groups for work also specifically identified with landscaping such as:

Laborers with the occupation description, Landscaping or Planting, or

Power Equipment Operators with the occupation description, Mulch Seeding Operator.

If Federal wage rates include one or more rates specified as applicable to landscaping work, then Federal wage rates for all occupation descriptions, specific or general, must be considered and compared with corresponding State wage rates. The higher wage rate, either State or Federal, becomes the minimum wage rate for the work performed in that occupation.

Contractors are responsible for determining the appropriate crafts necessary to perform the contract work. If a classification considered necessary for performance of the work is missing from the Federal Wage Determination applicable to the contract, the Contractor shall initiate a request for approval of a proposed wage and benefit rate. The Contractor shall prepare and submit Standard Form 1444, Request for Authorization of Additional Classification and Wage Rate available at http://www.wdol.gov/docs/sf1444.pdf, and submit the completed form to the Engineer's office. The presence of a classification wage on the Washington State Prevailing Wage Rates For Public Works Contracts does not exempt the use of form 1444 for the purpose of determining a federal classification wage rate.

1-07.11 Requirements for Nondiscrimination

(April 2, 2018 WSDOT GSP, OPTION 1)

Section 1-07.11 is supplemented with the following:

Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Contractor's attention is called to the Equal Opportunity Clause and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth herein.

2. The goals and timetables for minority and female participation set by the Office of Federal Contract Compliance Programs, expressed in percentage terms for the Contractor's aggregate work force in each construction craft and in each trade on all construction work in the covered area, are as follows:

Women - Statewide

Timetable	Goal
Until further notice	6.9%

Minorities - by Standard Metropolitan Statistical Area (SMSA)

Spokane, WA:

SMSA Counties:

Spokane, WA 2.8

WA Spokane.

Non-SMSA Counties 3.0

WA Adams; WA Asotin; WA Columbia; WA Ferry; WA Garfield; WA Lincoln, WA Pend Oreille; WA Stevens; WA Whitman.

Richland, WA:

SMSA Counties:

Richland Kennewick, WA 5.4

WA Benton; WA Franklin.

Non-SMSA Counties 3.6

WA Walla Walla.

Yakima, WA:
SMSA Counties:
Yakima, WA 9.7
WA Yakima.
Non-SMSA Counties 7.2
WA Chelan; WA Douglas; WA Grant; WA Kittitas; WA Okanogan.

Seattle, WA:
SMSA Counties:
Seattle Everett, WA 7.2
WA King; WA Snohomish.
Tacoma, WA 6.2
WA Pierce.
Non-SMSA Counties 6.1
WA Clallam; WA Grays Harbor; WA Island; WA Jefferson; WA Kitsap; WA Lewis; WA Mason; WA Pacific; WA San Juan; WA Skagit; WA Thurston; WA Whatcom.

Portland, OR:
SMSA Counties:
Portland, OR-WA 4.5
WA Clark.
Non-SMSA Counties 3.8
WA Cowlitz; WA Klickitat; WA Skamania; WA Wahkiakum.

These goals are applicable to each nonexempt Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, or federally assisted project, contract, or subcontract until further notice. Compliance with these goals and time tables is enforced by the Office of Federal Contract compliance Programs.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, in each construction craft and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goal shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of $10,000 or more that are Federally funded, at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the Subcontractor; employer identification number of the Subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the

geographical area in which the contract is to be performed. The notification shall be sent to:

U.S. Department of Labor
Office of Federal Contract Compliance Programs Pacific Region
Attn: Regional Director
San Francisco Federal Building
90 – 7th Street, Suite 18-300
San Francisco, CA 94103(415) 625-7800 Phone
(415) 625-7799 Fax

Additional information may be found at the U.S. Department of Labor website: http://www.dol.gov/ofccp/TAguides/ctaguide.htm

4. As used in this Notice, and in the contract resulting from this solicitation, the Covered Area is as designated herein.

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:
    a. Covered Area means the geographical area described in the solicitation from which this contract resulted;
    b. Director means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
    c. Employer Identification Number means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;
    d. Minority includes:
        (1) Black, a person having origins in any of the Black Racial Groups of Africa.
        (2) Hispanic, a fluent Spanish speaking, Spanish surnamed person of Mexican, Puerto Rican, Cuban, Central American, South American, or other Spanish origin.
        (3) Asian or Pacific Islander, a person having origins in any of the original peoples of the Pacific rim or the Pacific Islands, the Hawaiian Islands and Samoa.
        (4) American Indian or Alaskan Native, a person having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith effort to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of this Special Provision. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its action. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

    a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen,

superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunity and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the U.S. Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the

time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a

member and participant, may be asserted as fulfilling any one or more of the obligations under 7a through 7p of this Special Provision provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensure that the concrete benefits of the program are reflected in the Contractor's minority and female work-force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrate the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspensions, terminations and cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of this Special Provision, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the government and to keep records. Records shall at least include, for each employee, their name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours

worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, the Contractors will not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

16. Additional assistance for Federal Construction Contractors on contracts administered by Washington State Department of Transportation or by Local Agencies may be found at:

    Washington State Dept. of Transportation
    Office of Equal Opportunity
    PO Box 47314
    310 Maple Park Ave. SE
    Olympia WA
    98504-7314
    Ph: 360-705-7090
    Fax: 360-705-6801
    http://www.wsdot.wa.gov/equalopportunity/default.htm

(April 3, 2018, WSDOT GSP, OPTION 2)

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.

Certified Firm Directory – A database of all Minority, Women, and Disadvantaged Business Enterprises. The on-line Directory is available to Contractors for their use in identifying and soliciting interest from DBE firms. The

database is located under the Firm Certification section of the Diversity Management and Compliance System web page at: https://omwbe.diversitycompliance.com.

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. Any supplementing of regular dealers' own distribution equipment shall be by long-term formal lease agreements and not on an ad-hoc basis. 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 complete 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 that is 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 or 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's review.

DBE Service Provider
The value of fees or commissions charged by a DBE Broker, 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, including UDBEs 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, 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, 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 are 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.

(June 1, 2017 WSDOT GSP, OPTION 6)

Supplement this section with the following:

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

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

1-07.12 Federal Agency Inspection

(January 25, 2016 WSDOT GSP)

Section 1-07.12 is supplemented with the following:

Required Federal Aid Provisions

The Required Contract Provisions Federal Aid Construction Contracts (FHWA 1273) Revised May 1, 2012 and the amendments thereto supersede any conflicting provisions of the Standard Specifications and are made a part of this Contract; provided, however, that if any of the provisions of FHWA 1273, as amended, are less restrictive than Washington State Law, then the Washington State Law shall prevail.

The provisions of FHWA 1273, as amended, included in this Contract require that the Contractor insert the FHWA 1273 and amendments thereto in each Subcontract, together with the wage rates which are part of the FHWA 1273, as amended. Also, a clause shall be included in each Subcontract requiring the Subcontractors to insert the FHWA 1273 and amendments thereto in any lower tier Subcontracts, together with the wage rates. The Contractor shall also ensure that this section, REQUIRED FEDERAL AID PROVISIONS, is inserted in each Subcontract for Subcontractors and lower tier Subcontractors. For this purpose, upon request to the Engineer, the Contractor will be provided with extra copies of the FHWA 1273, the amendments thereto, the applicable wage rates, and this Special Provision.

1-07.13 Contractor's Responsibility for Work

1-07.13(4) Repair of Damage

(August 6, 2001 WSDOT GSP)

Section 1-07.13(4) is revised to read:

The Contractor shall promptly repair all damage to either temporary or permanent work as directed by the Engineer. For damage qualifying for relief under Sections 1-07.13(1), 1-07.13(2) or 1-07.13(3), payment will be made in accordance with Section 1-04.4. Payment will be limited to repair of damaged work only. No payment will be made for delay or disruption of work.

1-07.16 Protection and Restoration of Property

1-07.16(2) Vegetation Protection and Restoration

(August 2, 2010 WSDOT GSP)

Section 1-07.16(2) is supplemented with the following:

Vegetation and soil protection zones for trees shall extend out from the trunk to a distance of 1 foot radius for each inch of trunk diameter at breast height.

Vegetation and soil protection zones for shrubs shall extend out from the stems at ground level to twice the radius of the shrub.

Vegetation and soil protection zones for herbaceous vegetation shall extend to encompass the diameter of the plant as measured from the outer edge of the plant.

1-07.17 Utilities and Similar Facilities

(April 2, 2007 WSDOT GSP, OPTION 1)

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

UTILITY CONTACTS

Puget Sound Energy
Attn: Jason Airey
3130 S 38th St
Tacoma, WA 98409
Telephone: (206) 348-9637

Century Link
Attn: Leslie Ferguson
7850 S Trafton St. Bldg B
Tacoma, WA 98409
Telephone: (206) 733-8862

Lakehaven Water & Sewer District
Attn: Wes Hill
31627 1st Avenue S
Federal Way, WA 98003
Telephone: (253)946-5440

Comcast
Attn: Jerry Steele
410 Valley Ave NW, Suite 12-C
Puyallup, WA 98371
Telephone: (253) 288-7532

King County Traffic Operations
Attn: Mark Parrett
155 Monroe Ave NE
Renton, WA 98056
Telephone: (206) 296-8153

AT&T
Attn: Daniel McGeough
11241 Willows Rd NE, #130
Redmond, WA 98052
Telephone: (425) 896-9830

Zayo
Attn: Scott Morrison
22651 83rd Ave S
Kent, WA 98032
Telephone: (206) 832-4862

City of FW IT Dept (City Fiber)
Attn: Thomas Fichtner
33325 8th Ave S
Federal Way, WA 98003
Telephone: (253) 835-2547

ADDITIONAL CONTACTS

King County METRO Transit
81270 6th Ave S, Bldg 2
Seattle, WA 98134
Telephone: (206) 684-2785

South King Fire & Rescue
31617 1st Ave S
Federal Way, WA 98003
Telephone: (253) 946-7253

City of Federal Way Police
33325 8th Ave S
Federal Way, WA 98003
Telephone: (253) 835-6701
(for officer traffic control scheduling)
Telephone: (253) 835-6767
(for traffic / road closure issues)

Federal Way School District
Attn: Transportation Department
1211 S. 332nd St
Federal Way, WA 98003
Telephone: (253) 945-5960

1-07.18 Public Liability and Property Damage Insurance
Delete this section in its entirety, and replace it with the following:
1-07.18 Insurance
(January 4, 2016 APWA GSP)

1-07.18(1) General Requirements

A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.

B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.

C. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.

E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency

G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- The Contracting Agency and its officers, elected officials, employees, agents, and volunteers.
- The consultant that completed the preparation of the engineering design and project plans, and its officers, employees, agents, and subconsultants.
- Consultants hired by the Contracting Agency for design, construction support, or materials testing.

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 offense
$1,000,000	Stop Gap / Employers' Liability each Accident

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work

involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

$1,000,000 Combined single limit each accident

1-07.18(5)C Workers' Compensation

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

1-07.18(5)D Excess or Umbrella Liability

(January 4, 2016 APWA GSP)

The Contractor shall provide Excess or Umbrella Liability insurance with limits of not less than $3,000,000 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.

1-07.18(5)J Pollution Liability

(January 4, 2016 APWA GSP)

The Contractor shall provide a Contractors Pollution Liability policy, providing coverage for claims involving bodily injury, property damage (including loss of use of tangible property that has not been physically injured), cleanup costs, remediation, disposal or other handling of pollutants, including costs and expenses incurred in the investigation, defense, or settlement of claims, arising out of any one or more of the following:

1. Contractor's operations related to this project.
2. Remediation, abatement, repair, maintenance or other work with lead-based paint or materials containing asbestos.
3. Transportation of hazardous materials away from any site related to this project.

All entities listed under 1-07.18(2) of these Special Provisions shall be named by endorsement as additional insureds on the Contractors Pollution Liability insurance policy.

Such Pollution Liability policy shall provide the following minimum limits:

$1,000,000 each loss and annual aggregate

1-07.23 Public Convenience and Safety

1-07.23(1) Construction under Traffic

(January 2, 2012 WSDOT GSP, OPTION 2)

Section 1-07.23(1) is supplemented with the following:

Work Zone Clear Zone

The Work Zone Clear Zone (WZCZ) applies during working and nonworking hours. The WZCZ applies only to temporary roadside objects introduced by the

Contractor's operations and does not apply to preexisting conditions or permanent Work. Those work operations that are actively in progress shall be in accordance with adopted and approved Traffic Control Plans, and other contract requirements.

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

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

The Contractor's nonessential vehicles and employees private vehicles shall not be permitted to park within the WZCZ at any time unless protected as described above.

Deviation from the above requirements shall not occur unless the Contractor has requested the deviation in writing and the Engineer has provided written approval.

Minimum WZCZ distances are measured from the edge of traveled way and will be determined as follows:

Regulatory Posted Speed	Distance From Traveled Way (Feet)
35 mph or less	10*
40 mph	15
45 to 55 mph	20
60 mph or greater	30

* or 2-feet beyond the outside edge of sidewalk

Minimum Work Zone Clear Zone Distance

(January 5, 2015 WSDOT GSP, OPTION 5)

Section 1-07.23(1) is supplemented with the following:

Lane closures are subject to the following restrictions:

- Only one lane of traffic may be closed to traffic between the hours of 8:00AM and 3:30PM. Approval to close both one northbound and one southbound, or one eastbound and one westbound lane at the same time will require prior approval by the Project Engineer.

- Left turns may be restricted (by the Contractor) within the project limits at the discretion of the Project Engineer.

- Closure of one lane at a time may occur between the hours of 8AM to 3:30PM.

- If a lane closure is required, at least one lane of traffic (alternating directions / flagger controlled) shall be maintained at all times.

- Unless otherwise approved or shown on plans, the Contractor shall maintain two-way traffic during construction. The Contractor shall maintain continuous two-way traffic along streets throughout the project site. The Contractor shall have the option, with the approval of the Engineer, of momentarily interrupting the continuous two-way traffic to allow one-way traffic. Such interruptions shall utilize qualified flaggers placed in strategic locations to insure the public safety and minimize driver confusion. A momentary interruption shall be defined as a period of time not to exceed two (2) minutes. Regardless of the period of time no queue greater than ten (10) cars in length will be allowed.

- Working at night (8pm to 7am weekdays, 8pm to 9am weekends & holidays) is required for loop detector installation as shown on the contract plans. It shall be the Contractor's responsibility to obtain any required noise variance or exemption for such work.

- For approved night work, the Contractor shall, at no additional cost to the City, make all arrangements for operations during hours of darkness. Flagger stations shall be illuminated using a minimum 150-watt floodlight. Lighting used for nighttime work shall, whenever possible, be directed away from or shielded from residences and oncoming traffic. Signs and barricades shall be supplemented by Type C steady burn lights to delineate edge of roadway during the hours of darkness.

- The Contractor shall keep all pedestrian routes & access points (including, but not limited to, sidewalks, and crosswalks when located within the project limits) open and clear at all times unless permitted otherwise by the Engineer in an approved traffic control plan. An ADA accessible route must be provided through the project site at all times.

- Pedestrians must have access to pedestrian push buttons at all times.

- The Contractor shall provide flaggers, signs, and other traffic control devices. The Contractor shall erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage as a result of the Contractor's operations which may occur on highways, roads, streets, sidewalks, or paths. No work shall be done on or adjacent to any traveled way until all necessary signs and traffic control devices are in place.

- All signs and traffic control devices for the permitted closures shall only be installed during the specified hours. Construction signs, if placed earlier than the specified hours of closure, shall be turned or covered so as not to be visible to motorists

- The Contractor shall be responsible for notifying all affected property owners and tenants prior to commencing the barricading of streets,

alleys, sidewalks and driveways. Notifications should be at least 48 hours in advance of closures, if possible.

- The Contractor shall, at all times throughout the project, conduct the work in such a manner as will obstruct and inconvenience vehicular and pedestrian traffic as little as possible. The streets, sidewalks and private driveways shall be kept open by the Contractor except for the brief periods when actual work is being done. The Contractor shall so conduct his operations so as to have under construction no greater length or amount of work than he can prosecute vigorously and he shall not open up sections of the work and leave them in an unfinished condition.

- Lane closures shall not impact business accesses. All business accesses will remain open during business hours.

- Lane closures shall not restrict vehicular access for buses through the project site. Bus stops shall remain ADA accessible to pedestrians at all times throughout the project

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

Lane closures are not allowed on any of the following:

1. A holiday,
2. A holiday weekend; holidays that occur on Friday, Saturday, Sunday or Monday are considered a holiday weekend. A holiday weekend includes Saturday, Sunday, and the holiday.
3. After 12:00 PM (noon) on the day prior to a holiday or holiday weekend, and
4. Before 7:00 AM on the day after the holiday or holiday weekend.

1-07.24 Rights of Way

(July 23, 2015 APWA GSP)

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters

(May 25, 2006 APWA GSP)

1-08.0(1) Preconstruction Conference

(October 10, 2008 APWA GSP)

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

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

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

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

1-08.0(2) Hours of Work
(December 8, 2014 APWA GSP)
Add the following new section:

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. Requests shall be submitted for review no later than noon two working days prior to the day(s) the Contractor is requesting to change the hours.

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

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

1-08.1 Subcontracting

(May 30, 2019 APWA GSP, OPTION A)

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

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

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

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

The ninth paragraph, beginning with "On all projects, …" is revised to read:

The Contractor shall certify to the actual amount received from the Contracting Agency and amounts paid to all firms that were used as Subcontractors, lower tier subcontractors, manufacturers, regular dealers, or service providers on the Contract. This includes all Disadvantaged, Minority, Small, Veteran or Women's Business Enterprise firms. This Certification shall be submitted to the Engineer on a monthly basis each month between Execution of the Contract and Physical Completion of the Contract using the application available at: https://wsdot.diversitycompliance.com. A monthly report shall be submitted for every month between Execution of the Contract and Physical Completion regardless of whether payments were made or work occurred.

1-08.3 Progress Schedule

1-08.3(2)A Type A Progress Schedule

(March 13, 2012 APWA GSP)

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.

1-08.4 Prosecution of Work

Delete this section and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work

(July 23, 2015 APWA GSP)

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise

approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

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

1-08.5 Time for Completion

(March 13, 1995 WSDOT GSP, OPTION 7)

Section 1-08.5 is supplemented with the following:

This project shall be physically complete within 60 working days.

(November 30, 2018 APWA GSP, OPTION A)

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

1-08.6 Suspension of Work

(January 2, 2018 WSDOT GSP, OPTION 2)

Section 1-08.6 is supplemented with the following:

Contract time may be suspended for procurement of critical materials (Procurement Suspension). In order to receive a Procurement Suspension, the Contractor shall within 21 calendar days after execution by the Contracting Agency, place purchase orders for all materials deemed critical by the Contracting Agency for physical completion of the contract. The Contractor shall provide copies of purchase orders for the critical materials. Such purchase orders shall disclose the purchase order date and estimated delivery dates for such critical material.

The Contractor shall show procurement of the materials listed below as activities in the Progress Schedule. If the approved Progress Schedule indicates the materials procurement are critical activities, and if the Contractor has provided documentation that purchase orders are placed for the critical materials within the prescribed 21 calendar days, then contract time shall be suspended upon physical completion of all critical work except that work dependent upon the listed critical materials:

- Hybrid Radar/Video Detection Cameras and associated equipment
- Video Camera Detector and associated equipment
- Electrical Service Cabinet

Charging of contract time will resume upon delivery of the critical materials to the Contractor or 120 calendar days after execution by the Contracting Agency, whichever occurs first.

1-08.9 Liquidated Damages

(August 14, 2013 APWA GSP)

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(1) General Requirements for Weighing Equipment
(July 23, 2015 APWA GSP, OPTION 2)

Revise item 4 of the fifth paragraph to read:

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

1-09.2(5) Measurement
(May 2, 2017 APWA GSP)

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.

1-09.6 Force Account
(October 10, 2008 APWA GSP)

Supplement this section with the following:

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

1-09.7 Mobilization
(******)

Supplement this section with the following:

Mobilization for Bid Schedule A and Bid Schedule B will be paid separately per Standard Specification Section 1-09.7.

1-09.9 Payments
(March 13, 2012 APWA GSP)

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

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

The Contractor shall submit a breakdown of the cost of lump sum bid items at the Preconstruction Conference, to enable the Project Engineer to determine the Work

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

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

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

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

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

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

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

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

1-09.9(1) Retainage

(June 27, 2011 WSDOT GSP, OPTION 1)

Section 1-09.9(1) content and title is deleted and replaced with the following:

Vacant

1-09.11 Disputes and Claims

1-09.11(3) Time Limitation and Jurisdiction
(November 30, 2018 APWA GSP)
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 Claim Resolution

1-09.13(3) Claims $250,000 or Less
(October 1, 2005 APWA GSP)
Delete this Section and replace it with the following:

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

1-09.13(3)A Administration of Arbitration
(November 30, 2018 APWA GSP)
Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.1 General

1-10.2 Traffic Control Management

1-10.2(1) General
(January 3, 2017 WSDOT GSP, OPTION 1)

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

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

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

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

The American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, Virginia 22406-1022
Training Dept. Toll Free (877) 642-4637
Phone: (540) 368-1701

1-10.3 Traffic Control Labor, Procedures and Devices

1-10.4 Measurement

1-10.3(1)D Off-Duty Uniformed Police Officer (******)

NEW SECTION

The Contractor shall arrange for off-duty uniformed police officers to be present when traffic signals are to be taken out of service.

Contractor shall coordinate and obtain approval for the use of off-duty police officers with the Engineer. Off-duty police officers will be scheduled a minimum of four (4) hours for any shift worked. Two officers will be required per intersection and any given time. The off-duty police officer shall be in addition to all other personnel required for traffic control.

The off-duty uniformed police officers hours, as stated in the proposal are the city's estimate, without knowledge of the contractor's specific method of operation and has been presented for the purpose of providing a common amount for all bidders.

Contractor is responsible for the properly scheduling of off-duty officers. Contractor shall provide a minimum 48-hour notice to schedule officers when possible. Contractor shall be responsible for any charges assessed due to insufficient time in canceling off-duty officers, except in situations outside of the Contractor's control.

Below is a list of optional resources for securing off-duty officers:

Off-duty Officer resource list

Federal Way Police Department: Contact:(253)835-6701 or (253) 835-6700

King County Sheriff's Officers: Contact (206) 957-0935 ext 1

Washington State Patrol Officers: Contact (425) 401-7788

1-10.4(2) Item Bids with Lump Sum for Incidentals
(August 2, 2004 WSDOT GSP)
SUPPLEMENT this Section with the following:

"Off-Duty Uniformed Police Officer"
"Off-Duty Uniformed Police Officer" will be measured by the hour with a minimum 4-hour shift per officer. Contractor is responsible for timely scheduling and cancelations per the respective police office resource office. Any charges resulting in non-compliance with the resource office's guidelines will be at the contractor's cost, unless circumstances outside of the contractor's control have occurred.

1-10.5 Payment

1-10.5(2) Item Bids with Lump Sum for Incidentals
(******)
SUPPLEMENT pay item with the following:

"Off-Duty Uniformed Police Officer", per hour
Payment for "Off-Duty Police Officer" shall be full compensation for hours spent on site by the officer (at 4-hour minimum) and any vehicle and administrative charges assessed.

END OF DIVISION 1

DIVISION 2
EARTHWORK

2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

2-01.1 Description

(******)

Section 2-01.1 is supplemented with the following:

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

Limits for clearing & grubbing shall be as shown on the plans. Clearing shall include removal of vegetation as noted on the plans or as directed by the Engineer to accommodate the improvements. Vegetation removal shall include mowing and/or removal to a depth sufficient to complete installation of ITS and communications equipment.

2-01.3 Construction Requirements

2-01.3(4) Roadside Cleanup

(January 5, 1998 WSDOT GSP, OPTION 1)

Section 2-01.3(4) is supplemented with the following:

The Contractor shall restore, repair or correct all portions of the roadside or adjacent landscapes that were unavoidably damaged due to the performance or installation of the specified work. Unavoidable damage shall be determined only by the Engineer. All materials utilized shall be in accordance with Sections 9-14 and 9-15 and other applicable sections of the Standard Specifications or Special Provisions, whichever may apply. All work shall be performed in accordance with Sections 8-02 and 8-03 and other applicable sections of the Standard Specifications. The Contractor shall review the work with the Engineer and receive approval to proceed prior to commencing the work.

END OF DIVISION 2

DIVISION 8
MISCELLANEOUS CONSTRUCTION

8-02 ROADSIDE RESTORATION

8-02.3 Construction Requirements

8-02.3(17) Protection of Private Property and Property Restoration
(April 12, 2018 CFW GSP)

Section 8-02.3(17) is a new section:

Property Restoration shall consist of fine grading and restoration of adjacent landscaped areas; adjustment and/or replacement of private irrigation systems; slope restoration behind sidewalks; timber edgings; installing and replacing private wood and chain link fencing; and other work not currently identified on the plans, as directed by the Engineer.

The Contractor is specifically reminded that any unnecessary damage caused by construction activities will be repaired at the Contractor's expense.

Restore all disturbed areas to original condition or better. Grass areas shall be restored with hydroseed where directed.

Removal of tree roots outside the limits of construction, as directed by the Engineer and under the supervision of a certified arborist, shall be paid for under "Property Restoration".

Topsoil shall be Type A and mulch shall be Bark or Wood Chip Mulch, per these Special Provisions.

All materials shall conform to Sections 9-14 Erosion Control and Roadside Planting and 9-15 Irrigation System of the Standard Specifications.

The force account provided for property restoration also includes any adjustments and/or replacements of existing irrigation systems not covered under Section 8-03 Irrigation Systems of the Special Provisions. This work shall also consist of modifying existing landscape lighting systems as may become necessary by these improvements.

The Contractor is advised that protecting existing private irrigation and lighting systems from damage does not constitute a basis for claim or extra work.

8-02.4 Measurement
(April 12, 2018 CFW GSP)

Section 8-02.4 is supplemented with the following:

"Property Restoration" will be paid by force account and must be approved by the engineer prior to completing the work.

8-02.5 Payment
(April 12, 2018 CFW GSP)

Section 8-02.5 is supplemented with the following:

"Property Restoration" per force account.

8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, INTELLIGENT TRANSPORTATION SYSTEMS, AND ELECTRICAL

8-20.1 Description

8-20.1(1) Regulations and Code

(March 13, 2012 CFW GSP)

Section 8-20.1(1) is supplemented with the following:

Where applicable, materials shall conform to the latest requirements of Puget Sound Energy and the Washington State Department of Labor and Industries.

8-20.1(2) Industry Codes and Standards

(March 13, 2012 CFW GSP)

The following is added at the end of the first paragraph of this section:

National Electrical Safety Code (NESC) Committee, IEEE Post Office Box 1331445 Hoes Lane, Piscataway, NJ 08855-1331.

8-20.1(3) Permitting and Inspections

(April 12, 2018 CFW GSP)

Section 8-20.1(3) is supplemented with the following:

The Contractor shall be responsible for obtaining all required electrical permits, including all required City electrical permits. All costs to obtain and comply with electrical permits shall be included in the applicable bid items for the work involved.

8-20.2 Materials

Section 8-20.2 is supplemented with the following:

(March 13, 2012 CFW GSP)

Control density fill shall meet the requirements of Washington Aggregates and Concrete Association.

Bedding material shall consist of 5/8-inch minus crushed rock free of any deleterious substances (Section 9-03.1(5)A of the Standard Specifications).

8-20.2(1) Equipment List And Drawings

(January 26, 2012 CFW GSP)

The first paragraph is deleted and replaced with the following:

Within one (1) week following the pre-construction conference, the Contractor shall submit to the Engineer a completed "Request for Approval of Materials" that describes the material proposed for use to fulfill the Plans and Specifications. Manufacturer's technical information shall be submitted for signal, Safe City Cameras and related equipment (Pan-Tilt-Zoom, Fisheye, Bullet and License Plate Reader), electrical and luminaire equipment, all wire, conduit, junction boxes, and all other items to be used on the project. Approvals by the Engineer must be received before material will be allowed on the job site. Materials not approved will not be permitted on the job site.

8-20.3 Construction Requirements

8-20.3(1) General

(February 11, 2013 WSDOT NWR GSP, OPTION 1)

Section 8-20.3(1) is supplemented with the following:

Fiber Optic Cable Installation

When installing new fiber optic cable or reinstalling existing fiber optic cable into new or existing cable vaults or pull boxes, the installation method shall ensure that the cable is free of dirt and debris as it enters the conduit and that no dirt or debris enters the conduit receiving the cable prior to the conduit being plugged or sealed.

When installing fiber optic cable, the installation method shall prevent the fiber cable from direct contact with the ground or pavement between pulls or prior to the installation of the fiber cable into the conduit.

(May 15, 2000 WSDOT NWR GSP, OPTION 2)

Section 8-20.3(1) is supplemented with the following:

Energized Equipment

Work shall be coordinated so that electrical equipment, with the exception of the service cabinet, is energized within 72 hours of installation.

(October 31, 2005 WSDOT NWR GSP, OPTION 5)

Section 8-20.3(1) is supplemented with the following:

Construction Core Installation

The Contractor shall coordinate installation of construction cores with Contracting Agency maintenance staff through the Engineer. The Contractor shall provide written notice to the Engineer, a minimum of seven working days in advance of proposed installation. The Contractor shall advise the Engineer in writing when construction cores are ready to be removed.

(May 15, 2000 WSDOT NWR GSP, OPTION 6)

Section 8-20.3(1) is supplemented with the following:

Electrical Equipment Removals

Removals associated with the electrical system shall not be stockpiled within the job site without the Engineer's approval.

(January 26, 2012 CFW GSP)

Section 8-20.3(1) is supplemented with the following:

Contractor Owned Removals

All removals associated with an electrical system, which are not designated to remain the property of the Contracting Agency, shall become the property of the Contractor and shall be removed from the project.

The Contractor shall:

Remove all wires for discontinued circuits from the conduit system or as directed by the Engineer.

Remove elbow sections of abandoned conduit entering junction boxes or as directed by the Engineer.

Abandoned conduit encountered during excavation shall be removed to the nearest outlets or as directed by the Engineer.

Remove foundations entirely, unless the Plans state otherwise.

Backfill voids created by removal of foundations and junction boxes. Backfilling and compaction shall be performed in accordance with Section 2-09.3(1)E.

(November 14, 2014 CFW GSP)

Section 8-20.3(1) is supplemented with the following:

Delivery of Removed Items

The Engineer shall decide the ownership of all salvaged signal materials. All salvaged signal materials not directed by the Engineer to remain property of the City shall become the property of the Contractor, except the existing controller cabinet and all its contents shall remain as property of the City.

Removed signal and electrical equipment which remains the property of the City shall be delivered to:

King County Signal Shop
Attn: Mark Parrett
155 Monroe Avenue NE
Renton, Washington 98056
Phone: 206-396-3763

Forty eight (48) working hours advance notice shall be communicated to both the Engineer and the Signal Technician at the address listed above. Delivery shall occur during the hours of 8:00 a.m. to 2:00 p.m. Monday through Friday. Material will not be accepted without the required advance notice.

The Contractor shall be responsible for unloading the equipment where directed by the Engineer or Signal Tech at the delivery site.

Equipment damaged during removal or delivery shall be repaired or replaced to the Engineer's satisfaction at no cost to the City.

(******)

Section 8-20.3(1) is supplemented with the following:

The Contractor shall remove and relocate existing video detection cameras for re-use on other parts of the project as shown in the Plans.

(December 17, 2012 CFW GSP)

Section 8-20.3(1) is supplemented with the following:

Fiber Optic Cable Service Outage Duration & Notification

The maximum allowable interruption to the operation of the existing fiber optic cable service is three days, including testing. Outages of fiber optic cable may affect multiple parties, including but not limited to, the City, King County, and/or WSDOT. Proposed outage dates shall be reviewed and approved by the City. The City shall coordinate the outage with WSDOT. The Contractor shall coordinate the outage with King County Metro and King County Traffic at least two (2) weeks in advance of the proposed outage. The notification shall include

description of work, location, duration of outage including start and ending date/time and emergency contact information. Notification in writing shall be sent to the following:

Owen Kehoe
King County Metro
Phone: 206-477-5811
Email: owen.kehoe@kingcounty.gov

Jeffery Barnett
King County Metro
Phone: 206-263-7826
Email: Jeffery.Barnett@kingcounty.gov

King County Signal Shop
Attn: Mark Parrett
155 Monroe Avenue NE
Renton, Washington 98056
Phone: 206-396-3763

8-20.3(2) Excavating and Backfilling
(January 8, 2013 CFW GSP)

Section 8-20.3(2) is supplemented with the following:

The Contractor shall supply all trenching necessary for the complete and proper installation of the traffic signal system, interconnect conduit and wiring, and illumination system. Trenching shall conform to the following:

1. In paved areas, edges of the trench shall be sawcut the full depth of the pavement and sawcuts shall be parallel. All trenches for placement of conduit shall be straight and as narrow in width as practical to provide a minimum of pavement disturbance. The existing pavement shall be removed in an approved manner. The trench bottom shall be graded to provide a uniform grade.

