



**BID AND CONTRACT DOCUMENTS
AND SPECIFICATIONS
FOR**

2019-2021 NEIGHBORHOOD TRAFFIC SAFETY (NTS) PROGRAM

RFB # 19-006

***City of Federal Way
Public Works Department
33325 8th Avenue South
Federal Way, WA 98003***

BID AND CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
2019-2021 NEIGHBORHOOD TRAFFIC SAFETY (NTS) PROGRAM

RFB # 19-006

Bids Accepted Until 10:00 a.m., September 17, 2019

At:
City of Federal Way
33325 8th Avenue South
Federal Way, WA 98003



Prepared By:
City of Federal Way
Public Works Department
33325 8th Avenue South
Federal Way, WA 98003

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ADVERTISEMENT FOR BIDS **2019-2021 NEIGHBORHOOD TRAFFIC SAFETY (NTS) PROGRAM**

SUBMITTAL OF SEALED BIDS: Notice is hereby given that the City of Federal Way will receive sealed bids through September 17, 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 September 17, 2019.

This project shall consist of:

1. Perform discretionary work for services listed in Exhibit A, Schedule A of installing traffic calming devices such as speed humps, extruded curb, and traffic circles at locations and in quantities to be provided by staff at a future date. The quantities provided in Exhibit A, Schedule A are preliminary estimates to provide an example of a "typical" project.
2. Perform discretionary work listed in Exhibit A, Schedule B, which may consist of installation and/or removal of pre-cast, block, or extruded traffic curb, installation of CSTC and HMA, installation and/or removal of speed humps, speed tables, and raised crosswalks, installation and/or removal of pedestrian refuge islands, curb ramps, concrete sidewalk, or concrete curb and gutter, and installation of traffic circle islands. Work orders showing locations and quantity estimates to be provided by staff at future dates.
3. Work-orders will be issued for individual work sites within the City of Federal Way. All basic and discretionary work items within each work-order will be located on contiguous street(s) within a six-block radius of each other.

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, Each year's work order(s) shall be physically completed within 20 Working Days of receipt of the work order, but in no case later than October 31 of each year.

BID DOCUMENTS: 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 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

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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
Federal Way Mirror

Publish August 30, 2019 and September 6, 2019
Publish August 30, 2019 and September 6, 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.
- Apprenticeship Plan**: This form shall be filled in 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.
- Contractor's Retainage Option**: The successful bidder will fully execute and deliver to the City the Contractor's Retainage Option.
- Contractor's Retainage Bond**: If the retainage bond option is chosen, then the successful bidder will fully execute and deliver to the City the Contractor's Retainage Bond.
- Business License**: The successful bidder will provide a copy of a current Business License with the City of Federal Way.

BID PROPOSAL
2019-2021 NEIGHBORHOOD TRAFFIC SAFETY (NTS) PROGRAM

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, (Example of "Typical" Projects As Described in Scope of Work)

	Item	"Typical" Project Quantity		Unit	Unit Price	Multiplier	Total
B-3	Extruded Curb, Painted WSDOT Standard Specification Section 8-07 (except no rebar) COFW Development Standard 3-4A, COFW SP 8-04	50		LF		50	
B-7	Speed Hump, Complete (includes toe grind and temporary markings. Permanent signing and markings by others.) COFW Development Standard 3-26, COFW SP 8-32	4		EA		4	
B-16 ⁵	Traffic Circle Island, Complete (includes painted pre-cast curb, pavement removal, monument case & valve box adjustment, topsoil. Each (1) island by Circle Diameter range in feet) COFW Development Standard 3-59, COFW SP 8-05	32-foot Diameter Circle	1	EA		1	
Total of Schedule A					=		
Must be the same as Schedule B Price							

Schedule A Notes:

- 1 All items shall include in the price any required layout, mobilization, traffic control, roadside cleanup, or any other incidental.
- 2 All permanent pavement markings for traffic calming devices shall be done by others.
- 3 All permanent signs for traffic calming devices are done by others.
- 4 Any removal of pavement markings will be done by others.
- 5 Unit Price is per Each for a Traffic Circle Island, Complete within the circle diameter range, in feet.

SEE NEXT PAGE FOR SCHEDULE "B"

SCHEDULE B, (Discretionary Work Orders As Described in Scope of Work)

Item	Quantity Range	Unit	Unit Price	Multiplier	Total ⁶
B-1 Pre-Cast Traffic Curb, Painted WSDOT Standard Specification Section 8-07 COFW Special Provision 8-07	50 100	LF		50	
	101 500	LF		101	
	501 +	LF		501	
B-2 Block Traffic Curb, Painted COFW Development Standard 3-4 COFW Special Provision 8-07	50 100	LF		50	
	101 500	LF		101	
	501 +	LF		501	
B-3 Extruded Curb, Painted WSDOT St. Spec. 8-07, and St. Plan F-10.42 (except no rebar) COFW Development Standard 3-4A, COFW SP 8-04	50 100	LF		50	
	101 500	LF		101	
	501 +	LF		501	
B-4 Remove Pre-Cast, Block, or Extruded Curb (include asphalt patching if necessary) WSDOT Standard Specification Section 2-02.3(3), COFW SP 8-07	50 100	LF		50	
	101 500	LF		101	
	501 +	LF		501	
B-5 Crushed Surfacing Top Course, Include Haul WSDOT Standard Specification Section 4-04, 9-03 COFW Special Provision 4-04	1 5	TON		1	
	6 15	TON		6	
	15 +	TON		15	
B-6 HMA Class 1/2" PG 64-22 WSDOT Standard Specification Section 5-04 COFW Special Provision 5-04	1 5	TON		1	
	6 15	TON		6	
	15 +	TON		15	
B-7 Speed Hump, Complete (includes toe grind and temporary markings. Permanent signing and markings by others.) COFW Development Standard 3-26, COFW SP 8-32	1	EA		1	
	2 3	EA		2	
	4 +	EA		4	
B-8 Speed Table, Complete (includes toe grind and temporary markings. Permanent signing and markings by others.) COFW Development Standard 3-27A, COFW SP 8-33	1	EA		1	
	2 3	EA		2	
	4 +	EA		4	
B-9 Raised Crosswalk, Complete (includes toe grind and temporary markings. Permanent signing and markings by others.) COFW Development Standard 3-27, COFW SP 8-33	1	EA		1	
	2 3	EA		2	
	4 +	EA		4	
B-10 Remove Speed Hump, Speed Table, or Raised Crosswalk (include asphalt patching if necessary) COFW SP 2-02.3(3)(7)	1	EA		1	
	2 3	EA		2	
	4 +	EA		4	
B-11 Pedestrian Refuge Island, Complete (includes detectable warning strips) COFW SP 8-04 COFW Development Standard 3-58	1	EA		1	
	2 3	EA		2	
	4 +	EA		4	
B-12 Remove Pedestrian Refuge Islands, Complete (include asphalt patching if necessary) COFW SP 2-02.3(3)(7)	1	EA		1	
	2 3	EA		2	
	4 +	EA		4	
B-13 Remove & Replace Concrete Curb Ramp, Complete COFW Development Standard 3-8, 3-8A, 3-8B, 3-10, 3-10A, 3-11, WSDOT Std Plan F-40.14 (Up to 25 ft.) COFW SP 8-04, 8-14	1	EA		1	
	2 3	EA		2	
	4 +	EA		4	
B-14 Remove & Replace Concrete Sidewalk, Complete COFW Development Standard 3-3 & 3-12 COFW Special Provision 8-04, 8-14	5 10	SY		5	
	11 50	SY		11	
	51 +	SY		51	
B-15 Remove & Replace Concrete Curb & Gutter, Complete (includes sawcutting, disposal, asphalt patching) COFW Dwg 3-4, 3-4A & WSDOT Stnd. Spec. 5-04.3(14), COFW SP 8-04	10 30	LF		10	
	31 100	LF		31	
	101 +	LF		101	
B-16⁷ Traffic Circle Island, Complete (includes painted pre-cast curb, pavement removal, monument case & valve box adjustment, topsoil. Each (1) island by Circle Diameter range in feet) COFW Development Standard 3-59, COFW SP 8-05	<u>Diam. (ft)</u> <u>Quantity</u>				
	10' - 16'	1	EA	1	
	17' - 24'	1	EA	1	
	25' - 32'	1	EA	1	
Total of Schedule B				=	
Adjusted Total of Schedule B⁸				X 0.10	=
Total (Total of Schedule A + Adjusted Total of Schedule B)					

Schedule B Notes:

6 Line Item Total for Schedule B are calculated by multiplying the quantity range minimum by the unit price, except for item B-16.

7 Unit Price is per Each for a Traffic Circle Island, Complete within the circle diameter range, in feet.

8 Adjusted (weighted) Total reflects likelihood that only 10% of discretionary work in Schedule B will be requested.

Note: The contract resulting from this RFB is mainly for future discretionary work orders; exact quantities and locations are unknown. The City's recent historical average for this work is approximately \$25,000 per year. Discretionary work orders are typically issued multiple times throughout the calendar year.

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.

CITY OF FEDERAL WAY

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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: _____

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

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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: _____
Title of Person Signing Certificate

Place: _____
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.

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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: Erik Preston, P.E., Senior Traffic 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: Individual to receive notices
 Street Address
 City, State, Zip

ENGINEER: City of Federal Way
 Attn: Erik Preston, P.E., Senior Traffic 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

CONTRACTOR

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

Signature of Authorized Individual

ATTEST:

Printed Name of Authorized Individual

Stephanie Courtney, CMC, City Clerk

Street Address

APPROVED AS TO FORM:

City, State, Zip

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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?
If "Yes" Will the Policies Be Extended?

- Yes No
- Yes No

MODIFICATIONS TO UNIT PRICES:

<u>ITEM NO.</u>	<u>ITEM</u>	<u>QTY</u>	<u>PREVIOUS UNIT PRICE</u>	<u>REVISED UNIT PRICE</u>	<u>ADD OR DELETE</u>
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THESE ITEMS ARE APPROXIMATE OR ESTIMATED QUANTITIES INVOLVED IN THIS CHANGE:

<u>ITEM NO.</u>	<u>ITEM</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>ADD OR DELETE</u>
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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

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CERTIFICATE OF INSURANCE

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

PERFORMANCE AND PAYMENT BOND
2019-2021 NEIGHBORHOOD TRAFFIC SAFETY (NTS) PROGRAM

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

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LOCAL OFFICE/AGENT OF SURETY:

Name

Street Address

City, State, Zip

Telephone

BOND NO.: _____

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

CONTRACTOR'S RETAINAGE OPTION

IDENTIFICATION AND DESCRIPTION

Project Title: _____

RFB No: _____

Contractor: _____

GENERAL REQUIREMENTS

1. In accordance with applicable State Statutes, a contract retainage not to exceed five percent of the moneys earned by the contractor will be reserved by the City.
2. All investments selected are subject to City approval.
3. The final disposition of the contract retainage will be made in accordance with applicable State Statutes.

CONTRACTOR'S INSTRUCTIONS

Pursuant to RCW 60.28.011, I hereby notify the City of Federal Way of my instructions for the retainage withheld under the terms of this contract:

- Option 1:** Retained in a fund by the City of Federal Way. No interest will be paid to the contractor.
- Option 2:** Deposited in an interest bearing account in a bank, mutual savings bank, or savings and loan association. Interest paid to the contractor. Contractor shall have the bank (or other) execute a separate "City of Federal Way Retainage Bank Acceptance Agreement" upon contract award. The City will provide the agreement to the Contractor if this option is selected.
- Option 3:** Placed in escrow with a bank or trust company. Contractor shall execute, and have escrow account holder execute a separate "City of Federal Way Construction Retainage Escrow Agreement" upon contract award. The City will provide the agreement to the Contractor if this option is selected. All investments are subject to City approval. The cost of the investment program, and risk thereof, is to be borne entirely by the contractor.
- Option 4:** Contractor shall submit a "Retainage Bond" on City-provided form included in these Contract Documents.

Contractor Signature

Date

RETAINAGE BOND TO CITY OF FEDERAL WAY
2019-2021 NEIGHBORHOOD TRAFFIC SAFETY (NTS) PROGRAM

KNOW ALL PERSONS BY THESE PRESENTS that we, the undersigned, _____, as principal ("Principal"), and _____, a Corporation organized and existing under the laws of the State of _____, as a surety Corporation, and qualified under the laws of the State of Washington to become surety upon bonds of Contractors with Municipal Corporations, as surety ("Surety"), are jointly and severally held and firmly bonded to the City of Federal Way ("City") in the penal sum of: _____ (\$ _____) for the payment of which sum we bind ourselves and our successors, heirs, administrators or personal representatives, as the case may be.

A. This obligation is entered into in pursuant to the statutes of the State of Washington and the ordinances, regulations, standards and policies of the City, as now existing or hereafter amended or adopted.

B. Pursuant to proper authorization, the Mayor is authorized to enter into a certain contract with the Principal, providing for the above-referenced Project, which contract is incorporated herein by this reference ("Contract"), and

C. Pursuant to State law, Chapter 60.28 RCW, the City is required to reserve from the monies earned by the Principal pursuant to the contract, a sum not to exceed five percent (5%), said sum to be retained by the City as a trust fund for the protection and payment of any person or persons, mechanic, subcontractor or material men who shall perform any labor upon such contract or the doing of such work, and all persons who shall supply such person or persons or subcontractors with provisions and supplies for the carrying on of such work, and the State with the respect to taxes imposed pursuant to Title 82 RCW which may be due from said Principal. Every person performing labor or furnishing supplies towards completion of said improvement or work shall have a lien on said monies so reserved, provided that such notice of the lien of such claimant shall be given in the manner and within the time provided in RCW 39.08.030 as now existing and in accordance with any amendments that may hereafter be provided thereto; and

D. State law further provides that with the consent of the City, the Principal may submit a bond for all or any portion of the amount of funds retained by the public body in a form acceptable to the public body conditioned upon such bond any proceeds therefrom being made subject to all claims and liens and in the same manner and priority as set forth retained percentages pursuant to Chapter 60.28 RCW; and

E. The Principal has accepted, or is about to accept, the Contract, and undertake to perform the work therein provided for in the manner and within the time set forth, for the amount of \$ _____; and

F. The City is prepared to release any required retainage money previously paid by the Principal prior to acceptance and successful operation and fulfillment of all other terms of said contract upon being indemnified by these presents,

NOW, THEREFORE, if the Principal shall perform all the provisions of the Contract in the manner and within the time period prescribed by the City, or within such extensions of time as may be granted under the Contract, and shall pay all laborers, mechanics, subcontractors and material men or women, and all persons who shall supply the Principal or subcontractors with provisions and supplies for the carrying on of said work, and if the Principal shall pay to the State all taxes imposed pursuant to Title 82 RCW which may be due from such Principal as a result of this contract then and in the event this obligation shall be void; but otherwise it shall be and remain in full force and effect.

And the Surety, for value received, hereby further stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby

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waive notice of any change, extension of time, alterations or additions to the terms of the Contract or to the Work.

The Surety hereby agrees that modifications and changes may be made in the terms and provisions of the Contract without notice to Surety, and any such modifications or changes increasing the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this Retainage Bond in a like amount, such increase, however, not to exceed twenty-five percent (25%) of the original amount of this bond without consent of the Surety.

Within forty-five (45) days of receiving notice that the Principal has defaulted on all or part of the terms of the Contract, the Surety shall make written commitment to the City that it will either: (a) cure the default itself within a reasonable time period, or (b) tender to the City, the amount necessary for the City to remedy the default, including legal fees incurred by the City, or (c) in the event that Surety's evaluation of the dispute is not complete or in the event the Surety disputes the City's claim of default, the Surety shall notify the City of its finding and its intent, if any, to interplead. The Surety shall then fulfill its obligations under this bond, according to the option it has elected. Should Surety elect option (a) to cure the default, the penal sum of the Bond shall be reduced in an amount equal to the costs actually incurred by the Surety in curing the default. If the Surety elects option (b), then upon completion of the necessary work, the City shall notify the Surety of its actual costs. The City shall return, without interest, any overpayment made by the Surety and the Surety shall pay to the City any actual costs which exceed the City estimate, limited to the bond amount. Should the Surety elect option (c), the Parties shall first complete participation in mediation, described in the below paragraph, prior to any interplead action.

In the event a dispute should arise between the Parties to this Bond with respect to the City's declaration of default by the Principal, the Parties agree to participate in at least four hours of mediation to resolve said dispute. The Parties shall proportionately share in the cost of the mediation. The mediation shall be administered by Judicial Dispute Resolution, LLC, 1425 Fourth Avenue, Suite 300, Seattle, Washington 98101. The Surety shall not interplead prior to completion of the mediation.

The parties have executed this instrument under their separate seals this _____ day of _____, 20____, the name and corporate seal of each corporate party hereto affixed, and these presents duly signed by its undersigned representatives pursuant to authority of its governing body.

CORPORATE SEAL:

PRINCIPAL

By: _____

Title: _____

Address: _____

CORPORATE SEAL:

SURETY

By: _____

*Attorney-in-Fact
(Attach Power of Attorney)*

Title: _____

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Address: _____

CERTIFICATES AS TO CORPORATE SEAL

I hereby certify that I am the (Assistant) Secretary of the Corporation named as Principal in the within bond; that _____, who signed the said bond on behalf of the Principal, was _____ of said Corporation; that I know his or her signature thereto is genuine, and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

Secretary of Principal

I hereby certify that I am the (Assistant) Secretary of the Corporation named as Surety in the within bond; that _____, who signed the said bond on behalf of the Surety, was _____ of the said Corporation; that I know his or her signature thereto is genuine, and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

Secretary of Surety

APPROVED AS TO FORM:

J. Ryan Call, City Attorney

1 INTRO.AP1

2 **INTRODUCTION**

3 The following Amendments and Special Provisions shall be used in conjunction with the
4 2018 Standard Specifications for Road, Bridge, and Municipal Construction.

5

6

AMENDMENTS TO THE STANDARD SPECIFICATIONS

7

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

12

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

15

16 1-01.AP1

17 **Section 1-01, Definitions and Terms**

18 **August 6, 2018**

19 **1-01.3 Definitions**

20 The following new term and definition is inserted before the definition for "Shoulder":

21

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

25

26 The following new term and definition is inserted after the definition for "Working Drawings":

27

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

31

32 <http://wsdot.wa.gov/forms/pdfForms.html>

33

34 1-02.AP1

35 **Section 1-02, Bid Procedures and Conditions**

36 **June 3, 2019**

37 **1-02.4(1) General**

38 This section is supplemented with the following:

39

40 Prospective Bidders are advised that the Contracting Agency may include a partially
41 completed Washington State Department of Ecology (Ecology) Transfer of Coverage
42 (Ecology Form ECY 020-87a) for the Construction Stormwater General Permit
43 (CSWGP) as part of the Bid Documents. When the Contracting Agency requires the
44 transfer of coverage of the CSWGP to the Contractor, an informational copy of the
45 Transfer of Coverage and the associated CSWGP will be included in the appendices.
46 As a condition of Section 1-03.3, the Contractor is required to complete sections I, III,
47 and VIII of the Transfer of Coverage and return the form to the Contracting Agency.

48

1 The Contracting Agency is responsible for compliance with the CSWGP until the end of
2 day that the Contract is executed. Beginning on the day after the Contract is executed,
3 the Contractor shall assume complete legal responsibility for compliance with the
4 CSWGP and full implementation of all conditions of the CSWGP as they apply to the
5 Contract Work.
6

7 **1-02.5 Proposal Forms**

8 The first sentence of the first paragraph is revised to read:
9

10 At the request of a Bidder, the Contracting Agency will provide a physical Proposal
11 Form for any project on which the Bidder is eligible to Bid.
12

13 **1-02.6 Preparation of Proposal**

14 Item number 1 of the second paragraph is revised to read:
15

16 1. A unit price for each item (omitting digits more than two places to the right of the
17 decimal point),
18

19 In the third sentence of the fourth paragraph, "WSDOT Form 422-031" is revised to read
20 "WSDOT Form 422-031U".
21

22 The following new paragraph is inserted before the last paragraph:
23

24 The Bidder shall submit with their Bid a completed Contractor Certification Wage Law
25 Compliance form (WSDOT Form 272-009). Failure to return this certification as part of
26 the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A
27 Contractor Certification of Wage Law Compliance form is included in the Proposal
28 Forms.
29

30 **1-02.13 Irregular Proposals**

31 Item 1(h) is revised to read:
32

33 h. The Bidder fails to submit Underutilized Disadvantaged Business Enterprise Good
34 Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the
35 documentation that is submitted fails to demonstrate that a Good Faith Effort to
36 meet the Condition of Award was made;
37

38 Item 1(i) is revised to read the following three items:
39

- 40 i. The Bidder fails to submit a UDBE Bid Item Breakdown form, if applicable, as
41 required in Section 1-02.6, or if the documentation that is submitted fails to meet
42 the requirements of the Special Provisions;
43
44 j. The Bidder fails to submit UDBE Trucking Credit Forms, if applicable, as required in
45 Section 1-02.6, or if the documentation that is submitted fails to meet the
46 requirements of the Special Provisions; or
47
48 k. The Bid Proposal does not constitute a definite and unqualified offer to meet the
49 material terms of the Bid invitation.
50

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

4 **1-03.3 Execution of Contract**

5 The first paragraph is revised to read:

6

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

13

14 **1-03.5 Failure to Execute Contract**

15 The first sentence is revised to read:

16

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

24

25 1-05.AP1

26 **Section 1-05, Control of Work**

27 **August 6, 2018**

28 **1-05.5 Vacant**

29 This section, including title, is revised to read:

30

31 **1-05.5 Tolerances**

32 Geometrical tolerances shall be measured from the points, lines, and surfaces defined
33 in Contract documents.

34

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

39

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

41

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

46

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

1 components or aspects of the Work, the tolerance shall be reduced for that specific
2 instance.

3

4 **1-05.9 Equipment**

5 The following new paragraph is inserted before the first paragraph:

6

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

10

11 This section is supplemented with the following:

12

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

15

16 1-06.AP1

17 **Section 1-06, Control of Material**

18 **January 7, 2019**

19 **1-06.1(3) Aggregate Source Approval (ASA) Database**

20 This section is supplemented with the following:

21

22 Regardless of status of the source, whether listed or not listed in the ASA database the
23 source owner may be asked to provide testing results for toxicity in accordance with
24 Section 9-03.21(1).

25

26 **1-06.2(2)D Quality Level Analysis**

27 This section is supplemented with the following new subsection:

28

29 **1-06.2(2)D5 Quality Level Calculation – HMA Compaction**

30 The procedures for determining the quality level and pay factor for HMA compaction are
31 as follows:

32

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

34

$$35 \quad X_m = \frac{\sum x}{n}$$

36

37 Where:

38 x = individual compaction test values for each subplot in the lot.

39 $\sum x$ = summation of individual compaction test values

40 n = total number test values

41

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

43

$$44 \quad S = \left[\frac{n \sum x^2 - (\sum x)^2}{n(n-1)} \right]^{\frac{1}{2}}$$

45

46 Where:

1 $\sum x^2 =$ summation of the squares of individual compaction test values
2 $(\sum x)^2 =$ summation of the individual compaction test values squared
3

4 3. Compute the lower quality index (Q_L):
5

6
$$Q_L = \frac{X_m - LSL}{S}$$

7
8 Where:

9 LSL = 92.0
10

11 4. Determine P_L (the percent within the lower Specification limit which
12 corresponds to a given Q_L) from Table 1. For negative values of Q_L , P_L is equal
13 to 100 minus the table P_L . If the value of Q_L does not correspond exactly to a
14 figure in the table, use the next higher value.
15

16 5. Determine the quality level (the total percent within Specification limits):
17

18 Quality Level = P_L
19

20 6. Using the quality level from step 5, determine the composite pay factor (CPF)
21 from Table 2.
22

23 7. If the CPF determined from step 6 is 1.00 or greater: use that CPF for the
24 compaction lot; however, the maximum HMA compaction CPF using an LSL =
25 92.0 shall be 1.05.
26

27 8. If the CPF from step 6 is not 1.00 or greater: repeat steps 3 through 6 using an
28 LSL = 91.5. The value thus determined shall be the HMA compaction CPF for
29 that lot; however, the maximum HMA compaction CPF using an LSL = 91.5
30 shall be 1.00.
31

32 **1-06.2(2)D1 Quality Level Analysis**

33 The following new sentence is inserted after the first sentence:
34

35 The quality level calculations for HMA compaction are completed using the formulas in
36 Section 1-06.2(2)D5.
37

38 **1-06.2(2)D4 Quality Level Calculation**

39 The first paragraph (excluding the numbered list) is revised to read:
40

41 The procedures for determining the quality level and pay factors for a material, other
42 than HMA compaction, are as follows:
43

44 **1-06.6 Recycled Materials**

45 The first three sentences of the second paragraph are revised to read:
46

47 The Contractor shall submit a Recycled Material Utilization Plan on WSDOT Form 350-
48 075A within 30 calendar days after the Contract is executed. The plan shall provide the
49 Contractor's anticipated usage of recycled concrete aggregates for meeting the
50 requirements of these Specifications. The quantity of recycled concrete aggregate will

1 be provided in tons and as a percentage of the Plan quantity for eligible material listed
2 in Section 9-03.21(1)E Table on Maximum Allowable percent (By Weight) of Recycled
3 Material.
4

5 The last paragraph is revised to read:
6

7 Within 30 calendar days after Physical Completion, the Contractor shall report the
8 quantity of recycled concrete aggregates that were utilized in the construction of the
9 project for each eligible item listed in Section 9-03.21(1)E. The Contractor's report shall
10 be provided on WSDOT Form 350-075A, Recycled Materials Reporting.
11

12 **1-06.6(1)A General**

13 Item 1(a) in the second paragraph is revised to read:
14

15 a. The estimated costs for the Work for each material with 25 percent recycled
16 concrete aggregate. The cost estimate shall include for each material a
17 documented price quote from the supplier with the lowest total cost for the Work.
18

19 1-07.AP1

20 **Section 1-07, Legal Relations and Responsibilities to the Public**
21 **April 1, 2019**

22 **1-07.5 Environmental Regulations**

23 This section is supplemented with the following new subsections:
24

25 **1-07.5(5) U.S. Army Corps of Engineers**

26 When temporary fills are permitted, the Contractor shall remove fills in their entirety and
27 the affected areas returned to pre-construction elevations.
28

29 If a U.S. Army Corps of Engineers permit is noted in Section 1-07.6 of the Special
30 Provisions, the Contractor shall retain a copy of the permit or the verification letter (in
31 the case of a Nationwide Permit) on the worksite for the life of the Contract. The
32 Contractor shall provide copies of the permit or verification letter to all subcontractors
33 involved with the authorized work prior to their commencement of any work in waters of
34 the U.S.
35

36 **1-07.5(6) U.S. Fish/Wildlife Services and National Marine Fisheries Service**

37 The Contracting Agency will provide fish exclusion and handling services if the Work
38 dictates. However, if the Contractor discovers any fish stranded by the project and a
39 Contracting Agency biologist is not available, they shall immediately release the fish into
40 a flowing stream or open water.
41

42 **1-07.5(1) General**

43 The first sentence is deleted and replaced with the following:
44

45 No Work shall occur within areas under the jurisdiction of resource agencies unless
46 authorized in the Contract.
47

48 The third paragraph is deleted.
49

50 **1-07.5(2) State Department of Fish and Wildlife**

51 This section is revised to read:

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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.

- 1 5. Clean loose dirt and debris from all materials placed below the ordinary high
2 water line. No materials shall be placed below the ordinary high water line
3 without the Engineer's concurrence.
4
- 5 6. When a violation of the Construction Stormwater General Permit (CSWGP)
6 occurs, immediately notify the Engineer and fill out WSDOT Form 422-011,
7 Contractor ECAP Report, and submit the form to the Engineer within 48 hours
8 of the violation.
9
- 10 7. Once Physical Completion has been given, prepare a Notice of Termination
11 (Ecology Form ECY 020-87) and submit the Notice of Termination
12 electronically to the Engineer in a PDF format a minimum of 7 calendar days
13 prior to submitting the Notice of Termination to Ecology.
14
- 15 8. Transfer the CSWGP coverage to the Contracting Agency when Physical
16 Completion has been given and the Engineer has determined that the project
17 site is not stabilized from erosion.
18
- 19 9. Submit copies of all correspondence with Ecology electronically to the
20 Engineer in a PDF format within four calendar days.
21

22 **1-07.5(4) Air Quality**

23 This section is revised to read:

24
25 The Contractor shall comply with all regional clean air authority and/or State
26 Department of Ecology rules and regulations.
27

28 The air quality permit process may include additional State Environment Policy Act
29 (SEPA) requirements. Contractors shall contact the appropriate regional air pollution
30 control authority well in advance of beginning Work.
31

32 When the Work includes demolition or renovation of any existing facility or structure that
33 contains Asbestos Containing Material (ACM) and/or Presumed Asbestos-Containing
34 Material (PACM), the Contractor shall comply with the National Emission Standards for
35 Hazardous Air Pollutants (NESHAP).
36

37 Any requirements included in Federal and State regulations regarding air quality that
38 applies to the "owner or operator" shall be the responsibility of the Contractor.
39

40 **1-07.7(1) General**

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

42
43 When the Contractor moves equipment or materials on or over Structures, culverts or
44 pipes, the Contractor may operate equipment with only the load-limit restrictions in
45 Section 1-07.7(2).
46

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

48
49 Unit prices shall cover all costs for operating over Structures, culverts and pipes.
50

51 **1-07.9(1) General**

52 The last sentence of the sixth paragraph is revised to read:

1
2 Generally, the Contractor initiates the request by preparing standard form 1444 Request
3 for Authorization of Additional Classification and Rate, available at
4 <https://www.dol.gov/whd/recovery/dbsurvey/conformance.htm>, and submitting it to the
5 Engineer for further action.
6

7 **1-07.9(2) Posting Notices**

8 The second sentence of the first paragraph (up until the colon) is revised to read:
9

10 The Contractor shall ensure the most current edition of the following are posted:
11

12 The revision dates are deleted from all items in the numbered list.
13

14 The following new items are inserted after item number 1:
15

16 2. **Mandatory Supplement to EEOC P/E-1** published by US Department of Labor.
17 Post for projects with federal-aid funding.
18

19 3. **Pay Transparency Nondiscrimination Provision** published by US Department of
20 Labor. Post for projects with federal-aid funding.
21

22 Item number 2 through 12 are renumbered to 4 through 14, respectively.
23

24 **1-07.11(2) Contractual Requirements**

25 In this section, "creed" is revised to read "religion".
26

27 Item numbers 1 through 9 are revised to read 2 through 10, respectively.
28

29 After the preceding Amendment is applied, the following new item number 1 is inserted:
30

31 1. The Contractor shall maintain a Work site that is free of harassment, humiliation,
32 fear, hostility and intimidation at all times. Behaviors that violate this requirement
33 include but are not limited to:
34