2. Trenches located under existing traveled ways shall provide a minimum of 24 inches cover over conduits and shall be backfilled with 21 inches of controlled density fill, vibrated in place, followed by either 3 inches minimum of HMA Cl 1/2" PG 58 -22 , or a surface matching the existing pavement section, whichever is greatest. The asphalt concrete surface cuts shall be given a tack coat of asphalt emulsion (CSS-1) or approved equal immediately before resurfacing, applied to the entire edge and full depth of the pavement cut. Immediately after compacting the new asphalt surface to conform to the adjacent paved surface, all joints between new and original pavement shall be filled with joint sealant meeting the requirements of Section 9-04.2.

3. Trenches for Schedule 40 PVC conduits to be located under existing sidewalks shall be installed to conform with the City of Federal Way Luminaire Electrical Trench Detail. Such trenches shall be backfilled with bedding material two inches (2″) above and below the conduit, with the remaining depth of trench backfilled with native material. If the Engineer determines that the native material is unsuitable, Gravel Borrow shall be used. Sidewalks and driveways shall be removed and replaced as specified.

4. Trenches for Schedule 40 PVC conduits to be located within the right-of-way and outside the traveled way shall have a minimum of twenty-four inches (24″) cover over conduits. Such trenches shall be backfilled with bedding material two inches (2″) above and below the conduit, with the remaining depth of trench backfilled with bank run gravel unless the Engineer determines that spoils from the trench excavation are suitable for backfill.
5. When trenches are not to be placed under sidewalks or driveways, the backfill shall match the elevation of the surrounding ground, including a matching depth of top soil, mulch and/or sod if necessary to restore the trench area to its prior condition.
6. Contractor shall use joint trench where possible.

Backfill shall be carefully placed so that the backfilling operation will not disturb the conduit in any way. The backfill shall be thoroughly mechanically tamped in eight-inch (8″) layers with each layer compacted to ninety-five percent (95%) of maximum density in traveled ways, and ninety percent (90%) of maximum density elsewhere at optimum soil moisture content.

Bank run gravel for backfill shall conform to Section 2.01 of the Standard Specifications. Bedding material shall conform to Section 2.01 of the Standard Specifications.

All trenches shall be properly signed and/or barricaded to prevent injury to the public.

All traffic control devices to be installed or maintained in accordance with Part VI of the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, and as specified elsewhere in these Specifications.

Excavation for foundations shall be completed by vactor excavation. This excavation shall be incidental to the signal or illumination bid items.

(April 12, 2018 CFW GSP)

Section 8-20.3(2) is supplemented with the following:

Underground utilities of record are shown on the construction plans insofar as information is available. These, however, are shown for convenience only and the City assumes no responsibility for improper locations or failure to show utility locations on the construction plans.

The location of existing underground utilities, when shown on the plans, is approximate only, and the Contractor shall be responsible for determining their exact location. The Contractor shall check with the utility companies concerning any possible conflict prior to commencing excavation in any area, as not all utilities may be shown on the plans.

The Contractor shall be responsible for potholing for conflicts with underground utility locations prior to determining exact locations of signal and luminaire pole foundations, underground vaults and directional boring operations. Prior to

construction, if any conflicts are expected, it shall be brought to the attention of the Engineer for resolution.

The Contractor shall be entirely responsible for coordination with the utility companies and arranging for the movement or adjustment, either temporary or permanent, of their facilities within the project limits.

If a conflict is identified, the Contractor shall contact the Engineer. The Contractor and City shall locate alternative locations for poles, cabinet, or junction boxes. The Contractor shall get approval from the Engineer prior to installation. The Contractor may consider changing depth or alignment of conduit to avoid utility conflicts.

Before beginning any excavation work for foundations, vaults, junction boxes or conduit runs, the contractor shall confirm that the location proposed on the Contract Plans does not conflict with utility location markings placed on the surface by the various utility companies. If a conflict is identified, the following process shall be used to resolve the conflict:

1. Contact the Engineer and determine if there is an alternative location for the foundation, junction box, vault or conduit trench.
2. If an adequate alternate location is not obvious for the underground work, select a location that may be acceptable and pothole to determine the exact location of other utilities. Potholing must be approved by the Engineer.
3. If an adequate alternate alignment still cannot be identified following potholing operations, the pothole area should be restored and work in the area should stop until a new design can be developed.

The Contractor shall not attempt to adjust the location of an existing utility unless specifically agreed to by the utility owner.

8-20.3(4) Foundations

(December 18, 2009 CFW GSP)

Section 8-20.3(4) is supplemented with the following:

Excavation for foundations shall be completed by vactor excavation. This excavation shall be incidental to the signal or illumination bid items.

Pole foundations within the sidewalk area shall be constructed in a single pour to the bottom of the cement concrete sidewalk. The sidewalk shall be constructed in a separate pour.

Pole foundations not within the sidewalk area shall incorporate a 3-foot by 3-foot by 4-inch-thick cement concrete pad set flush with the adjacent ground. Where the pad abuts a sidewalk, the pad shall extend to the sidewalk and the top of the pad shall be flush with the sidewalk. A construction joint shall be provided between the two units.

The foundation for the controller and service cabinets shall conform to the detail on the Plans. Conduits shall be centered horizontally except service conduit, which shall be placed at the side of the power panel.

Foundations for Type I traffic signal poles shall conform to Standard Plan J-21.10-01.

Foundations for Type II and Type III traffic signal poles shall conform to details on the Signal Standard Sheet in the Plans.

Foundations for streetlight poles shall conform to City of Federal Way Drawing Number 3-39 except that foundation depth shall be as noted on the Illumination Pole Schedule.

Foundations for the decorative streetlight poles shall conform to City of Federal Way Drawing Number 3-43 except that foundation depth shall be as noted on the Illumination Pole Schedule.

8-20.3(4A) Controller Foundations

(November 5, 2012 CFW GSP)

Section 8-20.3(4)A is a new section:

The controller foundation shall conform to the City of Federal Way's Drawing No. 3-45B and 3-45C included in the Appendix of these Specifications.

Additionally, the pad mount shall conform to the following:

1. The concrete pedestal height shall be 20 inches.
2. The spare two-inch conduit shall run to the nearest junction box, unless placement of such would exceed the junction box capacity in which case the spare two-inch conduit shall run to the next nearest junction box.
3. Conduits shall be centered horizontally except service conduit which shall be placed at the side of the power panel.
4. Pedestal shall be tapered from top to bottom at 1:10 on all four sides.
5. Unit shall be mounted on a cement concrete pad per Plan Details.
6. Conduits shall be placed in the front 1/3 of the foundation. Foundations constructed with conduits located within the three (3) inch cabinet mounting flange shall be removed and reconstructed. Modification of the three (3) inch cabinet mounting flange will not be accepted.

The service cabinet foundation shall also be constructed on the larger cement concrete pad noted on the Plans and shall conform to the City of Federal Way's Drawing No. 3-45 included in the Appendix of these Specifications.

8-20.3(5) Conduit

8-20.3(5)A General

(March 16, 2011 CFW GSP)

Section 8-20.3(5) is supplemented with the following:

All conduit trenches shall be straight and as narrow in width as is practical to provide a minimum of pavement disturbance.

When conduit risers are installed, they shall be attached to the pole every 4 feet and shall be equipped with weather heads.

Conduit for the service wires between the Puget Sound Energy pole and the service panel and all above ground conduit shall be hot-dip galvanized rigid steel.

All conduits shall be clearly labeled at each junction box, handhole, vault or other utility appurtenance. Labeling shall be permanent and shall consist of the owner/type name and a unique conduit number or color. The owner name shall be approved by the Engineer prior to starting work. The recommended owner/type abbreviations are:

PSE – Puget Sound Energy
QWEST – Qwest
COMCAST(AT&T)/C – Cable
COMCAST(AT&T)/F – Fiber
SIC – City Signal Interconnect
City Spare – City spares
Cobra – COBRA luminaire system

Traffic signal interconnect shall be placed, wherever feasible, in the joint utility trench being constructed under this contract (if applicable). This work shall be coordinated with the other utilities to ensure a 2" minimum conduit is provided solely for the traffic signal interconnect. Conduit size shall be verified with City Traffic Engineer prior to installation.

8-20.3(5)A1 Fiber Optic Conduit
(June 24, 2013 WSDOT NWR – OPTION 1)

Section 8-20.3(5)A1 is supplemented with the following:

When multiple conduits are installed in the same trench, one location wire shall be placed between conduits. When multiple conduits are installed in the same boring, one locate wire is required for the conduit bundle.

Location wire routed into pull boxes or cable vaults shall be attached to the "C" channel or the cover hinge bracket with stainless steel bolts and straps. A 1-foot loop of locate wire shall be provided above the channel as shown in the Plans.

8-20.3(5)A2 ITS and Cabinet Outer and Inner Duct Conduit
(June 24, 2013 WSDOT NWR – OPTION 1)

Section 8-20.3(5)A1 is supplemented with the following:

Conduit Seal

Existing conduits, entering cabinets, that are scheduled to have cables added or removed shall be sealed with an approved mechanical plug or waterproof foam at both ends of the conduit run.

Existing Outer duct and inner duct conduit, entering cabinets, that are scheduled to have cables added or removed shall be sealed according to this section.

8-20.3(5)B Conduit Type
(March 16, 2011 CFW GSP)

Section 8-20.3(5)B is supplemented with the following:

All conduits for signal cable raceways under driveways shall be rigid galvanized steel or Schedule 80 polyvinyl chloride (PVC).

Whenever PVC conduit is used a ground wire shall be provided.

8-20.3(5)E3 Boring

(October 16, 2006 WSDOT NWR, OPTION 1)

Section 8-20.3(5)E3 is supplemented with the following:

In addition to the requirements for boring with casing, the Contractor shall submit to the Engineer for approval a pit plan and a proposed method of boring that includes, but is not limited to, the following:

1) A pit plan depicting:
   a) Protection of traffic and pedestrians.
   b) The dimension of the pit.
   c) Shoring, bracing, struts, walers or sheet piles.
   d) Type of casing.
2) The proposed method of boring, including:
   a) The boring system.
   b) The support system.
   c) The support system under and at the bottom of the pit.

The shoring and boring pit plan shall be prepared by and bear the seal and signature of a Washington State licensed Professional Civil Engineer.

Installed casing pipe shall be free from grease, dirt, rust, moisture and any other deleterious contaminants.

Commercial concrete meeting the requirements of Section 6-02.3(2)B may be used to seal the casing.

8-20.3(6) Junction Boxes, Cable Vaults, and Pull Boxes

(March 13, 2012 CFW GSP)

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 shoulders.

All junction boxes, cable vaults, and pull boxes placed within the traveled way or paved shoulders shall be heavy-duty.

Junction boxes shall not be located within the traveled way, wheelchair ramps, or driveways, or interfere with any other previous or relocated installation. The lid of the junction box shall be flush with the surrounding area and be adequately supported by abutting pavements or soils.

Junction boxes, cable vaults and pull boxes which are placed within the sidewalk shall have slip resistant lids which meet the requirements of Americans with Disabilities Act (ADA) and Public Right-of-Way Accessibility Guideline (PROWAG). Approved slip-resistance products are:

1. Mebac1 manufactured by IKG Industries.
2. SlipNOT Grade 3-coarse manufactured by W.S. Molnar Company.
3. Saftrax TH604 Non-Skid manufactured by Thermion.

All streetlight junction boxes not placed in the sidewalk shall be placed immediately adjacent to a sidewalk or curb surrounded by concrete (or asphalt if adjacent to roadway) to prevent the box from lifting out of the dirt.

All streetlight junction box lids shall be welded shut after final inspection and approval by King County.

Approved slip resistant surfaces shall have coefficient of friction of no less than 0.6 and have a proven track record of outdoor application which lasts for at least 10 years.

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.

Wiring shall be replaced for full length if sufficient slack as specified in Section 8-20.3(8) is not maintained. No splicing will be permitted.

Junction boxes Type 1 and 2 shall meet the requirements of WSDOT Standard Plan J-40.10-01. Type 8 junction boxes shall meet the requirements of WSDOT Standard Plan J-40.30-01. Junction boxes shall be inscribed based upon system per WSDOT Standard Plan J-40.30.01. Junction box lids and frames shall be grounded per Section 8-20.3(9).

Junction boxes shall be located at the station and offset indicated on the Plans except that field adjustments may be made at the time of construction by the Engineer to better fit existing field conditions.

Junction boxes for copper and/or fiber signal interconnect shall be placed at a maximum interval of 300 feet and shall be inscribed with “TS” as described on WSDOT Standard Plan J-40.30-01.

Communications/fibers vaults shall be provided for the purpose of storing slack cabling and installing splice enclosures. The location of all communication vaults shall be as indicated on the Plans and shall be field verified by the Contractor.

Communication/fibers vaults shall be configured such that the tensile and bending limitations of the fiber optic cable are not compromised. Vaults shall be configured to mechanically protect the fiber optic cable against installation force as well as inert forces after cable pulling operations.

Where indicated in the Plans, new vaults shall be installed as described herein and shown in the Plans. The Contractor shall furnish and install racking hardware for cable storage in all new vaults and in all existing vaults where cable storage is identified on the plans. The Contractor shall secure and store the cable in the racking hardware per manufacturer’s instruction.

Fiber vaults shall be installed in accordance with the following:

1. All openings around conduits shall be sealed and filled with grout to prevent water and debris from entering the vaults or pull boxes. The grout shall meet the specifications of the fiber vault manufacturers.

2. Backfilling around the work shall not be allowed until the concrete or mortar has set.

3. Upon acceptance of work, fiber vaults shall be free of debris and ready for cable installation. All grounding requirements shall be met prior to cable installation.

4. Fiber vaults shall be adjusted to final grade using risers or rings manufactured by the fiber vault and pull box manufacturer. Fiber vaults with traffic bearing lids shall be raised to final grade using ring risers to raise the cover only. All voids created in and around the vault while adjusting it to grade shall be filled with grout.

5. Fiber vaults shall be installed at the approximate location shown in the Drawings. Final location to be approved by the Engineer.

6. All existing conduits will need to be open and exposed for access within the vault. Care shall be taken to identify which conduits have existing cables. All conduits will extend 2 inches within the vault walls. At the 2-inch mark the excess conduit on the existing structure will need to be removed and all cables exposed.

7. Once the conduits are located, excavate a hole large enough to install the fiber vault. The vault shall have a concrete floor as indicated on the Drawings. The floor shall be installed on 6 inches of crushed surfacing top course. If a fiber vault is installed outside a paved area, an asphalt pad shall be constructed surrounding the junction box. Ensure that the existing conduits are at a minimum of 4 inches above the top of the floor. If the existing conduits contain existing cables, the new vault will need to be bottomless to allow the existing conduit and cable to be routed into the new vault.

8-20.3(8) Wiring

(March 13, 1995 WSDOT NWR, OPTION 2)

Section 8-20.3(8) is supplemented with the following:

Wire Splices

All splices shall be made in the presence of the Engineer.

(March 6, 2012 CFW GSP)

Section 8-20.3(8) is supplemented with the following:

Cable entering cabinets shall be neatly bundled and wrapped. Each wire shall bear the circuit number and be thoroughly tested before being connected to the appropriate terminal.

Circuit conductors shall be standard copper wire in all conduit runs with size specified on the Plans. Conductors from luminaire bases to the luminaire fixture shall be minimum No. 14 AWG pole and bracket cable.

(March 6, 2012 CFW GSP)

The following is inserted between the 3rd and 4th paragraph of this section:

Loop wires will be spliced to lead in wires at the junction box with an approved mastic tape, 3-M 06147 or equal, leaving 3 feet of loose wire.

Connectors will be copper and sized for the wire. Mastic splice material will be centered on the wire and folded up around both sides and joined at the top. Splice will then be worked from the center outward to the ends. The ends will be visible and fully sealed around the wire. The end of the lead-in cables shall have the sheathing removed 8 inches and shall be dressed external to the splice.

The 8th paragraph of this section is deleted and replaced with the following:

Fused quick disconnect kits shall be of the SEC type or equivalent. Underground illumination splices shall be epoxy or underground service buss/lighting connector kits. Installation shall conform to details in the Standard Plans.

The following is inserted between the 11th and 12th paragraphs of this section:

Field Wiring Chart (IMSA Standards)

501	+Input	506	AC+Control	511	Remote-All Red
502	AC-	507	AC+Crosswalk	512-520	Special
503	AC+Lights	508	AC+Detectors	551-562	Interconnect
504	AC+Lights	509	AC+12 Volts	593-598	Rail Road Preemption
505	AC+Lights	510	Remote-Flash		

	Phases	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**A**	**B**
Emergency Vehicle Preemption	Orange (B+)		581		584		587		590		
	Yellow (Call)		582		585		588		591		
	Blue (BB)		583		586		589		592		
Vehicle Heads	Red	611	621	631	641	651	661	671	681	691	601
	Orange	612	622	632	642	652	662	672	682	692	602
	Green	613	623	633	643	653	663	673	683	693	603
	Black	614	624	634	644	654	664	674	684	694	604
	White (Common)	616	626	636	646	656	666	676	686	696	606
Pedestrian Heads and PPB	Red (Hand)	711	721	731	741	751	761	771	781	791	701
	Green (Man)	712	722	732	742	752	762	772	782	792	702
	White (Common for Lights)	716	726	736	746	756	766	776	786	796	706
	Orange (Push button)	714	724	734	744	754	764	774	784	794	704
	Black (Common for Push button)	715	725	735	745	755	764	775	785	795	705
Vehicle Detectors	Loop 1	811	821	831	841	851	861	871	881	891	801
	Loop 1	812	822	832	842	852	862	872	882	892	802
	Loop 2	813	823	833	843	853	863	873	883	893	803
	Loop 2	814	824	834	844	854	864	874	884	894	804
	Loop 3	815	825	835	845	855	865	875	885	895	805
	Loop 3	816	826	836	846	856	866	876	886	896	806
	Loop 4	817	827	837	847	857	867	877	887	897	807
	Loop 4	818	828	838	848	858	868	878	888	898	808
Vehicle Detectors/ Count Loops	Loop 1	911	921	931	941	951	961	971	981	991	901
	Loop 1	912	922	932	942	952	962	972	982	992	902
	Loop 2	913	923	933	943	953	963	973	983	993	903
	Loop 2	914	924	934	944	954	964	974	984	994	904
	Loop 3	915	925	935	945	955	965	975	985	995	905
	Loop 3	916	926	936	946	956	966	976	986	996	906
	Loop 4	917	927	937	947	957	967	977	987	997	907
	Loop 4	918	928	938	948	958	968	978	988	998	908

8-20.3(8)B Fiber Optic Cable Installation

(March 14, 2012 CFW GSP)

Section 8-20.3(8)B and all its subsections are new sections:

The fiber optic cable shall be singlemode cable conforming to the requirements of Section 9-29.3(1) Fiber Optic Cable and Section 9-29.3(1)A Singlemode Fiber

Optic Cable. Fiber Optic Cable shall be Corning ALTOS All-Dielectric Cable or approved equal.

8-20.3(8)B1 Fiber Optic Cable Submittals

Submit the product data, samples, and qualification submittals specified below in one package at the same time. The Engineer's approval of any submitted documentation shall in no way relieve the Contractor from compliance with the safety and performance requirements as specified herein.

Submittals required by this item shall include, but not be limited to, the following:

A. A material staging plan, should the Contractor propose City owned property as a staging area.

B. detailed fiber optic installation procedure including the following:

- Fiber optic cable cutting lengths reflecting the cable order and reel allocations.
- Cable pulling plan which shall state the exact operational procedures to be utilized and which identifies the physical locations for equipment placement, proposed equipment setup at each location, pulling tension on all cables for each pull, staffing, and the pulling methodology for each type of cable.
- Exact splice points as provided for herein.

C. Product Data:

1. Catalog sheets, specifications and installation instructions for all products.
2. Complete manufacturer's construction details and specifications for the cables.

Include for each type of cable:

a. Physical and optical characteristics of the optical fibers including cable manufacturer's certified test data (attenuation, bandwidth).
b. Physical characteristics of strength members, and jackets.
c. Maximum pulling strain allowed.
d. Crush resistance.
e. Overall dimension of cable.

D. Splicing and termination data, including the following:

1. List of materials.
2. Method of connecting cables.
3. Details of cable preparation.
4. Method of applying materials, including quantities.
5. Written statement from cable manufacturer that splices and terminations submitted are acceptable for use with their cable.
6. Written statement from cable manufacturer indicating recommended pulling compounds.

E. Cable Installer's Qualifications Data:

The persons installing the Work of this Section and their Supervisor shall be personally experienced in optical fiber cable systems and shall have been engaged in the installation of optical fiber cable systems for a minimum of 3

years. Qualifications shall be submitted to the Engineer at least 30 calendar days prior to the start of fiber installation for approval of qualifications.

1. The Contractor shall submit the name of each person who will be performing the Work and their employer's name, business address and telephone number.
2. The Contractor shall submit the name and addresses of 5 similar projects that the foregoing people have worked on during the past 3 years.

F. Cable Splicer's Qualifications Data:
Personnel that have at least three years field experience in single-mode fiber optic cable splicing shall accomplish all cable splicing. Qualifications shall be submitted to the Engineer at least 30 calendar days prior to the splicing for approval of qualifications.

1. Name of each person who will be performing the Work and their employer's name, business address and telephone number.
2. All information required showing that the experience criteria have been met.

List of Completed Installations: If brand names other than those specified are proposed for use, furnish the name, address, and telephone number of at least 5 comparable installations that can prove the proposed products have operated satisfactorily for one year.

8-20.3(8)B2 Fiber Optic Cable Installation

Pre-installation tests shall be conducted on the cable reels prior to installation. These tests shall be performed in accordance with EIA/TIA-455-78 for single-mode fibers using an optical time domain reflectometer (OTDR). Both ends of the cable shall be accessible for the tests, and it may be necessary to remove a portion of the protective wooden lagging on the reel.

Measurements shall be made using the 1310 nm and 1550 nm wavelengths or as specifiy by the City, and shall be compared to the factory test results. Any test that reveals the material does not meet the acceptable stated factory specifications shall constitute failure. A copy of these test results shall be provided to the City.

The fiber optic cable shall not be installed prior to the installation of vaults, cabinets or pull points/junction boxes. Installation procedures shall be in conformance with the procedures specified by the cable manufacturer for the specific cable being installed.

The Contractor shall determine a suitable cable installation method to ensure that all cable installation requirements shall be met in all conduit sections. All work shall be carried out in accordance and consistent with the highest standards of quality and craftsmanship in the communication industry with regard to the electrical and mechanical integrity of the connections; the finished appearance of the installation; as well as the accuracy and completeness of the documentation.

The Contractor shall make a physical survey of the project site for the purpose of establishing the exact cable routing and cutting lengths prior to the

commencement of any fiber optic work or committing any fiber optic materials. Unless otherwise directed by the Engineer, underground splicing of fiber optic cable in junction boxes or vaults will not be permitted. All termination splicing will take place in the traffic signal controller cabinets.

The cable shall be clearly marked with a permanent plastic tag in each junction box and vault it passes through and at each cable riser. The Contractor shall attach the cable to the racks and hooks with industry standard cable ties immediately upon entering the pull point/junction box. Each cable shall be looped and tied independently of one another. The fiber cable is to be routed in the top corners of vaults while ensuring proper bend radius. The cable is not to pass through any existing cable loop.

All work areas shall be clean and orderly at the completion of work and at times required by the Engineer during the progress of work.

Fiber Optic Cables shall be installed in continuous lengths without intermediate splices throughout the project, except at the location(s) specified in the Plans.

The Contractor shall comply with the cable manufacturer's specifications and recommended procedures including, but not limited to the following:

1. Installation.
2. Proper attachment to the cable strength elements for pulling during installation.
3. Bi-directional pulling.
4. Cable tensile limitations and the tension monitoring procedure.
5. Cable bending radius limitations.

The Contractor shall protect the loops from tangling or kinking. At no time during the length of the project shall the cable's minimum bending radius specifications be violated.

In all cable vaults and/or junction boxes designated in the plans, minimum cable slack of 15 yards shall be left by the Contractor, unless otherwise specified in the plans. The cable slack length of fiber optic cable shall be coiled and secured with tie wraps to racking hardware or as specified in the plans.

The pulling eye/ sheath termination hardware on the fiber optic cables shall not be pulled over any sheave blocks.

When power equipment is used to install fiber optic cabling, the pulling speed shall not exceed 30 yards per minute. The pulling tension limitation for fiber optic cables shall not be exceeded under any circumstances.

Large diameter wheels, pulling sheaves and cable guides shall be used to maintain the appropriate bending radius. Tension monitoring shall be accomplished using commercial dynamometers or load-cell instruments.

Patch cords placed between pad mounted cabinets shall be protected by plastic spiral wrapping. Spiral wrap shall cover the entire length of the patch cord(s) to

within 12 inches of end. The spiral wrap shall be installed before the patch cords are pulled into the conduit(s) and be rated for use in electrical installations.

During installation the Contractor shall keep a log that notes the length marking on the cable at every pull point/junction box. This will help determine the exact location of problems along the cable run during the OTDR testing.

The Contractor shall replace any damaged conductors or cables in occupied conduits as a result of Contractor's operations at the Contractor's cost.

8-20.3(8)B3 Fiber Optic Cable Splicing

This section describes the minimum requirements for splicing and connecting of the specified fiber optic cables.

Unless otherwise directed/approved by the Engineer, underground splicing of fiber optic cable in junction boxes or vaults will not be permitted. All termination splicing will take place in the traffic signal controller cabinets.

If approved by the Engineer, the fiber optic network may be spliced in fiber optic splice enclosures/vaults or as shown on the Plans. The Contractor shall use the fusion method with local injection and detection for all fiber optic splicing. All splices shall be securely stored in splice trays. Generally, splices shall not be performed in vaults smaller than 3'-6" x 3'-6" x 3'-6" (444-LA). When it is determined by the Engineer that a splice is performed in a vault smaller than 444-LA vault, appropriate slack coils will be provided to allow the splice case to be removed from the vault. When splicing is required in vaults (444-LA or larger), the splice case will be affixed to the side of the vault using the unistrut rack fasteners cast into the wall of the vault.

At least 2 feet (610 mm) of bare fiber shall be coiled and stored in the splice tray in a protected manner. At least 3 feet (914 mm) of each buffer tube in the fiber optic cable shall be coiled and stored in the splice enclosure or patch panel. All cables shall be properly fastened to prevent against pulling out of the splice enclosure or patch panel.

All fusions shall be labeled with the fiber number using a pre-printed vinyl number tag. All splice trays shall be labeled with the range of fibers spliced in the tray. Cables at each location shall be designated with the next termination point at the other end of the cable.

All splicing in fiber optic splice enclosures shall be completed using "butt splicing".

The Contractor shall provide all required brackets and other racking hardware required for the fiber optic cable racking operations as specified.

All fusion splicing equipment shall be in good working order, properly calibrated, and meeting all industry standards and safety regulations. Splices shall utilize two half shells bolted together with stainless steel bolts and be fitted neoprene gasket. Selected splices shall not require a re-entry kit. Cable preparation,

closure installation and splicing shall be accomplished in accordance with accepted and approved industry standards.

Upon completion of the splicing operation, all waste material shall be deposited in suitable containers for fiber optic disposal, removed from the job site, and disposed of in an environmentally acceptable manner.

The average splice loss of each fiber shall be 0.15 dB or less per splice. The average splice loss is defined as the summation of the attenuation as measured in both directions through the fusion splice, divided in half.

No individual splice loss measured in a single direction shall exceed 0.20 dB.
The Contractor shall seal all cables where the cable jacket is removed. The cable shall be sealed per the cable manufacturer's recommendation with an approved blocking material.

If approved, all below ground splices shall be contained in waterproof splice enclosures. All splices shall be contained in splice trays utilizing strain relief, such as heatshrink wraps, as recommended by the splice tray manufacturer. Upon sealing the splice closure, the Contractor shall show that the closure maintains 68.4 kPa of pressure for a 24-hour period.

The fiber splice enclosure shall provide for the termination and protection of the fiber optic cable within the communications/fibers vaults. The fiber splice enclosure shall be installed per manufacturer's directions. The Contractor shall provide the splice enclosures and make splices at locations shown on the Plans. The Contractor shall test all fiber optic cables, splices, and connectors as shown on the Plans and as specified in these Special Provisions.

The splice enclosure shall be mounted to allow the cable to enter the enclosure without exceeding the cable manufacturer's minimum bending radius. Sufficient cable shall be coiled with the splice enclosure to allow the enclosure to be removed from the vault or aerial span for splicing.

The unprotected fiber exposed for splicing within the enclosure shall be protected from mechanical damage using the fiber support tubes and shall be secured within the splice enclosure. The fibers shall be labeled with vinyl markers as directed by the City.

The enclosure shall be sealed following the splicing procedure as recommended by the manufacturer to provide a moisture proof environment for the splices. Care shall be taken at the cable entry points to ensure a tight and waterproof seal is made which will not leak upon aging.

The Contractor shall coil sufficient length of each cable in the communications/fibers vault that will allow the splice enclosure to be removed from the communications vault, and splices to be performed above ground in a vehicle specifically equipped for such work. Such coiled cable shall be located adjacent to the splice enclosure. Lengths of coiled cable shall be provided where shown on the Plans. The splice enclosure shall be bonded to the ground as per manufacturer's recommendations.

8-20.3(8)B4 Fiber Optic Cable Terminations

Fiber optic cable shall be terminated utilizing factory manufactured pigtails with LC type connectors and UPC type polishing. Pigtails shall be fusion spliced to fiber optic cable.

(******)

8-20.3(8)B5 Fiber Optic Cable Patch Panels

Terminated fiber optic cable shall be installed in the signal controller cabinet utilizing patch panels. Patch panel(s) shall be Corning model Single-Panel Housing (SPH-01P) or approved equal for wall mountable locations. Patch panel(s) shall be ADC FL2000 (flush mount) (supplied by CommScope) or approved equal for rack mountable locations. Mounting location shall be as directed by the Engineer. Refer to the Plans for locations and quantities.

8-20.3(8)B6 Fiber Optic Cable Labeling

All fiber optic cable and patch cords shall be identified whenever entering or leaving a cabinet, vault, pull point/box or enclosure and at all terminals.

Permanent plastic marking tags fastened securely to the cables shall be used for identification.

Cable designation shall consistently conform to the overall scheme approved by the City to indicate location, circuit, device, cable number, terminal branch, position etc. Letters and numbers shall be used. Identification shall be made with a clear, machine produced, indelible marking.

All conduits shall be numbered and documented on the site plan as-built drawings.

Splice cases will be labeled at each entry point with nomenclature that includes the cable origination point, strand count, and destination. Fiber splice cases will be labeled as “F-xxxx”, where xxxx = the service cabinet location number based upon a City defined coordinate system.

All termination panels shall be labeled at each termination point for each fiber. Termination labels shall conform to the overall scheme approved by the City to indicate location, device and next access point. Identification shall be made with a clear, machine produced, indelible marking.

8-20.3(8)B7 Fiber Optic As-Built Records

The Contractor shall provide the Engineer with a cable route diagram indicating the actual cable route and “meter marks” for all intersections, directional change points in the cable mounting, and all termination points. The Contractor shall record these points during cable installation. The Contractor shall provide Cable system “as-built” drawings showing the exact cable route to the Engineer. Information such as the location of slack cable and its quantity shall also be recorded in the cable route diagram.

8-20.3(8)B8 Fiber Optic Cable Testing

The contractor is responsible for demonstrating the functionality of the installed optical fiber system through testing for compliance with the transmission requirements of this specification, the cable and hardware manufacturer's specifications, and prescribed industry standards and practices. The contractor shall, at its cost, provide suitable test equipment, instruments and labor for the purpose of tests.