35 a. Persistent conduct that is offensive and unwelcome.
36

37 b. Conduct that is considered to be hazing.
38

39 c. Jokes about race, gender, or sexuality that are offensive.
40

41 d. Unwelcome, unwanted, rude or offensive conduct or advances of a sexual
42 nature which interferes with a person's ability to perform their job or creates an
43 intimidating, hostile, or offensive work environment.
44

45 e. Language or conduct that is offensive, threatening, intimidating or hostile
46 based on race, gender, or sexual orientation.
47

48 f. Repeating rumors about individuals in the Work Site that are considered to be
49 harassing or harmful to the individual's reputation.
50

51 **1-07.11(5) Sanctions**

52 This section is supplemented with the following:

1
2 Immediately upon the Engineer's request, the Contractor shall remove from the Work
3 site any employee engaging in behaviors that promote harassment, humiliation, fear or
4 intimidation including but not limited to those described in these specifications.
5

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

7 The first sentence is revised to read:

8
9 The Contractor shall include the provisions of Section 1-07.11(2) Contractual
10 Requirements (1) through (5) and the Section 1-07.11(5) Sanctions in every subcontract
11 including procurement of materials and leases of equipment.
12

13 **1-07.15(1) Spill Prevention, Control, and Countermeasures Plan**

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

15
16 An SPCC Plan template and guidance information is available at
17 [http://www.wsdot.wa.gov/environment/technical/disciplines/hazardous-materials/spill-](http://www.wsdot.wa.gov/environment/technical/disciplines/hazardous-materials/spill-prevent-report)
18 [prevent-report.](http://www.wsdot.wa.gov/environment/technical/disciplines/hazardous-materials/spill-prevent-report)
19

20 **1-07.16(2)A Wetland and Sensitive Area Protection**

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

22
23 Existing wetland and other sensitive areas, where shown in the Plans or designated by
24 the Engineer, shall be saved and protected through the life of the Contract.
25

26 **1-07.18 Public Liability and Property Damage Insurance**

27 Item number 1 is supplemented with the following new sentence:

28
29 This policy shall be kept in force from the execution date of the Contract until the
30 Physical Completion Date.
31

32 1-08.AP1

33 **Section 1-08, Prosecution and Progress January 7, 2019**

34 **1-08.1 Subcontracting**

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

36
37 All Work that is not performed by the Contractor will be considered as subcontracting
38 except: (1) purchase of sand, gravel, crushed stone, crushed slag, batched concrete
39 aggregates, ready-mix concrete, off-site fabricated structural steel, other off-site
40 fabricated items, and any other materials supplied by established and recognized
41 commercial plants; or (2) delivery of these materials to the Work site in vehicles owned
42 or operated by such plants or by recognized independent or commercial hauling
43 companies hired by those commercial plants.
44

45 The following new paragraph is inserted after the seventh paragraph:

46
47 The Contractor shall not use businesses (material suppliers, vendors, subcontractors,
48 etc.) with federal purchasing exclusions. Businesses with exclusions are identified using
49 the System for Award Management web page at www.SAM.gov.
50

1 **1-08.5 Time for Completion**

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

- 3
- 4 f. A copy of the Notice of Termination sent to the Washington State Department of
5 Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the
6 Notice of Termination by Ecology; and no rejection of the Notice of Termination by
7 Ecology. This requirement will not apply if the Construction Stormwater General
8 Permit is transferred back to the Contracting Agency in accordance with Section 8-
9 01.3(16).

10

11 **1-08.7 Maintenance During Suspension**

12 The fifth paragraph is revised to read:

13

14 The Contractor shall protect and maintain all other Work in areas not used by traffic. All
15 costs associated with protecting and maintaining such Work shall be the responsibility
16 of the Contractor.

17

18 1-09.AP1

19 **Section 1-09, Measurement and Payment**
20 **August 6, 2018**

21 **1-09.2(1) General Requirements for Weighing Equipment**

22 The last paragraph is supplemented with the following:

23

24 When requested by the Engineer, the Contractor's representative shall collect the
25 tickets throughout the day and provide them to the Engineer's designated receiver, not
26 later than the end of shift, for reconciliation. Tickets for loads not verified as delivered
27 will receive no pay.

28

29 **1-09.2(2) Specific Requirements for Batching Scales**

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

31

32 Batching scales used for concrete or hot mix asphalt shall not be used for batching
33 other materials.

34

35 **1-09.10 Payment for Surplus Processed Materials**

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

37

38 For Hot Mix Asphalt, the Plan quantity and quantity used will be adjusted for the quantity
39 of Asphalt and quantity of RAP or other materials incorporated into the mix.

40

41 2-01.AP2

42 **Section 2-01, Clearing, Grubbing, and Roadside Cleanup**
43 **April 1, 2019**

44 **2-01.2(3) Disposal Method No. 3 – Chipping**

45 Item number 2 of the first paragraph is revised to read:

- 46
- 47 2. Chips shall be disposed outside of sensitive areas, and in areas that aren't in
48 conflict with permanent Work.
- 49

1 2-02.AP2
2 **Section 2-02, Removal of Structures and Obstructions**
3 **April 2, 2018**

4 **2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters**

5 In item number 3 of the first paragraph, the second sentence is revised to read:

6

7 For concrete pavement removal, a second vertical full depth relief saw cut offset 12 to
8 18 inches from and parallel to the initial saw cut is also required, unless the Engineer
9 allows otherwise.

10

11 2-03.AP2

12 **Section 2-03, Roadway Excavation and Embankment**
13 **April 1, 2019**

14 **2-03.3(14)F Displacement of Unsuitable Foundation Materials**

15 This section, including title, is revised to read:

16

17 **2-03.3(14)F Vacant**

18

19 2-09.AP2

20 **Section 2-09, Structure Excavation**
21 **April 1, 2019**

22 **2-09.2 Materials**

23 In the first paragraph, the references to "Portland Cement" and "Aggregates for Portland
24 Cement Concrete" are revised to read:

25

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

28

29 **2-09.3(3)B Excavation Using Open Pits – Extra Excavation**

30 The last two paragraphs are deleted and replaced with the following:

31

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

37

38 **Submittals and Design Requirements**

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

47

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

- 5 1. A plan view showing the limits of the excavation and its relationship to traffic,
6 structures, utilities and other pertinent project elements. If the stability of the
7 excavation requires no-load zones or equipment setback distances, those shall
8 be shown on the plan view.
9
- 10 2. A typical or controlling cross section showing the proposed excavation, original
11 ground line, and locations of traffic, existing structures, utilities, site
12 constraints, surcharge loads, or other conditions that could affect the stability
13 of the slope. If the stability of the excavation requires no-load zones or
14 equipment setback distances, those shall be shown in cross section.
15
- 16 3. A summary clearly describing subsurface conditions, soil type for WAC 296-
17 155 part N, and groundwater conditions, sequencing considerations, and
18 governing assumptions.
19

20 Where WAC 296-155 part N requires an engineer's design, the Contractor shall submit
21 Type 2E Working Drawings. Required submittal elements include, at a minimum, the
22 three items above and the following additional items:
23

- 24 4. Supporting calculations for the design of the excavation, the soil and material
25 properties selected for design, and the justification for the selection for those
26 properties, in accordance with the WSDOT *Geotechnical Design Manual M 46-*
27 *03*.
28
- 29 5. Safety factors, or load and resistance factors used, and justification for their
30 selection, in accordance with the WSDOT *Geotechnical Design Manual M 46-*
31 *03*, and referenced AASHTO design manuals.
32
- 33 6. A monitoring plan to evaluate the excavation performance throughout its
34 design life.
35
- 36 7. Any supplemental subsurface explorations made by the Contractor to meet the
37 requirements for geotechnical design of excavation slopes, in accordance with
38 the WSDOT *Geotechnical Design Manual M 46-03*.
39

40 **2-09.3(3)D Shoring and Cofferdams**

41 The first sentence of the sixth paragraph is revised to read:
42

43 Structural shoring and cofferdams shall be designed for conditions stated in this Section
44 using methods shown in Division I Section 5 of the AASHTO *Standard Specifications for*
45 *Highway Bridges* Seventeenth Edition – 2002 for allowable stress design, or the
46 *AASHTO LRFD Bridge Design Specifications* for load and resistance factor design.
47

1 3-01.AP3
2 **Section 3-01, Production from Quarry and Pit Sites**
3 **April 2, 2018**

4 **3-01.1 Description**

5 The first paragraph is revised to read:

6
7 This Work shall consist of manufacturing and producing crushed and screened
8 aggregates including pit run aggregates of the kind, quality, and grading specified for
9 use in the construction of concrete, hot mix asphalt, crushed surfacing, maintenance
10 rock, ballast, gravel base, gravel backfill, gravel borrow, riprap, and bituminous surface
11 treatments of all descriptions.

12
13 4-04.AP4

14 **Section 4-04, Ballast and Crushed Surfacing**
15 **April 2, 2018**

16 **4-04.3(5) Shaping and Compaction**

17 This section is supplemented with the following new paragraph:

18
19 When using 100% Recycled Concrete Aggregate, the Contractor may submit a written
20 request to use a test point evaluation for compaction acceptance testing in lieu of
21 compacting to 95% of the standard density as determined by the requirements of
22 Section 2-03.3(14)D. The test point evaluation shall be performed in accordance with
23 SOP 738.

24
25 5-01.AP5

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

28 **5-01.2 Materials**

29 The reference for Concrete Patching Material is revised to read:

30
31 Concrete Patching Material, Grout, and Mortar 9-20.1
32

33 **5-01.3(1)A1 Concrete Patching Materials**

34 In this section, each reference to "9-20" is revised to read "9-20.1".

35

36 **5-01.3(4) Replace Cement Concrete Panel**

37 This section's content is deleted and replaced with the following new subsections:

38

39 **5-01.3(4)A General**

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

44

45 **5-01.3(4)B Sawing and Dimensional Requirements**

46 Concrete slabs to be replaced as shown in the Plans or staked by the Engineer shall be
47 at least 6.0 feet long and full width of an existing pavement panel. The portion of the
48 panel to remain in place shall have a minimum dimension of 6 feet in length and full

1 panel width; otherwise the entire panel shall be removed and replaced. There shall be
 2 no new joints closer than 3.0 feet to an existing transverse joint or crack. A vertical full
 3 depth saw cut is required along all longitudinal joints and at transverse locations and,
 4 unless the Engineer allows otherwise, an additional vertical full depth relief saw cut
 5 located 12 to 18 inches from and parallel to the initial longitudinal and transverse saw
 6 cut locations is also required. Removal of existing cement concrete pavement shall not
 7 cause damage to adjacent slabs that are to remain in place. In areas that will be
 8 ground, slab replacements shall be performed prior to pavement grinding.

9
 10 Side forms shall meet the requirements of Section 5-05.3(7)B whenever a sawed full
 11 depth vertical face cannot be maintained.

12
 13 **5-01.3(4)C Dowel Bars and Tie Bars**

14 For the half of a dowel bar or tie bar placed in fresh concrete, comply with the
 15 requirements of Section 5-05.

16
 17 For the half of a dowel bar or tie bar placed in hardened concrete, comply with the
 18 Standard Plans and the following.

19
 20 After drilling, secure dowel bars and tie bars into the existing pavement with either an
 21 epoxy bonding agent Type I or IV as specified in Section 9-26.1, or a grout Type 2 for
 22 non-shrink applications as specified in Section 9-20.3.

23
 24 Dowel bars shall be placed at the mid depth of the concrete slab, centered over the
 25 transverse joint, and parallel to the centerline and to the roadway surface, within the
 26 tolerances in the table below. Dowel bars may be adjusted to avoid contact with existing
 27 dowel bars in the transverse joint at bridge approach slabs or existing panels provided
 28 the adjusted dowel bars meet the tolerances below.

29
 30 Tie bars shall be placed at the mid depth of the concrete slab, centered over the joint,
 31 perpendicular to centerline, and parallel to the roadway surface, within the tolerances in
 32 the table below. The horizontal position of tie bars may be adjusted to avoid contact with
 33 existing tie bars in the longitudinal joint where panel replacement takes place, provided
 34 the adjusted tie bars meet the tolerances below.

35

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

36
 37 Dowel bars and tie bars shall be placed according to the Standard Plan when multiple
 38 panels are placed. Panels shall be cast separately from the bridge approach slab.

1 Dowel bars to be drilled into existing concrete or at a new transverse contraction joint
2 shall have a parting compound, such as curing compound, grease, or other Engineer
3 accepted equal, applied to them prior to placement.
4

5 Clean the drilled holes in accordance with the epoxy or grout manufacturer's
6 instructions. Holes shall be clean and dry at the time of placing the epoxy, or grout and
7 tie bars. Completely fill the void between the tie bar and the outer limits of the drilled
8 hole with epoxy or grout. Use retention rings to prevent leakage of the epoxy or grout
9 and support the tie bar to prevent movement until the epoxy or grout has cured the
10 minimum time recommended by the manufacturer.
11

12 **5-01.3(4)D Foundation Preparation**

13 The Contractor shall smooth the surfacing below the removed panel and compact it to
14 the satisfaction of the Engineer. Crushed surfacing base course, or hot mix asphalt may
15 be needed to bring the surfacing to grade prior to placing the new concrete.
16

17 If the material under the removed panel is uncompactable and the Engineer requires it,
18 the Contractor shall excavate the Subgrade 2 feet, place a soil stabilization construction
19 geotextile meeting the requirements of Section 9-33, and backfill with crushed surfacing
20 base course. This Work may include:
21

- 22 1. Furnishing and hauling crushed surfacing base course to the project site.
 - 23 2. Excavating uncompactable material.
 - 24 3. Furnishing and placing a soil stabilization construction geotextile.
 - 25 4. Backfilling and compacting crushed surfacing base course.
 - 26 5. Removing, hauling and restocking any unused crushed surfacing base course.
- 27
28
29
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31

32 **5-01.3(4)E Concrete Finishing**

33 Grade control shall be the responsibility of the Contractor.
34

35 All panels shall be struck off level with the adjacent panels and floated to a smooth
36 surface.
37

38 Final finish texturing shall meet the requirements of Section 5-05.3(11).
39

40 In areas where the Plans do not require grinding, the surface smoothness will be
41 measured with a 10-foot straightedge by the Engineer in accordance with Section 5-
42 05.3(12). If the replacement panel is located in an area that will be ground as part of
43 concrete pavement grinding in accordance with Section 5-01.3(9), the surface
44 smoothness shall be measured, by the Contractor, in conjunction with the smoothness
45 measurement done in accordance with Section 5-01.3(10).
46

47 **5-01.3(4)F Joints**

48 All transverse and longitudinal joints shall be sawed and sealed in accordance with
49 Section 5-05.3(8). The Contractor may use a hand pushed single blade saw for sawing
50 joints.
51

1 **5-01.3(4)G Cracked Panels**
2 Replacement panels that crack shall be repaired as specified in Section 5-05.3(22) at
3 no cost to the Contracting Agency. When repairing replacement panels that have
4 cracked, epoxy-coated dowel bars meeting the requirements of Section 9-07.5(1) may
5 be substituted for the corrosion resistant dowel bars specified.
6

7 **5-01.3(4)H Opening to Traffic**
8 Opening to traffic shall meet the requirements of Section 5-05.3(17).
9

10 **5-01.3(5) Partial Depth Spall Repair**
11 The second sentence of the third paragraph is revised to read:

12 All sandblasting residue shall be removed.
13

14 **5-01.3(7) Sealing Existing Concrete Random Cracks**
15 The second sentence of the second paragraph is revised to read:

16 Immediately prior to sealing, the cracks shall be clean.
17

18 **5-01.3(8) Sealing Existing Longitudinal and Transverse Joint**
19 The first sentence of the fifth paragraph is revised to read:

20 Immediately prior to sealing, the cracks shall be clean.
21

22 **5-01.3(10) Pavement Smoothness**
23 This section is revised to read:

24 Pavement surface smoothness for cement concrete pavement grinding on this project
25 will include International Roughness Index (IRI) testing. Ride quality will be evaluated
26 using the Mean Roughness Index (MRI) calculated by averaging the IRI data for the left
27 and right wheel path within the section.
28

29 **Smoothness Testing Equipment and Operator Certification**
30 Use an inertial profiler and operator that meet the requirements of Section 5-05.3(3)E.
31

32 **Surface Smoothness**
33 Operate the inertial profiler in accordance with AASHTO R 57. Collect two longitudinal
34 traces, one in each wheel path. Collect the control profile at locations designated in
35 Table 2 prior to any pavement rehabilitation Work on the areas to be tested. Collect an
36 acceptance profile at locations designated in Table 2 after completion of all cement
37 concrete pavement grinding on the project. Profiles shall be collected in a continuous
38 pass including areas excluded from pay adjustments. Provide notice to the Engineer a
39 minimum of seven calendar days prior to testing.
40
41
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44

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	Acceptance profile

concrete pavement grinding	
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

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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	

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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:

1

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

2

3

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

4

5

6

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

7

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10

Surface smoothness of travel lanes including areas subject to MRI testing shall not vary more than ¼ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline.

11

12

13

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.

14

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17

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:

18

19

20

21

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

22

23

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25

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.

26

27

28

29

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.

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5-01.5 Payment

This section is supplemented with the following:

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37

38

“Grinding Smoothness Compliance Adjustment”, by calculation.

39

Grinding Smoothness Compliance Adjustments will be based on the requirements in Section 5-01.3(10) and the following calculations:

40

41

42

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.

43

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1 5-02.AP5
2 **Section 5-02, Bituminous Surface Treatment**
3 **April 1, 2019**

4 **5-02.3(5) Application of Aggregates**

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

6

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

10

11 5-04.AP5

12 **Section 5-04, Hot Mix Asphalt**
13 **April 1, 2019**

14 **5-04.1 Description**

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

16

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

20

21 **5-04.2 Materials**

22 The reference to "Warm Mix Asphalt Additive" is revised to read "HMA Additive".

23

24 **5-04.2(1) How to Get an HMA Mix Design on the QPL**

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

26

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

31

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

34

35 **5-04.2(1)C Mix Design Resubmittal for QPL Approval**

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

37

- 38 3. Changes in modifiers used in the asphalt binder.

39

40 **5-04.2(2)B Using Warm Mix Asphalt Processes**

41 This section, including title, is revised to read:

42

43 **5-04.2(2)B Using HMA Additives**

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

48

- 1 • Do not use additives that reduce the mixing temperature in accordance with
2 Section 5-04.3(6) in the production of High RAP/Any RAS mixtures.
3
4 • Before using additives, obtain the Engineer's approval using WSDOT Form
5 350-076 to describe the proposed additive and process.
6

7 **5-04.3(3)A Mixing Plant**

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

- 9
10 5. Provide HMA sampling equipment that complies with FOP for AASHTO T 168:
11
12 • Use a mechanical sampling device accepted by the Engineer, or
13
14 • Platforms or devices to enable sampling from the truck transport without
15 entering the truck transport for sampling HMA.
16

17 **5-04.3(4) Preparation of Existing Paved Surfaces**

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

19
20 Unless otherwise allowed by the Engineer, use cationic emulsified asphalt CSS-1, CSS-
21 1h, or Performance Graded (PG) asphalt for tack coat.
22

23 **5-04.3(6) Mixing**

24 The first paragraph is revised to read:

25
26 The asphalt supplier shall introduce recycling agent and anti-stripping additive, in the
27 amount designated on the QPL for the mix design, into the asphalt binder prior to
28 shipment to the asphalt mixing plant.
29

30 The seventh paragraph is revised to read:

31
32 Upon discharge from the mixer, ensure that the temperature of the HMA does not
33 exceed the optimum mixing temperature shown on the accepted Mix Design Report by
34 more than 25°F, or as allowed by the Engineer. When an additive is included in the
35 manufacture of HMA, do not heat the additive (at any stage of production including in
36 binder storage tanks) to a temperature higher than the maximum recommended by the
37 manufacturer of the additive.
38

39 **5-04.3(7) Spreading and Finishing**

40 The last row of the table is revised to read:

41

$\frac{3}{8}$ inch	0.25 feet	0.30 feet
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42
43 **5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA**

44 The following new paragraph is inserted after the first paragraph:

45
46 The Contracting Agency's combined aggregate bulk specific gravity (Gsb) blend as
47 shown on the HMA Mix Design will be used for VMA calculations until the Contractor
48 submits a written request for a Gsb test. The new Gsb will be used in the VMA
49 calculations for HMA from the date the Engineer receives the written request for a Gsb
50 retest. The Contractor may request aggregate specific gravity (Gsb) testing be
51 performed by the Contracting Agency twice per project. The Gsb blend of the combined

1 stockpiles will be used to calculate voids in mineral aggregate (VMA) of any HMA
2 produced after the new Gsb is determined.

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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
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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
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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
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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 subplot 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.

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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

1 Engineer is satisfied that material conforming to the Specifications can be
2 produced. See also Section 5-04.3(11)F.
3

4 **5-04.3(10)C2 HMA Compaction Statistical Evaluation – Acceptance Testing**

5 In the table, “WSDOT FOP for AASHTO T 355” is revised to read “FOP for AASHTO T 355”.
6

7 **5-04.3(10)C3 HMA Statistical Compaction – Price Adjustments**

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

10
11 The first sentence in the second paragraph is revised to read:
12

13 For each HMA compaction lot (that is accepted by Statistical Evaluation) which does not
14 meet the criteria in the preceding paragraph, the compaction lot shall be evaluated in
15 accordance with Section 1-06.2(2)D5 to determine the appropriate Composite Pay
16 Factor (CPF).
17

18 The last two paragraphs are revised to read:
19

20 Determine the Compaction Price Adjustment (CPA) from the table below, selecting the
21 equation for CPA that corresponds to the value of CPF determined above.
22

Calculating HMA Compaction Price Adjustment (CPA)	
Value of CPF	Equation for Calculating CPA
When CPF > 1.00	$CPA = [1.00 \times (CPF - 1.00)] \times Q \times UP$
When CPF = 1.00	CPA = \$0
When CPF < 1.0	$CPA = [0.60 \times (CPF - 1.00)] \times Q \times UP$

23

24 Where

25 CPA = Compaction Price Adjustment for the compaction lot (\$)

26 CPF = Composite Pay Factor for the compaction lot (maximum is 1.05)

27 Q = Quantity in the compaction lot (tons)

28 UP = Unit price of the HMA in the compaction lot (\$/ton)
29

30 **5-04.3(10)C4 HMA Statistical Compaction – Requests for Retesting**

31 The first sentence is revised to read:
32

33 For a compaction subplot that has been tested with a nuclear density gauge that did not
34 meet the minimum of 91.5 percent of the theoretical maximum density in a compaction
35 lot with a CPF below 1.00 and thus subject to a price reduction or rejection, the
36 Contractor may request that a core, taken at the same location as the nuclear density
37 test, be used for determination of the relative density of the compaction subplot.
38

39 **5-04.3(13) Surface Smoothness**

40 The second to last paragraph is revised to read:
41

42 When concrete pavement is to be placed on HMA, the surface tolerance of the HMA
43 shall be such that no surface elevation lies above the Plan grade minus the specified
44 Plan depth of concrete pavement. Prior to placing the concrete pavement, bring any

1 such irregularities to the required tolerance by grinding or other means allowed by the
2 Engineer.

3
4 **5-04.5 Payment**

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

6
7 The unit Contract price per linear foot for "Crack Sealing-LF" shall be full payment for all
8 costs incurred to perform the Work described in Section 5-04.3(4)A.

9
10 5-05.AP5

11 **Section 5-05, Cement Concrete Pavement**

12 **April 1, 2019**

13 **5-05.1 Description**

14 In the first paragraph, "portland cement concrete" is revised to read "cement concrete".

15
16 **5-05.2 Materials**

17 In the first paragraph, the reference to "Portland Cement" is revised to read:

18
19 Cement 9-01

20
21 In the first paragraph, the section reference for Concrete Patching Material is revised to read
22 "9-20.1".

23
24 The second paragraph is revised to read:

25
26 Cementitious materials are considered to be the following: portland cement, blended
27 hydraulic cement, fly ash, ground granulated blast furnace slag and microsilica fume.

28
29 **5-05.3(1) Concrete Mix Design for Paving**

30 The table title in item number 4 is revised to read **Concrete Batch Weights**.

31
32 In item 4a, "Portland Cement" is revised to read "Cement".

33
34 **5-05.3(3)E Smoothness Testing Equipment**

35 This section is revised to read:

36
37 Inertial profilers shall meet all requirements of AASHTO M 328 and be certified in
38 accordance with AASHTO R 56 within the preceding 12 months.

39
40 The inertial profiler operator shall be certified as required by AASHTO R 56 within three
41 years preceding profile measurement.

42
43 Equipment or operator certification by other states or a profiler certification facility will be
44 accepted provided the certification meets the requirements of AASHTO R 56.

45 Documentation verifying certification by another state shall be submitted to the Engineer
46 a minimum of 14 calendar days prior to profile measurement. Equipment certification
47 documentation shall include the information required by part 8.5 and 8.6 of AASHTO R
48 56. Operator documentation shall include a statement from the certifying state that
49 indicates the operator is certified to operate the inertial profiler to be used on the project.
50 The decision whether another state's certification meets the requirements of AASHTO R
51 56 shall be vested entirely in the Engineer.

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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:

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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 1/8 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 1/4 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:

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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 1/8 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 1/4 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 1/4 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.

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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

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2 The bid item "Portland Cement Concrete Compliance Adjustment", by calculation, and the
3 paragraph following this bid item are revised to read:

4
5 "Cement Concrete Compliance Adjustment", by calculation.

6
7 Payment for "Cement Concrete Compliance Adjustment" will be calculated by
8 multiplying the unit Contract price for the cement concrete pavement, times the volume
9 for adjustment, times the percent of adjustment determined from the calculated CPF
10 and the Deficiency Adjustment listed in Section 5-05.5(1)A.

11
12 **5-05.5(1) Pavement Thickness**

13 This section is revised to read:

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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.	

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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.

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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:

1 **5-05.5(1)A Vacant**

2

3 **5-05.5(1)B Thickness Deficiency of More Than 0.05 Foot**

4 This section, including title, is revised to read:

5

6 **5-05.5(1)B Vacant**

7

8 6-01.AP6

9 **Section 6-01, General Requirements for Structures**

10 **January 7, 2019**

11 This section is supplemented with the following new subsections:

12

13 **6-01.16 Repair of Defective Work**

14 **6-01.16(1) General**

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

18

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

25

26 Pre-approved repair procedures shall consist of the following:

27

- 28 • The procedures listed in Section 6-01.16(2)
- 29
- 30 • For precast concrete, repair procedures in the annual plant approval
31 process documents that have been approved for use by the Contracting
32 Agency.
- 33

33

34 All Working Drawings for repair procedures shall include:

35

- 36 • A description of the defective Work including location, extent and pictures
- 37
- 38 • Materials to be used in the repair. Repairs using manufactured products
39 shall include written manufacturer recommendations for intended uses of
40 the product, surface preparation, mixing, aggregate extension (if
41 applicable), ambient and surface temperature limits, placement methods,
42 finishing and curing.
- 43
- 44 • Construction procedures
- 45
- 46 • Plan details of the area to be repaired
- 47
- 48 • Calculations for Type 2E Working Drawings
- 49

49

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

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2 The Engineer shall be notified prior to performing any repair procedure and shall be
3 given an opportunity to inspect the repair work being performed.
4

5 **6-01.16(2) Pre-Approved Repair Procedures**

6 **6-01.16(2)A Concrete Spalls and Poor Consolidation (Rock Pockets,
7 Honeycombs, Voids, etc.)**

8 This repair shall be limited to the following areas:
9

- 10 • Areas that are not on top Roadway surfaces (with or without an
11 overlay) including but not limited to concrete bridge decks, bridge
12 approach slabs or cement concrete pavement
- 13
- 14 • Areas that are not underwater
- 15
- 16 • Areas that are not on precast barrier, except for the bottom 4 inches
17 (but not to exceed 1 inch above blockouts)
- 18
- 19 • Areas that do not affect structural adequacy as determined by the
20 Engineer.
21

22 The repair procedure is as follows:
23

- 24 1. Remove all loose and unsound concrete. Impact breakers shall not
25 exceed 15 pounds in weight when removing concrete adjacent to
26 reinforcement or other embedments and shall not exceed 30 pounds
27 in weight otherwise. Operate impact breakers at angles less than 45
28 degrees as measured from the surface of the concrete to the tool and
29 moving away from the edge of the defective Work. Concrete shall be
30 completely removed from exposed surfaces of existing steel
31 reinforcing bars. If half or more of the circumference of any steel
32 reinforcing bar is exposed, if the reinforcing bar is loose or if the bond
33 to existing concrete is poor then concrete shall be removed at least $\frac{3}{4}$
34 inch behind the reinforcing bar. Do not damage any existing
35 reinforcement. Stop work and allow the Engineer to inspect the repair
36 area after removing all loose and unsound concrete. Submit a
37 modified repair procedure when required by the Engineer.
38
- 39 2. Square the edges of the repair area by cutting an edge perpendicular
40 to the concrete surface around the repair area. The geometry of the
41 repair perimeter shall minimize the edge length and shall be
42 rectangular with perpendicular edges, avoiding reentrant corners. The
43 depth of the cut shall be a minimum of $\frac{3}{4}$ inch, but shall be reduced if
44 necessary to avoid damaging any reinforcement. For repairs on
45 vertical surfaces, the top edge shall slope up toward the front at a 1-
46 vertical-to-3-horizontal slope.
47
- 48 3. Remove concrete within the repair area to a depth at least matching
49 the cut depth at the edges. Large variations in the depth of removal
50 within short distances shall be avoided. Roughen the concrete
51 surface. The concrete surface should be roughened to at least
52 Concrete Surface Profile (CSP) 5 in accordance with ICRI Guideline

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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.

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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.

1 **6-02.3(2)A1 Contractor Mix Design for Concrete Class 4000D**

2 Item number 5 of the first paragraph is deleted.

3
4 Item number 6 of the first paragraph (after the preceding Amendment is applied) is
5 renumbered to 5.

6
7 **6-02.3(2)B Commercial Concrete**

8 The second paragraph is revised to read:

9
10 Where concrete Class 3000 is specified for items such as, culvert headwalls, plugging
11 culverts, concrete pipe collars, pipe anchors, monument cases, Type PPB, PS, I, FB
12 and RM signal standards, pedestals, cabinet bases, guardrail anchors, fence post
13 footings, sidewalks, concrete curbs, curbs and gutters, and gutters, the Contractor may
14 use commercial concrete. If commercial concrete is used for sidewalks, concrete curbs,
15 curbs and gutters, and gutters, it shall have a minimum cementitious material content of
16 564 pounds per cubic yard of concrete, shall be air entrained, and the tolerances of
17 Section 6-02.3(5)C shall apply.

18
19 **6-02.3(4) Ready-Mix Concrete**

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

21
22 All concrete, except lean concrete, shall be batched in a prequalified manual, semi-
23 automatic, or automatic plant as described in Section 6-02.3(4)A.