The Contractor shall provide sufficient notice consistent with section 8-20.3(1) – Fiber Optic Service Outage Duration and Notification prior to the commencement of the first test. The Contractor shall submit with this notice a schedule of all tests covered by this notice.

8-20.3(8)B9 Type of Testing

The types or acceptance testing for optical fiber cable system certification are:

1. Attenuation testing
2. Optical Time Domain Reflectometer (OTDR) testing

8-20.3(8)B10 Attenuation Testing

Insertion loss testing shall be used to measure end-to-end attenuation on each new fiber installed between a field device and a fiber termination cabinet. Insertion loss testing shall be performed at the 1310 nanometer wavelength in both directions.

Prior to commencing testing, the Contractor shall submit the manufacturer and model number of the test equipment along with certification that is has been calibrated within 6 months of the proposed test dates.

The following information shall be documented for each fiber test measurement:

1. Wavelength
2. Fiber type
3. Cable, tube and fiber IDs
4. Near end and far end test locations
5. End-to-end attenuation
6. Date, time and operator

8-20.3(8)B11 Optical Time Domain Reflectometer (OTDR Testing)

An optical time domain reflectometer (OTDR) with recording capability shall be utilized to test the end-to-end transmission quality of each optical fiber. Quality tests shall consider both attenuation and discontinuities. The OTDR shall be equipped with 1310 nanometer and 1550 nanometer light sources for singlemode optical fibers.

The OTDR shall be capable of providing electronic and hard copy records of each test measurement.

The OTDR shall be equipped with sufficient internal masking to allow the entire cable section to be tested. This may be achieved by using an optical fiber pigtail of sufficient length to display the required cable section or by using an ODTR with sufficient normalization to display the required cable section.

Prior to commencing testing, the Contractor shall submit the manufacturer and model number of the OTDR test unit along with certification that it has been calibrated within the 6 months of the proposed test dates.

Each new mainline and lateral fiber shall be tested in both directions at the 1310 and 1550 nanometer wavelengths. Existing mainline and lateral fibers that are spliced to or re-spliced as part of this contract shall also be tested in both directions and at both wavelengths.

The following information shall be documented for each fiber test measurement:

1. X-Y scatter plot for fiber length
2. Wavelength
3. Refraction index
4. Fiber type
5. Averaging time
6. Pulse width
7. Cable and fiber IDs
8. Near end and far end test locations
9. Date, time, and operator
10. Event table that includes: event ID, type, location, loss and reflection

8-20.3(8)B12 Fiber Optic Cable Testing Documentation

The Contractor shall submit on hard copy and one electronic copy of the fiber test results to the Engineer for approval. The Contractor shall take corrective actions on portions of the fiber installation determined to be out of compliance with these specifications.

Upon acceptance of the cable installation and test results, the Contractor shall submit three (3) hard copies and one electronic copy of the fiber test results to the Engineer.
Hard copy submittals shall be bound in 3-ring binders. The electronic submittal shall be on a compact disk and include one licensed copy of the applicable OTDR reader program.

The following information shall be included in each test result submittal:

1. Contract number, contract name, Contractor name and address.
2. Dates of cable manufacture, installation and testing.
3. Cable specifications.
4. Locations of all splices.
5. OTDR test results.
6. Attenuation test results.

8-20.3(8)B13 Racking in Fiber Vaults

The Contractor shall rack the cable in vertical figure eight loops, which shall permit pulling slack from the vault without introducing twist to the cable. The splice closures shall also be racked.

Cables shall be racked and secured with nylon ties. Nylon ties shall not be over-tightened. Identification or warning tags shall be securely attached to the cables in at least two locations in each fiber vault.

All coiled cable shall be protected to prevent damage to the cable and fibers. Racking shall include securing cables to brackets (racking hardware) that extend from the sidewalls of the fiber vault.

8-20.3(8)B14 Documentation

Documentation for each system element shall consist of the manufacturer's name and model number, serial number when available, materials and operating specifications, wiring schematic and parts list, owners manuals, factory service manuals, and procedures for factory testing and system acceptance testing specified elsewhere herein. The Contractor shall submit three (3) copies of the documentation specified above prior to installation of the cable or components described in the submittal. In addition, the Contractor shall submit three (3) copies of an overall system wiring schematic and termination chart for the installed elements (operation and maintenance manuals). All documentation for each individual element shall be neatly bound in a way for the information is secured together and is totally legible without removing the information from the binding. This documentation shall be in addition to any other data, shop drawings, etc. required to be submitted as specified in these Special Provisions.

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8-20.3(8)B15 Ethernet Switches

Ethernet switches shall HP Aruba 2540 24G PoE+ 4SFP+ (part number JL356A) Ethernet switches with HP Aruba 1G SFP LC LX 10km SMF XCVR (part number J4859D) SFP modules. Refer to the Plans for locations and quantities.

8-20.3(8)C Video, Voice, and Data Distribution and Transmission System

(January 26, 2012 CFW GSP)

Section 8-20.3(8)C and all it's subsections are new sections:

All wiring, cable, and cords associated with this equipment shall be neatly dressed and secured to the rack frames or cable trays by nylon ties.

8-20.3(8)C1 Documentation

Documentation for each system element shall consist of the manufacturer's name and model number, serial number when available, materials and operating specifications, wiring schematic and parts list, owner's manuals, factory service manuals, and procedures for factory testing and system acceptance testing specified elsewhere herein. The Contractor shall submit three (3) copies of the documentation specified above prior to installation of the cable or components described in the submittal. In addition, the Contractor shall submit three (3) copies of an overall system wiring schematic and termination chart for the installed elements (operation and maintenance manuals). All documentation for each individual element shall be neatly bound in a way for the information is secured together and is totally legible without removing the information from the binding. This documentation shall be in addition to any other data, shop drawings, etc. required to be submitted as specified in these Special Provisions.

8-20.3(9) Bonding, Grounding

(August 21, 2006 WSDOT NWR)

Section 8-20.3(9) is supplemented with the following:

Where shown in the Plans or where designated by the Engineer, the metal frame and lid of existing junction boxes shall be grounded to the existing equipment grounding system. The existing equipment grounding system shall be derived from the service serving the raceway system of which the existing junction box is a part.

(March 13, 2012 CFW GSP)

Section 8-20.3(9) is supplemented with the following:

Contractor shall provide and install bonding and grounding wires as described in Standard Specifications and the National Electric Code for any new metallic junction boxes and any modified existing junction boxes. For the purposes of this section, a box shall be considered "modified" if new current-carrying conductors are installed, including low-voltage conductors.

At points where shields of shielded conductors are grounded, the shields shall be neatly wired and terminated on suitable grounding lugs.

Junction box lids and frames shall be grounded in accordance with Department of Labor and Industries standards, and shall be grounded so that the ground will not break when the lid is removed and laid on the ground next to the junction box.

All conduits which are not galvanized steel shall have bonding wires between junction boxes.

Ground rods shall be copper clad steel, ¾-inch in diameter by 10-feet long, connections shall be made with termite welds.

At points where wiring shields of shielded conductors are grounded, the shields shall be neatly wired and terminated on suitable grounding lugs.

(October 23, 2014 CFW GSP)

Section 8-20.3(9) is supplemented with the following:

In addition to the service grounds provided at the service cabinet each Type II, III, IV, or V signal standard shall have a supplemental ground installed per Standard Plan J-60.05.

8-20.3(10) Services, Transformer, Intelligent Transportation System Cabinet

(March 13, 2012 CFW GSP)

Section 8-20.3(10) is supplemented with the following:

The Contractor shall apply for an electrical service connection with Puget Sound Energy or Tacoma Public Utilities as applicable and make arrangements for a new electrical service connection.

The Engineer will approve Electrical Service Installations. The Contractor shall request the City of Federal Way Building Division to perform required inspections for service approval.

Electrical service is detailed in the Plans. The Contractor shall notify the City of Federal Way inspector when the service is ready for connection.

A two-circuit electrical service shall be used at 240/120 volts, 60 Hz AC. The underground electrical service shall be brought to the load center in minimum 2-inch conduit. Wire sizes and conduit terminations between the load center and the connection location shall meet the requirements of PSE or Tacoma Public Utilities as applicable. The service shall be split in the load center into a 120-volt circuit for the signals and 240 volt for the illumination. When the service is to be provided from an overhead source, the Contractor shall provide conduit from the electrical service to ten feet up the power pole from which service is provided. Stand-off brackets 14 inches long shall be installed on the pole every ten feet. In addition, the Contractor shall provide service conductors from the electrical service to the top of the conduit on the power pole with 30 feet of service wire coiled at top and provide the local electrical utility with 30 feet of 2-inch conduit to make the connection.

Electrical service cabinet will be painted inside with white polyurethane or polyester urethane power coat in accordance with Section 6-07. Outside will be bare aluminum finish.

The twist lock photocell shall be mounted on top of the luminaire closest to the electrical service.

All circuit breakers shall be clearly marked or labeled.

8-20.3(11) Testing
(April 12, 2018 CFW GSP)
Section 8-20.3(11) is supplemented with the following:

After power switch over, the signal system shall be put into operation by King County personnel. The Contractor shall be present during the turn-on with adequate equipment to repair any deficiencies in operation. The Contractor shall notify King County five working days in advance of power switch over.

8-20.3(13) Illumination Systems
(April 12, 2018 CFW GSP)
Section 8-20.3(13) is supplemented with the following:

The existing lighting systems shall remain operational until the new systems are functioning. The Engineer may approve partial interruptions required because of staging.

8-20.3(14)C Induction Loop Vehicle Detectors
(January 31, 2014 CFW GSP)
Item 2 and the last two sentences of Item 4 are deleted.

Item 5 of this section is deleted and replaced with the following:

5) Each loop shall have 3 turns of loop wire.

Item 11 of this section is deleted and replaced with the following:

11) The detector loop sealant shall be a flexible traffic loop wire encapsulement. Encapsulement shall be designated to enable vehicular traffic to pass over the properly filled sawcut within five minutes after installation without cracking of material. The encapsulement shall form a surface skin allowing exposure to vehicular traffic within 30 minutes at 75 degrees F. and completely cure to

a tough rubber-like consistency within two to seven days after installation. Properly installed and cured encapsulement shall exhibit resistance to defects of weather, vehicle abrasion, motor oil, gasoline, antifreeze solutions, brake fluid, deicing chemicals and salt normally encountered in such a manner that the performance of the vehicle detector loop wire is not adversely affected.

Section 8-20.3(14)C is supplemented with the following:

One-quarter-inch (1/4") saw cuts shall be cleared of debris with compressed air before installing three turns of loop wire. All detector loops shall be 6-foot-diameter circle with diagonal mini-cut corners (no 90 degree corners) of not more than 1-inch on the diagonal. From the loops to the junction box, the loop wires shall be twisted two turns per foot and labeled at the junction box in accordance with the loop schematics included in these Plans. A 3/8-inch saw cut will be required for the twisted pair. No saw cut will be within 3 feet of any manhole or utility risers located in the street. Loops and lead-ins will not be installed in broken or fractured pavement. Where such pavement exists it will be replaced in kind with minimum 12-foot sections. Loops will also not be sawed across transverse joints in the road. Loops to be placed in concrete will be located in full panels, a minimum 18 inches from any expansion joint.

Existing Traffic Loops

The Contractor shall notify the City of Federal Way Traffic Engineer a minimum of five working days in advance of pavement removal in the loop areas. The Contractor shall install and maintain interim video detection until the permanent systems are in place. The interim video detection shall be operational simultaneously with decommission of the existing pavement loops.

If the Engineer suspects that damage to any loop, not identified in the Plans as being replaced, may have resulted from Contractor's operations, the Engineer may order the Contractor to perform the field tests specified in Section 8 20.3(14)D. The test results shall be recorded and submitted to the Engineer. Loops that fail any of these tests shall be replaced.

Loops that fail the tests, as described above, and are replaced shall be installed in accordance with current City of Federal Way design standards and Standard Plans, as determined by the Engineer.

If traffic signal loops that fail the tests, as described above, are not replaced and operational within 48 hours, the Contractor shall install and maintain interim video detection until the replacement loops are operational. The type of interim video detection furnished shall be approved by the Engineer prior to installation.

8-20.3(14)D Test for Induction Loops and Lead-in Cable

(October 5, 2009 WSDOT NWR – OPTION 3)

Section 8-20.3(14)D is supplemented with the following:

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.

Connect the detector lead-in cables in the controller cabinet.

(October 5, 2009 WSDOT NWR – OPTION 4)

Section 8-20.3(14)D is supplemented with the following:

Existing Loop Test

When two-conductor shielded detector lead-in cable is scheduled to be installed and spliced to an existing loop, the Contractor shall perform the following:

1. Disconnect the existing loop from the detector lead-in splice.
2. Megger test the existing loop wire. A resistance reading of less than 100-megohms is considered a failure.
3. Loops that fail the test shall be replaced and then retested.
4. After the final testing of the loops, the detector lead-in cable installation shall be completed and the loop system tested according to Tests A, C and D.

(March 31, 2012 CFW GSP)

Section 8-20.3(14)D is supplemented with the following:

Test A – The resistance shall not exceed values calculated using the given formula.

Resistance per 1000 ft of 14 AWG, R = 3.26 ohms / 1000 ft

$$R = \frac{3.26 \times \text{distance of lead-in cable (ft)}}{1000 \text{ ft}}$$

Test B and Test C in this section are deleted and replaced with the following:
Meggar readings of the detection wire to ground shall read 200 megohms at the amplifier connection. The 200 megohms or more shall be maintained after the splices are tested by submerging them in detergent water for at least 24 hours. The tests will be conducted with County personnel at the request of the Contractor. All costs incurred to meet this minimum standard will be the responsibility of the Contractor.

8-20.3(14)G Video Camera Detectors

(December 18, 2009 CFW GSP)

Section 8-20.3(14)G is a new section:

The video camera shall be installed consistent with the manufacturer recommendations. Controller cabinet equipment shall be installed in the cabinet when cabinet testing is performed.

8-20.3(14)H Hybrid Radar/Video Detectors

(******)

Section 8-20.3(14)H is a new section:

The hybrid radar/video camera shall be installed consistent with the manufacturer recommendations. Controller cabinet equipment shall be installed in the cabinet when cabinet testing is performed.

8-20.3(17) "As Built" Plans
(December 18, 2009 CFW GSP)
Section 8-21.3(17) is deleted and replaced with the following:

Upon completion of the project, the Contractor shall furnish an "as-built" drawing of the intersection showing all signal heads, pole locations, detectors, junction boxes, Illumination system showing luminaire locations, miscellaneous equipment, conductors, cable wires up to the signal controller cabinet, and with a special symbol identifying those items that have been changed from the original contract drawings. All items shall be located to within one foot (1′) horizontally and six inches (6″) vertically above or below the finished surface grade.

8-20.3(18)Removal of Existing Signal Equipment
(April 12, 2018 CFW GSP)
Section 8-21.3(18) is a new section:

Where noted on the Plans, existing signal, illumination, Safe City Cameras and relate equipment, and interconnect equipment shall be removed by the Contractor. The Engineer shall decide the ownership of all salvaged signal, illumination, Safe City Cameras and related equipment, and interconnect equipment materials. All salvaged signal materials not directed by the Engineer to remain property of the City shall be the property of the Contractor, except that any existing controllers and UPS cabinets and all contents shall be delivered to the King County Signal Shop at 155 Monroe Avenue NE, Renton, Washington 98056. All other material removed shall become the property of the Contractor and shall be disposed of off-site at a legal disposal site.

All pole foundations and anchor bolts shall be removed to 6 feet below new subgrade, and the resulting hole shall be backfilled with compacted gravel borrow meeting the requirements of Section 9-03.14(1), unless the Engineer has approved the use of native material.

Where junction boxes are removed, the conduit and wire shall also be removed to the bottom of the trench and the resulting hole backfilled with gravel borrow meeting the requirements of Section 9-03.14(1), unless the Engineer has approved the use of native material.

Removals associated with the electrical system shall not be stockpiled within the jobsite without the Engineer's approval.

8-20.4 Measurement
(April 12, 2018 CFW GSP)
Section 8-20.4 is replaced with the following:

"Traffic Signal System, Complete – _____" shall be measured per lump sum.

8-20.5 Payment
(April 12, 2018 CFW GSP)
Section 8-20.5 is deleted and replaced with the following:

Payment will be made in accordance with the following:

"Traffic Signal System, Complete – _____", per lump sum.
The lump sum price for "Traffic Signal System, Complete – _____" shall be full pay for furnishing all labor, equipment, materials and supplies necessary to complete the work as specified. All items and labor necessary to supply, install, and test the traffic signal system including, but not limited to, conduit, junction boxes, temporary and/or permanent vehicle detection system(s), connections with existing conduit and junction boxes, electrical service cabinets and connections, restoring facilities destroyed or damaged during construction, clearing and grubbing, removing and salvaging existing signal equipment, relocation of temporary signal equipment (vehicle heads, pre-emption, pedestrian heads, pedestrian push buttons, video detection, etc.) to accommodate construction phasing throughout the project, and all other components necessary to make a complete traffic signal system shall be included within the lump sum measurement. All items and labor necessary to supply, install, and test the interconnect system including, but not limited to, conduit, single-mode fiber optic cable, junction boxes, connections with signal controllers, connections with existing conduit, junction boxes and fiber optic vaults, connections with existing interconnect systems, pull rope, plugs, restoring facilities destroyed or damaged during construction, clearing and grubbing, salvaging existing materials, and all other components necessary to make a complete interconnect communication system as well as a system ready for the future installation of fiber optic cable shall be included within the lump sum measurement. Interconnect cable installed in existing conduit will be included in the lump sum measurement. All costs for installing equipment on signal or luminaire mast arms shall be incidental to the bid item(s) in this section and no additional compensation will be made. Removal of an existing signal system or existing signal components shall be included within the lump sum measurement. After construction is complete, it is Contractor's responsibility to adjust, relocate, and reposition all traffic signal equipment (vehicle heads, pre-emption, pedestrian heads, pedestrian push buttons, video detection, etc.) to their final position as shown on the Contract Documents, and shall be considered incidental to the lump sum measurement.

Sawcutting, pavement removal, excavation, trenching, bedding and backfill materials, backfilling of trenches, pavement restoration of trenches and conduit/junction box installations shall be incidental to the bid items included in this section and no additional compensation will be made.

Coordination of service connections with Puget Sound Energy and any necessary permits and fees associated with the service connections shall be considered incidental to the bid items included in this section and no additional compensation will be made.

Coordination with communication connections with Comcast, Qwest, Zayo, or other communication provider affected by this project, and any necessary permits and fees associated with the communications connections shall be considered incidental to the bid items included in this section and no additional compensation will be made.

All costs for installing junction boxes and conduit containing traffic signal system and/or interconnect system wiring shall be incidental to the bid item(s) of this section and no additional compensation will be made.

All costs for painting shall be incidental and included in the bid items included in this section and no additional compensation will be made.

Adjustment of junction boxes shall be incidental and included in the bid items included in this section and no additional compensation will be made.

Restoration of facilities destroyed or damaged during construction shall be considered incidental to the bid items included in this section and no additional compensation will be made.

END OF DIVISION 8

DIVISION 9
MATERIALS

9-03 AGGREGATES

9-03.12 Gravel Backfill

9-03.12(6) Pit Run Sand
(April 12, 2018 CFW GSP)

Section 9-03.12(6) is a new section:

Sieve Size	Percent Passing
3/8" square	100
U.S. No. 4	90
Sand Equivalent	30 minimum

9-03.14(3) Common Borrow
(April 12, 2018 CFW GSP)

Section 9-03.14(3) is modified with the following requirements:

Material from on-site excavations meeting the requirements for Common Borrow shall be used to the extent practicable. Material for common borrow shall consist of granular soil and/or aggregate which is free of trash, wood, debris, and other deleterious material.

Common Borrow material shall be at the proper moisture content for compaction. This material is generally moisture sensitive. The natural moisture content shall range from not more than 1 percent wet of optimum to not more than 3 percent dry of optimum as determined in accordance with Section 2-03.3(14)D. The material shall not pump or yield under the weight of compaction equipment and construction traffic. The Contractor is responsible for protecting the material from excess moisture wherever/whenever possible. To the extent practicable, this material should be handled only during non-rainy periods and should be removed, hauled, placed, and compacted into final embankments without intermediate handling or stockpiling. Surfaces should be graded and sloped to drain and should not be left uncompacted.

Common Borrow shall meet the following gradation limits:

Sieve Size	**Percent Passing (by weight)**
6" square [1]	100
4" square	90 – 100
2" square	75 - 100
U.S. No. 4	50 - 80
U.S. No. 40	50 max.
U.S. No 200	25 max.

[1] For geosynthetic reinforced walls or slopes, 100percent passing 1¼-inch square sieve and 90 to 100 percent passing the 1-inch square sieve.

Common Borrow shall contain sufficient fines for compaction and to bind the compacted soil mass together to form a stable surface when heavy construction equipment is operated on its surface.

9-14 EROSION CONTROL AND ROADSIDE PLANTING

9-14.1 Topsoil

9-14.1(1) Topsoil Type A
(April 12, 2018 CFW GSP)

Section 9-14.1(1) is supplemented with the following:

Topsoil Type A mix shall be 50% pure organic compost and 50% sand or sandy loam. The soil shall be high in organic content and compromised of fully composted and mature organic materials.

Refer to Section 9-14.4(8) of the Standard Specifications for compost requirements. No fresh sawdust or other fresh wood by-products shall be added to extend the volume after the composting process.

Chemical and physical characteristics of Topsoil Type A shall comply with the following:

Screen Size	7/16” Maximum
Total Nitrogen	0.25% Minimum
Organic Matter	10% Minimum
pH Range	5.5 to 7.5
Conductivity	5 mmhos/cm Maximum

9-14.4 Mulch and Amendments

9-14.4(3) Bark or Wood Chips
(April 12, 2018 CFW GSP)

Section 9-14.4(3) is supplemented with the following:

Bark or Wood Chip Mulch shall be medium grade composted ground fir or hemlock bark.

The bark shall be uniform in color, free from weed seeds, sawdust and splinters. The mulch shall not contain resin, tannin, wood fiber or other compounds detrimental to plant life. The moisture content of bagged mulch shall not exceed 22%. The acceptable size range of bark mulch material is ½” to 1” with maximum of 20% passing the ½” screen.

9-14.6(8) Sod
(April 12, 2018 CFW GSP)

Section 9-14.6(8) is supplemented with the following:

Sod Lawn shall be three-way Tall Fescue Blend Sod, 33.33% Firecracker LS Tall Fescue, 33.33% Spyder LS Tall Fescue, 33.33% Raptor II Tall Fescue with degradable netting, or approved equal.

SECTION 9-29 ILLUMINATION, SIGNAL, ELECTRICAL

9-29.1 Conduit, Innerduct, and Outerduct
(June 5, 2000 WSDOT NWR)

Section 9-29.1 is supplemented with the following:

Conduit Coatings

Conduit fittings for steel conduit shall be coated with galvanizing repair paint in the same manner as conduit couplings. Electroplated fittings are not allowed.

Steel conduit entering concrete shall be wrapped in 2-inch-wide pipe wrap tape with a minimum 1-inch overlap for 12 inches on each side of the concrete face. Pipe wrap tape shall be installed per the manufacturer's recommendations.

(October 23, 2014 CFW GSP)

Fiber optic cable conduit shall be supplied as a system from a single manufacturer providing all of the conduit, all required fittings, termination and other installation accessories; all in accordance with the Contract Documents.

9-29.1(1) Rigid Metal Conduit, Galvanized Steel Outerduct, and Fittings

(August 10, 2009 WSDOT NWR)

Section 9-29.1(1) is supplemented with the following:

Conduit Sealing

Mechanical plugs for cabinet conduit sealing shall be one of the following:

1. Tyco Electronics - TDUX
2. Jackmoon – Triplex Duct Plugs
3. O-Z Gedney – Conduit Sealing Bushings

The mechanical plug shall withstand a minimum of 5 psi of pressure.

9-29.1(2) Rigid Metal Conduit Fittings and Appurtenances

(August 10, 2009 WSDOT NWR)

Section 9-29.1(2) is supplemented with the following:

Conduit Coatings

Electroplated couplings are not allowed.

(March 4, 2009 WSDOT NWR))

Surface Mounting Conduit Attachment Components

Channel supports and all fastening hardware components shall be Type 304 stainless steel.

9-29.1(11) Foam Conduit Sealant

(January 7, 2019 WSDOT Option 1)

Section 9-29.1(11) is supplemented with the following:

The following products are accepted for use as foam conduit sealant:

- CRC Minimal Expansion Foam (No. 14077)
- Polywater FST Foam Duct Sealant
- Superior Industries Foam Seal
- Todol Duo Fill 400

9-29.2 Junction Boxes, Cable Vaults and Pull Boxes

9-29.2(1)A Standard Duty Junction Boxes

(April 12, 2018 CFW GSP)

Section 9-29.2(1) is supplemented with the following:

Concrete Junction Boxes

For junction boxes located within the sidewalk, along an ADA pedestrian route, or in other accessible surfaces within the public right-of-way or on

publicly owned properties, both the lid and frame shall be treated with one of the following slip-resistance products:

1. Mebac1 manufactured by IKG Industries.
2. SlipNOT Grade 3-coarse manufactured by W.S. Molnar Company.
3. Saftrax TH604 Non-Skid manufactured by Thermion.

Where the exposed portion of the frame is 1/2 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; "S3" for SlipNOT Grade 3-coarse; or "ST" for Saftrax TH604) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a mild steel weld bead.

9-29.2(2)A Standard Duty Cable Vaults and Pull Boxes

(April 12, 2018 CFW GSP)

Section 9-29.2(2)A is supplemented with the following:

For cable vaults and pull boxes located within the sidewalk, along an ADA pedestrian route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, both the lid and frame shall be treated with one of the following slip-resistance products:

1. Mebac1 manufactured by IKG Industries.
2. SlipNOT Grade 3-coarse manufactured by W.S. Molnar Company.
3. Saftrax TH604 Non-Skid manufactured by Thermion.

Where the exposed portion of the frame is 1/2 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; "S3" for SlipNOT Grade 3-coarse; or "ST" for Saftrax TH604) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a mild steel weld bead.

9-29.2(5)E Fiber Vaults

(March 15, 2012 CFW GSP)

Section 9-20.2(5)E is a new section:

Where fiber vaults are called for on the Drawings, the Contractor shall provide pre-cast utility vaults meeting ASTM C 478 with twenty-eight (28) day 5500 psi minimum compressive strength concrete and designed for H-20 loading unless otherwise indicated on the Drawings.

The communications/fibers vault, shall be a type 444-LA manufactured by Oldcastle Precast, Inc. or approved equivalent, or a WSDOT Pull Box or cable vault per WSDOT Standard Plan J.90.10 and J.90.20. The fiber vaults are to be provided with a racking hardware package for cable storage and mounting of the splice case. The vault cover shall have a bolt-down, non-skid surface and a ground strap.

For fiber vaults located within the sidewalk, along an ADA pedestrian route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, both the lid and frame shall be treated with one of the following slip-resistance products:

1. Mebac1 manufactured by IKG Industries.
2. SlipNOT Grade 3-coarse manufactured by W.S. Molnar Company.
3. Saftrax TH604 Non-Skid manufactured by Thermion.

Where the exposed portion of the frame is 1/2 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; “S3” for SlipNOT Grade 3-coarse; or “ST” for Saftrax TH604) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a mild steel weld bead.

Fiber vaults shall contain a splice enclosure.

Fiber Optic Splice Closure shall be a Coyote Closure manufactured by Preformed Line Products or equivalent, shall be suitable for both vault and aerial applications, and shall meet the following requirements:

1. Be made of two injection-molded high-density thermoplastic shells, be 22 inches in length and 6 inches in diameter, and have capacity to store up to four splice trays.
2. Each splice case shall have two end plates; one end plate shall have no ports, the other endplate shall consist of a three section end plate with six ports - two 3/4-inch ports and four 7/8-inch ports. Each unused port shall have a grommet installed. The end plates shall be durable glass-filled high-density thermoplastic shells.
3. The splice enclosure shall be suitable for outdoor applications with a temperature range of -10°C to 60°C.
4. The splice enclosure shall provide sufficient space to allow entry of fiber optic cable without exceeding the cable minimum bending radius.
5. The enclosure shall protect the splices from moisture and mechanical damage and shall be resistant to corrosion.
6. The enclosure shall be waterproof, re-enterable and shall have a neoprene gasket sealing system to prevent water from entering.
7. The enclosure shall permit selective splicing to allow one or more fibers to be cut and spliced without disrupting other fibers.
8. The enclosure shall have strain relief for the cable to prevent accidental tension from disturbing the splices.
9. Each splice tray will be able to store 36 splices securely. Each splice shall be individually mounted and mechanically protected on the splice tray. Vinyl markers shall be supplied to identify each fiber spliced within the enclosure.

9-29.3 Fiber Optic Cable, Electrical Conductors and Cable
(December 13, 2012 CFW GSP)
Section 9-29.3 is supplemented with the following:

Video cable from the camera (sensor) to the controller cabinet shall conform to the video detection manufacturer's recommendations.

9-29.3(2)F Detector Loop Wire
(April 12, 2018 CFW GSP)
Section 9-29.3(2)F is modified 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).

9-29.3(2)H Three-Conductor Shielded Cable
(March 13, 2012 CFW GSP)
Section 9-29.3(2)H is supplemented with the following:

Lead-in cable back to the controller for pre-emption units shall be GTT detector 138 cable or equivalent.

9-29.3(2)I Twisted Pair Communications Cable
(October 23, 2014 CFW GSP)
Section 9-29.3(2)I is deleted in its entirety. See Section 8-20.3(8)A.

9-29.13 Control Cabinet Assemblies

9-29.13(10)A Auxiliary Equipment for NEMA Controllers
(February 2, 2012 CFW GSP)
Section 9-29.13(10)A is modified as follows:

Paragraph 1, Item 1 is supplemented with the following:

All flasher units shall as a minimum meet NEMA TS-2 1992, Section 6 requirements and shall be EDI Model 810 or approved equal.

Paragraph 1, Item 2 is supplemented with the following:

All load switches shall as a minimum meet NEMA TS-2 1992, Section 6 requirements and shall be EDI Model 510 or approved equal.

Paragraph 1, Item 3a is deleted and replaced with the following:

A 50-amp main breaker shall be supplied. This breaker shall supply power to the controller, MMU, signals, cabinet power supply, and auxiliary panels.

Paragraph 1, Item 3b is deleted and replaced with the following:

A 15-amp auxiliary breaker shall supply power to the fan, light, and GFI outlet.

Paragraph 1, Item 3c is supplemented with the following:

Spare neutral buss bars shall be provided on the bottom left and right of the cabinet.

Paragraph 1, Item 3 is supplemented with the following:

g. A normally-open, 60-amp, solid-state device, "Crydom CWA 4850 relay", or approved equivalent.
h. The power panel shall be covered by an easily removable, clear Plexiglas cover.

Paragraph 1, Item 4 is supplemented with the following:

Inside the police door there shall be a flash switch, which shall be the only switch on that panel. The switch shall have two positions, "Auto" and "Flash". The up position shall be "Auto" and result in normal signal operation. The down position shall be "Flash" and will put the signal into flashing operation and apply stop time to the controller. The switch shall be a general-purpose bat style toggle switch with 0.688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.

Paragraph 1, Item 6 is supplemented with the following:

Cabinets shall be equipped with a NEMA TS2 Type 16 Malfunction Management Unit.

Paragraph 1, Item 7, sub-paragraph 1 is deleted and the section is supplemented with the following:

The detector interface panel shall support up to 32 channels of detection and four channels of preemption devices.

Detector Racks

Two vehicle detector amplifier racks and two detector interface panels shall be provided in each cabinet. Each rack shall support up to 16 channels of loop detection, one 4-channel preemption device, and one BIU.

Paragraph 1, Item 8 is supplemented with the following:

There shall be terminal strips for field wiring in the controller cabinet. The terminals shall be numbered in accordance to the field wiring chart included in these Specifications. A common buss bar with a minimum of 15 spare terminals shall be available after the cabinet is fully wired. In addition, a 15 terminal bar shall be provided for the pedestrian common and a terminal shall be provided for each signal head neutral. The buss bars shall be located on the left side wall of the cabinet. Only King County numbers shall be shown, as described in Section 8-20.3(8).

Pedestrian Detector Field Wiring

All pedestrian detectors shall be connected between logic ground and their appropriate field terminal. The terminals shall be grouped together and located in the lower left side panel.