24
25 **6-02.3(4)D Temperature and Time For Placement**

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

27
28 The upper temperature limit for placement for Class 4000D concrete may be increased
29 to a maximum of 80°F if allowed by the Engineer.

30
31 **6-02.3(5)C Conformance to Mix Design**

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

- 33
34 1. Cement weight plus 5 percent or minus 1 percent of that specified in the
35 mix design.

36
37 **6-02.3(6)A1 Hot Weather Protection**

38 The first paragraph is revised to read:

39
40 The Contractor shall provide concrete within the specified temperature limits. Cooling of
41 the coarse aggregate piles by sprinkling with water is permitted provided the moisture
42 content is monitored, the mixing water is adjusted for the free water in the aggregate
43 and the coarse aggregate is removed from at least 1 foot above the bottom of the pile.
44 Sprinkling of fine aggregate piles with water is not allowed. Refrigerating mixing water or
45 replacing all or part of the mixing water with crushed ice is permitted, provided the ice is
46 completely melted by placing time.

47
48 The second sentence of the second paragraph is revised to read:

49
50 These surfaces include forms, reinforcing steel, steel beam flanges, and any others that
51 touch the concrete.

1 **6-02.3(7) Vacant**

2 This section, including title, is revised to read:

3
4 **6-02.3(7) Tolerances**

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

7
8 Horizontal deviation of roadway crown points, cross-slope break points, and curb,
9 barrier or railing edges from alignment or work line: ± 1.0 inch

10
11 Deviation from plane: ± 0.5 inch in 10 feet

12
13 Deviation from plane for roadway surfaces: ± 0.25 inch in 10 feet

14
15 Deviation from plumb or specified batter: ± 0.5 inch in 10 feet, but not to exceed a total
16 of ± 1.5 inches

17
18 Vertical deviation from profile grade for roadway surfaces: ± 1 inch

19
20 Vertical deviation of top surfaces (except roadway surfaces): ± 0.75 inch

21
22 Thickness of bridge decks and other structural slabs not at grade: ± 0.25 inch

23
24 Length, width and thickness of elements such as columns, beams, crossbeams,
25 diaphragms, corbels, piers, abutments and walls, including dimensions to construction
26 joints in initial placements: $+0.5$ inch, -0.25 inch

27
28 Length, width and thickness of spread footing foundations: $+2$ inches, -0.5 inch

29
30 Horizontal location of the as-placed edge of spread footing foundations: The greater of
31 $\pm 2\%$ of the horizontal dimension of the foundation perpendicular to the edge and ± 0.5
32 inch. However, the tolerance shall not exceed ± 2 inches.

33
34 Location of opening, insert or embedded item at concrete surface: ± 0.5 inch

35
36 Cross-sectional dimensions of opening: ± 0.5 inch

37
38 Bridge deck, bridge approach slab, and bridge traffic barrier expansion joint gaps with a
39 specified temperature range, measured at a stable temperature: ± 0.25 inch

40
41 Horizontal deviation of centerline of bearing pad, oak block or other bearing assembly:
42 ± 0.125 inch

43
44 Horizontal deviation of centerline of supported element from centerline of bearing pad,
45 oak block or other bearing assembly ± 0.25 inch

46
47 Vertical deviation of top of bearing pad, oak block or other bearing assembly: ± 0.125
48 inch

49
50 **6-02.3(10)C Finishing Equipment**

51 The first paragraph is revised to read:

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

10
11 The first sentence of the second paragraph is revised to read:

12
13 For bridge deck widening of 20 feet or less, and for bridge approach slabs, or where
14 jobsite conditions do not allow the use of the conventional configuration finishing
15 machines, or modified conventional machines as described above; the Contractor may
16 submit a Type 2 Working Drawing proposing the use of a hand-operated motorized
17 power screed such as a "Texas" or "Bunyan" screed.

18
19 **6-02.3(10)D4 Monitoring Bridge Deck Concrete Temperature After Placement**

20 This section, including title, is revised to read:

21
22 **6-02.3(10)D4 Vacant**

23
24 **6-02.3(10)D5 Bridge Deck Concrete Finishing and Texturing**

25 In the third subparagraph of the first paragraph, the last sentence is revised to read:

26
27 The Contractor shall texture the bridge deck surface to within 3-inches minimum and
28 24-inches maximum of the edge of concrete at expansion joints, within 1-foot minimum
29 and 2-foot maximum of the curb line, and within 3-inches minimum and 9-inches
30 maximum of the perimeter of bridge drain assemblies.

31
32 **6-02.3(10)F Bridge Approach Slab Orientation and Anchors**

33 The second to last paragraph is revised to read:

34
35 The compression seal shall be a 2½ inch wide gland and shall conform to Section 9-
36 04.1(4).

37
38 The last paragraph is deleted.

39
40 **6-02.3(13)A Strip Seal Expansion Joint System**

41 In item number 3 of the third paragraph, "Federal Standard 595" is revised to read "SAE
42 AMS Standard 595".

43
44 **6-02.3(13)B Compression Seal Expansion Joint System**

45 The first paragraph is revised to read:

46
47 Compression seal glands shall conform to Section 9-04.1(4) and be sized as shown in
48 the Plans.

49
50 **6-02.3(14)C Pigmented Sealer for Concrete Surfaces**

51 This section is supplemented with the following new paragraph:

52

1 Pigmented Sealer Materials shall be a product listed in the current WSDOT Qualified
2 Products List (QPL). If the pigmented sealer material is not listed in the current WSDOT
3 QPL, a sample shall be submitted to the State Materials Laboratory in Tumwater for
4 evaluation and acceptance in accordance with Section 9-08.3.
5

6 **6-02.3(20) Grout for Anchor Bolts and Bridge Bearings**

7 The second, third and fourth paragraphs are revised to read:
8

9 Grout shall be a workable mix with a viscosity that is suitable for the intended
10 application. Grout shall not be placed outside of the manufacturer recommended range
11 of thickness. The Contractor shall receive concurrence from the Engineer before using
12 the grout.
13

14 Field grout cubes and cylinders shall be fabricated and tested in accordance with
15 Section 9-20.3 when requested by the Engineer, but not less than once per bridge pier
16 or once per day.
17

18 Before placing grout, the substrate on which it is to be placed shall be prepared as
19 recommended by the manufacturer to ensure proper bonding. The grout shall be cured
20 as recommended by the manufacturer. The grout may be loaded when a minimum of
21 4,000 psi compressive strength is attained.
22

23 The fifth paragraph is deleted.
24

25 **6-02.3(23) Opening to Traffic**

26 This section is supplemented with the following new paragraph:
27

28 After curing bridge approach slabs in accordance with Section 6-02.3(11), the
29 bridge approach slabs may be opened to traffic when a minimum compressive strength
30 of 2,500 psi is achieved.
31

32 **6-02.3(24)C Placing and Fastening**

33 This section is revised to read:
34

35 The Contractor shall position reinforcing steel as the Plans require and shall ensure that
36 the steel is set within specified tolerances. Adjustments to reinforcing details outside of
37 specified tolerances to avoid interferences and for other purposes are acceptable when
38 approved by the Engineer.
39

40 When spacing between bars is 1 foot or more, they shall be tied at all intersections.
41 When spacing is less than 1 foot, every other intersection shall be tied. If the Plans
42 require bundled bars, they shall be tied together with wires at least every 6 feet. All
43 epoxy-coated bars in the top mat of the bridge deck shall be tied at all intersections,
44 however they may be tied at alternate intersections when spacing is less than 1 foot in
45 each direction and they are supported by continuous supports meeting all other
46 requirements of supports for epoxy-coated bars. Other epoxy-coated bars shall also be
47 tied at all intersections, but shall be tied at alternate intersections when spacing is less
48 than 1 foot in each direction. Wire used for tying epoxy-coated reinforcing steel shall be
49 plastic coated. **Tack welding is not permitted on reinforcing steel.**
50

1 Abrupt bends in the steel are permitted only when one steel member bends around
2 another. Vertical stirrups shall pass around main reinforcement or be firmly attached to
3 it.
4

5 For slip-formed concrete, the reinforcing steel bars shall be tied at all intersections and
6 cross braced to keep the cage from moving during concrete placement. Cross bracing
7 shall be with additional reinforcing steel. Cross bracing shall be placed both
8 longitudinally and transversely.
9

10 After reinforcing steel bars are placed in a traffic or pedestrian barrier and prior to slip-
11 form concrete placement, the Contractor shall check clearances and reinforcing steel
12 bar placement. This check shall be accomplished by using a template or by operating
13 the slip-form machine over the entire length of the traffic or pedestrian barrier. All
14 clearance and reinforcing steel bar placement deficiencies shall be corrected by the
15 Contractor before slip-form concrete placement.
16

17 Precast concrete supports (or other accepted devices) shall be used to maintain the
18 concrete coverage required by the Plans. The precast concrete supports shall:
19

- 20 1. Have a bearing surface measuring not greater than 2 inches in either dimension,
21 and
22
- 23 2. Have a compressive strength equal to or greater than that of the concrete in which
24 they are embedded.
25

26 In slabs, each precast concrete support shall have either: (1) a grooved top that will hold
27 the reinforcing bar in place, or (2) an embedded wire that protrudes and is tied to the
28 reinforcing steel. If this wire is used around epoxy-coated bars, it shall be coated with
29 plastic.
30

31 Precast concrete supports may be accepted based on a Manufacturer's Certificate of
32 Compliance.
33

34 In lieu of precast concrete supports, the Contractor may use metal or all-plastic supports
35 to hold uncoated bars. Any surface of a metal support that will not be covered by at
36 least ½ inch of concrete shall be one of the following:
37

- 38 1. Hot-dip galvanized after fabrication in keeping with AASHTO M232 Class D;
39
- 40 2. Coated with plastic firmly bonded to the metal. This plastic shall be at least
41 3/32 inch thick where it touches the form and shall not react chemically with the
42 concrete when tested in the State Materials Laboratory. The plastic shall not
43 shatter or crack at or above -5°F and shall not deform enough to expose the
44 metal at or below 200°F; or
45
- 46 3. Stainless steel that meet the requirements of ASTM A493, Type 302. Stainless
47 steel chair supports are not required to be galvanized or plastic coated.
48

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

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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:

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

3

4 **6-02.3(28)B Casting**

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

7

8 **6-02.3(28)D Contractors Control Strength**

9 In the first paragraph, "WSDOT FOP for AASHTO T 23" is revised to read "FOP for AASHTO
10 T 23".

11

12 **6-02.3(28)E Finishing**

13 This section is supplemented with the following:

14

15 The Contractor may repair defects in precast panels in accordance with Section 6-
16 01.16.

17

18 6-03.AP6

19 **Section 6-03, Steel Structures**

20 **January 7, 2019**

21 **6-03.2 Materials**

22 In the first paragraph, the material reference for Paints is revised to read:

23

24 Paints and Related Materials 9-08

25

26 **6-03.3(25)A3 Ultrasonic Inspection**

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

28

29 Complete penetration groove welds on plates 5/16 inch and thicker in the following
30 welded assemblies or Structures shall be 100 percent ultrasonically inspected:

31

32 **6-03.3(33) Bolted Connections**

33 The first paragraph is supplemented with the following:

34

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

37

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

39

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

41

42 6-05.AP6

43 **Section 6-05, Piling**

44 **January 2, 2018**

45 **6-05.3(9)A Pile Driving Equipment Approval**

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

47

1 For prestressed concrete piles, the allowable driving stress in kips per square inch shall
2 be $0.095 \cdot \sqrt{f'_c}$ plus prestress in tension, and $0.85f'_c$ minus prestress in compression,
3 where f'_c is the concrete compressive strength in kips per square inch.
4

5 6-07.AP6

6 **Section 6-07, Painting**

7 **January 7, 2019**

8 **6-07.1 Description**

9 The first sentence is revised to read:

10

11 This work consists of containment, surface preparation, shielding adjacent areas from
12 work, testing and disposing of debris, furnishing and applying paint, and cleaning up
13 after painting is completed.
14

15 **6-07.2 Materials**

16 The material reference for Paint is revised to read:

17

18 Paint and Related Materials 9-08

19

20 **6-07.3(1)A Work Force Qualifications for Shop Application of Paint**

21 This section is supplemented with the following new sentence:

22

23 The work force may be accepted based on the approved facility.
24

25 **6-07.3(1)B Work Force Qualifications for Field Application of Paint**

26 The first two paragraphs are revised to read:

27

28 The Contractor preparing the surface and applying the paint shall be certified under
29 SSPC-QP 1 or NACE International Institute Contractor Accreditation Program (NIICAP)
30 AS 1.
31

32 The Contractor removing and otherwise disturbing existing paint containing lead and
33 other hazardous materials shall be certified under SSPC-QP 2, Category A or NIICAP
34 AS 2.
35

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

37

38 In lieu of the above SSPC or NIICAP certifications, the Contractor performing the
39 specified work shall complete both of the following actions:
40

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

42

- 43 2. The Contractor's quality control inspector(s) for the project shall be NACE-certified
44 CIP Level 3 or SSPC Protective Coating Inspector (PCI) Level 3.
45

46 **6-07.3(2) Submittals**

47 The first paragraph is supplemented with the following:

48

49 Each component of the plan shall identify the specification section it represents.
50

1 **6-07.3(2)B Contractor's Quality Control Program Submittal Component**

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

- 3
- 4 1. Description of the inspection procedures, tools, techniques and the acceptance
 - 5 criteria for all phases of work.
 - 6
 - 7 2. Procedure for implementation of corrective action for non-conformance work.
 - 8
 - 9 3. The paint system manufacturer's recommended methods of preventing defects.
 - 10
 - 11 4. The Contractor's frequency of quality control inspection for each phase of work.
 - 12
 - 13 5. Example of each completed form(s) of the daily quality control report used to
 - 14 document the inspection work and tests performed by the Contractor's quality
 - 15 control personnel.
 - 16

17 **6-07.3(2)C Paint System Manufacturer and Paint System Information Submittal**

18 **Component**

19 Item number 1 is revised to read:

- 20
- 21 1. Product data sheets and Safety Data Sheets (SDS) on the paint materials, paint
 - 22 preparation, and paint application, as specified by the paint manufacturer,
 - 23 including:
 - 24
 - 25 a. All application instructions, including the mixing and thinning directions.
 - 26
 - 27 b. Recommended spray nozzles and pressures.
 - 28
 - 29 c. Minimum and maximum drying time between coats.
 - 30
 - 31 d. Restrictions on temperature and humidity.
 - 32
 - 33 e. Repair procedures for shop and field applied coatings.
 - 34
 - 35 f. Maximum dry film thickness for each coat.
 - 36
 - 37 g. Minimum wet film thickness for each coat to achieve the specified minimum
 - 38 dry film thickness.
 - 39

40 **6-07.3(2)D Hazardous Waste Containment, Collection, Testing, and Disposal**

41 **Submittal Component**

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

43

44 The hazardous waste containment, collection, testing, and disposal shall meet all

45 Federal and State requirements, and the submittal component of the painting plan shall

46 include the following:

47

48 **6-07.3(2)E Cleaning and Surface Preparation Submittal Component**

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

- 50
- 51 b. Type, manufacturer, and brand of abrasive blast material and all associated
 - 52 additives, including Safety Data Sheets (SDS).

1
2 **6-07.3(3)B Quality Control and Quality Assurance for Field Application of Paint**

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

4
5 The Contractor's quality control operations shall include a minimum monitoring and
6 documenting the following for each working day:

7
8 Item number 1 in the fourth paragraph is revised to read:

- 9
10 1. Environmental conditions for painting in accordance with ASTM E 337.