Main Panel and Wire Terminations

All wires terminated behind the main panel and other panels shall be SOLDERED. No pressure or solderless connectors shall be used. Printed circuit boards shall **NOT** be used on main panels.

Field Terminal Locations

Field terminals shall be located at the bottom of the backboard. Their order shall be left to right beginning with phase one and following the order of the load switches. Field terminals shall be of the Screw type per NEMA TS2 5.3.6.

Paragraph 1, Item 9 is supplemented with the following:

The cabinet shall be provided with a thermostatically-controlled (adjustable between 80-150 degrees F) ventilation fan and shall be installed in the top of the cabinet plenum.

Paragraph 1, Item 10 is deleted and replaced with the following:

The cabinet shall have an incandescent lighting fixture that shall be mounted on the inside top of the cabinet near the front edge. An on/off switch that is turned on when the cabinet door is opened and off when it is closed shall activate the incandescent light. The lamp socket shall be placed on the circuit with convenience outlets which shall be protected by a circuit breaker rated at 25 amps. An incandescent 150-watt bulb shall be provided.

Paragraph 1, Item 11 is supplemented with the following:

All Controller and Malfunction Management Unit cables shall be of sufficient length to access any shelf position. All cables shall be encased in a protective sleeve along their entire free length.

Color Coding

All cabinet wiring shall be color coded as follows:

Purple	=	MMU Wiring
Orange	=	Flash Color Programming
Brown	=	Green Signal Wiring
Yellow	=	Yellow Signal Wiring
Red	=	Red Signal Wiring
Blue	=	Controller wiring
Gray	=	DC ground
AC+	=	Black
AC-	=	White
Chassis Ground	=	Green

Paragraph 1 is supplemented with the following:

13. Main Panel Configuration - The main panel shall be fully wired in the following configuration:
    a) Sixteen (16) load sockets.
    b) Six (6) flash-transfer-relay sockets.
    c) One (1) flasher socket.
    d) Two (2) main panel rack slots for BIUs 1 and 2. Two rack slots for Terminal and Facilities BIU's 3 and 4 which shall be wired to numbered terminal strips.
    e) Wiring for 2 detector racks and 1 Type-16 MMU.

14. Lightning Suppression - The cabinet shall be equipped with an Innovative Technologies Model HS-P-SP-120A-60A-RJ or approved equivalent surge arrester.
15. Convenience Outlets - One convenience outlet with a ground fault interrupter and a second convenience outlet without ground fault interrupter shall be furnished in the cabinet(s). The ground fault outlet shall be mounted one on right side of the cabinet, near the top shelf, and the non-ground fault outlet shall be mounted on the left side of the cabinet, near the top shelf. No outlets shall be mounted on the door. The convenience outlets shall be placed on the circuit with the lamp socket which shall be protected by a circuit breaker rated at 25 amps.
16. Loop Detector Units:
    (a) Cabinets shall be supplied with eight 4-channel loop detectors minimum or sixteen 4-channel loop detectors maximum as shown on the Plans. Loop detectors shall meet TS2 Specifications.
    (b) Equipment and loop detection for advanced loops shall be as shown in the plans.
17. Telemetry Interface Panel - All cabinets shall be wired with a telemetry interface panel and telemetry connecting cable so as to work with the master cabinet. In addition, every cabinet shall also be wired for transient suppression (Model # EDCO PC642C-00-AD or approved equivalent).
18. Preemption - The cabinet shall be completely wired to accept and service calls from GTT (formerly 3M) Opticom, Model 764 multimode phase-selector modules and their related optical-detector units.
19. Buss Interface Unit - Buss interface units (BIUs) shall meet all TS2-1992 Section 8 requirements. In addition, all BIUs shall provide separate front panel indicator light emitting diode (LEDs) for Valid Data.
20. Cabinet Power Supply - The cabinet power supply shall as a minimum meet all TS2-1992, Section 5.3.5 requirements. All power supplies shall also provide a separate front panel indicator LED for each of the four outputs. Front panel banana jack test points for 24 VDC and logic ground shall also be provided.
21. Fiber Optic Interconnect - The cabinet shall be furnished with equipment to accommodate the fiber optic interconnect cable including an IFS model D9130 fiber to serial modem or approved equal and RuggedCom brand Ethernet switch(s) including RuggedSwitch RS900G (fiber only), RuggedSwitch RS900L (fiber and copper) and/or RuggedSwitch RS930L (copper only) or approved equal(s).
22. Inside Control Panel Switches - Service Panel Switches
    (a) *Power Switches:* There shall not be a main power switch inside the cabinet(s) that shall render all control equipment electrically dead when turned off. There shall be a controller power switch that shall render the controller and load switching devices electrically dead while maintaining flashing operation for purposes of changing the controller or load switching devices. The switch shall be a general-purpose bat style toggle switch with .688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.

(b) *Stop Time Switch:* There shall be a 3-position switch located inside the cabinet door identified as the Stop Time switch. Its positions shall be labeled "Normal" (up), "Off" (center), and "On" (down). With the switch in its Normal position, a stop timing command may be applied to the controller by the police flash switch or the conflict monitor unit. When the switch is in its "Off" position, stop-timing commands shall be removed from the controller. The "On" position of the switch shall cause the controller to stop timing. The switch shall be a general-purpose bat style toggle switch with .688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.

(c) *Technician Flash Switch:* There shall be a switch inside the cabinet to place the signal in flashing operation while the controller continues to operate. This flash shall have no effect on the operation of the controller or conflict monitor. The switch shall be a general-purpose bat style toggle switch with .688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.

(d) *Detector Test Switches:* All eight controller phase inputs shall have push button momentary test switches. Each switch shall be connected to the first channel of each detector card input to the BIU. All eight pedestrian phases shall have push button momentary test switches by phase. These switches shall be located inside the cabinet door and labeled by associated phase number. A see-through Plexiglas cover shall cover all detector disconnect/test switches.

(e) *Preempt Test Switches:* All Six preempt inputs shall have disconnect/test switches. These switches shall have three positions labeled "Normal" (up) which shall connect the controller to the Opticom output: "Off" (center) which shall isolate the controller from the Opticom output: and "Test" (down) which shall provide a momentary true input to the controller.

(f) Switches shall be in groups of eight (8), matching the phase groupings of the intersection.

Section 9-29.13(10)C is supplemented with the following:

"Plug and Play" Cabinets are not acceptable.

"Modular" Main Panels shall not be permitted.

Section 9-29.13(10)C is modified as follows:

Paragraph 1, Item 1 is deleted and replaced with the following:

Cabinet Construction

A complete NEMA TS2 Type 1 eight-phase cabinet shall be supplied and installed by the Contractor. The size of the cabinet shall be Type 6 (P 55″). Cabinets shall meet, as a minimum, all applicable sections of the NEMA Standard Publication No. TS2-1998. Where differences occur, this Specification shall govern. The cabinets shall meet the following criteria:

1. Material shall be 5052-H32 0.125-inch-thick aluminum.

2. The cabinet shall be supplied with a natural finish inside and out, unless otherwise specified.
3. The door hinge shall be of the continuous type with a stainless steel hinge pin.
4. All external fasteners shall be stainless steel.
5. The door handle shall be cast aluminum.
6. All seams shall be sealed with RTV sealant or equivalent material on the interior of the cabinet.

Paragraph 1, Item 2 is deleted and replaced with the following:

The cabinet shall contain shelving, brackets, racks, etc., to support the controller and auxiliary equipment. All equipment shall set squarely on shelves or be mounted in racks and shall be removable without turning, tilting, rotating or relocating one device to remove another.

Shelf Height

The cabinet shall be supplied with two removable shelves manufactured from 5052-H32 aluminum. The shelves must have the ability of being removed and reinstalled WITHOUT the use of hand tools.

Paragraph 1, Item 4 is supplemented with the following:

Air Filter Assembly

The cabinet air filter shall be a one-piece removable, noncorrosive, vermin- and insect-proof air filter and shall be secured to the air entrance of the cabinet.

Paragraph 1 is supplemented with the following:

6. Additional Panel Space - Adequate space shall be left open for the addition of a master interface panel and an AVI interface panel.

9-29.18 Vehicle Detector

9-29.18(3) Vacant

(******)

Section 9-29.18(3) is deleted and replaced with the following new section:

9-29.18(3) Video Detection System

All video detection system items and materials furnished shall be new, unused, current production models installed and operational in a user environment and shall be items currently in distribution. Contractor shall provide Econolite AutoScope Vision video detection system.

9-29.18(4) Vacant

(******)

Section 9-29.18(4) is deleted and replaced with the following new section:

9-29.18(4) Hybrid Radar/Video Detection System

All hybrid radar/video detection system items and materials furnished shall be new, unused, current production models installed and operational in a user environment and shall be items currently in distribution. Contractor shall provide

Iteris Vantage Vector Hybrid with associated mounting equipment and Vantage Next cabinet interface unit.

9-29.24 Service Cabinets

(December 18, 2009 CFW GSP)

Section 9-29.24 is supplemented with the following:

The service cabinet shall be aluminum, and shall conform to Federal Way Drawing Number 3-45 included in the appendices of these Special Provisions. The unit shall be modified as necessary to meet all current requirements of the Department of Labor and Industries and Puget Sound Energy. The service cabinet shall be equipped with a lockable stainless steel handle and a three-point locking system. The service cabinet shall contain one (1) ground fault receptacle. Main breaker, branch breakers, and contactors shall be rated per the Breaker Schedule on the Plans.

The service cabinet shall be equipped with a door-in-door, dead-front assembly, which shall prevent the exposure of circuit breakers and wiring. Wiring shall be arranged so that any piece of apparatus may be removed without disconnecting any wiring, except the lead to that piece of apparatus. All wiring shall be appropriately marked with a permanent, indelibly marked, clip-sleeve wire marker. All wiring shall conform to NEMA Class II C.

The service cabinet shall be aluminum, and shall be a Skyline Electric Type ES-2EU or approved equal with Underwriters Laboratory label on the panel boards.

A copy of the wiring diagram shall be provided in a plastic holder mounted conveniently inside the service cabinet. Nameplates shall be provided for each control component and shall be embossed phenolic with white letters on black background. Nameplates shall be screw-fastened.

END DIVISION 9

FHWA 1273

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

FHWA-1273 -- Revised May 1, 2012

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with

the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this

contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor 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 contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and

mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may,

after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and

individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual

was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or

general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or

voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5.The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

AMENDMENT
REQUIRED CONTRACT PROVISIONS
(Exclusive of Appalachian Contracts)

FEDERAL-AID CONSTRUCTION CONTRACTS

The Federal–Aid provisions are supplemented with the following:

XII. Cargo Preference Act

1. U.S. Department of Transportation Federal Highway Administration memorandum dated December 11, 2015 requires that all federal-aid highway programs awarded after February 15, 2016 must comply with the Cargo Preference Act and its regulation of 46 CFR 381.7 (a)-(b).

PREVAILING WAGES AND BENEFIT CODE KEY

"General Decision Number: WA20190001 08/30/2019
Superseded General Decision Number: WA20180001
State: Washington
Construction Type: Highway
Counties: Washington Statewide.
HIGHWAY (Excludes D.O.E. Hanford Site in Benton and Franklin Counties)
Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate,if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	01/18/2019
2	02/15/2019
3	05/03/2019
4	05/24/2019
5	06/14/2019
6	06/28/2019
7	07/05/2019
8	07/19/2019
9	07/26/2019
10	08/02/2019
11	08/09/2019
12	08/16/2019
13	**08/30/2019**

CARP0003-006 06/01/2018

SOUTHWEST WASHINGTON: CLARK, COWLITZ, KLICKITAT, LEWIS(Piledriver only), PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to Willapa Bay to the Pacific Ocean), SKAMANIA, and WAHKIAKUM Counties.

	Rates	Fringes
Carpenters:		
CARPENTERS	$ 37.64	16.83
DIVERS TENDERS	$ 43.73	16.83
DIVERS	$ 87.73	16.83
DRYWALL	$ 37.64	16.83
MILLWRIGHTS	$ 38.17	16.83
PILEDRIVERS	$ 38.71	16.83

DEPTH PAY:
50 TO 100 FEET $1.00 PER FOOT OVER 50 FEET
101 TO 150 FEET $1.50 PER FOOT OVER 101 FEET
151 TO 200 FEET $2.00 PER FOOT OVER 151 FEET

Zone Differential (Add up Zone 1 rates):
Zone 2 - $0.85
Zone 3 - 1.25
Zone 4 - 1.70
Zone 5 - 2.00
Zone 6 - 3.00

BASEPOINTS: ASTORIA, LONGVIEW, PORTLAND, THE DALLES, AND VANCOUVER, (NOTE: All dispatches for Washington State Counties: Cowlitz, Wahkiakum and Pacific shall be from Longview Local #1707 and mileage shall be computed from that point.)

ZONE 1: Projects located within 30 miles of the respective city hall of the above mentioned cities
ZONE 2: Projects located more than 30 miles and less than 40 miles of the respective city of the above mentioned cities
ZONE 3: Projects located more than 40 miles and less than 50 miles of the respective city of the above mentioned cities
ZONE 4: Projects located more than 50 miles and less than 60 miles of the respective city of the above mentioned cities.
ZONE 5: Projects located more than 60 miles and less than 70 miles of the respective city of the above mentioned cities
ZONE 6: Projects located more than 70 miles of the respected city of the above mentioned cities

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CARP0030-004 06/01/2018

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM Counties

	Rates	Fringes
CARPENTER		
BRIDGE CARPENTERS	$ 43.92	16.12
CARPENTERS ON CREOSOTE MATERIAL	$ 44.02	16.12
CARPENTERS	$ 43.92	16.12
DIVERS TENDER	$ 48.59	16.12
DIVERS	$ 97.48	16.12
MILLWRIGHT AND MACHINE ERECTORS	$ 45.42	16.12
PILEDRIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING	$ 44.17	16.12

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:

0 -25 radius miles	Free
26-35 radius miles	$1.00/hour
36-45 radius miles	$1.15/hour
46-55 radius miles	$1.35/hour
Over 55 radius miles	$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

0 -25 radius miles	Free

26-45 radius miles $ .70/hour
Over 45 radius miles $1.50/hour

CARP0059-002 06/01/2018

ADAMS, ASOTIN, BENTON, CHELAN (East of 120th meridian), COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT (East of 120th meridian), KITTITAS (East of 120th meridian), LINCOLN, OKANOGAN (East of 120th meridian), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, and YAKIMA (East of 120th meridian) Counties

	Rates	Fringes
CARPENTER		
GROUP 1	$ 33.40	16.40
GROUP 2	$ 45.42	18.83
GROUP 3	$ 34.52	16.40
GROUP 4	$ 34.52	16.40
GROUP 5	$ 77.52	16.40
GROUP 6	$ 37.76	16.40
GROUP 7	$ 38.76	16.40
GROUP 8	$ 35.52	16.40
GROUP 9	$ 41.76	16.40

CARPENTER & DIVER CLASSIFICATIONS:

GROUP 1: Carpenter

GROUP 2: Millwright, Machine Erector

GROUP 3: Piledriver - includes driving, pulling, cutting, placing collars, setting, welding, or creosote treated material, on all piling

GROUP 4: Bridge, Dock, and Wharf carpenters

GROUP 5: Diver Wet

GROUP 6: Diver Tender, Manifold Operator, ROV Operator

GROUP 7: Diver Standby

GROUP 8: Assistant Diver Tender, ROV Tender/Technician

GROUP 9: Manifold Operator-Mixed Gas

ZONE PAY:

ZONE 1	0-60 MILES	FREE
ZONE 2	61-100	$4.00/PER HOUR
ZONE 3	OVER 100 MILES	$6.00/PER HOUR

DISPATCH POINTS:
CARPENTERS/MILLWRIGHTS: PASCO (515 N Neel Street) or Main

Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS/PILEDRIVER: SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: MOSCOW (306 N. JACKSON) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

DEPTH PAY FOR DIVERS BELOW WATER SURFACE:
50-100 feet $2.00 per foot
101-150 feet $3.00 per foot
151-220 feet $4.00 per foot
221 feet and deeper $5.00 per foot

PREMIUM PAY FOR DIVING IN ENCLOSURES WITH NO VERTICAL ASCENT:
0-25 feet Free
26-300 feet $1.00 per Foot

SATURATION DIVING:
The standby rate applies until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. the diver rate shall be paid for all saturation hours.

WORK IN COMBINATION OF CLASSIFICATIONS:
Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

HAZMAT PROJECTS:

Anyone working on a HAZMAT job (task), where HAZMAT certification is required, shall be compensated at a premium, in addition to the classification working in as follows:

LEVEL D + $.25 per hour - This is the lowest level of protection. No respirator is used and skin protection is minimal.

LEVEL C + $.50 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B + $.75 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical ""splash suit"".

LEVEL A +$1.00 per hour - This level utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line.

CARP0770-003 06/01/2018

WEST OF 120TH MERIDIAN FOR THE FOLLOWING COUNTIES:
CHELAN, DOUGLAS, GRANT, KITTITAS, OKANOGAN, and YAKIMA

	Rates	Fringes
CARPENTER		
CARPENTERS ON CREOSOTE MATERIAL	$ 29.15	13.93
CARPENTERS	$ 29.05	13.93
DIVERS TENDER	$ 48.59	16.12
DIVERS	$ 97.43	16.12
MILLWRIGHT AND MACHINE ERECTORS	$ 45.42	16.12
PILEDRIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING	$ 44.17	13.93

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:

0 -25 radius miles	Free
26-35 radius miles	$1.00/hour
36-45 radius miles	$1.15/hour
46-55 radius miles	$1.35/hour
Over 55 radius miles	$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:
0 -25 radius miles Free
26-45 radius miles $ .70/hour
Over 45 radius miles $1.50/hour

ELEC0046-001 02/04/2019

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 58.84	22.48
ELECTRICIAN	$ 53.49	22.31

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* ELEC0048-003 01/01/2019

CLARK, KLICKITAT AND SKAMANIA COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 44.22	21.50
ELECTRICIAN	$ 44.85	23.57

HOURLY ZONE PAY:

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Portland, The Dalles, Hood River, Tillamook, Seaside and Astoria

Zone Pay:
Zone 1: 31-50 miles $1.50/hour
Zone 2: 51-70 miles $3.50/hour
Zone 3: 71-90 miles $5.50/hour
Zone 4: Beyond 90 miles $9.00/hour

*These are not miles driven. Zones are based on Delorrne Street Atlas USA 2006 plus.

ELEC0048-029 01/01/2019

COWLITZ AND WAHKIAKUM COUNTY

	Rates	Fringes
CABLE SPLICER	$ 44.22	21.50
ELECTRICIAN	$ 44.85	23.57

ELEC0073-001 07/01/2019

ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 34.10	16.68
ELECTRICIAN	$ 36.05	19.18

ELEC0076-002 08/31/2018

GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 48.06	23.23
ELECTRICIAN	$ 43.69	23.10

ELEC0112-005 06/01/2019

ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA WALLA, YAKIMA COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 48.35	21.13
ELECTRICIAN	$ 46.05	21.06

ELEC0191-003 06/01/2018

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 44.23	17.73
ELECTRICIAN	$ 44.95	21.42

ELEC0191-004 06/01/2018

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 40.82	17.63
ELECTRICIAN	$ 42.45	21.34

ENGI0302-003 06/01/2018

CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, KITTITAS, MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, SKAGIT, SNOHOMISH, WHATCOM AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1A	$ 44.44	19.97
Group 1AA	$ 45.09	19.97
Group 1AAA	$ 45.73	19.97
Group 1	$ 43.79	19.97
Group 2	$ 43.23	19.97
Group 3	$ 42.74	19.97
Group 4	$ 40.01	19.97

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) - $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom (including jib with attachments); Tower crane over 175 ft in height, base to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead 6 yards to, but not including 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9, HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self propelled 45 yards and over; Slipform pavers; Transporters, all truck or track type

GROUP 2 - Barrier machine (zipper); Batch Plant Operaor-Concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-overhead, bridge type-20 tons through 44 tons; Chipper; Concrete Pump-truck mount with boom attachment; Crusher; Deck Engineer/Deck Winches (power); Drilling machine; Excavator, shovel, backhoe-3yards and under; Finishing Machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Horizontal/directional drill operator; Loaders-overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics-all; Mixers-asphalt plant; Motor patrol graders-finishing; Piledriver (other than crane mount); Roto-mill,roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self propelled, hard tail end dump, articulating off-road equipment-under 45 yards; Subgrade trimmer; Tractors, backhoes-over 75 hp; Transfer material service machine-shuttle buggy, blaw knox-roadtec; Truck crane oiler/driver-100 tons and over; Truck Mount portable conveyor; Yo Yo Pay dozer

GROUP 3 - Conveyors; Cranes-thru 19 tons with attachments; A-frame crane over 10 tons; Drill oilers-auger type, truck or crane mount; Dozers-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loader-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pumps-concrete; Roller, plant mix or multi-lift materials; Saws-concrete; Scrpers-concrete and carry-all; Service engineer-equipment; Trenching machines; Truck Crane Oiler/Driver under 100 tons; Tractors, backhoe 75 hp and under

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete finish mahine-laser screed; Cranes-A frame-10 tons and under; Elevator and Manlift-permanent or shaft type; Gradechecker, Stakehop; Forklifts under 3000 lbs. with attachments; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger, mechanical; Power plant; Pumps, water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

HANDLING OF HAZARDOUS WASTE MATERIALS:

Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing

H-2 Class ""C"" Suit - Base wage rate plus $ .25 per hour.

H-3 Class ""B"" Suit - Base wage rate plus $ .50 per hour.

H-4 Class ""A"" Suit - Base wage rate plus $ .75 per hour.

ENGI0370-002 06/01/2018

ADAMS, ASOTIN, BENTON, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

ZONE 1:

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 27.51	15.95
GROUP 2	$ 27.83	15.95
GROUP 3	$ 28.44	15.95
GROUP 4	$ 28.60	15.95
GROUP 5	$ 28.76	15.95
GROUP 6	$ 29.04	15.95
GROUP 7	$ 29.31	15.95
GROUP 8	$ 30.41	15.95

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - $2.00

Zone 1: Within 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled; Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginau or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment(8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operaotr (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers)(Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver; Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Rollerman (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel(under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragine; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform Trailers (Goldhofer, Shaurerly andSimilar); Ultra High Pressure Wateriet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead,rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

BOOM PAY: (All Cranes, Including Tower)
180 ft to 250 ft $ .50 over scale
Over 250 ft $ .80 over scale

NOTE:
In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:
Anyone working on HAZMAT jobs, working with supplied air shall receive $1.00 an hour above classification.

ENGI0612-001 09/28/2018

PIERCE County

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A	$ 44.44	19.97
GROUP 1AA	$ 45.09	19.97
GROUP 1AAA	$ 45.73	19.97
GROUP 1	$ 43.79	19.97
GROUP 2	$ 43.23	19.97
GROUP 3	$ 42.74	19.97
GROUP 4	$ 40.01	19.97

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) = $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class ""D"" Suit - Base wage rate plus $ .50 per hour.
H-2 Class ""C"" Suit - Base wage rate plus $1.00 per hour.
H-3 Class ""B"" Suit - Base wage rate plus $1.50 per hour.
H-4 Class ""A"" Suit - Base wage rate plus $2.00 per hour.

ENGI0612-012 09/28/2018

LEWIS, PACIFIC (portion lying north of a parallel line extending west from the northern boundary of Wahkaikum County to the sea) AND THURSTON COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A	$ 44.44	19.97
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GROUP 1	$ 43.79	19.97
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Zone 2 (26-45 radius miles) = $1.00
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BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

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GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

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GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

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H-2 Class ""C"" Suit - Base wage rate plus $1.00 per hour.
H-3 Class ""B"" Suit - Base wage rate plus $1.50 per hour.
H-4 Class ""A"" Suit - Base wage rate plus $2.00 per hour.

ENGI0701-002 01/01/2018

CLARK, COWLITZ, KLICKKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

POWER RQUIPMENT OPERATORS: ZONE 1

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 41.65	14.35
GROUP 1A	$ 43.73	14.35
GROUP 1B	$ 45.82	14.35
GROUP 2	$ 39.74	14.35
GROUP 3	$ 38.59	14.35
GROUP 4	$ 37.51	14.35
GROUP 5	$ 36.27	14.35
GROUP 6	$ 33.05	14.35

Zone Differential (add to Zone 1 rates):
Zone 2 - $3.00
Zone 3 - $6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or porjects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens ""Blast Zone"" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1
Concrete Batch Plan and or Wet mix three (3) units or more; Crane, Floating one hundred and fifty (150) ton but less than two hundred and fifty (250) ton; Crane, two hundred (200) ton through two hundred ninety nine (299) ton with two hundred foot (200') boom or less (including jib, inserts and/or attachments); Crane, ninety (90) ton through one hundred ninety nine (199) ton with over two hundred (200') boom Including jib, inserts and/or attachments); Crane, Tower Crane with one hundred seventy five foot (175') tower or less and with less than two hundred foot (200') jib; Crane, Whirley ninety (90) ton and over; Helicopter when used in erecting work

Group 1A
Crane, floating two hundred fifty (250) ton and over; Crane, two hundred (200) ton through two hundred ninety nine (299) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Crane, three hundred (300) ton through three hundred ninety nine (399) ton; Crane, Tower Crane with over one hundred seventy five foot (175') tower or over two hundred foot (200') jib; Crane, tower Crane on rail system or 2nd tower or more in work radius

Group 1B

Crane, three hundred (300) ton through three hundred ninety nine (399) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Floating crane, three hundred fifty (350) ton and over; Crane, four hundred (400) ton and over

Group 2

Asphalt Plant (any type); Asphalt Roto-Mill, pavement profiler eight foot (8') lateral cut and over; Auto Grader or ""Trimmer""; Blade, Robotic; Bulldozer, Robotic Equipment (any type); Bulldozer, over one hundred twenty thousand (120,000) lbs. and above; Concrete Batch Plant and/or Wet Mix one (1) and two (2) drum; Concrete Diamond Head Profiler; Canal Trimmer; Concrete, Automatic Slip Form Paver (Assistant to the Operator required); Crane, Boom Truck fifty (50) ton and with over one hundred fifty foot (150') boom and over; Crane, Floating (derrick barge) thirty (30) ton but less than one hundred fifty (150) ton; Crane, Cableway twenty-five (25) ton and over; Crane, Floating Clamshell three (3) cu. Yds. And over; Crane, ninety (90) ton through one hundred ninety nine (199) ton up to and including two hundred foot (200') of boom (including jib inserts and/or attachments); Crane, fifty (50) ton through eighty nine (89) ton with over one hundred fifty foot (150') boom (including jib inserts and/or attachments); Crane, Whirley under ninety (90) ton; Crusher Plant; Excavator over one hundred thirty thousand (130,000) lbs.; Loader one hundred twenty thousand (120,000) lbs. and above; Remote Controlled Earth Moving Equipment; Shovel, Dragline, Clamshell, five (5) cu. Yds. And over; Underwater Equipment remote or otherwise, when used in construction work; Wheel Excavator any size

Group 3

Bulldozer, over seventy thousand (70,000) lbs. up to and including one hundred twenty thousand (120,000) lbs.; Crane, Boom Truck fifty (50) ton and over with less than one hundred fifty foot (150') boom; Crane, fifty (50) ton through eighty nine (89) ton with one hundred fifty foot (150') boom or less (including jib inserts and/or attachments); Crane, Shovel, Dragline or Clamshell three (3) cu. yds. but less than five (5) cu. Yds.; Excavator over eighty thousand (80,000) lbs. through one hundred thirty thousand (130,000) lbs.; Loader sixty thousand (60,000) lbs. and less than one hundred twenty thousand (120,000) lbs.

Group 4

Asphalt, Screed; Asphalt Paver; Asphalt Roto-Mill, pavement profiler, under eight foot (8') lateral cut; Asphalt, Material Transfer Vehicle Operator; Back Filling Machine; Backhoe, Robotic, track and wheel type up to and including twenty thousand (20,000) lbs. with any attachments; Blade (any type); Boatman; Boring Machine; Bulldozer over twenty thousand (20,000) lbs. and more than one hundred (100) horse up to seventy thousand (70,000) lbs.; Cable-Plow (any type); Cableway up to twenty five (25) ton; Cat Drill (John Henry); Chippers; Compactor, multi-engine; Compactor, Robotic; Compactor with blade self-propelled; Concrete, Breaker; Concrete, Grout Plant; Concrete, Mixer Mobile; Concrete, Paving Road Mixer; Concrete, Reinforced Tank Banding Machine; Crane, Boom Truck twenty (20) ton and under fifty (50) ton; Crane, Bridge Locomotive, Gantry and Overhead; Crane, Carry Deck; Crane, Chicago Boom and similar types; Crane, Derrick Operator, under one hundred (100) ton; Crane, Floating Clamshell, Dragline, etc. Operator, under three (3) cu. yds. Or less than thirty (30) ton; Crane, under fifty (50) ton; Crane, Quick Tower under one hundred foot (100') in height and less than one hundred fifty foot (150') jib (on rail included); Diesel-Electric Engineer (Plant or Floating); Directional Drill over twenty thousand (20,000) lbs. pullback; Drill Cat Operator; Drill Doctor and/or Bit Grinder; Driller, Percussion, Diamond, Core, Cable, Rotary and similar type; Excavator Operator over twenty thousand (20,000) lbs. through eighty thousand (80,000) lbs.; Generator Operator; Grade-all; Guardrail Machines, i.e. punch, auger, etc.; Hammer Operator (Piledriver); Hoist, stiff leg, guy derrick or similar type, fifty (50) ton and over; Hoist, two (2) drums or more; Hydro Axe (loader mounted or similar type); Jack Operator, Elevating Barges, Barge Operator, self-unloading; Loader Operator, front end and overhead, twenty five thousand (25,000) lbs. and less than sixty thousand (60,000) lbs.; Log Skidders; Piledriver Operator (not crane type); Pipe, Bending, Cleaning, Doping and Wrapping Machines; Rail, Ballast Tamper Multi-Purpose; Rubber-tired Dozers and Pushers; Scraper, all types; Side-Boom; Skip Loader, Drag Box; Strump Grinder (loader mounted or similar type); Surface Heater and Planer; Tractor, rubber-tired, over fifty (50) HP Flywheel; Trenching Machine three foot (3') depth and deeper; Tub Grinder (used for wood debris); Tunnel Boring Machine Mechanic; Tunnel, Mucking Machine; Ultra High Pressure Water Jet Cutting Tool System Operator; Vacuum Blasting Machine Operator; Water pulls, Water wagons

Group 5

Asphalt, Extrusion Machine; Asphalt, Roller (any asphalt mix); Asphalt, Roto-Mill pavement profiler ground man; Bulldozer, twenty thousand (20,000) lbs. or less, or one hundred (100) horse or less; Cement Pump; Chip Spreading Machine; Churn Drill and Earth Boring Machine; Compactor, self-propelled without blade; Compressor, (any power) one thousand two hundred fifty (1,250) cu. ft. and over, total capacity; Concrete, Batch Plant Quality control; Concrete, Combination Mixer and compressor operator, gunite work; Concrete, Curb Machine, Mechanical Berm, Curb and/or Curb and Gutter; Concrete, Finishing Machine; Concrete, Grouting Machine; Concrete, Internal Full Slab Vibrator Operator; Concrete, Joint Machine; Concrete, Mixer single drum, any capacity; Concrete, Paving Machine eight foot (8') or less; Concrete, Planer; Concrete, Pump; Concrete, Pump Truck; Concrete, Pumpcrete Operator (any type); Concrete, Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Conveyored Material Hauler; Crane, Boom Truck under twenty (20) tons; Crane, Boom Type lifting device, five (5) ton capacity or less; Drill, Directional type less than twenty thousand (20,000) lbs. pullback; Fork Lift, over ten (10) ton or Robotic; Helicopter Hoist; Hoist Operator, single drum; Hydraulic Backhoe track type up to and including twenty thousand (20,000) lbs.; Hydraulic Backhoe wheel type (any make); Laser Screed; Loaders, rubber-tired type, less than twenty five thousand (25,000) lbs.; Pavement Grinder and/or Grooving Machine (riding type); Pipe, cast in place Pipe Laying Machine; Pulva-Mixer or similar types; Pump Operator, more than five (5) pumps (any size); Rail, Ballast Compactor, Regulator, or Tamper machines; Service Oiler (Greaser); Sweeper Self-Propelled; Tractor, Rubber-Tired, fifty (50) HP flywheel and under; Trenching Machine Operator, maximum digging capacity three foot (3') depth; Tunnel, Locomotive, Dinkey; Tunnel, Power Jumbo setting slip forms, etc.

Group 6

Asphalt, Pugmill (any type); Asphalt, Raker; Asphalt, Truck Mounted Asphalt Spreader, with Screed; Auger Oiler; Boatman; Bobcat, skid steed (less than one (1) yard); Broom, self-propelled; Compressor Operator (any power) under 1,250 cu. ft. total capacity; Concrete Curing Machine (riding type); Concrete Saw; Conveyor Operator or Assistant; Crane, Tugger; Crusher Feederman; Crusher Oiler; Deckhand; Drill, Directional Locator; Fork Lift; Grade Checker; Guardrail Punch Oiler; Hydrographic Seeder Machine, straw, pulp or seed; Hydrostatic Pump Operator; Mixer Box (CTB, dry batch, etc.); Oiler; Plant Oiler; Pump (any power); Rail, Brakeman, Switchman, Motorman; Rail, Tamping Machine, mechanical, self-propelled; Rigger; Roller grading (not asphalt); Truck, Crane Oiler-Driver

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IRON0014-005 07/01/2018

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE, STEVENS, WALLA WALLA AND WHITMAN COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.18	27.82

IRON0029-002 05/01/2018

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKAIKUM COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.00	27.87

IRON0086-002 07/01/2018

YAKIMA, KITTITAS AND CHELAN COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.18	27.82

IRON0086-004 07/01/2018

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

	Rates	Fringes
IRONWORKER	$ 40.81	28.22

LABO0238-004 06/01/2018

PASCO AREA: ADAMS, BENTON, COLUMBIA,DOUGLAS (East of 120th Meridian), FERRY, FRANKLIN, GRANT, OKANOGAN, WALLA WALLA

SPOKANE AREA: ASOTIN, GARFIELD, LINCOLN, PEND OREILLE, SPOKANE, STEVENS & WHITMAN COUNTIES

	Rates	Fringes
LABORER (PASCO)		
GROUP 1	$ 24.84	12.35
GROUP 2	$ 26.94	12.35
GROUP 3	$ 27.21	12.35
GROUP 4	$ 27.48	12.35
GROUP 5	$ 27.76	12.35
LABORER (SPOKANE)		
GROUP 1	$ 24.74	12.45
GROUP 2	$ 26.84	12.45
GROUP 3	$ 27.11	12.45
GROUP 4	$ 27.38	12.45
GROUP 5	$ 27.66	12.45

Zone Differential (Add to Zone 1 rate): $2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.
Zone 2: 45 radius miles and over from the main post office.

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer; Scaleman; Traffic Control Maintenance Laborer (to include erection and maintenance of barricades, signs and relief of flagperson); Window Washer/Cleaner (detail cleanup, such as, but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezcrete or similar machine,6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class ""A"" (to include all bull gang, concrete crewman, dumpman and pumpcrete

crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

GROUP 3: Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, Paving; Grade Checker using level; Hazardous Waste Worker, Level C (uses a chemical ""splash suit"" and air purifying respirator); Jackhammer Operator; Miner, Class ""B"" (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi- plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow (power driven)

GROUP 4: Air and Hydraulic Track Drill; Aspahlt Raker;Brush Machine (to include horizontal construction joint cleanup brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when laborers working on free standing concrete stacks for smoke or fume control above 40 feet high); Gunite (to include operation of machine and nozzle); Hazardous Waste Worker, Level B (uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Laser Beam Operator (to include grade checker and elevation control); Miner, Class C (to include miner, nozzleman for concrete, laser beam operator and rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power propelled, sandblast nozzle); Pavement Breaker (90 lbs. and over); Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer); Pipewrapper; Plasterer Tender; Vibrators (all)

GROUP 5 - Drills with Dual Masts; Hazardous Waste Worker, Level A (utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line); Miner Class ""D"", (to include raise and shaft miner, laser beam operator on riases and shafts)

LABO0238-006 06/01/2018

COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA, WHITMAN

	Rates	Fringes
Hod Carrier	$ 27.75	12.25

LABO0242-003 06/01/2019

KING COUNTY

	Rates	Fringes
LABORER		
GROUP 1	$ 27.10	11.94
GROUP 2A	$ 31.03	11.94
GROUP 3	$ 38.78	11.94
GROUP 4	$ 39.72	11.94
GROUP 5	$ 40.36	11.94
Group 6	$ 40.36	12.04

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2A: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

Group 6: Miner

LABO0252-010 06/01/2019

CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
LABORER		
GROUP 1	$ 27.10	11.94
GROUP 2	$ 31.03	11.94
GROUP 3	$ 38.78	11.94
GROUP 4	$ 39.72	11.94
GROUP 5	$ 40.36	11.94

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Grade Checker and Transit Person; High Scaler; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0292-008 06/01/2019

ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES

	Rates	Fringes
LABORER		
GROUP 1	$ 27.10	11.94
GROUP 2	$ 31.03	11.94
GROUP 3	$ 38.78	11.94
GROUP 4	$ 39.72	11.94
GROUP 5	$ 40.36	11.94

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0335-001 06/01/2018

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

	Rates	Fringes
Laborers:		
ZONE 1:		
GROUP 1	$ 31.72	11.49
GROUP 2	$ 32.38	11.49
GROUP 3	$ 32.87	11.49
GROUP 4	$ 33.29	11.49
GROUP 5	$ 28.98	11.49
GROUP 6	$ 26.31	11.49
GROUP 7	$ 22.78	11.49

Zone Differential (Add to Zone 1 rates):
Zone 2 $ 0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 2.75

BASE POINTS: LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city all.
ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.
ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
ZONE 5: More than 80 miles from the respective city hall.

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Plant Laborers; Asphalt Spreaders; Batch Weighman; Broomers; Brush Burners and Cutters; Car and Truck Loaders; Carpenter Tender; Change-House Man or Dry Shack Man; Choker Setter; Clean-up Laborers; Curing, Concrete; Demolition, Wrecking and Moving Laborers; Dumpers, road oiling crew; Dumpmen (for grading crew); Elevator Feeders; Median Rail Reference Post, Guide Post, Right of Way Marker; Fine Graders; Fire Watch; Form Strippers (not swinging stages); General Laborers; Hazardous Waste Worker; Leverman or Aggregate Spreader (Flaherty and similar types); Loading Spotters; Material Yard Man (including electrical); Pittsburgh Chipper Operator or Similar Types; Railroad Track Laborers; Ribbon Setters (including steel forms); Rip Rap Man (hand placed); Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers; Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring; Timber Faller and Bucker (hand labor); Toolroom Man (at job site); Tunnel Bullgang (above ground); Weight-Man- Crusher (aggregate when used)

GROUP 2: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunite Nozzleman Tender; Gunite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 3: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunite Nozzleman; High Scalers, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Pwdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 4: Asphalt Raker; Concrete Saw Operator (walls); Concrete Nozzelman; Grade Checker; Pipelayer; Laser Beam (pipelaying)-applicable when employee assigned to move, set up, align; Laser Beam; Tunnel Miners; Motorman-Dinky Locomotive-Tunnel; Powderman-Tunnel; Shield Operator-Tunnel

GROUP 5: Traffic Flaggers

GROUP 6: Fence Builders

GROUP 7: Landscaping or Planting Laborers

LABO0335-019 06/01/2018

	Rates	Fringes
Hod Carrier	$ 31.72	11.49

LABO0348-003 06/01/2019

CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES

	Rates	Fringes
LABORER		
GROUP 1	$ 23.12	11.94
GROUP 2	$ 26.51	11.94
GROUP 3	$ 29.01	11.94
GROUP 4	$ 29.71	11.94
GROUP 5	$ 30.22	11.94

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical ""splash suit"" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical ""splash suit""); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

PAIN0005-002 07/01/2019

STATEWIDE EXCEPT CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
STRIPERS	$ 31.61	16.07

PAIN0005-004 03/01/2009

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
PAINTER	$ 20.82	7.44

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* PAIN0005-006 07/01/2018

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE); CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
PAINTER		
Application of Cold Tar Products, Epoxies, Polyure thanes, Acids, Radiation Resistant Material, Water and Sandblasting	$ 30.19	11.71
Over 30'/Swing Stage Work	$ 22.20	7.98
Brush, Roller, Striping, Steam-cleaning and Spray	$ 22.94	11.61
Lead Abatement, Asbestos Abatement	$ 21.50	7.98

*$.70 shall be paid over and above the basic wage rates listed for work on swing stages and high work of over 30 feet.

*** PAIN0055-003 07/01/2019**

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
PAINTER		
Brush & Roller	**$ 25.14**	**12.90**
Spray and Sandblasting	**$ 25.14**	**12.90**

All high work over 60 ft. = base rate + $0.75

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* PAIN0055-006 07/01/2019

CLARK, COWLITZ, KLICKITAT, SKAMANIA and WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
HIGHWAY & PARKING LOT		
STRIPER	**$ 35.45**	**12.56**

PLAS0072-004 06/01/2019

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 30.21	14.93

Zone Differential (Add to Zone 1 rate): Zone 2 - $2.00

BASE POINTS: Spokane, Pasco, Lewiston; Wenatchee
Zone 1: 0 - 45 radius miles from the main post office
Zone 2: Over 45 radius miles from the main post office

PLAS0528-001 06/01/2019

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

	Rates	Fringes
CEMENT MASON		
CEMENT MASON	$ 44.43	18.04
COMPOSITION, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE	$ 44.93	18.04
TROWELING MACHINE OPERATOR ON COMPOSITION	$ 44.93	18.04

PLAS0555-002 07/01/2019

CLARK, KLICKITAT AND SKAMANIA COUNTIES

ZONE 1:

	Rates	Fringes
CEMENT MASON		
CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD	$ 37.32	18.77
CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD	$ 36.58	18.77
CEMENT MASONS	$ 35.85	18.77
COMPOSITION WORKERS AND POWER MACHINERY OPERATORS	$ 36.58	18.77

Zone Differential (Add To Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE DALLES, VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall
ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.
ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
ZONE 5: More than 80 miles from the respective city hall

TEAM0037-002 06/01/2019

CLARK, COWLITZ, KLICKITAT, PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE 1		
GROUP 1	$ 29.08	15.27
GROUP 2	$ 29.20	15.27
GROUP 3	$ 29.34	15.27
GROUP 4	$ 29.62	15.27
GROUP 5	$ 29.85	15.27
GROUP 6	$ 30.03	15.27
GROUP 7	$ 30.24	15.27

Zone Differential (Add to Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lifrt truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts (all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman, Wash Rack, Steam Cleaner or combinations; Team Driver; Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane; Challenger; Dumpsters or similar equipment all sizes; Dump Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer or doubles transporting equipment or wet or dry materials; Lumber Carrier, Driver-Straddle Carrier (used in loading, unloading and transporting of materials on job site); Oil Distributor Driver or Leverman; Transit mix and wet or dry mix trcuks: over 5 cu. yds. and including 7 cu. yds.; Vacuum Trucks; Water truck/Wagons (rated capacity) over 3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 10 cu. yds. and including 30 cu. yds. includes Articulated Dump Trucks; Self-Propelled Street Sweeper; Transit mix and wet or dry mix truck: over 7 cu yds. and including 11 cu yds.; Truck Mechanic-Welder-Body Repairman; Utility and Clean-up Truck; Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom cumps, including Semi-Trucks and Trains or combinations thereof: over 30 cu. yds. and including 50 cu. yds. includes Articulated Dump Trucks; Fire Guard; Transit Mix and Wet or Dry Mix Trucks, over 11 cu. yds. and including 15 cu. yds.; Water Wagon (rated capacity) over 10,000 gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 50 cu. yds. and including 60 cu. yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch concrete Mix Trucks; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains of combinations thereof: over 60 cu. yds. and including 80 cu. yds., and includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

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* TEAM0174-001 06/01/2019

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE A:		
GROUP 1:	$ 40.38	20.46
GROUP 2:	$ 39.54	20.46
GROUP 3:	$ 36.73	20.46
GROUP 4:	$ 31.76	20.46
GROUP 5:	$ 39.93	20.46

ZONE B (25-45 miles from center of listed cities*): Add $.70 per hour to Zone A rates.
ZONE C (over 45 miles from centr of listed cities*): Add $1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM	CENTRALIA	RAYMOND	OLYMPIA
EVERETT	SHELTON	ANACORTES	BELLEVUE
SEATTLE	PORT ANGELES	MT. VERNON	KENT
TACOMA	PORT TOWNSEND	ABERDEEN	BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - ""A-frame or Hydralift"" trucks and Boom trucks or similar equipment when ""A"" frame or ""Hydralift"" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series, Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards $.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra, Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired)(when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by $2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:
LEVEL C: +$.25 per hour - This level uses an air purifying respirator or additional protective clothing.
LEVEL B: +$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical ""splash suit.""
LEVEL A: +$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0690-004 01/01/2019

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
Truck drivers: (AREA 1: SPOKANE ZONE CENTER: Adams, Chelan, Douglas, Ferry, Grant, Kittitas, Lincoln, Okanogan, Pen Oreille, Spokane, Stevens, and Whitman Counties		
AREA 1: LEWISTON ZONE CENTER: Asotin, Columbia, and Garfield Counties		
AREA 2: PASCO ZONE CENTER: Benton, Franklin, Walla Walla and Yakima Counties)		
AREA 1:		
GROUP 1	$ 23.91	17.40
GROUP 2	$ 26.18	17.40
GROUP 3	$ 26.68	17.40
GROUP 4	$ 27.01	17.40
GROUP 5	$ 27.12	17.40
GROUP 6	$ 27.29	17.40
GROUP 7	$ 27.82	17.40
GROUP 8	$ 28.18	17.40
AREA 2:		
GROUP 1	$ 26.05	17.40
GROUP 2	$ 28.69	17.40
GROUP 3	$ 28.80	17.40
GROUP 4	$ 29.13	17.40
GROUP 5	$ 29.24	17.40
GROUP 6	$ 29.24	17.40
GROUP 7	$ 29.78	17.40
GROUP 8	$ 30.10	17.40

Zone Differential (Add to Zone 1 rate: Zone 1 + $2.00)

BASE POINTS: Spokane, Pasco, Lewiston
Zone 1: 0-45 radius miles from the main post office.
Zone 2: Outside 45 radius miles from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraullic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self- loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi- end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable oeprated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom end dump (over 40 yds. to & including 100 yds.); Truck Mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

Footnote A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in additon to the classification working in as follows:

LEVEL C-D: - $.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - $1.00 PER HOUR (Uses supplied air is conjunction with a chemical spash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

NOTE:
Trucks Pulling Equipment Trailers: shall receive $.15/hour over applicable truck rate

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

STANDARD PLANS AND DETAILS

POSTED SPEED (MPH)	* S1(FT)	* S2(FT)
25	–	105
30	–	140
35	–	185
40	115	230
45	155	285
50	195	340

* ADVANCE LOOPS ARE NOT REQUIRED FOR TURNING LANES & MINOR THROUGH LANES

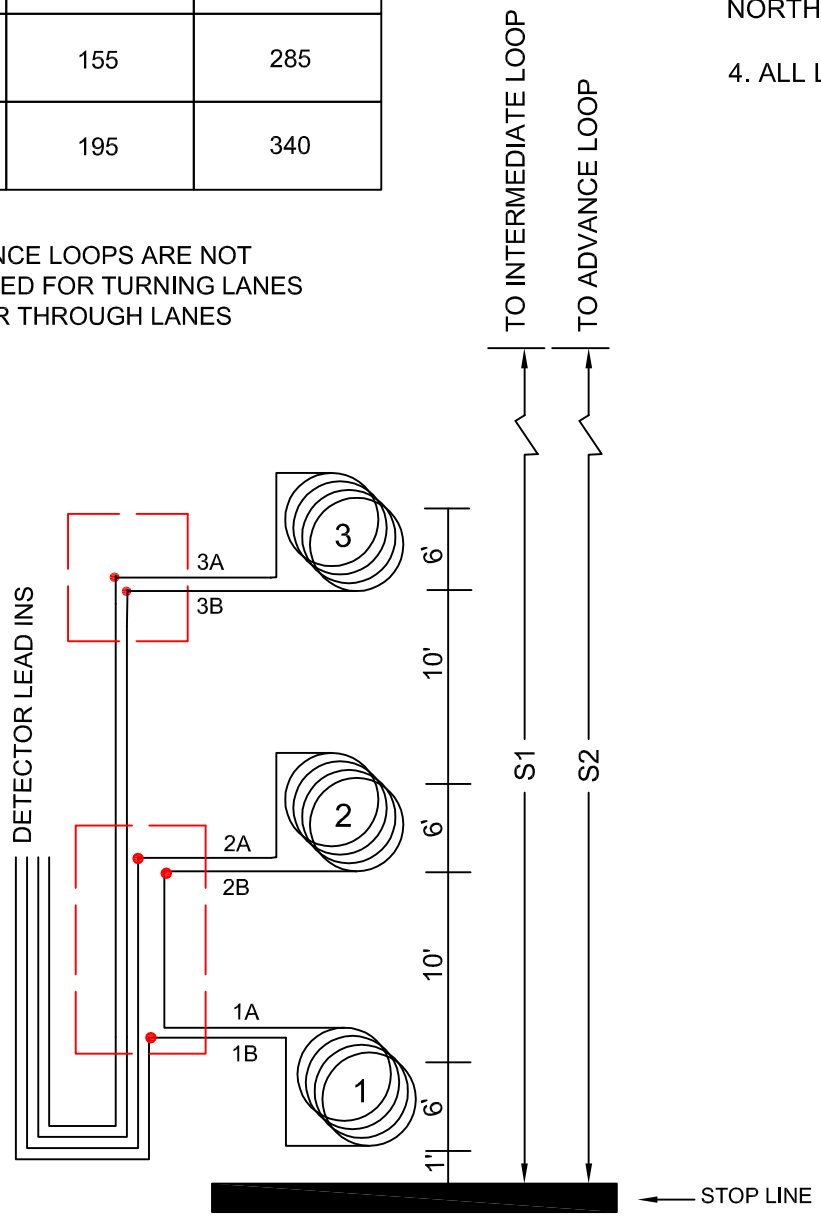
SERIES CONNECTED
LOOP 1-2
COUNT DETECTOR LOOP 3
(DRAWING NOT TO SCALE)

NOTES:
1. USE XYZ LOOP NUMBERING SCHEMATIC, WHERE:
X IS THE PHASE #
Y IS LANE # FROM INSIDE
Z IS LOOP # FROM STOPBAR

2. USE 3' X 25' LOOP FOR BIKE LANES

3. PHASE 2 IS ALWAYS NORTHBOUND THRU DIRECTION

4. ALL LOOPS SHALL BE CIRCULAR



REV MAR 2011

CITY OF Federal Way PUBLIC WORKS

SIGNAL LOOP SCHEMATIC

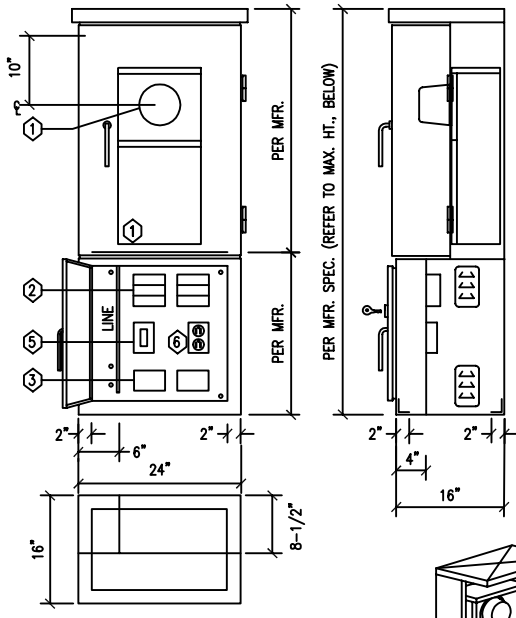
DWG. NO. 3-44

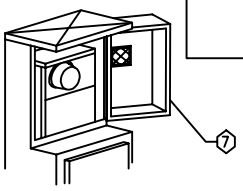
COMPONENT SCHEDULE

1. METERBASE: 100 AMP, 4 JAW, B-LINE U264 BY-PASS TYPE, 5TH JAW AT 9:00 POSITION
   THE CONTRACTOR SHALL VERIFY THE SERVING UTILITY'S REQUIREMENTS PRIOR TO FABRICATION AND INSTALLATION OF THE SERVICE EQUIPMENT.
2. PANELBOARD: 120/240 VAC, 100 AMP, 1 PHASE, 3 WIRE, COPPER BUS
   EATON BAB BOLT-ON BREAKERS:
   - 1-100/2 MAIN
   - 3-15/2 ILLUMINATION BRANCH
   - 1-50/1 SIGNAL BRANCH
   - 1-20/1 GROUND FAULT RECEPTACLE BRANCH
   - 1-15/1 CONTROL CKT BRANCH
3. CONTACTOR: LIGHTING RATED, 2 POLE, 120 VAC COIL, 3-REQUIRED
4. TERMINAL BLOCK TO REMOTE CELL
5. PHOTO-CELL BYPASS SWITCH, SPST, 15 AMP, 277 VAC
6. GROUND FAULT RECEPTACLE, 120 VAC, DUPLEX, 20A
7. THE METER DOOR IS REMOVABLE AND SHALL BE HINGED ON THE RIGHT SIDE

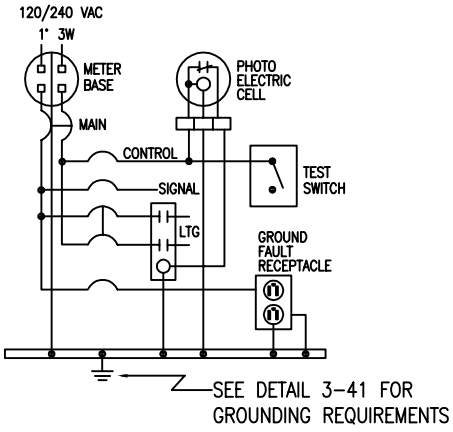
CABINET: NEMA 3R, PADMOUNT, 1/8TH INCH ALUMINUM CONSTRUCTION, TYPE 5052-H32
- 2 SCREENED AND GASKETED VENTS
- DOORS: HEAVY DUTY WELDED HINGES (LIFT OFF TYPE), OPENS TO THE RIGHT
  - STAINLESS STEEL VAULT HANDLES, PADLOCKABLE METER DOOR
  - BEST CX LOCK ON DISTRIBUTION DOOR
  - POLISHED WIRE GLASS WINDOW IN METER DOOR
  - CLOSED CELL NEOPRENE GASKET, CARD HOLDER

FINISH: BARE ALUMINUM (MILL FINISH) OUTSIDE, WHITE INSIDE

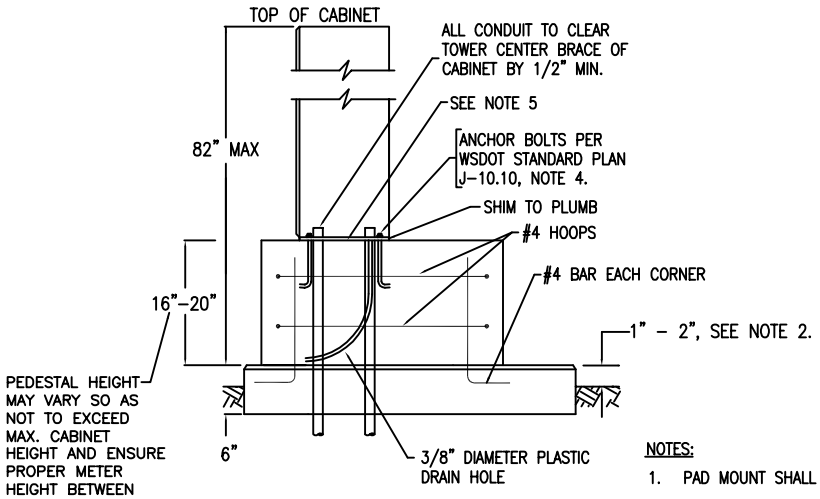




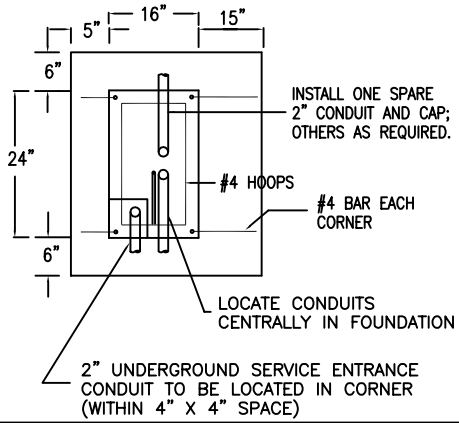
UL LISTED PER STANDARD #508A
SUITABLE FOR USE AS SERVICE ENTERANCE EQUIPMENT
MEETS EUSERC/PSE SPEC.



WIRING DIAGRAM



BASE DETAIL
NTS



NOTES:

1. PAD MOUNT SHALL BE CL. 3000 CONCRETE UNLESS OTHERWISE NOTED ON THE PLANS.
2. WHERE PAD MOUNT IS LOCATED IN OR ADJACENT TO SIDEWALK, TOP OF BASE PAD SHALL BE FLUSH WITH TOP OF SIDEWALK, AND OMIT CHAMFER WHERE PAD AND SIDEWALK MEET.
3. PAD MOUNT IS TYPICAL. CONTRACTOR SHALL USE CABINET MFR'S SPEC'S TO ASSURE PROPER FIT OF CABINET ON BASE WITH RESPECT TO CONDUIT PLACEMENT. CONTRACTOR SHALL SUBMIT FOR APPROVAL A PROPOSED DESIGN, WITH PLAN, ELEVATION, AND RELEVANT SECTION VIEWS.
4. CABINET SHALL BE ATTACHED WITH AASHTO M164 CHEMICALLY BONDED ANCHORS TO PAD MOUNT. ANCHOR INSTALLATION SHALL BE AASHTO GRADE A307 HOT-DIPPED GALVANIZED ½"x8"x2".
5. PLACE SILICONE SEAL BETWEEN THE CABINET AND CABINET FOUNDATION.
6. ORIENT FACE OF CABINET DOORS PER PLAN.
7. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY REGARDING SERVICE CONNECTION.
8. CONTRACTOR SHALL OBTAIN AN ELECTRICAL PERMIT FROM THE CITY BUILDING DEPARTMENT.
9. WHEN SIGNAL CABINET, SERVICE CABINET, AND/OR UPS/BBS AUXILIARY CABINET ARE INSTALLED NEXT TO EACH OTHER, REFER TO CITY DETAIL 3-45C FOR FOUNDATION DETAIL. METER DOOR MUST OPEN 180 DEGREES.
10. PUGET SOUND ENERGY (PSE) OR OTHER FRANCHISE UTILITY POWER PROVIDER'S STANDARDS MAY CHANGE PERIODICALLY. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THE CABINET MEETS THOSE STANDARDS.

Rev MAR 2017

CITY OF Federal Way | PUBLIC WORKS | **STREET LIGHT SERVICE CABINET** | DWG. NO. **3-45**

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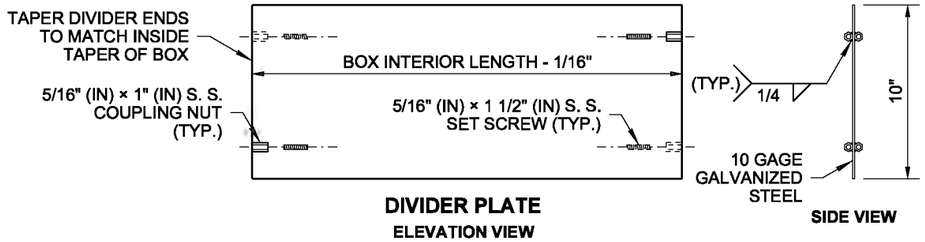
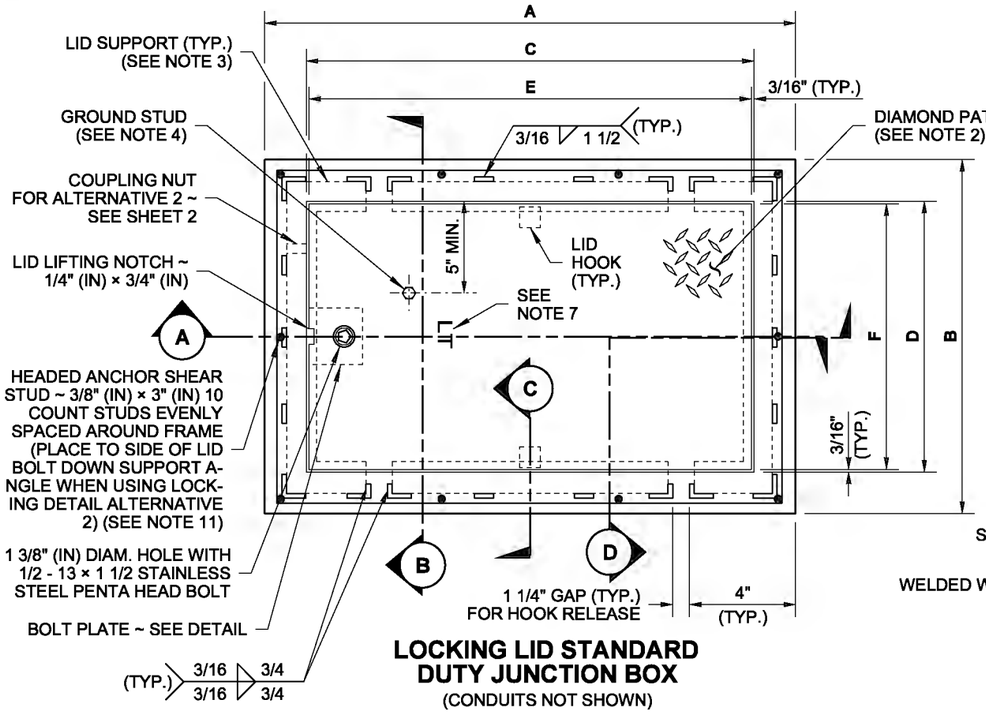
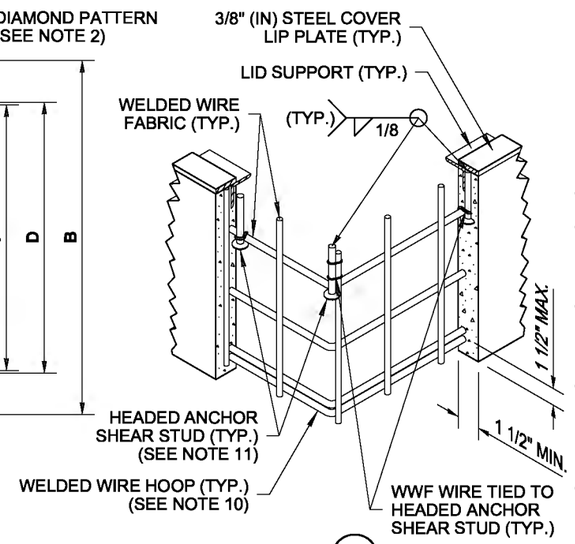


DIVIDER PLATE
ELEVATION VIEW
(FOR TYPE 2 JUNCTION BOX ONLY)

JUNCTION BOX DIMENSION TABLE			
MARK	ITEM	BOX TYPE	
		TYPE 1	TYPE 2
A	OUTSIDE LENGTH OF JUNCTION BOX	22"	33"
B	OUTSIDE WIDTH OF JUNCTION BOX	17"	22 1/2"
C	INSIDE LENGTH OF JUNCTION BOX	18" ~ 19"	28" ~ 29"
D	INSIDE WIDTH OF JUNCTION BOX	13" ~ 14"	17" ~ 18"
E	LID LENGTH	17 5/8"	28 5/8"
F	LID WIDTH	12 5/8"	18 1/8"
	CAPACITY ~ CONDUIT DIAMETER	6"	12"



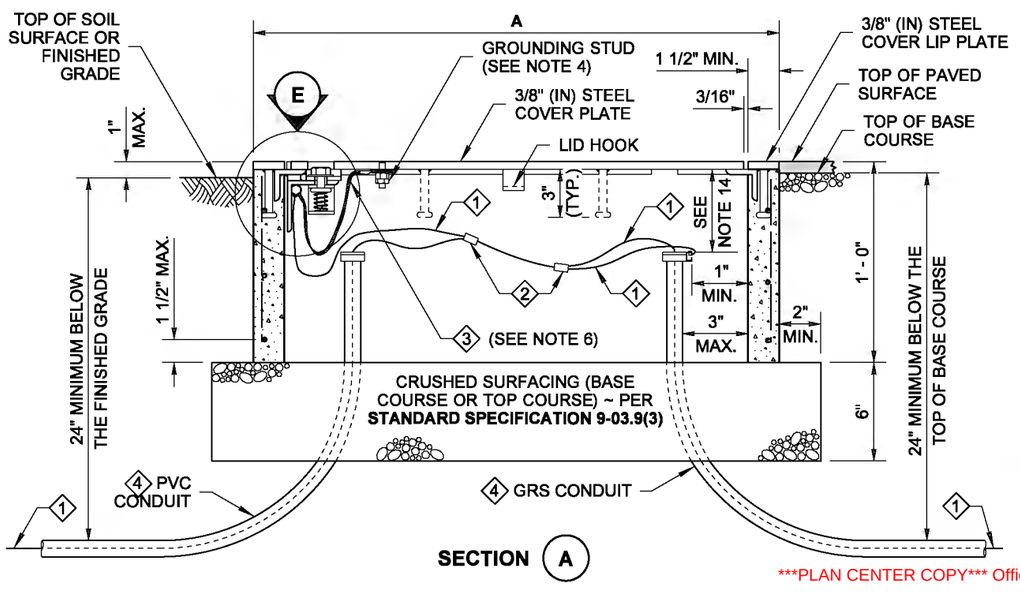
LOCKING LID STANDARD DUTY JUNCTION BOX
(CONDUITS NOT SHOWN)



SECTION D
PERSPECTIVE VIEW

NOTES

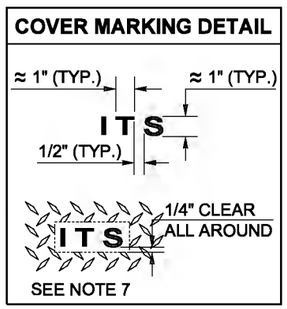
1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. Minimum lid thickness shown. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate, and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" (in) line thickness formed with a mild steel weld bead and shall be placed prior to hot-dip galvanizing.
3. Lid support members shall be 3/16" (in) minimum thick steel C, L, or T shape, welded to the frame.
4. A 1/4-20 NC × 3/4" (in) stainless steel ground stud shall be welded to the bottom of the lid; include (2) stainless steel nuts and (2) stainless steel flat washers.
5. Bolts and nuts shall be liberally coated with anti-seize compound.
6. Equipment Bonding Jumper shall be # 8 AWG min. × 4' (ft) of tinned braided copper.
7. The System Identification letters shall be 1/8" (in) line thickness formed with a mild steel weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. For System Identification details, see **Standard Specification 9-29.2(4)**.
8. When required in the Contract, provide a 10" (in) x 27 1/2" (in), 10 gage divider plate, complete, with fasteners, in each Type 2 Junction Box where specified.
9. When required in Contract, provide a 12" (in) deep extension for each Type 2 Junction Box where specified.
10. See the **Standard Specifications** for alternative reinforcement and class of concrete.
11. Headed Anchor Shear Studs must be welded to the Steel Cover Lip Plate and wire tied in two places to the vertical Welded Wire Fabric when in contact with each other. Wire tie all other Headed Anchor Shear Studs to the horizontal Welded Wire Fabric.
12. Lid Bolt Down Attachment Tab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawings for specifics.
13. Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults, and Pull Boxes shall not be placed within the sidewalks, walkways, shared use paths, traveled ways or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
14. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max. for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" (in) min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.