11
12 Item number 4 in the fourth paragraph is revised to read:

- 13
14 4. Pictorial of surface preparation guides in accordance with SSPC-VIS 1, 3, 4, and 5.

15
16 Item number 5 in the fourth paragraph is revised to read:

- 17
18 5. Surface profile by Keanne-Tator comparator in accordance with ASTM D 4417 and
19 SSPC PA17.

20
21 **6-07.3(4) Paint System Manufacturer's Technical Representative**

22 This section is revised to read:

23
24 The paint system manufacturer's representative shall be present at the jobsite for the
25 pre-painting conference and for the first day of paint application, and shall be available
26 to the Contractor and Contracting Agency for consultation for the full project duration.

27
28 **6-07.3(5) Pre-Painting Conference**

29 The second paragraph is revised to read:

30
31 If the Contractor's key personnel change between any work operations, an additional
32 conference shall be held if requested by the Engineer.

33
34 **6-07.3(6)A Paint Containers**

35 In item number 2 of the first paragraph, "Federal Standard 595" is revised to read "SAE AMS
36 Standard 595".

37
38 **6-07.3(6)B Paint Storage**

39 Item number 2 of the second paragraph is revised to read:

- 40
41 2. The Contractor shall monitor and document daily the paint material storage facility
42 with a high-low recording thermometer device.

43
44 **6-07.3(7) Paint Sampling and Testing**

45 The first two paragraphs are revised to read:

46
47 The Contractor shall provide the Engineer 1 quart of each paint representing each lot.
48 Samples shall be accompanied with a Safety Data Sheet.

49
50 If the quantity of paint required for each component of the paint system for the entire
51 project is 20 gallons or less, then the paint system components will be accepted as
52 specified in Section 9-08.1(7).

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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:

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

9
10 Catalysts, curing agents, hardeners, initiators, or dry metallic powders that are
11 packaged separately may be added to the base paint in accordance with the paint
12 manufacturer's written recommendations and only after the paint is thoroughly mixed to
13 achieve a uniform mixture with all particles wetted. The Contractor shall then add the
14 proper volume of curing agent to the correct volume of base and mix thoroughly. The
15 mixture shall be used within the pot life specified by the manufacturer. Unused portions
16 shall be discarded at the end of each work day. Accelerants are not permitted except as
17 allowed by the Engineer.

18
19 The Contractor shall not add additional thinner at the application site except as allowed
20 by the Engineer. The amount and type of thinner, if allowed, shall conform to the
21 manufacturer's specifications. If recommended by the manufacturer and allowed by the
22 Engineer, a measuring cup shall be used for the addition of thinner to any paint with
23 graduations in ounces. No un-measured addition of thinner to paint will be allowed. Any
24 paint found to be thinned by unacceptable methods will be rejected.

25
26 When recommended by the manufacturer, the Contractor shall constantly agitate paint
27 during application by use of paint pots equipped with mechanical agitators.

28
29 The Contractor shall strain all paint after mixing to remove undesirable matter, but
30 without removing the pigment or metallic powder.

31
32 Paint shall be stored and mixed in a secure, contained location to eliminate the potential
33 for spills into State waters and onto the ground and highway surfaces.

34

35 **6-07.3(9)D Coating Thickness**

36 This section is revised to read:

37

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

41

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

43

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

46

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

49

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

52

1 Film thickness, wet and dry, will be measured by gages conforming to Section 6-
2 07.3(8)A.

3
4 Wet measurements will be taken immediately after the paint is applied in accordance
5 with ASTM D4414. Dry measurements will be taken after the coating is dry and hard in
6 accordance with SSPC Paint Application Specification No. 2.

7
8 Each painter shall be equipped with wet film thickness gages and shall be responsible
9 for performing frequent checks of the paint film thickness throughout application.

10
11 Coating thickness measurements may be made by the Engineer after the application of
12 each coat and before the application of the succeeding coat. In addition, the Engineer
13 may inspect for uniform and complete coverage and appearance. One hundred percent
14 of all thickness measurements shall meet or exceed the minimum wet film thickness. In
15 areas where wet film thickness measurements are impractical, dry film thickness
16 measurements may be made. If a question arises about an individual coat's thickness
17 or coverage, it may be verified by the use of a Tooke gage in accordance with ASTM
18 D4138.

19
20 If the specified number of coats does not produce a combined dry film thickness of at
21 least the sum of the thicknesses required per coat, if an individual coat does not meet
22 the minimum thickness, or if visual inspection shows incomplete coverage, the coating
23 system will be rejected and the Contractor shall discontinue painting and surface
24 preparation operations and shall submit a Type 2 Working Drawing of the repair
25 proposal. The repair proposal shall include documentation demonstrating the cause of
26 the less-than-minimum thickness, along with physical test results, as necessary, and
27 modifications to Work methods to prevent similar results. The Contractor shall not
28 resume painting or surface preparation operations until receiving the Engineer's
29 acceptance of the completed repair.

30
31 **6-07.3(9)E Surface Temperature Requirements Prior to Application of Paint**

32 This section, including title, is revised to read:

33
34 **6-07.3(9)E Environmental Condition Requirements Prior to Application of Paint**

35 Paint shall be applied only during periods when:

- 36
37 1. Air and steel temperatures are in accordance with the paint manufacturer's
38 recommendations but in no case less than 35°F nor greater than 115°F.
39
40 2. Steel surface temperature is a minimum of 5°F above the dew point.
41
42 3. Steel surface is not wet.
43
44 4. Relative humidity is within the manufacturer's recommended range.
45
46 5. The anticipated ambient temperature will remain above 35°F or the
47 manufacturer's minimum temperature, whichever is greater, during the paint
48 drying and curing period.

49
50 Application will not be allowed if conditions are not favorable for proper application and
51 performance of the paint.
52

1 Paint shall not be applied when weather conditions are unfavorable to proper curing. If a
2 paint system manufacturer's recommendations allow for application of a paint under
3 environmental conditions other than those specified, the Contractor shall submit a Type
4 2 Working Drawing consisting of a letter from the paint manufacturer specifying the
5 environmental conditions under which the paint can be applied. Application of paint
6 under environmental conditions other than those specified in this section will not be
7 allowed without the Engineer's concurrence.
8
9

10 **6-07.3(9)F Shop Surface Cleaning and Preparation**

11 The last sentence is revised to read:

12
13 The entire steel surface to be painted, including surfaces specified in Section 6-
14 07.3(9)G to receive a mist coat of primer, shall be cleaned to a near white condition in
15 accordance with SSPC-SP 10, *Near-white Metal Blast Cleaning*, and shall be in this
16 condition immediately prior to paint application.
17

18 **6-07.3(9)G Application of Shop Primer Coat**

19 The first paragraph is supplemented with the following:

20
21 Repairs of the shop primer coat shall be prepared in accordance with the painting plan.
22 Shop primer coat repair paint shall be selected from the approved component based or
23 performance based paint system in accordance with Section 6-07.3(10)H.
24

25 **6-07.3(9)H Containment for Field Coating**

26 This section is revised to read:

27
28 The Contractor shall use a containment system in accordance with Section 6-07.3(10)A
29 for surface preparation and prime coating of all uncoated areas remaining, including
30 bolts, nuts, washers, and splice plates.
31

32 During painting operations of the intermediate, stripe and top coats the Contractor shall
33 furnish, install, and maintain drip tarps below the areas to be painted to contain all
34 spilled paint, buckets, brushes, and other deleterious material, and prevent such
35 materials from reaching the environment below or adjacent to the structure being
36 painted. Drip tarps shall be absorbent material and hung to minimize puddling. The
37 Contractor shall evaluate the project-specific conditions to determine the specific type
38 and extent of containment needed to control the paint emissions and shall submit a
39 containment plan in accordance with Section 6-07.3(2).
40

41 **6-07.3(9)I Application of Field Coatings**

42 This section is revised to read:

43
44 An on-site supervisor shall be present for each work shift at the bridge site.
45

46 Upon completion of erection Work, all uncoated or damaged areas remaining, including
47 bolts, nuts, washers, and splice plates, shall be prepared in accordance with Section 6-
48 07.3(9)F, followed by a field primer coat of a zinc-rich primer and final coats of paint
49 selected from the approved component or performance based paint system in
50 accordance with Section 6-07.3(10)H. . The intermediate, intermediate stripe, and top
51 coats shall be applied in accordance with the manufacturer's written recommendations.
52

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

3
4 The minimum drying time between coats shall be as shown in the product data sheets,
5 but not less than 12 hours. The Contractor shall determine whether the paint has cured
6 sufficiently for proper application of succeeding coats.

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

13
14 Each coat shall be applied in a uniform layer, completely covering the preceding coat.
15 The Contractor shall correct runs, sags, skips, or other deficiencies before application of
16 succeeding coats. Such corrective work may require re-cleaning, application of
17 additional paint, or other means as determined by the Engineer, at no additional cost to
18 the Contracting Agency.

19
20 Dry film thickness measurements will be made in accordance with Section 6-07.3(9)D.

21
22 All paint damage that occurs shall be repaired in accordance with the manufacturer's
23 written recommendations. On bare areas or areas of insufficient primer thickness, the
24 repair shall include field-applied zinc-rich primer and the final coats of paint selected
25 from the approved component or performance based paint system in accordance with
26 Section 6-07.3(10)H. On areas where the primer is at least equal to the minimum
27 required dry film thickness, the repair shall include the application of the final two coats
28 of the paint system. All paint repair operations shall be performed by the Contractor at
29 no additional cost or time to the Contracting Agency.

30
31 **6-07.3(10)A Containment**

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

33
34 Emissions shall be assessed by Visible Emission Observations (Method A) in SSPC
35 Technology Update No. 7, *Conducting Ambient Air, Soil, and Water Sampling of*
36 *Surface Preparation and Paint Disturbance Activities*, Section 6.2 and shall be limited to
37 the Level A Acceptance Criteria Option Level 0 Emissions standard.

38
39 **6-07.3(10)D Surface Preparation Prior to Overcoat Painting**

40 The first paragraph is revised to read:

41
42 The Contractor shall remove any visible oil, grease, and road tar in accordance with
43 SSPC-SP 1, *Solvent Cleaning*.

44
45 The second paragraph is revised to read:

46
47 Following any preparation by SSPC-SP1, all steel surfaces to be painted shall be
48 prepared in accordance with SSPC-SP 7, *Brush-off Blast Cleaning*. Surfaces
49 inaccessible to brush-off blast shall be prepared in accordance with SSPC-SP 3, *Power*
50 *Tool Cleaning*, as allowed by the Engineer.

51
52 The first sentence of the third paragraph is revised to read:

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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 $\frac{1}{4}$ 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

1	Intermediate Stripe Coat - Moisture Cured Polyurethane	9-08.1(2)G
2	Top Coat - Moisture Cured Polyurethane	9-08.1(2)H
3		
4	Option 2 (performance based system):	
5		
6	Primer Coat – Zinc-rich Epoxy	9-08.1(2)N
7	Primer Stripe Coat – Epoxy	9-08.1(2)N
8	Intermediate Coat – Epoxy	9-08.1(2)N
9	Intermediate Stripe Coat – Epoxy	9-08.1(2)N
10	Top Coat – Polyurethane	9-08.1(2)N
11		

12 The following new paragraph is inserted after the first paragraph:

13
14 Paints and related materials shall be a product listed in the current WSDOT Qualified
15 Products List (QPL). Component based paint systems shall be listed on the QPL in the
16 applicable sections of Section 9-08. Performance based systems shall be listed on the
17 current Northeast Protective Coatings Committee (NEPCOAT) Qualified Products List
18 "B" as listed on the WSDOT QPL in Section 9-08.1(2)N. If the paint and related material
19 for the component based system is not listed in the current WSDOT QPL, a sample
20 shall be submitted to the State Materials Laboratory in Tumwater for evaluation and
21 acceptance in accordance with Section 9-08.
22

23 **6-07.3(10)J Mixing and Thinning Paint**

24 This section is revised to read:

25
26 Mixing and thinning paint shall be in accordance with Section 6-07.3(9)C.
27

28 **6-07.3(10)K Coating Thickness**

29 This section is revised to read:

30
31 Coating thickness shall be in accordance with Section 6-07.3(9)D except the minimum
32 dry film thickness of each coat (combination of primer and primer stripe, combination of
33 intermediate and intermediate stripe, and top) shall not be less than 3.0 mils.
34

35 **6-07.3(10)L Environmental Condition Requirements Prior to Application of
36 Paint**

37 This section is revised to read:

38
39 Environmental conditions shall be in accordance with Section 6-07.3(9)E.
40

41 **6-07.3(10)M Steel Surface Condition Requirements Prior to Application of
42 Paint**

43 The third paragraph is revised to read:

44
45 Edges of existing paint shall be feathered in accordance with SSPC-PA 1, *Shop, Field,
46 and Maintenance Coating of Metals*, Note 15.20.
47

48 **6-07.3(10)N Field Coating Application Methods**

49 The third sentence is revised to read:

50
51 The Contractor may apply stripe coat paint using spray or brush but shall follow spray
52 application using a brush to ensure complete coverage around structural geometric

1 irregularities and to push the paint into gaps between existing steel surfaces and around
2 rivets and bolts.

3

4 **6-07.3(10)O Applying Field Coatings**

5 The second to last paragraph is revised to read:

6

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

12

13 **6-07.3(10)P Field Coating Repair**

14 The second sentence is revised to read:

15

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

18

19 **6-07.3(11)A Painting of Galvanized Surfaces**

20 This section is revised to read:

21

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

37

38 **6-07.3(11)A2 Paint Coat Materials**

39 This section is revised to read:

40

41 The Contractor shall paint the dry surface as follows:

42

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

50

51 2. The second coat shall be a top coat moisture cured aliphatic polyurethane
52 conforming to Section 9-08.1(2)H or a top coat polyurethane conforming to

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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

1 manufacturer's recommendation as detailed in the project-specific powder coating plan,
2 until the assemblies satisfy the acceptance testing requirements.

3
4 **6-07.3(12) Painting Ferry Terminal Structures**

5 This section is revised to read:

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

9
10 This section is supplemented with the following new subsections:

11
12 **6-07.3(12)A Painting New Steel Ferry Terminal Structures**

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

- 16
17 1. Steel surfaces to be field welded.
18
19 2. Steel surfaces to be greased.
20
21 3. The length of piles designated in the Plans not requiring painting.
22

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

26
27 **6-07.3(12)A1 Paint Systems**

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

32
33 Paint systems for Piling, Landing Aids and Life Ladders shall be as specified in the
34 Special Provisions.

35
36 **6-07.3(12)A2 Paint Color**

37 Paint colors shall be as specified in the Special Provisions.

38
39 **6-07.3(12)A3 Coating Thickness**

40 Coating thicknesses shall be as specified in the Special Provisions.

41
42 **6-07.3(12)A4 Application of Field Coatings**

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

44
45 Upon completion of erection Work, all uncoated or damaged areas remaining,
46 including bolts, nuts, washers, splice plates, and field welds shall be prepared in
47 accordance with SSPC-SP 1, Solvent Cleaning, followed by SSPC-SP 11, *Power*
48 *Tool Cleaning to Bare Metal*. Surface preparation shall be measured according to
49 SSPC-VIS 3. SSPC-SP 11 shall be performed for a minimum distance of 1 inch
50 from the uncoated or damaged area. In addition, intact shop-applied coating
51 surrounding the area shall be abraded or sanded for a distance of 6 inches out from
52 the properly prepared clean/bare metal areas to provide adequate roughness for

1 application of field coatings. All sanding dust and contamination shall be removed
2 prior to application of field coatings.