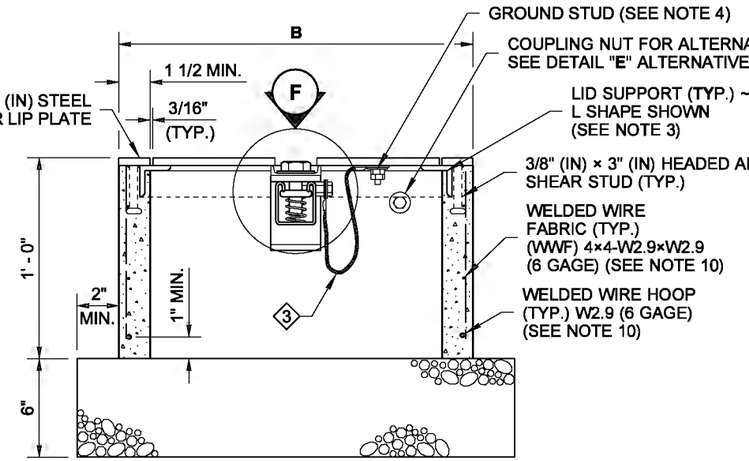


SECTION A

1. Equipment Grounding Conductor
2. Copper Solderless Crimp Connector
3. Equipment Bonding Jumper (See Note 6)
4. See Contract for conduit size and number

COVER MARKING DETAIL





SECTION B
(CONDUITS NOT SHOWN)

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
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LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2 STANDARD PLAN J-40.10-04

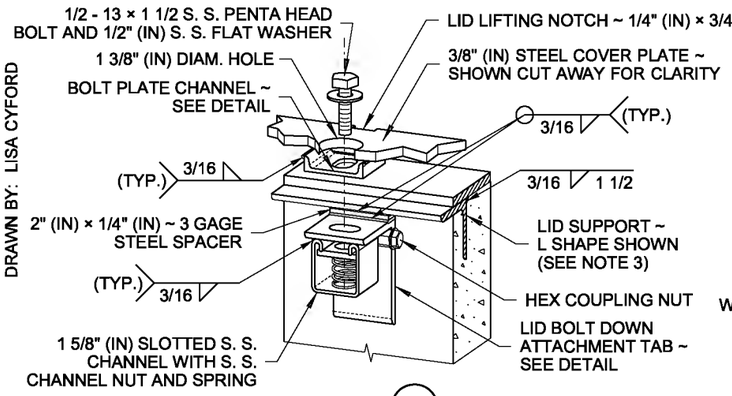
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER

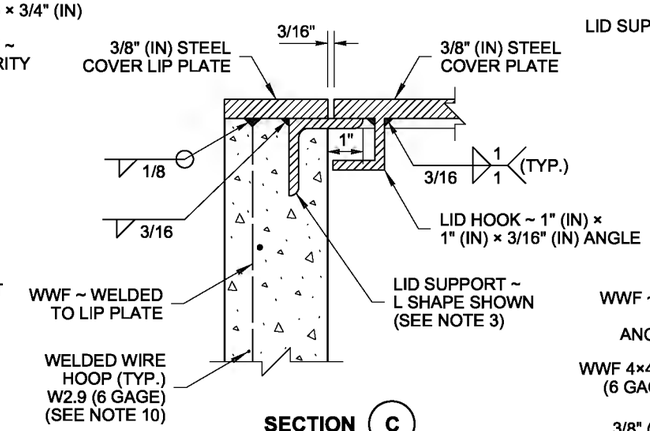
Washington State Department of Transportation

DRAWN BY: LISA CYFORD



DETAIL (F)

ALTERNATIVE 1 SHOWN
PERSPECTIVE VIEW



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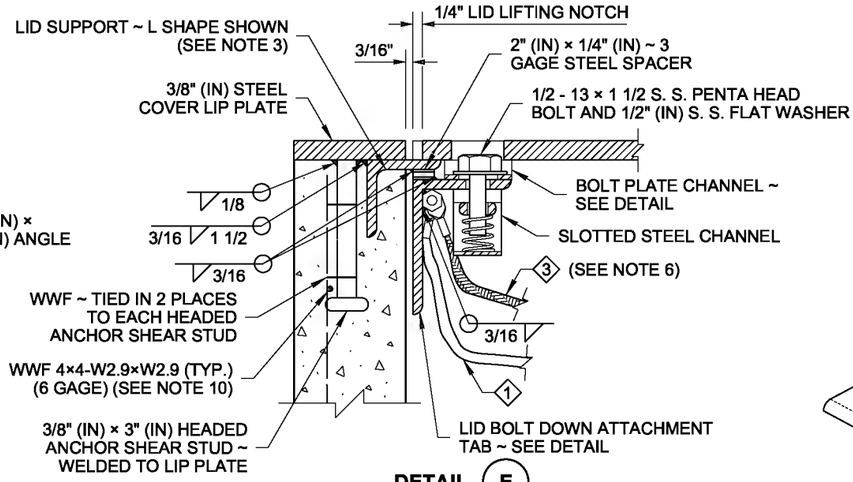
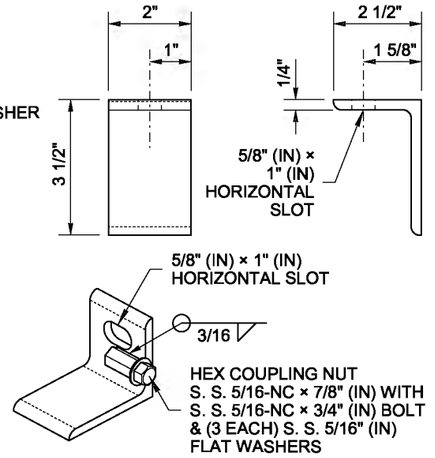
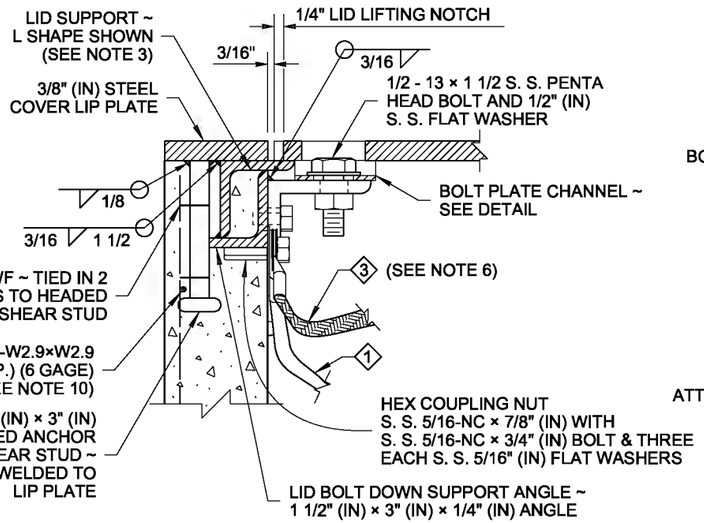


DETAIL (E)

ALTERNATIVE 1 SHOWN



ALTERNATIVE 1
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)



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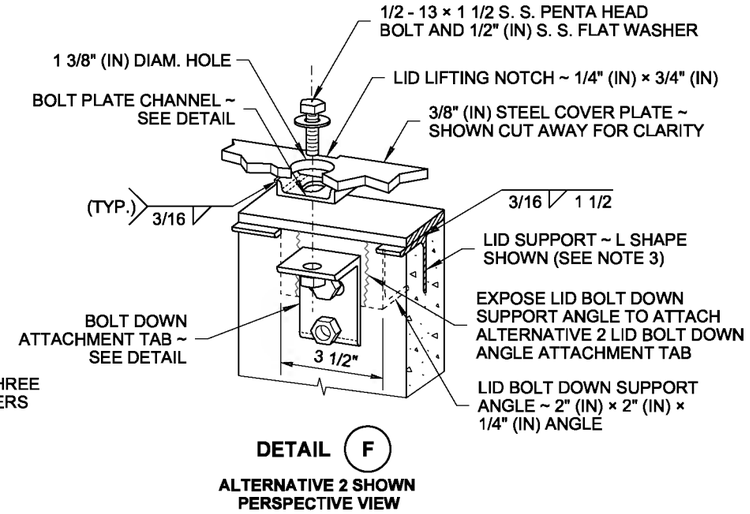
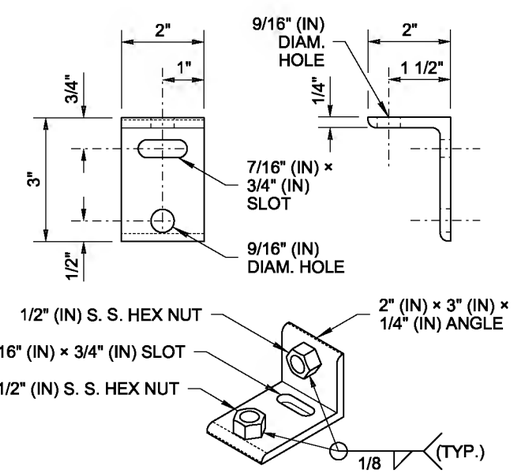
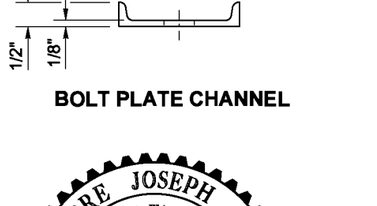


DETAIL (F)

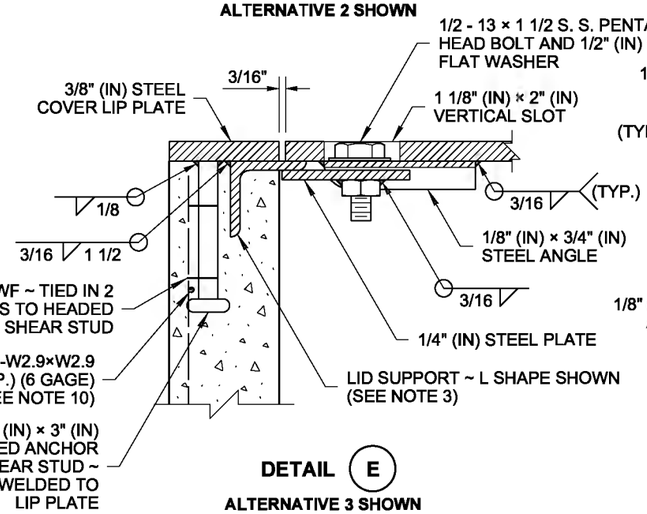
ALTERNATIVE 2 SHOWN
PERSPECTIVE VIEW



ALTERNATIVE 2
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)



BOLT PLATE CHANNEL



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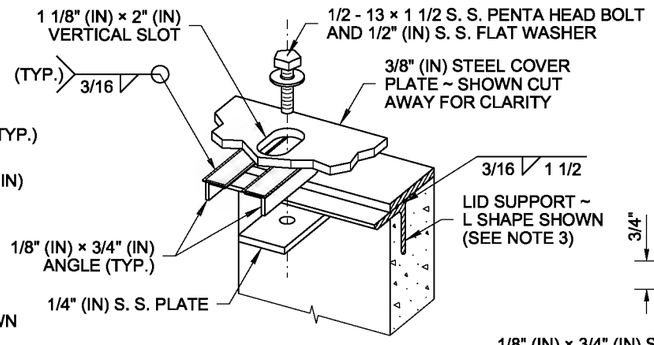
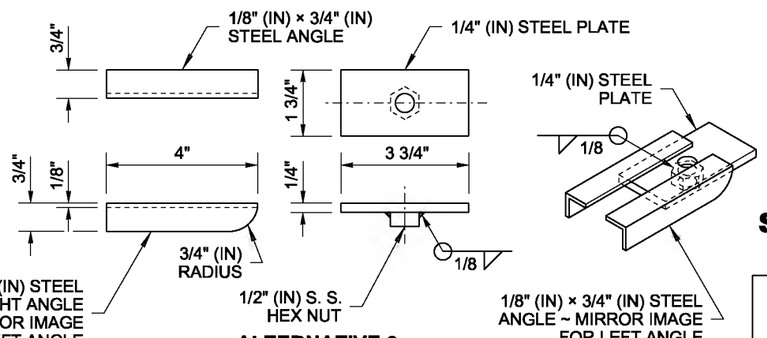


DETAIL (F)

ALTERNATIVE 3 SHOWN
PERSPECTIVE VIEW



ALTERNATIVE 3
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)

THEODORE JOSEPH BAILEY
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LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2 STANDARD PLAN J-40.10-04

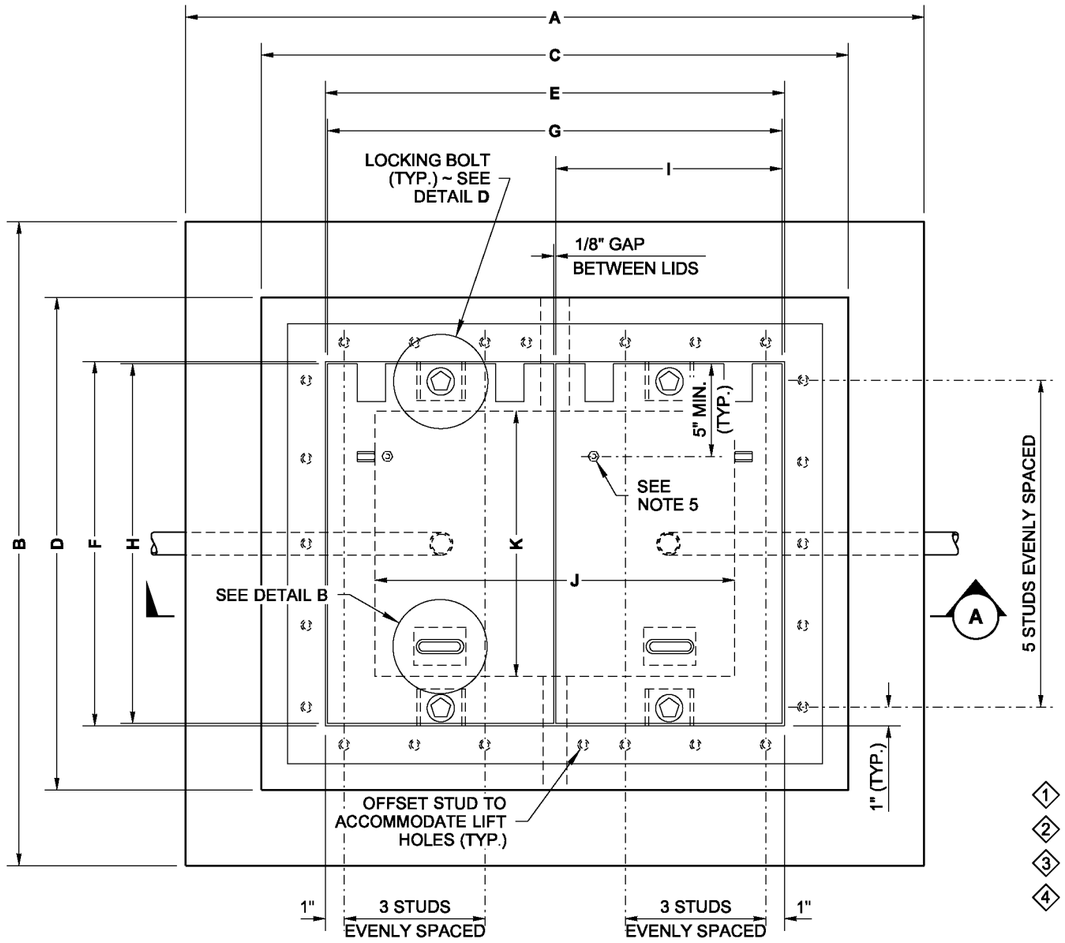
SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER

Washington State Department of Transportation

DRAWN BY: LISA CYFORD



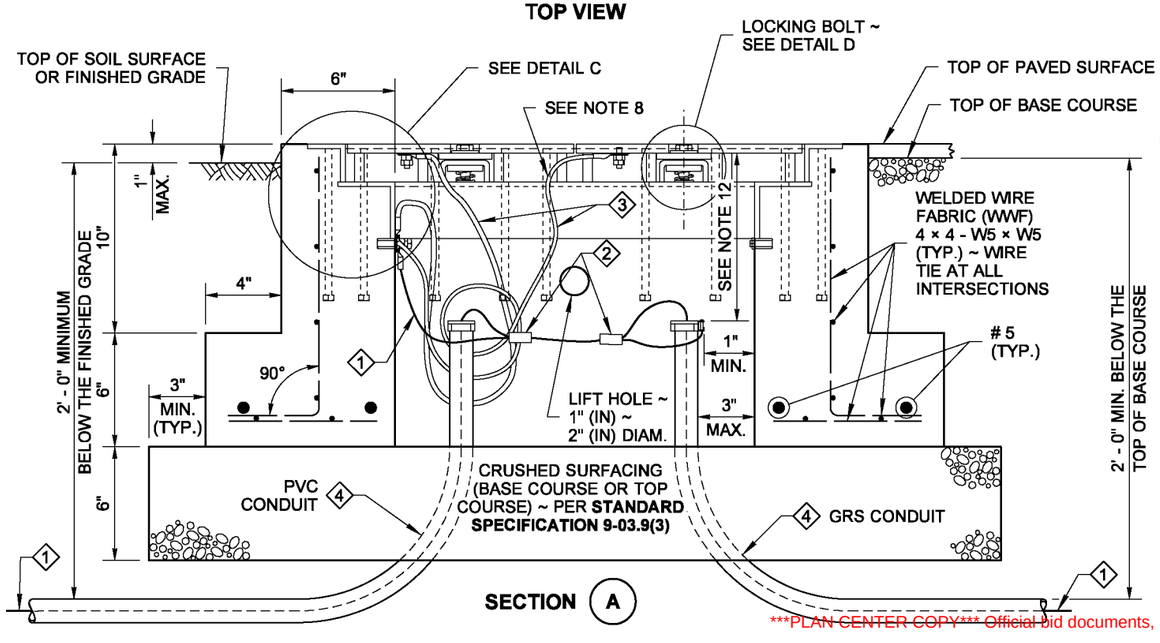
TOP VIEW

JUNCTION BOX DIMENSION TABLE				
MARK	ITEM	BOX TYPE		
		TYPE 4	TYPE 5	TYPE 6
A	OVERALL LENGTH	39"	48"	56"
B	OVERALL WIDTH	34"	37"	44"
C	JUNCTION BOX LENGTH	31"	40"	48"
D	JUNCTION BOX WIDTH	26"	29"	36"
E	LID OPENING LENGTH	24"	33 1/8"	41 1/8"
F	LID OPENING WIDTH	19"	22 1/8"	29 1/4"
G	TYPE 4 LID LENGTH	24"	——	——
H	TYPE 4, 5 & 6 LID WIDTH	19"	21 7/8"	29"
I	TYPE 5 & 6 LID LENGTH	——	16 3/8"	20 3/8"
J	INSIDE BOX LENGTH	19"	28"	36"
K	INSIDE BOX WIDTH	14"	17"	24"
X	STIFFENER SPACING	VARIES	VARIES	VARIES
Y	STIFFENER SPACING	VARIES	VARIES	VARIES
Z	STIFFENER LENGTH	18 1/4"	21 1/8"	28 1/4"
CAPACITY ~ CONDUIT DIAM.		6"	12"	24"

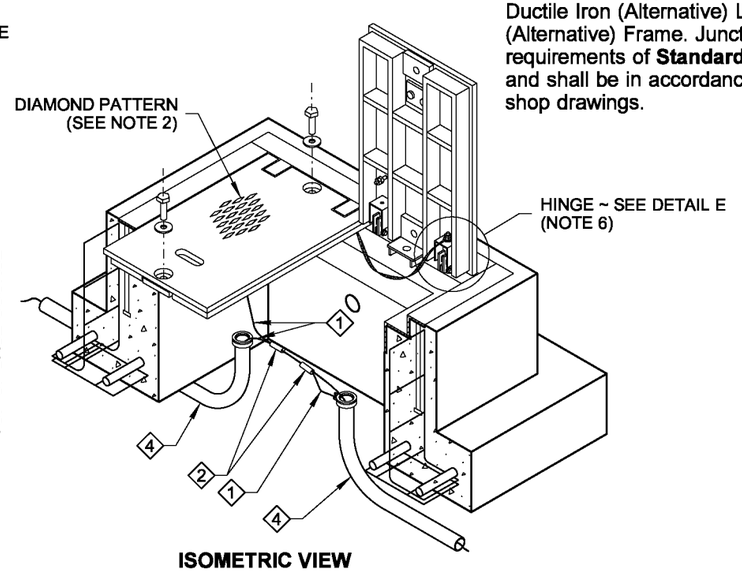
1. Equipment Grounding Conductor
2. Copper Solderless Crimp Connector
3. Equipment Bonding Jumper (See Note 8)
4. See Contract Plans and Special Provisions for conduit size and number

NOTES

1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. All lid thicknesses are minimum.
3. Lid perimeter shall bear on frame. Mill to bearing seat and lid perimeter for full even contact after fabrication of frame and lid. Lid and frame units with uneven bearing will be rejected.
4. The installed lid and frame shall fit with full even contact around the perimeter of a junction box after installation. Care shall be taken to prevent debris accumulation on the contact surfaces.
5. A 1/4-20 NC × 1" (in) S. S. ground stud shall be welded to the bottom of each lid: include (2) each S. S. nuts and (3) each S. S. flat washers.
6. The hinges shall allow the lids to open 180°. When lid assembly is Ductile Iron (Alternative) and equipped with Safety Bars, lids shall open 110°.
7. Bolts and nuts shall be liberally coated with anti-seize compound.
8. Connect Equipment Bonding Jumper to ground stud on lid. As an alternative to ground stud connection, the Equipment Bonding Jumper shall be attached to the front face of the hinge pocket with a 5/16-20 NC × 1" (in) S. S. bolt, (2) each S. S. nuts, and (3) each S. S. flat washers. Equipment bonding jumper shall be #8 AWG min. × 4' (ft) of tinned braided copper.
9. The System Identification letters shall be 1/8" (in) line thickness formed by a mild steel weld bead. See Cover Marking details. Grind off diamond pattern before forming letters. Ductile iron lid lettering shall be recessed, 1/8" (in) line thickness. See **Standard Specification 9-29.2(4)** for details.
10. See **Standard Specification 9-29.2(1)B** for class of concrete.
11. 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. Heavy-Duty Junction Boxes shall not be installed in sidewalks, walkways, and shared use paths.
12. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max., for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.
13. Junction Box Types 4, 5, or 6 may be equipped with Ductile Iron (Alternative) Lid(s) and a Cast Iron (Alternative) Frame. Junction box shall meet the requirements of **Standard Specification 9-29.2** and shall be in accordance with approved shop drawings.



SECTION (A)



ISOMETRIC VIEW
TYPE 5 AND 6 SHOWN

THEODORE JOSEPH BAILEY
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REGISTERED
PROFESSIONAL ENGINEER

HEAVY-DUTY JUNCTION BOX TYPES 4, 5, & 6

STANDARD PLAN J-40.20-03

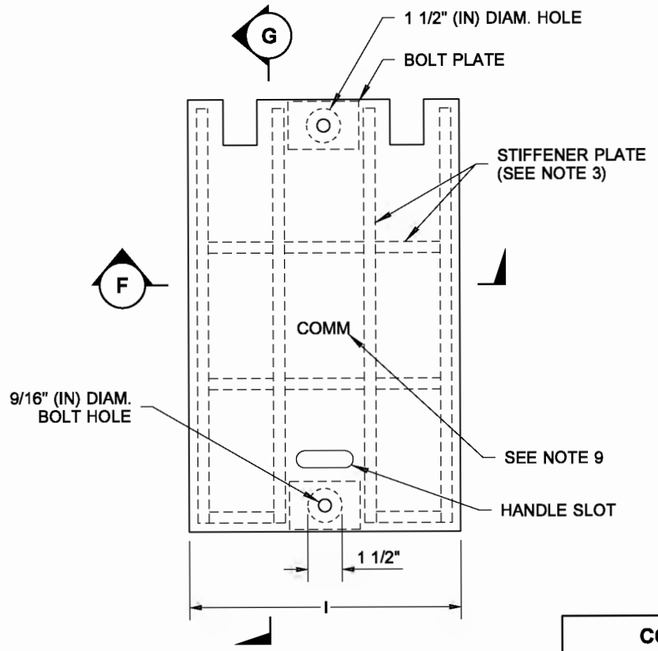
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER

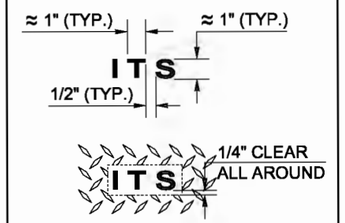
Washington State Department of Transportation

DRAWN BY: LISA CYFORD

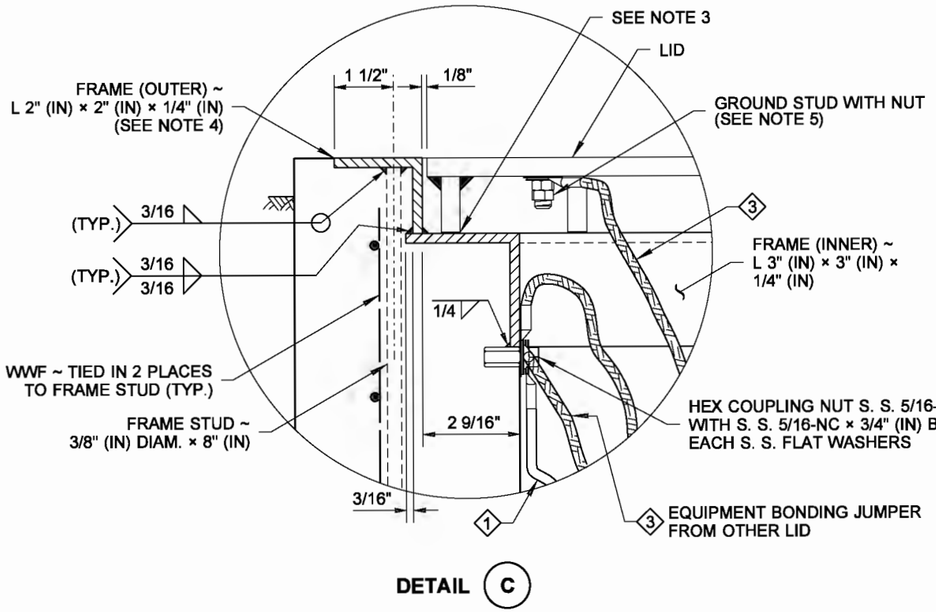


PLAN VIEW
LID
TYPE 5 AND 6 SHOWN

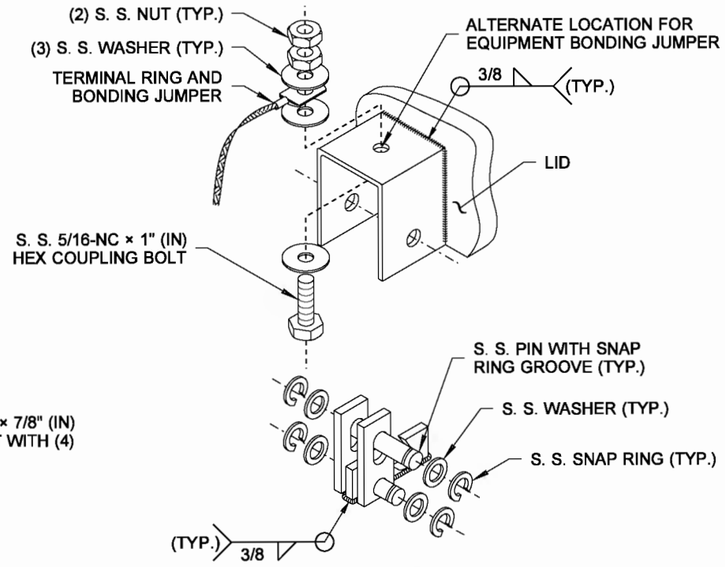
COVER MARKING DETAIL



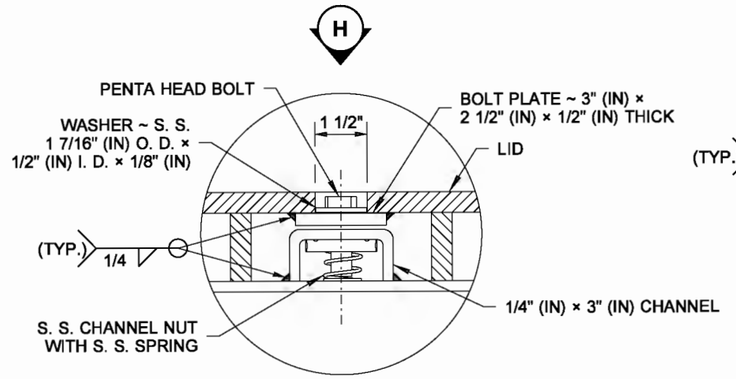
SEE NOTE 9



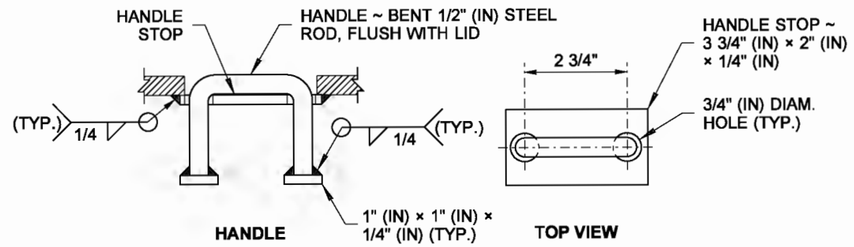
DETAIL C



DETAIL E
HINGE

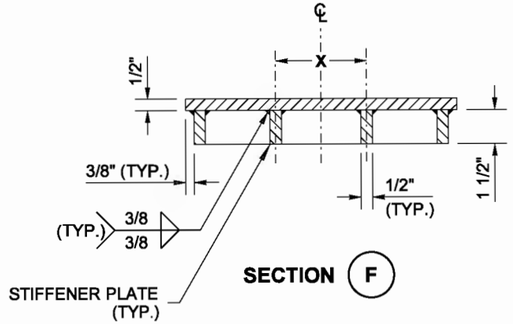


DETAIL D
LOCKING BOLT

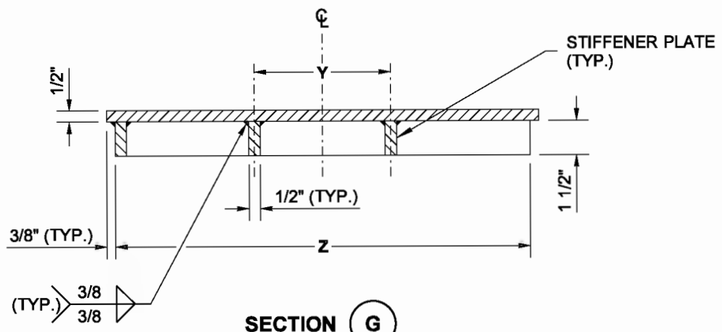


HANDLE **TOP VIEW**

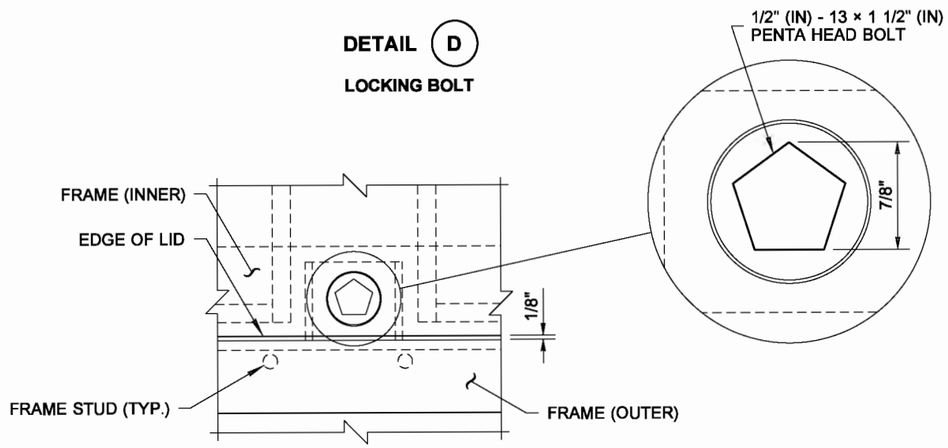
DETAIL B



SECTION F



SECTION G



VIEW H

HEAVY-DUTY JUNCTION BOX TYPES 4, 5, & 6

STANDARD PLAN J-40.20-03

SHEET 2 OF 2 SHEETS

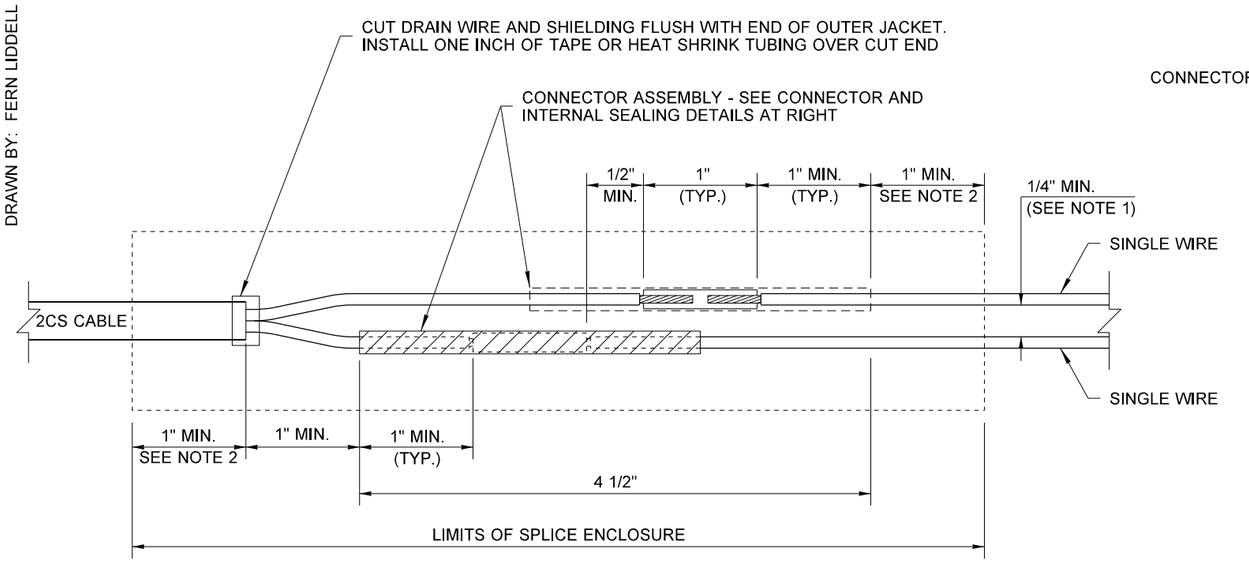
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER

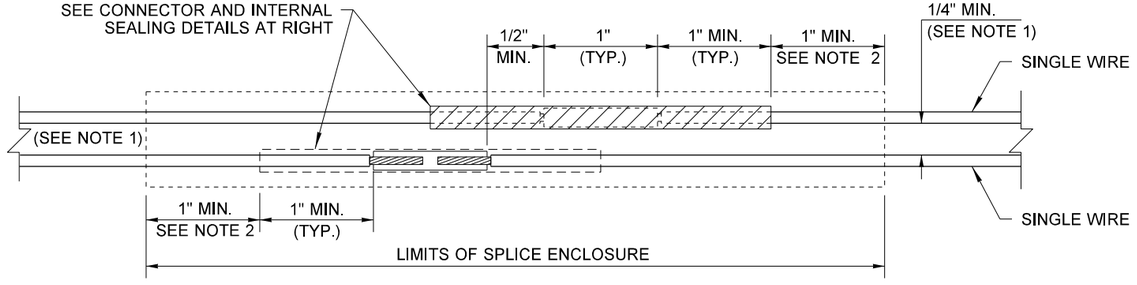
Washington State Department of Transportation

THEODORE JOSEPH BAILEY — STATE OF WASHINGTON — 39820 — REGISTERED PROFESSIONAL ENGINEER

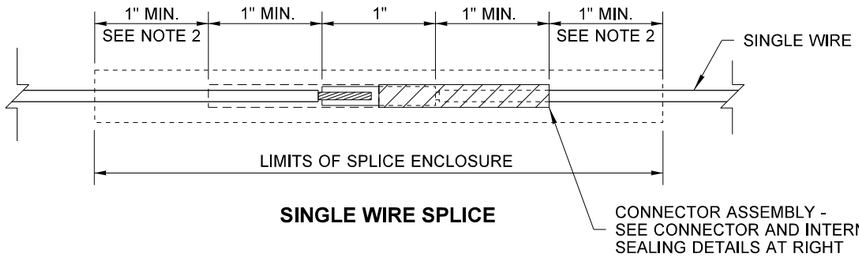
DRAWN BY: FERN LIDDELL



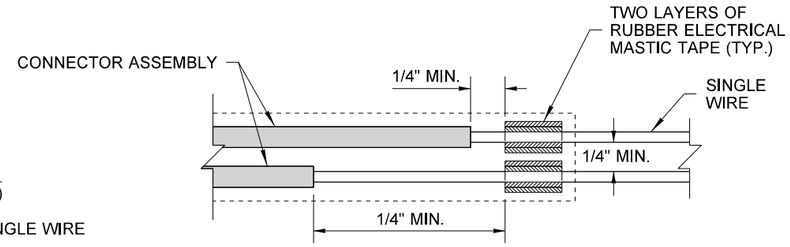
TWO CONDUCTOR SHIELDED TO TWO SINGLE WIRES



TWO SINGLE WIRE SPLICES IN SAME ENCLOSURE



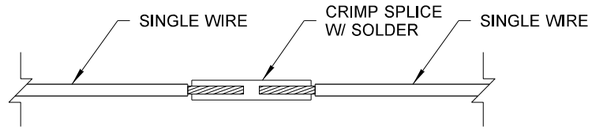
SINGLE WIRE SPLICE



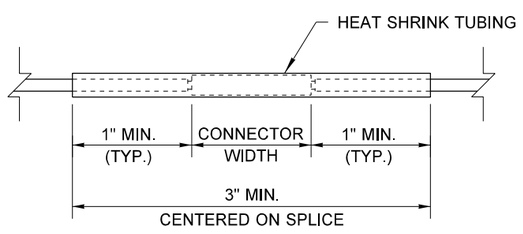
RUBBER ELECTRICAL MASTIC TAPE INSTALLATION DETAIL

CONNECTOR AND INTERNAL SEALING DETAILS

STEP 1: CRIMP AND SOLDER CONNECTION



STEP 2: SEAL / WRAP CONNECTION



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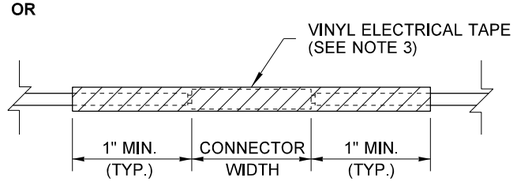

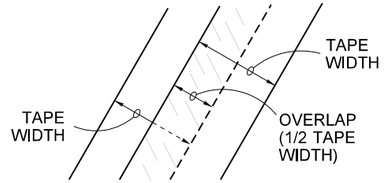

WHEN USING WRAPPED VINYL ELECTRICAL TAPE:

- INSTALL TWO LAYERS OF SPIRAL WRAPPED TAPE.
- EACH SPIRAL LAYER SHALL HAVE AN OVERLAP OF 1/2 OF THE TAPE WIDTH (SEE DIAGRAM ABOVE).

TAPE OVERLAP DIAGRAM

NOTES

1. Each wire shall be physically separated by at least 1/4" (in) so that sealing material can fill in between the wires; where heat shrink tubing is used for the outer splice enclosure, it shall meet one of the following requirements:

   a. Have separate ports for each conductor ("WYE" or "X" shaped tubing). ~ or ~

   b. Have rubber electrical mastic tape wrapped around each conductor to ensure a weather-proof seal. See Rubber Electrical Mastic Tape Installation Detail.

2. Heat shrink tubing shall extend a minimum of one inch onto the original wire insulation of each wire in the splice. Rigid splice enclosures shall be centered over the crimped connection(s).

3. Electrical tape used in splicing applications shall be 3/4" (in) wide, be UL listed under UL 510, and be CSA certified under C22.2 No. 197-M1983.

4. No more than two splices may be installed in the same splice enclosure.

5. Crimp splices shall be installed with an approved crimping tool for the type and size of crimp splice used. Pliers and similar multi-purpose tools may not be used.

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LOOP SPLICE DETAILS

STANDARD PLAN J-50.05-00

SHEET 1 OF 1 SHEET

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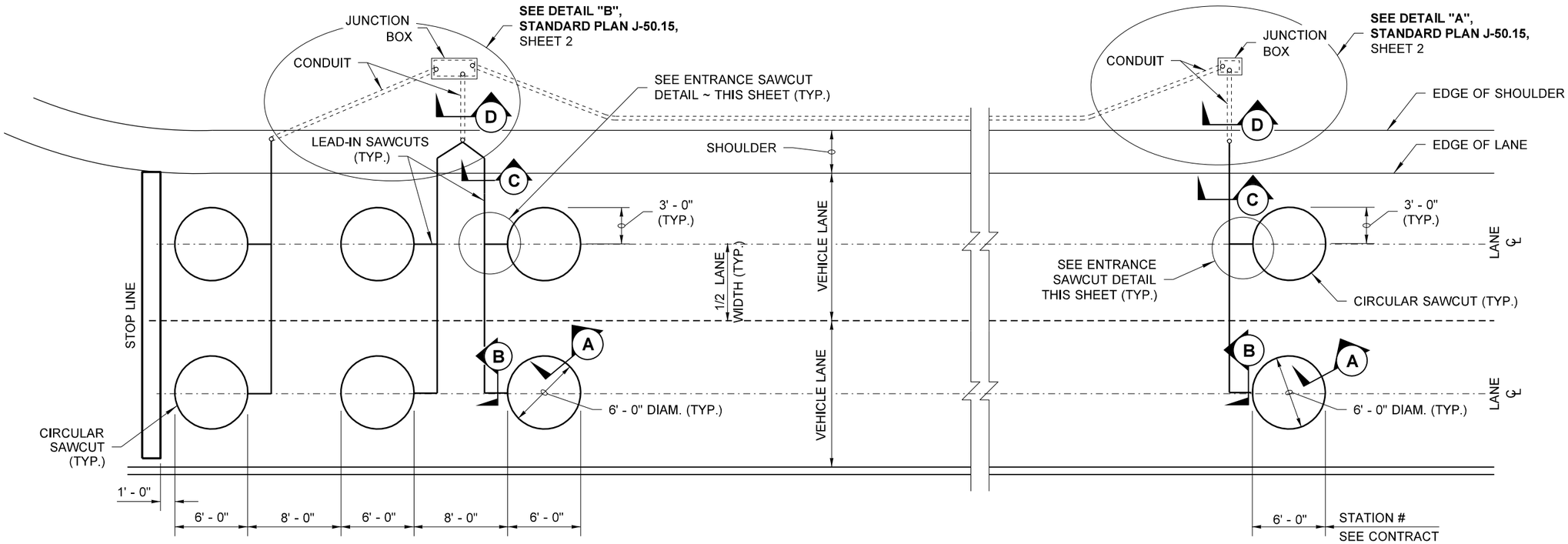
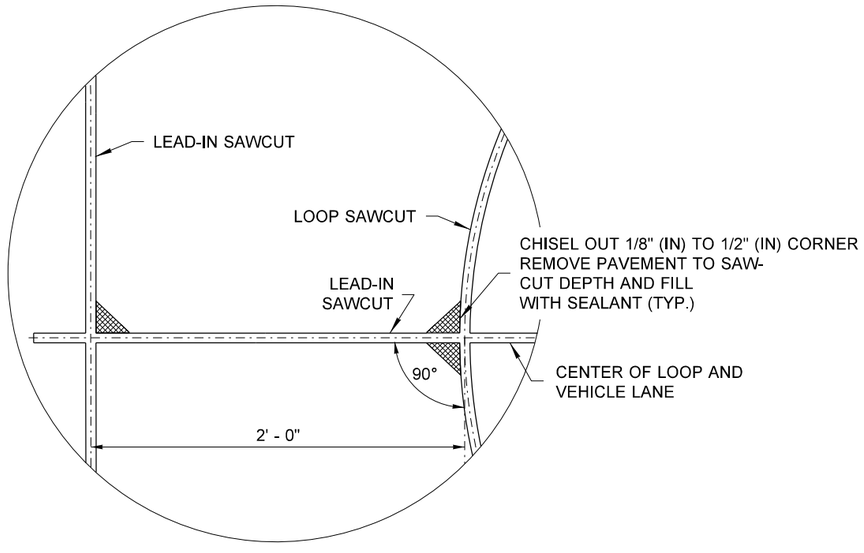


TYPE 3S (STOP LINE) LOOP ARRAY

TYPE 3A (ADVANCE) LOOPS

PLAN



ENTRANCE SAWCUT DETAIL

NOTES

1. For Installation Notes and Details see **Standard Plan J-50.15.**
2. For **Sections A, B, C**, and **D**, see **Standard Plan J-50.15.**
3. All of the loop lead-in wires shall return to the Junction Box
4. For additional Induction Loop Details, see **Standard Plan J-50.15.**

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TYPE 3 INDUCTION LOOP

STANDARD PLAN J-50.12-02

SHEET 1 OF 1 SHEET

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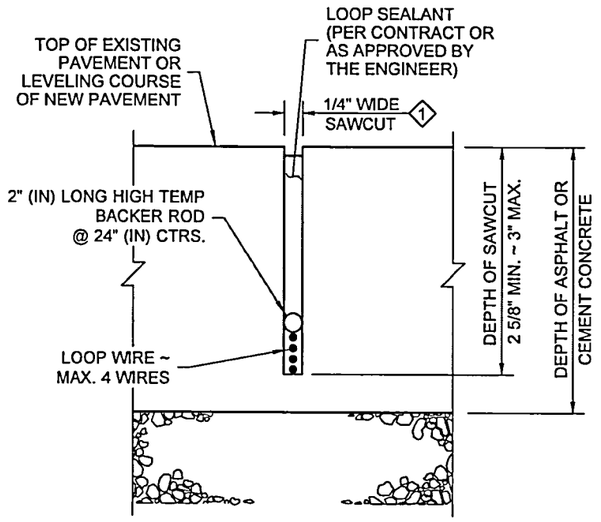
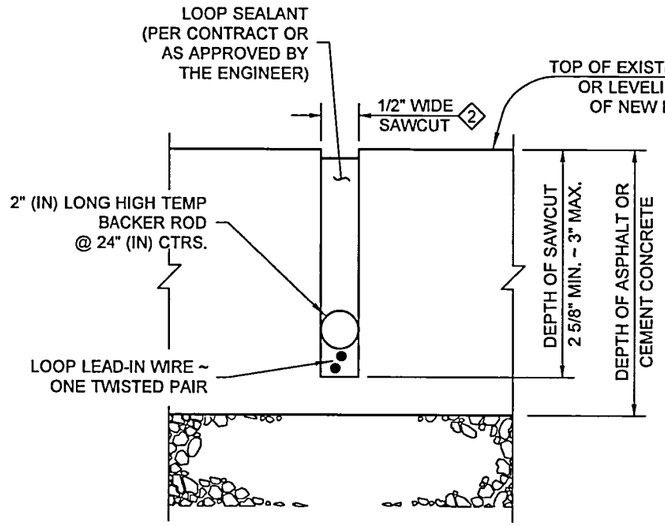
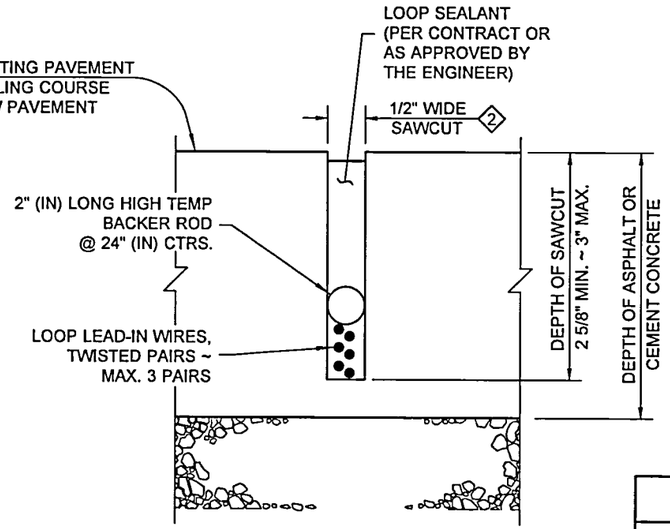


SECTION A

SECTIONS A AND B FROM **STANDARD PLAN J-50.10, J-5-.11, OR J-50.12**



SECTION B



SECTION C

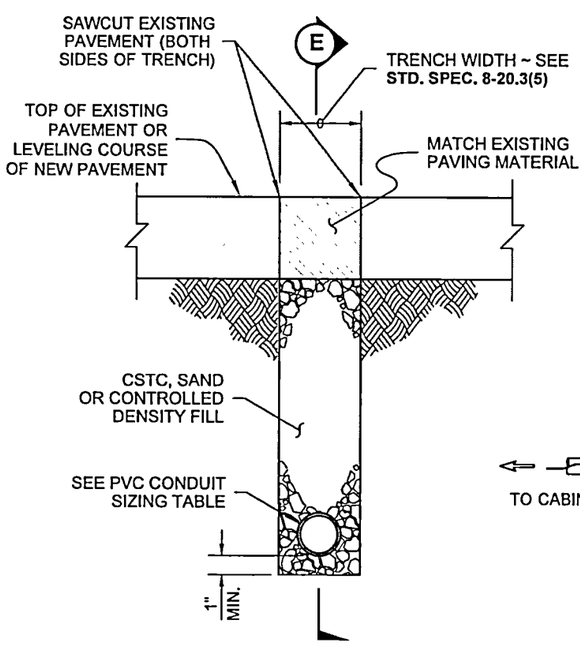
NOTES

1. Fill the conduit trench to the bottom of the existing or new surfacing with CSTC, sand or controlled density fill. See **Standard Specifications Section 2-09.3(1)E**.
2. Minor Regional variations are allowed in the soft pocket closure. Consult with the Engineer or see the Contract for additional requirements.
3. Conductors shall be snug to the bottom of the sawcut. High temperature backer rod shall be snug to the conductors and sides of cut.
4. Fill the sealant to within 1/8" (in) to 3/16" (in) from top of saw cut.
5. See **Standard Plan J-40.10** for additional Junction Box details.
6. See **Standard Plan J-50.05** for splice details.

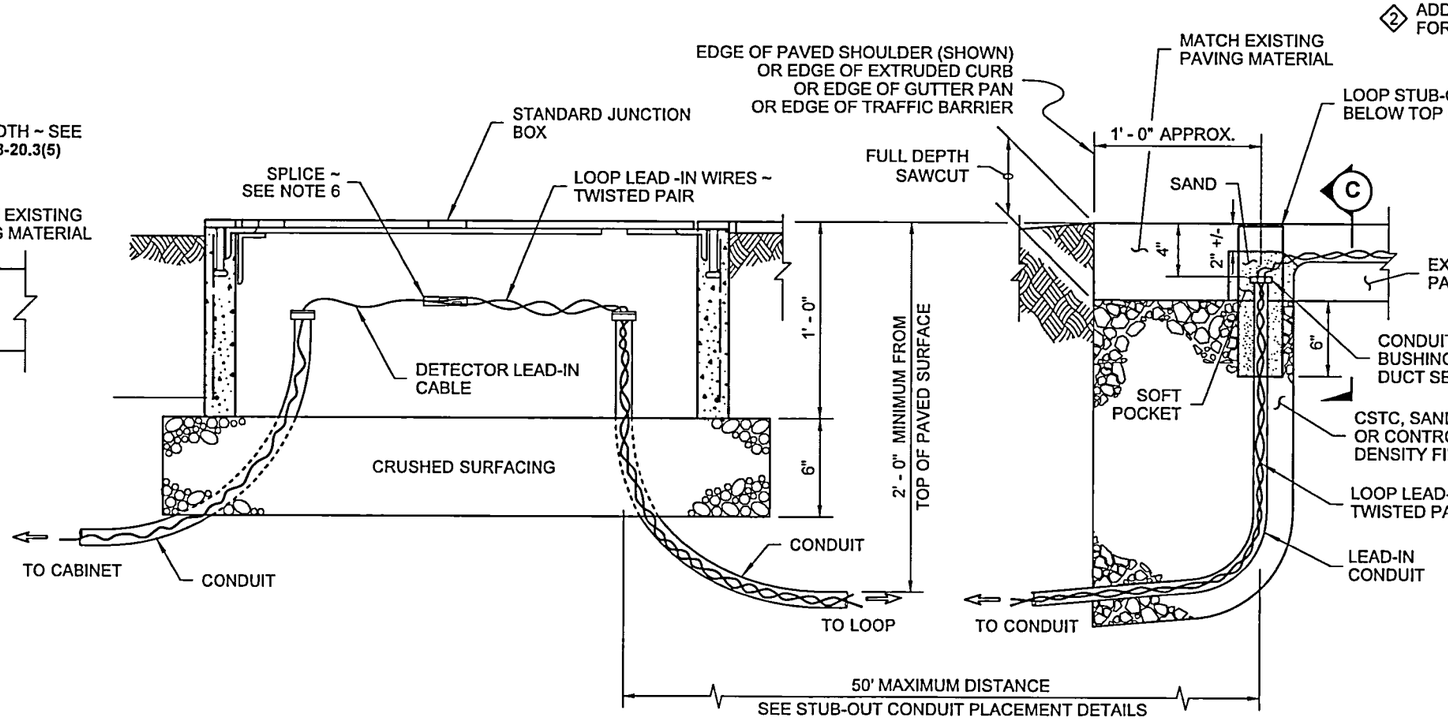
PVC CONDUIT SIZING TABLE					
LOOP LEAD PAIRS	1 - 4	5 - 10	11 - 16	17 - 22	23 - 28
NUMBER AND SIZE OF CONDUITS	1 - 2"	2 - 2"	3 - 2"	4 - 2"	3 - 3"

1 ADD 1/16" (IN) TO THE SAWCUT FOR IMSA 51 - 7 CONDUCTORS

2 ADD 1/8" (IN) TO THE SAWCUT FOR IMSA 51 - 7 CONDUCTORS



SECTION D



← **JUNCTION BOX PLACEMENT**
SEE NOTE 5

LEAD-IN CONDUIT SECTION →
MAX. 50 FT POCKET SECTION

SECTION E

THEODORE JOSEPH BAILEY STATE OF WASHINGTON 39820 REGISTERED PROFESSIONAL ENGINEER

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INDUCTION LOOP DETAILS

STANDARD PLAN J-50.15-01

SHEET 1 OF 3 SHEETS

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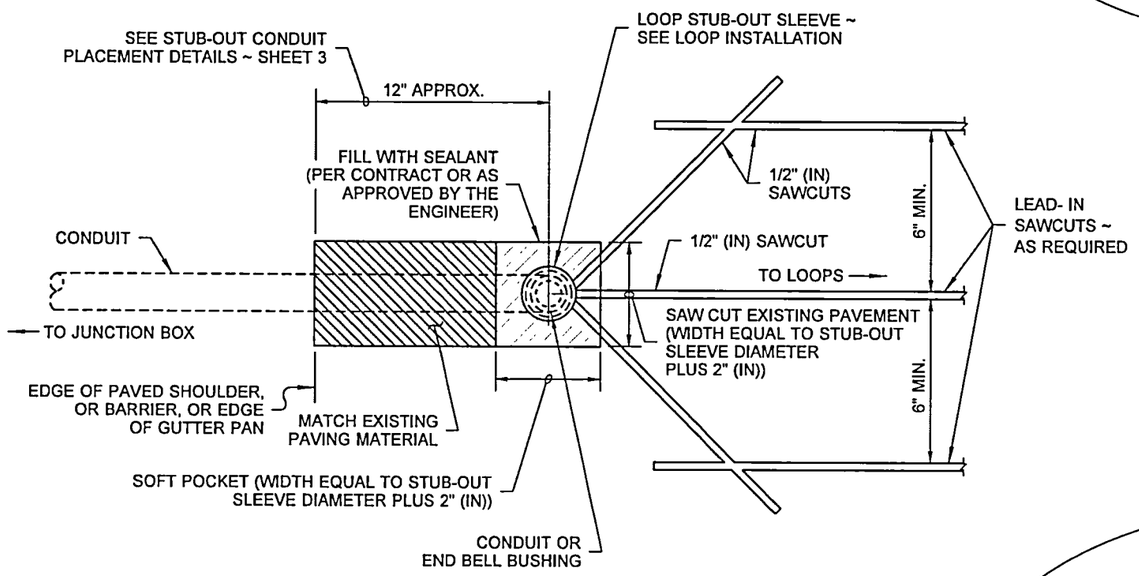
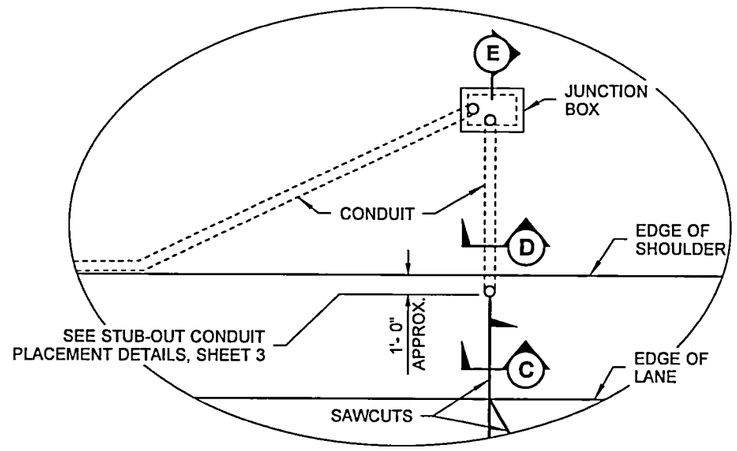
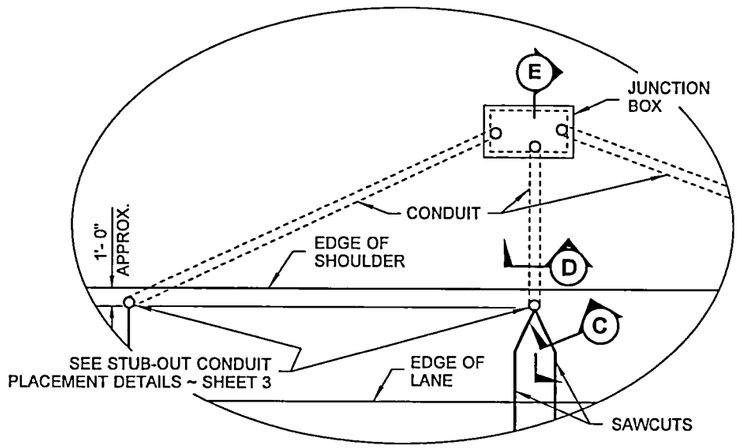


PLAN

SAWCUT AND CONDUIT CONNECTION



DETAIL "A"



DETAIL "B"

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 saw-cuts 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 the 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 connect-ions 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 8-20.3(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 lead-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 untill loops are installed to keep out Hot Asphalt during paving operations.