3
4 Field applied paint for Structural Steel shall conform to Section 6-07.3(10)H, as
5 applicable. Field applied paint for Piling, Landing Aids and Life Ladders shall be as
6 specified in the Special Provisions.

7
8 For areas above the tidal zone, the minimum drying time between coats shall be as
9 shown in the product data sheets, but not less than 12 hours. For areas within the
10 tidal zone, the minimum drying time between coats shall be as recommended by
11 the paint system manufacturer. The Contractor shall determine whether the paint
12 has cured sufficiently for proper application of succeeding coats.

13
14 The maximum time between intermediate and top coats shall be in accordance with
15 the manufacturer's written recommendations. If the maximum time between coats
16 is exceeded, all newly coated surfaces shall be prepared to SSPC-SP 3, *Power*
17 *Tool Cleaning*, and shall be repainted with the same paint that was cleaned, at no
18 additional cost to the Contracting Agency.

19
20 Each coat shall be applied in a uniform layer, completely covering the preceding
21 coat. The Contractor shall correct runs, sags, skips, or other deficiencies before
22 application of succeeding coats. Such corrective work may require re-cleaning,
23 application of additional paint, or other means as determined by the Engineer, at no
24 additional cost to the Contracting Agency.

25
26 Surface preparation for underwater locations shall consist of removing all dirt, oil,
27 grease, loose paint, loose rust, and marine growth from the area that is to be
28 repaired. The sound paint surrounding the damaged area shall be roughened to
29 meet the requirements of the manufacturer. Paint for underwater applications shall
30 be as specified in the Special Provisions and shall be applied in accordance with
31 the manufacturer's recommendations.

32
33 **6-07.3(12)B Painting Existing Steel Ferry Terminal Structures**

34 Painting of existing steel structures shall be in accordance with Section 6-07.3(10) as
35 supplemented by the following.

36
37 **6-07.3(12)B1 Containment**

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

41
42 Prior to cleaning the Contractor shall enclose all exposed electrical and mechanical
43 equipment to seal out dust, water, and paint. Non-metallic surfaces shall not be
44 abrasive blasted or painted. Unless otherwise specified, the following metallic
45 surfaces shall not be painted and shall be protected from abrasive blasting and
46 painting:

- 47
48 1. Galvanized and stainless steel surfaces not previously painted,
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50 2. Non-skid surfaces,
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52 3. Unpainted intentionally greased surfaces,

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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, in-filled 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

1 repaired in accordance with ASTM A 780, with the preferred method of repair using
2 paints containing zinc dust.

3
4 **6-07.3(12)B3 Paint Systems**

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

9
10 Paint systems for Piling, Landing Aids, Life Ladders, underside of vehicle transfer
11 span bridge decks, non-skid surface treated areas, and anti-graffiti coatings shall
12 be as specified in the Special Provisions.

13
14 **6-07.3(12)B4 Paint Color**

15 Paint colors shall be as specified in the Special Provisions.

16
17 **6-07.3(12)B5 Coating Thickness**

18 Coating thicknesses shall be as specified in the Special Provisions.

19
20 **6-07.3(12)B6 Application of Field Coatings**

21 Application of field coatings shall be in accordance with Section 6-07.3(10)O and
22 Section 6-07.3(12)A2 except for the following:

- 23
- 24 1. All coatings applied in the field shall be applied using a brush or roller.
25 Spray application methods may be used if allowed by the Engineer.
 - 26
 - 27 2. Applied coatings shall not be immersed until the coating has been cured
28 as required by the coating manufacturer.
 - 29
 - 30 3. Non-skid surface treatment products shall be applied in accordance with
31 the manufacturer's recommendations.
 - 32
 - 33 4. Anti-graffiti coatings shall be applied in one coat following application of
34 the top coat, where specified in the Plans.
 - 35

36 **6-07.3(14)B Reference Standards**

37 The second standard reference (to SSPC CS 23.00), and its accompanying title, is revised
38 to read:

39

40	SSPC CS 23.00	Specification for the Application of Thermal Spray Coatings (Metallizing) of Aluminum, Zinc, and Their Alloys and 42 Composites for the Corrosion Protection of Steel
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43
44 6-08.AP6

45 **Section 6-08, Bituminous Surfacing on Structure Decks**
46 **January 7, 2019**

47 **6-08.3(7)A Concrete Deck Preparation**

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

49
50 The Contractor, with the Engineer, shall inspect the exposed concrete deck to establish
51 the extent of bridge deck repair in accordance with Section 6-09.3(6).

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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:

1
2 Air compressors shall be equipped with oil traps to eliminate oil from being blown onto
3 the bridge deck.
4

5 **6-09.3(1)J Finishing Machine**

6 This section is revised to read:
7

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

11 The finishing machine shall be equipped with augers, followed by an oscillating,
12 vibrating screed, vibrating roller tamper, or a vibrating pan, followed by a rotating
13 cylindrical double drum screed. The vibrating screed, roller tamper or pan shall be
14 of sufficient length and width to properly consolidate the mixture. The vibrating
15 frequency of the vibrating screed, roller tamper or pan shall be variable with
16 positive control.
17

18 **6-09.3(2) Submittals**

19 Item number 1 and 2 are revised to read:
20

- 21 1. A Type 1 Working Drawing consisting of catalog cuts and operating parameters of
22 the hydro-demolition machine selected by the Contractor for use in this project to
23 scarify concrete surfaces.
24
- 25 2. A Type 1 Working Drawing consisting of catalog cuts, operating parameters, axle
26 loads, and axle spacing of the rotary milling machine (if used to remove an upper
27 layer of existing concrete overlay when present).
28

29 The first sentence of item number 3 is revised to read:
30

31 A Type 2 Working Drawing of the Runoff Water Disposal Plan.
32

33 **6-09.3(5)A General**

34 The first sentence of the fourth paragraph is revised to read:
35

36 All areas of the deck that are inaccessible to the selected scarifying machine shall be
37 scarified to remove the concrete surface matrix to a maximum nominal scarification
38 depth shown in the Plans by a method acceptable to the Engineer.
39

40 This section is supplemented with the following:
41

42 Concrete process water generated by scarifying concrete surface and removing existing
43 concrete overlay operations shall be contained, collected, and disposed of in
44 accordance with Section 5-01.3(11) and Section 6-09.3(5)C, and the Section 6-09.3(2)
45 Runoff Water Disposal Plan.
46

47 **6-09.3(5)B Testing of Hydro-Demolition and Shot Blasting Machines**

48 This section's title is revised to read:
49

50 **Testing of Hydro-Demolition Machines**

51
52 The second paragraph is revised to read:

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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 $\frac{3}{4}$ 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:

1 Where existing steel reinforcing bars inside deck repair areas show deterioration greater
2 than 20-percent section loss, the Contractor shall furnish and place steel reinforcing
3 bars alongside the deteriorated bars in accordance with the details shown in the
4 Standard Plans.

5
6 The last paragraph is deleted.

7
8 **6-09.3(7) Surface Preparation for Concrete Overlay**

9 The first seven paragraphs are deleted and replaced with the following:

10
11 Following the completion of any required further deck preparation the entire lane or strip
12 being overlaid shall be cleaned to be free from oil and grease, rust and other foreign
13 material that may still be present. These materials shall be removed by detergent-
14 cleaning or other method accepted by the Engineer followed by sandblasting.

15
16 After detergent cleaning and sandblasting is completed, the entire lane or strip being
17 overlaid shall be cleaned in final preparation for placing concrete.

18
19 Hand tool chipping, sandblasting and cleaning in areas adjacent to a lane or strip being
20 cleaned in final preparation for placing concrete shall be discontinued when final
21 preparation is begun. Scarifying and hand tool chipping shall remain suspended until
22 the concrete has been placed and the requirement for curing time has been satisfied.
23 Sandblasting and cleaning shall remain suspended for the first 24 hours of curing time
24 after the completion of concrete placing.

25
26 Scarification, and removal of the upper layer of concrete overlay when present, may
27 proceed during the final cleaning and overlay placement phases of the Work on
28 adjacent portions of the Structure so long as the scarification and concrete overlay
29 removal operations are confined to areas which are a minimum of 100 feet away from
30 the defined limits of the final cleaning or overlay placement in progress. If the
31 scarification and concrete overlay removal impedes or interferes in any way with the
32 final cleaning or overlay placement as determined by the Engineer, the scarification and
33 concrete overlay removal Work shall be terminated immediately and the scarification
34 and concrete overlay removal equipment removed sufficiently away from the area being
35 prepared or overlaid to eliminate the conflict. If the grade is such that water and
36 contaminants from the scarification and concrete overlay removal operation will flow into
37 the area being prepared or overlaid, the scarification and concrete overlay removal
38 operation shall be terminated and shall remain suspended for the first 24 hours of curing
39 time after the completion of concrete placement.

40
41 **6-09.3(11) Placing Concrete Overlay**

42 The first sentence of item number 3 in the fourth paragraph is revised to read:

43
44 Concrete shall not be placed when the temperature of the concrete surface is less than
45 45°F or greater than 75°F, and wind velocity at the construction site is in excess of 10
46 mph.

47
48 **6-09.3(12) Finishing Concrete Overlay**

49 The third paragraph is deleted.

50
51 The last paragraph is deleted.

1 **6-09.3(13) Curing Concrete Overlay**

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

3

4 As the finishing operation progresses, the concrete shall be immediately covered with a
5 single layer of clean, new or used, wet burlap.

6

7 The last sentence of the second paragraph is deleted.

8

9 The following two new paragraphs are inserted after the second paragraph:

10

11 As an alternative to the application of burlap and fog spraying described above, the
12 Contractor may propose a curing system using proprietary curing blankets specifically
13 manufactured for bridge deck curing. The Contractor shall submit a Type 2 Working
14 Drawing consisting of details of the proprietary curing blanket system, including product
15 literature and details of how the system is to be installed and maintained.

16

17 The wet curing regimen as described shall remain in place for a minimum of 42-hours.

18

19 The last paragraph is deleted.

20

21 **6-09.3(14) Checking for Bond**

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

23

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

27

28 The last sentence of the first paragraph is deleted.

29

30 The second paragraph is deleted.

31

32 6-10.AP6

33 **Section 6-10, Concrete Barrier**

34 **August 6, 2018**

35 **6-10.2 Materials**

36 In the first paragraph, the reference to "Portland Cement" is revised to read:

37

38 Cement 9-01

39

40 **6-10.3(6) Placing Concrete Barrier**

41 The first two sentences of the first paragraph are revised to read:

42

43 Precast concrete barriers Type 2, Type 4, Type F, precast single slope barrier, and
44 transitions shall rest on a paved foundation shaped to a uniform grade and section. The
45 foundation surface for precast concrete barriers Type 2, Type 4, Type F, precast single
46 slope barrier, and transitions shall meet this test for uniformity: When a 10-foot
47 straightedge is placed on the surface parallel to the centerline for the barrier, the
48 surface shall not vary more than ¼ inch from the lower edge of the straightedge.

49

1 6-11.AP6
2 **Section 6-11, Reinforced Concrete Walls**
3 **April 2, 2018**

4 **6-11.2 Materials**

5 In the first paragraph, the reference to "Aggregates for Portland Cement Concrete" is revised
6 to read:

7
8 Aggregates for Concrete 9-03.1
9

10 6-12.AP6
11 **Section 6-12, Noise Barrier Walls**
12 **August 6, 2018**

13 **6-12.2 Materials**

14 In the first paragraph, the reference to "Aggregates for Portland Cement Concrete" is revised
15 to read:

16
17 Aggregates for Concrete 9-03.1
18

19 The first paragraph is supplemented with the following new material reference:

20
21 Noise Barrier Wall Access Door 9-06.17
22

23 **6-12.3(9) Access Doors and Concrete Landing Pads**

24 The second paragraph is deleted and replaced with the following:

25
26 All frame and door surfaces, except stainless steel surfaces, shall be painted in
27 accordance with Section 6-07.3(9). Primer shall be applied to all non-stainless steel
28 surfaces. All primer coated exposed metal surfaces shall be field painted with the
29 remaining Section 6-07.3(9)A paint system coats. The top coat, when dry, shall match
30 the color specified in the Plans or Special Provisions.
31

32 This section is supplemented with the following:

33
34 Access door deadbolt locks shall be capable of accepting a Best CX series core. The
35 Contractor shall furnish and install a spring-loaded construction core lock with each
36 lock. The Engineer will furnish the permanent Best CX series core for the Contractor to
37 install at the conclusion of the project.
38

39 6-13.AP6
40 **Section 6-13, Structural Earth Walls**
41 **August 6, 2018**

42 **6-13.2 Materials**

43 In the first paragraph, the reference to "Aggregates for Portland Cement Concrete" is revised
44 to read:

45
46 Aggregates for Concrete 9-03.1
47

1 **6-13.3(4) Precast Concrete Facing Panel and Concrete Block Fabrication**

2 Item number 1 of the sixth paragraph is revised to read:

3

- 4 1. Vertical dimensions shall be $\pm \frac{1}{16}$ inch of the Plan dimension, and the rear height
5 shall not exceed the front height.

6

7 Item number 3 of the sixth paragraph is revised to read:

8

- 9 3. All other dimensions shall be $\pm \frac{1}{4}$ inch of the Plan dimension.

10

11 6-14.AP6

12 **Section 6-14, Geosynthetic Retaining Walls**

13 **April 2, 2018**

14 **6-14.2 Materials**

15 In the first paragraph, the references to "Portland Cement" and "Aggregates for Portland
16 Cement Concrete" are revised to read:

17

18	Cement	9-01
19	Aggregates for Concrete	9-03.1

20

21 6-15.AP6

22 **Section 6-15, Soil Nail Walls**

23 **January 7, 2019**

24 **6-15.3(7) Shotcrete Facing**

25 The last paragraph is supplemented with the following:

26

- 27 After final tightening of the nut, the threads of the soil nail shall at a minimum be flush
28 with the end of the nut.