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INDUCTION LOOP DETAILS

STANDARD PLAN J-50.15-01

SHEET 2 OF 3 SHEETS

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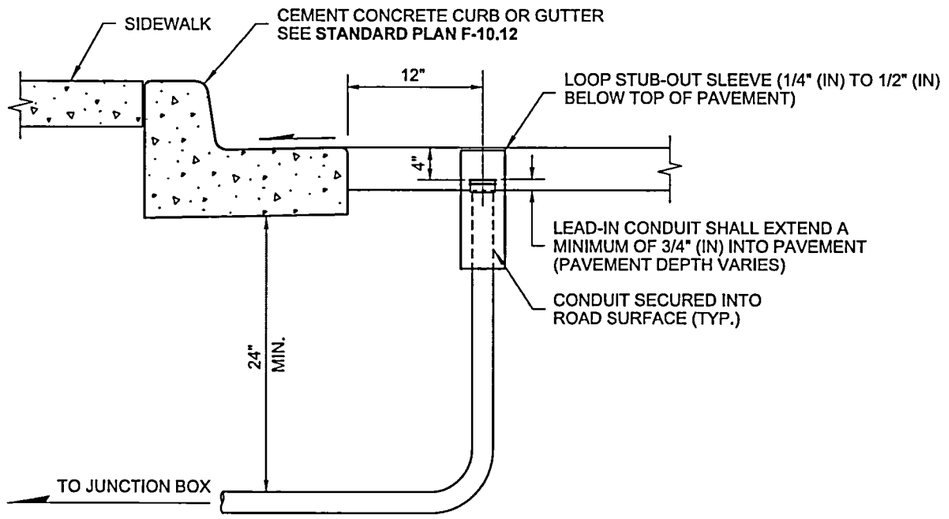
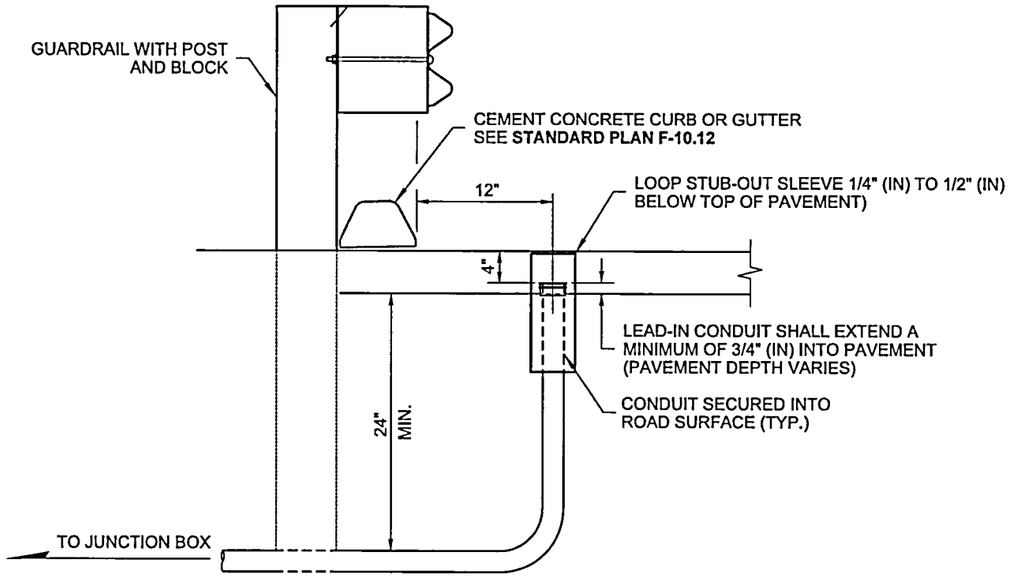
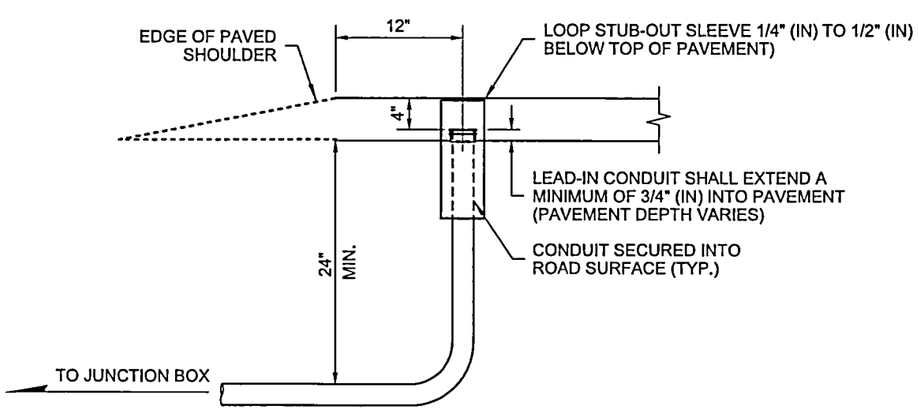


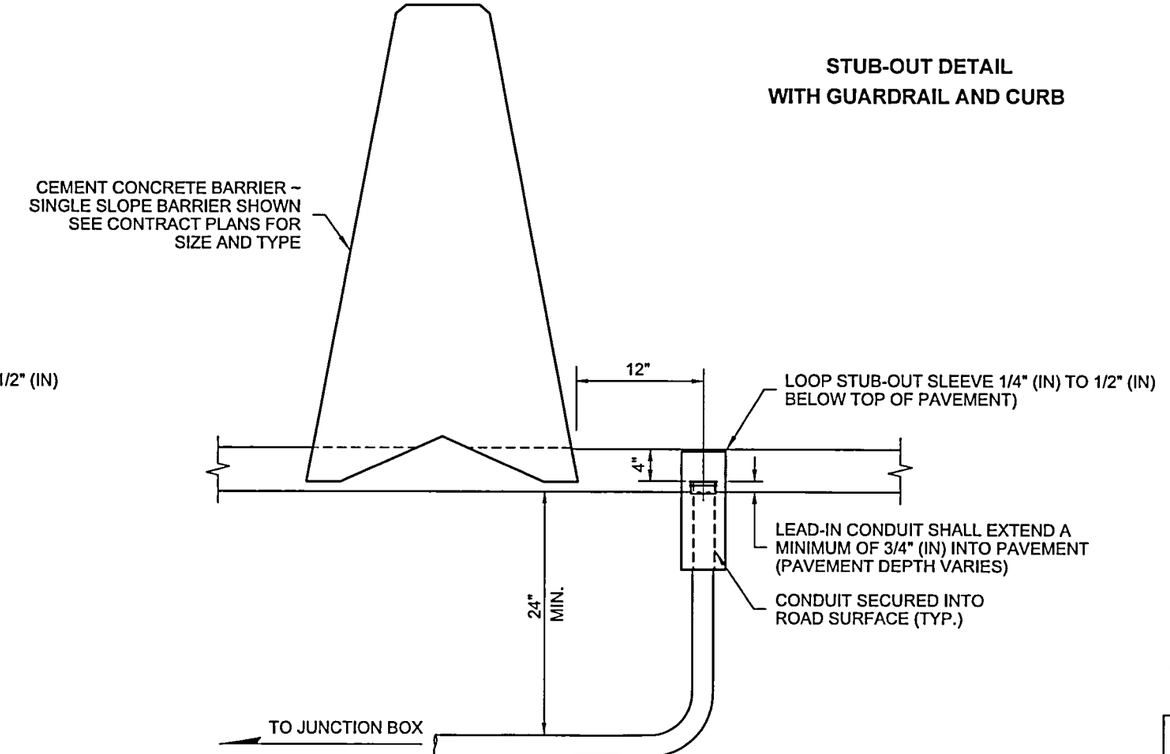
STUB-OUT DETAIL
WITH CEMENT CONCRETE CURB OR GUTTER



STUB-OUT DETAIL
WITH GUARDRAIL AND CURB



STUB-OUT DETAIL
WITH ROADWAY



STUB-OUT DETAIL WITH
CEMENT CONCRETE BARRIER

STUBOUT CONDUIT PLACEMENT DETAILS

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INDUCTION LOOP DETAILS

STANDARD PLAN J-50.15-01

SHEET 3 OF 3 SHEETS

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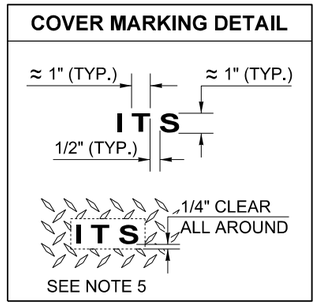

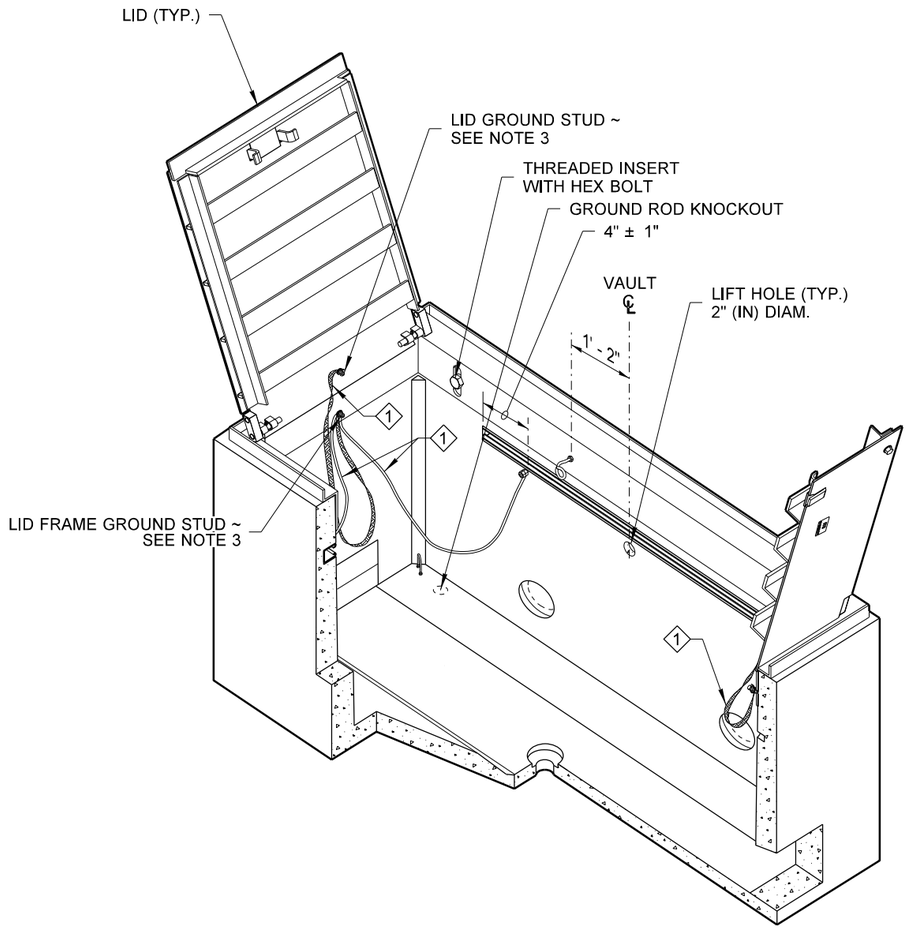

ISOMETRIC CUTAWAY ASSEMBLY

NOTES

1. The diamond pattern shall be a minimum of 3/32" (in) thick.
2. Slip-resistant lids shall be identified with a permanent marking on the underside of the lid, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The marking shall use 1/8" (in) thick lines formed with a weld bead, and shall be placed prior to galvanizing.
3. A 1/4 - 20 UNC x 1" (in) ground stud with three nuts and two flat washers shall be welded to each lid and coated with anti-seize compound. A 1/4 - 20 UNC x 1" (in) ground stud with three nuts and four washers shall be welded to the frame and coated with anti-seize compound. See **Standard Plan J-90.50** for grounding and bonding details.
4. The bonding jumper between the lid and the frame shall be #8 AWG (min.) x 4' (ft) tinned braided copper.
5. The system identification letters shall be 1/8" (in) line thickness formed with a mild steel weld bead. See **COVER MARKING DETAIL**, **See Standard Specification Section 9-29.2(4)**.
6. Cement concrete shall be Class 4000.
7. Conduit Capacity = 40 inches (sum total of all conduit diameters).
8. Typical Small Cable Vault features and arrangement shown. Reinforcing not shown. Dimensions and arrangements will vary slightly by manufacturer. See Approved shop drawings.
9. Small Cable Vaults for WSDOT Projects shall only be installed with the lid frame bearing on the concrete portion of cable vault.

* BOLTS, NUTS AND WASHERS ~
ASTM F593 OR A193,
TYPE 304 OR TYPE 316
STAINLESS STEEL (S.S.)

1 EQUIPMENT BONDING JUMPER (SEE NOTE 4)

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SMALL CABLE VAULT

STANDARD PLAN J-90.21-02

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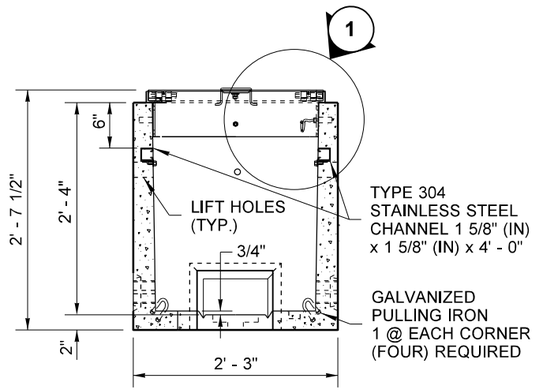
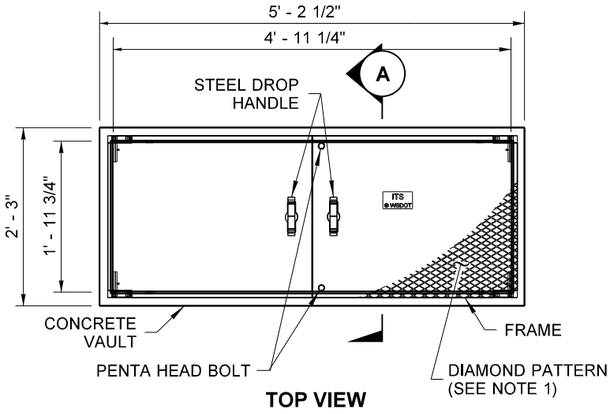
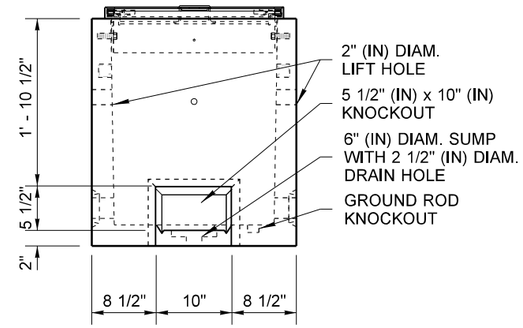


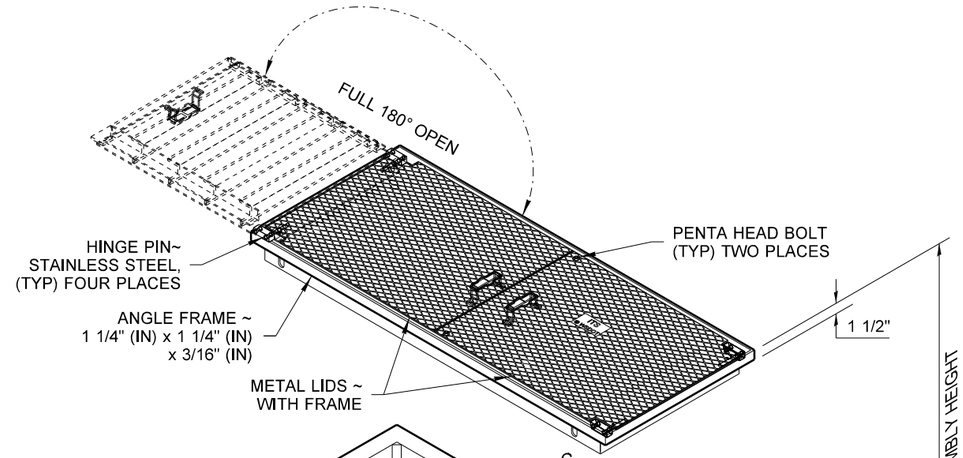
SECTION (A)



TOP VIEW

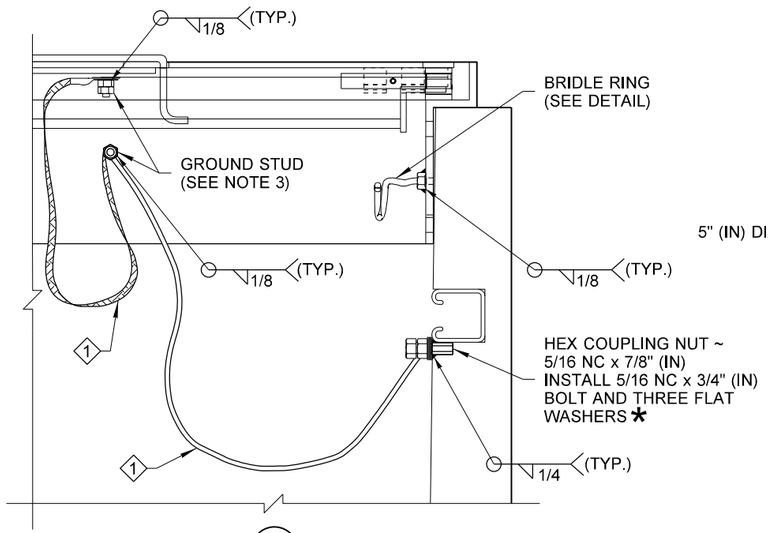


END VIEW

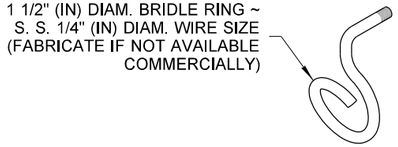


ISOMETRIC VIEW

SEE ISOMETRIC CUTAWAY ASSEMBLY ~ SHEET 1, FOR DIMENSIONS NOT SHOWN



DETAIL (1)



BRIDLE RING DETAIL

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SMALL CABLE VAULT

STANDARD PLAN J-90.21-02

SHEET 2 OF 2 SHEETS

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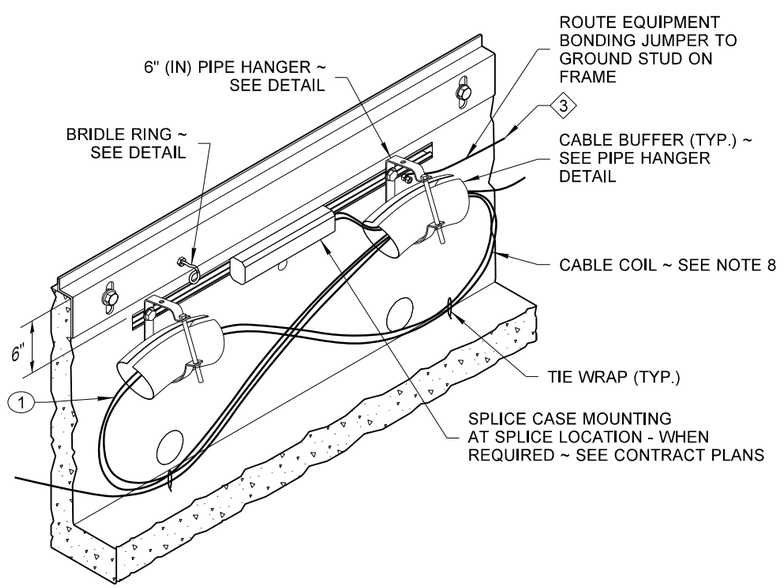
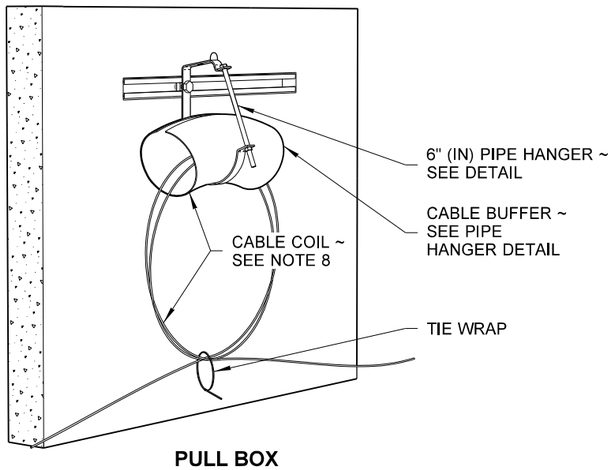
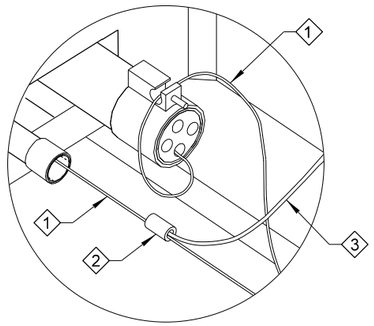


CABLE VAULT
INTERNAL ISOMETRIC VIEW



PULL BOX
INTERNAL OBLIQUE VIEW



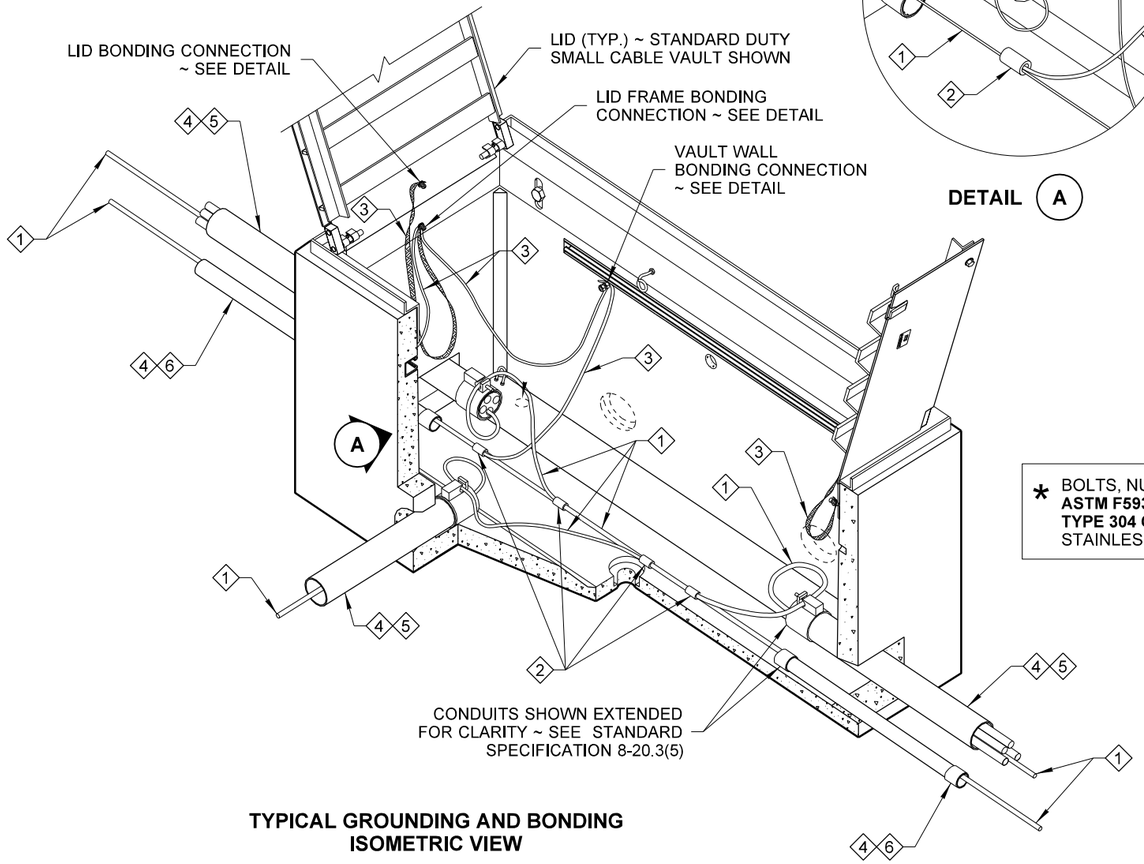
DETAIL (A)

KEY NOTES

1. EQUIPMENT GROUNDING CONDUCTOR
2. COPPER SOLDERLESS CRIMP CONNECTOR
3. EQUIPMENT BONDING JUMPER (SEE NOTES 6 & 7)
4. SEE CONTRACT FOR CONDUIT SIZE AND NUMBER
5. RMC SHOWN ~ SEE CONTRACT FOR CONDUIT TYPE
6. PVC OR HDPE (PVC SHOWN) ~ SEE CONTRACT FOR CONDUIT TYPE

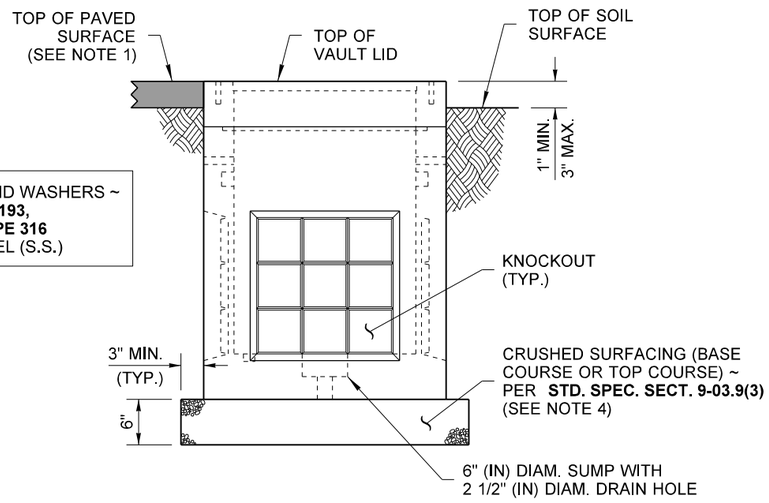
NOTES

1. Vaults (including Pull Boxes) installed within the traveled way or paved shoulder must use Heavy Duty Lids. Small Cable Vaults (**Standard Plan J-90.21**) shall not be installed in the traveled way or paved shoulder.
2. Vaults installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, and shared-use paths.
3. Small Cable Vaults for WSDOT Projects shall only be installed with the lid frame bearing on the concrete portion of cable vault.
4. Vault shall be installed on 6" (in) crushed surfacing pad in accordance with **Standard Specification Section 8-20.3(6)**.
5. Conduit Capacities (sum total conduit of all conduit diameters):
   - Pull Box and Small Cable Vault = 40" (in)
   - Cable Vault = 60" (in)
6. The bonding jumper shall be #8 AWG min. x 1' (ft) of tinned braided copper between the lid and the frame, and shall be #8 AWG min. from the frame to the hex coupling nut. See Contract Plans and **Standard Plan J-60.05** for bonding jumper requirements.
7. Connect the equipment grounding conductor(s) to the vault wall bonding connection with a #8 AWG (min.) equipment bonding jumper. For RMC conduits, the conduit end bushing shall be bonded between the equipment ground conductor and the vault wall bonding connection.
8. Each cable shall be coiled such that the cable's minimum bending radius limitations are not compromised. For coils in pull boxes, form a figure 8 loop first, then fold it in half (cable should twist slightly, not bend) to form a single loop.
9. Knockouts shall be restored with grout after conduit installation ~ see **Standard Specification section 8-20.3(6)**. For open bottom vaults, field bend #3 reinforcing bars to allow conduit into vault, then field bend back into place. Restored #3 bars shall be wire tied in two places, and the vault floor and wall completed with commercial concrete.



TYPICAL GROUNDING AND BONDING
ISOMETRIC VIEW

* BOLTS, NUTS AND WASHERS ~ **ASTM F593 OR A193, TYPE 304 OR TYPE 316** STAINLESS STEEL (S.S.)



TYPICAL VAULT PLACEMENT
END VIEW

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46597
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PROFESSIONAL ENGINEER

VAULT INSTALLATION DETAILS

STANDARD PLAN J-90.50-00

SHEET 1 OF 2 SHEETS

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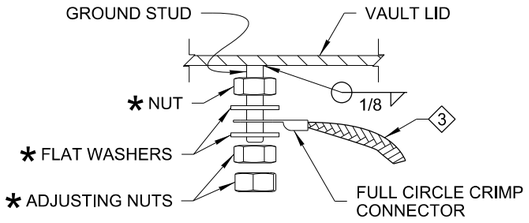
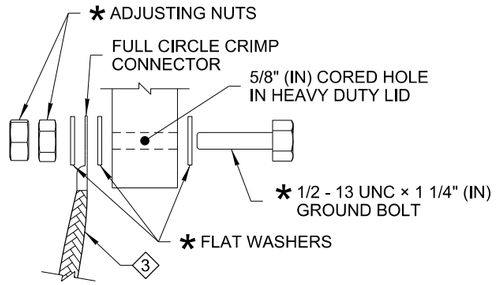
Washington State Department of Transportation

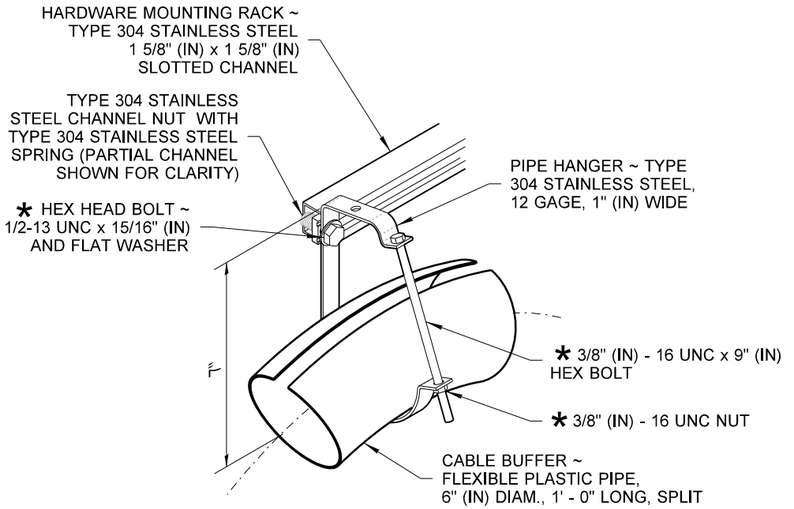
DRAWN BY: BILL BERENS



STANDARD DUTY LID BONDING CONNECTION DETAIL

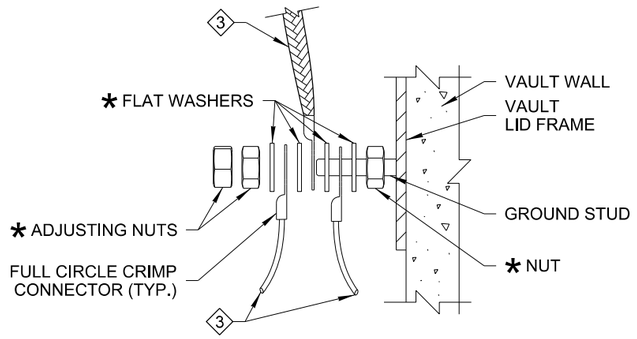


HEAVY DUTY LID BONDING CONNECTION DETAIL

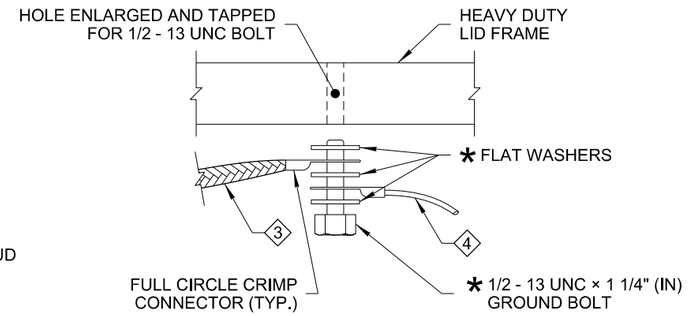


PIPE HANGER DETAIL

FABRICATE IF NOT AVAILABLE COMMERCIALLY



STANDARD DUTY LID FRAME BONDING CONNECTION DETAIL



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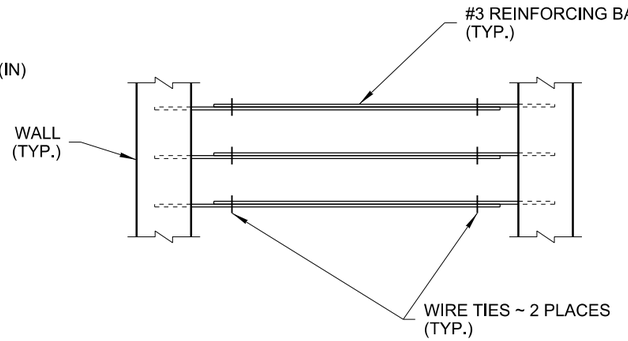
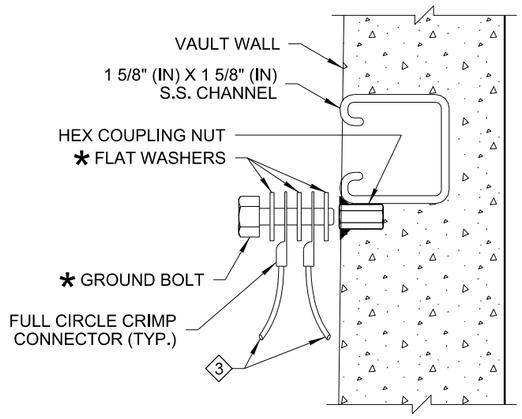


OPEN BOTTOM VAULT FINISHING DETAIL

(SEE NOTE 9)

* BOLTS, NUTS AND WASHERS ~ **ASTM F593 OR A193, TYPE 304 OR TYPE 316** STAINLESS STEEL (S.S.)



VAULT WALL BONDING CONNECTION DETAIL

KEY NOTES

1. EQUIPMENT GROUNDING CONDUCTOR
2. COPPER SOLDERLESS CRIMP CONNECTOR
3. EQUIPMENT BONDING JUMPER (SEE NOTES 6 & 7)
4. SEE CONTRACT FOR CONDUIT SIZE AND NUMBER
5. RMC SHOWN ~ SEE CONTRACT FOR CONDUIT TYPE
6. PVC OR HDPE (PVC SHOWN) ~ SEE CONTRACT FOR CONDUIT TYPE

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