29

30 6-16.AP6

31 **Section 6-16, Soldier Pile and Soldier Pile Tieback Walls**

32 **April 2, 2018**

33 **6-16.2 Materials**

34 In the first paragraph, the reference to "Aggregates for Portland Cement Concrete" is revised
35 to read:

36

37	Aggregates for Concrete	9-03.1
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38

39 6-18.AP6

40 **Section 6-18, Shotcrete Facing**

41 **April 1, 2019**

42 **6-18.2 Materials**

43 The reference to metakaolin is deleted.

44

45 **6-18.3(3) Testing**

46 In the last sentence of the first paragraph, "AASHTO T 24" is revised to read "ASTM C1604".

47

1 **6-18.3(3)B Production Testing**
2 In the last sentence, "AASHTO T 24" is revised to read "ASTM C1604".
3
4 **6-18.3(4) Qualifications of Contractor's Personnel**
5 In the last sentence of the second paragraph, "AASHTO T 24" is revised to read "ASTM
6 C1604".
7
8 6-19.AP6
9 **Section 6-19, Shafts**
10 **January 7, 2019**

11 **6-19.2 Materials**
12 In the first paragraph, the references to "Portland Cement" and "Aggregates for Portland
13 Cement Concrete" are revised to read:

14
15 Cement 9-01
16 Aggregates for Concrete 9-03.1
17

18 **6-19.3(1)A Shaft Construction Tolerances**
19 The last paragraph is supplemented with the following:

20
21 The elevation of the top of the reinforcing cage for drilled shafts shall be within +6
22 inches and -3 inches from the elevation shown in the Plans.
23

24 **6-19.3(2)D Nondestructive QA Testing Organization and Personnel**
25 Item number 4 in the first paragraph is revised to read:

26
27 4. Personnel preparing test reports shall be a Professional Engineer, licensed under
28 Title 18 RCW, State of Washington, and shall seal the report in accordance with
29 WAC 196-23-020.
30

31 **6-19.3(3)C Conduct of Shaft Casing Installation and Removal and Shaft
32 Excavation Operations**

33 The first paragraph is supplemented with the following:

34
35 In no case shall shaft excavation and casing placement extend below the bottom of
36 shaft excavation as shown in the Plans.
37

38 **6-19.3(6)E Thermal Wire and Thermal Access Point (TAPS)**

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

40
41 The thermal wire shall extend from the bottom of the reinforcement cage to the top of
42 the shaft, with a minimum of 5-feet of slack wire provided above the top of shaft.
43

44 The following new sentence is inserted after the third sentence of the third paragraph:

45
46 All thermal wires in a shaft shall be equal lengths.
47

48 **6-19.3(9)D Nondestructive QA Testing Results Submittal**

49 The last sentence of the first paragraph is revised to read:
50

1 Results shall be a Type 2E Working Drawing presented in a written report.

2

3 7-02.AP7

4 **Section 7-02, Culverts**

5 **April 2, 2018**

6 **7-02.2 Materials**

7 In the first paragraph, the references to "Portland Cement" and "Aggregates for Portland
8 Cement Concrete" are revised to read:

9

10	Cement	9-01
11	Aggregates for Concrete	9-03.1

12

13 **7-02.3(6)A4 Excavation and Bedding Preparation**

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

15

16 The bedding course shall be a 6-inch minimum thickness layer of culvert bedding
17 material, defined as granular material either conforming to Section 9-03.12(3) or to
18 AASHTO Grading No. 57 as specified in Section 9-03.1(4)C.

19

20 7-05.AP7

21 **Section 7-05, Manholes, Inlets, Catch Basins, and Drywells**

22 **August 6, 2018**

23 **7-05.3 Construction Requirements**

24 The fourth sentence of the third paragraph is deleted.

25

26 7-08.AP7

27 **Section 7-08, General Pipe Installation Requirements**

28 **April 2, 2018**

29 **7-08.3(3) Backfilling**

30 The fifth sentence of the fourth paragraph is revised to read:

31

32 All compaction shall be in accordance with the Compaction Control Test of Section 2-
33 03.3(14)D except in the case that 100% Recycled Concrete Aggregate is used.

34

35 The following new sentences are inserted after the fifth sentence of the fourth paragraph:

36

37 When 100% Recycled Concrete Aggregate is used, the Contractor may submit a written
38 request to use a test point evaluation for compaction acceptance. Test Point evaluation
39 shall be performed in accordance with SOP 738.

40

41 8-01.AP8

42 **Section 8-01, Erosion Control and Water Pollution Control**

43 **April 1, 2019**

44 **8-01.1 Description**

45 This section is revised to read:

46

1 This Work consists of furnishing, installing, maintaining, removing and disposing of best
2 management practices (BMPs), as defined in the Washington Administrative Code
3 (WAC) 173-201A, to manage erosion and water quality in accordance with these
4 Specifications and as shown in the Plans or as designated by the Engineer.
5

6 The Contracting Agency may have a National Pollution Discharge Elimination System
7 Construction Stormwater General Permit (CSWGP) as identified in the Contract Special
8 Provisions. The Contracting Agency may or may not transfer coverage of the CSWGP
9 to the Contractor when a CSWGP has been obtained. The Contracting Agency may not
10 have a CSWGP for the project but may have another water quality related permit as
11 identified in the Contract Special Provisions or the Contracting Agency may not have
12 water quality related permits but the project is subject to applicable laws for the Work.
13 Section 8-01 covers all of these conditions.
14

15 This section is supplemented with the following new subsection:
16

17 **8-01.1(1) Definitions**

18 **1. pH Affected Stormwater**

- 19
- 20 a. Stormwater contacting green concrete (concrete that has set/stiffen but is still
21 curing), recycled concrete, or engineered soils (as defined in the Construction
22 Stormwater General Permit (CSWGP)) as a natural process
23
 - 24 b. pH monitoring shall be performed in accordance with the CSWGP, or Water
25 Quality Standards (WQS in accordance with WAC 173-201A (surface) or 173-
26 200C (ground)) when the CSWGP does not apply
27
 - 28 c. May be neutralized and discharged to surface waters or infiltrated
29

30 **2. pH Affected Non-Stormwater**

- 31
- 32 a. Conditionally authorized in accordance with CSWGP Special Condition S.1.C.,
33 uncontaminated water contacting green concrete, recycled concrete, or
34 engineered soils (as defined in the CSWGP)
35
 - 36 b. Shall not be categorized as cementitious wastewater/concrete wastewater, as
37 defined below
38
 - 39 c. Shall be managed and treated in accordance with the CSWGP, or WQS when
40 the CSWGP does not apply
41
 - 42 d. pH adjustment and dechlorination may be necessary, as specified in the
43 CSWGP or in accordance with WQS when the CSWGP does not apply
44
 - 45 e. May be neutralized, treated, and discharged to surface waters in accordance
46 with the CSWGP, with the exception of water-only shaft drilling slurry. Water-
47 only shaft drilling slurry may be treated, neutralized, and infiltrated but not
48 discharged to surface waters (Refer to Special Conditions S1.C. Authorized
49 Discharges and S1.d Prohibited Discharges of the CSWGP)
50

51 **3. Cementitious Wastewater/Concrete Wastewater**
52

- 1 a. Any water that comes into contact with fine cementitious particles or slurry; any
- 2 water used in the production, placement and/or clean-up of cementitious
- 3 products; any water used to cut, grind, wash, or otherwise modify cementitious
- 4 products
- 5
- 6 b. When any water, including stormwater, commingles with cementitious
- 7 wastewater/concrete wastewater, the resulting water is considered
- 8 cementitious wastewater/concrete wastewater and shall be managed to
- 9 prevent discharge to waters of the State, including ground water
- 10
- 11 c. CSWGP Examples include: water used for or resulting from concrete
- 12 truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and
- 13 surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and
- 14 road surfacing)
- 15
- 16 d. Cannot be neutralized and discharged or infiltrated
- 17

18 **8-01.2 Materials**

19 The first paragraph is revised to read:

20
21 Materials shall meet the requirements of the following sections:

22	Corrugated Polyethylene Drain Pipe	9-05.1(6)
23	Quarry Spalls and Permeable Ballast	9-13
24	Erosion Control and Roadside Planting	9-14
25	Construction Geotextile	9-33
26		
27		

28 The second paragraph is deleted.

29
30 **8-01.3(1) General**

31 This section is revised to read:

32
33 Adaptive management shall be employed throughout the duration of the project for the

34 implementation of erosion and water pollution control permit requirements for the

35 current condition of the project site. The adaptive management includes the selection

36 and utilization of BMPs, scheduling of activities, prohibiting unacceptable practices,

37 implementing maintenance procedures, and other managerial practices that when used

38 singularly or in combination, prevent or reduce the release of pollutants to waters of the

39 State. The adaptive management shall use the means and methods identified in this

40 section and means and methods identified in the Washington State Department of

41 Transportation's Temporary Erosion and Sediment Control Manual or the Washington

42 State Department of Ecology's Stormwater Management Manuals for construction

43 stormwater.

44
45 The Contractor shall install a high visibility fence along the lines shown in the Plans or

46 as instructed by the Engineer.

47
48 Throughout the life of the project, the Contractor shall preserve and protect the

49 delineated preservation area, acting immediately to repair or restore any high visibility

50 fencing damaged or removed.

51

1 All discharges to surface waters shall comply with surface water quality standards as
 2 defined in Washington Administrative Code (WAC) Chapter 173-201A. All discharges to
 3 groundwater shall comply with groundwater quality standards WAC Chapter 173-200.
 4 The Contractor shall comply with the CSWGP when the project is covered by the
 5 CSWGP.
 6

7 Work, at a minimum, shall include the implementation of:

- 8
- 9 1. Sediment control measures prior to ground disturbing activities to ensure all
 10 discharges from construction areas receive treatment prior to discharging from
 11 the site.
- 12
- 13 2. Flow control measures to prevent erosive flows from developing.
- 14
- 15 3. Water management strategies and pollution prevention measures to prevent
 16 contamination of waters that will be discharged to surface waters or the
 17 ground.
- 18
- 19 4. Erosion control measures to stabilize erodible earth not being worked.
- 20
- 21 5. Maintenance of BMPs to ensure continued compliant performance.
- 22
- 23 6. Immediate corrective action if evidence suggests construction activity is not in
 24 compliance. Evidence includes sampling data, olfactory or visual evidence
 25 such as the presence of suspended sediment, turbidity, discoloration, or oil
 26 sheen in discharges.
- 27

28 To the degree possible, the Contractor shall coordinate this Work with permanent
 29 drainage and roadside restoration Work the Contract requires.
 30

31 Clearing, grubbing, excavation, borrow, or fill within the Right of Way shall never expose
 32 more erodible earth than as listed below:
 33

Western Washington (West of the Cascade Mountain Crest)		Eastern Washington (East of the Cascade Mountain Crest)	
May 1 through September 30	17 Acres	April 1 through October 31	17 Acres
October 1 through April 30	5 Acres	November 1 through March 31	5 Acres

34 The Engineer may increase or decrease the limits based on project conditions.
 35

36 Erodible earth is defined as any surface where soils, grindings, or other materials may
 37 be capable of being displaced and transported by rain, wind, or surface water runoff.
 38

39 Erodible earth not being worked, whether at final grade or not, shall be covered within
 40 the specified time period (see the table below), using BMPs for erosion control.
 41
 42

Western Washington (West of the Cascade	Eastern Washington (East of the Cascade
--	--

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

Mountain Crest)	
October 1 through June 30	5 days maximum
November 1 through March 31	10 days maximum

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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

1 of Training in Construction Site Erosion and Sediment Control from a course approved
2 by the Washington State Department of Ecology. The ESC Lead must be onsite or on
3 call at all times throughout construction. The ESC Lead shall be listed on the
4 Emergency Contact List required under Section 1-05.13(1).

5
6 The ESC Lead shall implement the TESC Plan. Implementation shall include, but is not
7 limited to:

- 8
9 1. Installing, adaptively managing, and maintaining temporary erosion and
10 sediment control BMPs to assure continued performance of their intended
11 function. Damaged or inadequate BMPs shall be corrected immediately.
12
13 2. Updating the TESC Plan to reflect current field conditions.
14
15 3. Discharge sampling and submitting Discharge Monitoring Reports (DMRs) to
16 the Washington State Department of Ecology in accordance with the CSWGP.
17
18 4. Develop and maintain the Site Log Book as defined in the CSWGP. When the
19 Site Log Book or portion thereof is electronically developed, the electronic
20 documentation must be accessible onsite. As a part of the Site Log Book, the
21 Contractor shall develop and maintain a tracking table to show that identified
22 TESC compliance issues are fully resolved within 10 calendar days. The table
23 shall include the date an issue was identified, a description of how it was
24 resolved, and the date the issue was fully resolved.
25

26 The ESC Lead shall also inspect all areas disturbed by construction activities, all on-site
27 erosion and sediment control BMPs, and all stormwater discharge points at least once
28 every calendar week and within 24-hours of runoff events in which stormwater
29 discharges from the site. Inspections of temporarily stabilized, inactive sites may be
30 reduced to once every calendar month. The Washington State Department of Ecology's
31 Erosion and Sediment Control Site Inspection Form, located at
32 [https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-](https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit)
33 [permits/Construction-stormwater-permit](https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit), shall be completed for each inspection and a
34 copy shall be submitted to the Engineer no later than the end of the next working day
35 following the inspection.
36

37 **8-01.3(1)C Water Management**

38 This section is supplemented with the following new subsections:

39 40 **8-01.3(1)C5 Water Management for In-Water Work Below Ordinary High Water 41 Mark (OHWM)**

42 Work over surface waters of the state (defined in WAC 173-201A-010) or below the
43 OHWM (defined in RCW 90.58.030) shall comply with water quality standards for
44 surface waters of the State of Washington.
45

46 **8-01.3(1)C6 Environmentally Acceptable Hydraulic Fluid**

47 All equipment containing hydraulic fluid that extends from a bridge deck over surface
48 waters of the state or below the OHWM, shall be equipped with a biodegradable
49 hydraulic fluid. The fluid shall achieve either a Pw1 Environmental Persistence
50 Classification stated in ASTM D6046 ($\geq 60\%$ biodegradation in 28 days) or equivalent
51 standard. Alternatively, hydraulic fluid that meets International Organization for

1 Standardization (ISO 15380), the European Union Ecolabel, or equivalent certification
2 will also be accepted.
3

4 The Contractor shall submit a Type 1 Working Drawing consisting of a manufacturer
5 catalog cut of the hydraulic fluid used.
6

7 The designation of biodegradable hydraulic fluid does not mean fluid spills are
8 acceptable. The Contractor shall respond to spills to land or water in accordance with
9 the Contract, the associated SPCC Plan, and all applicable local, state, and federal
10 regulations.
11

12 **8-01.3(1)C7 Turbidity Curtain**

13 All Work for the turbidity curtain shall be in accordance with the manufacturer's
14 recommendations for the site conditions. Removal procedures shall be developed and
15 used to minimize silt release and disturbance of silt. The Contractor shall submit a Type
16 2 Working Drawing, detailing product information, installation and removal procedures,
17 equipment and workforce needs, maintenance plans, and emergency
18 repair/replacement plans.
19

20 Turbidity curtain materials, installation, and maintenance shall be sufficient to comply
21 with water quality standards.
22

23 The Contractor shall notify the Engineer 10 days in advance of removing the turbidity
24 curtain. All components of the turbidity curtain shall be removed from the project.
25

26 **8-01.3(1)C1 Disposal of Dewatering Water**

27 This section is revised to read:
28

29 When uncontaminated groundwater is encountered in an excavation on a project it may
30 be infiltrated within vegetated areas of the right of way not designated as Sensitive
31 Areas or incorporated into an existing stormwater conveyance system at a rate that will
32 not cause erosion or flooding in any receiving surface water.
33

34 Alternatively, the Contractor may pursue independent disposal and treatment
35 alternatives that do not use the stormwater conveyance system provided it is in
36 compliance with the applicable WACs and permits.
37

38 **8-01.3(1)C2 Process Wastewater**

39 This section is revised to read:
40

41 Wastewater generated on-site as a byproduct of a construction process shall not be
42 discharged to surface waters of the State. Some sources of process wastewater may be
43 infiltrated in accordance with the CSWGP. Some sources of process wastewater may
44 be disposed via independent disposal and treatment alternatives in compliance with the
45 applicable WACs and permits.
46

47 **8-01.3(1)C3 Shaft Drilling Slurry Wastewater**

48 This section is revised to read:
49

50 Wastewater generated on-site during shaft drilling activity shall be managed and
51 disposed of in accordance with the requirements below. No shaft drilling slurry
52 wastewater shall be discharged to surface waters of the State. Neither the sediment nor

1 liquid portions of the shaft drilling slurry wastewater shall be contaminated, as
2 detectable by visible or olfactory indication (e.g., chemical sheen or smell).

3
4 1. Water-only shaft drilling slurry or water slurry with accepted flocculants may be
5 infiltrated on-site. Flocculants used shall meet the requirements of Section 9-
6 14.5(1) or shall be chitosan products listed as General Use Level Designation
7 (GULD) on the Washington State Department of Ecology's stormwater
8 treatment technologies webpage for construction treatment. Infiltration is
9 permitted if the following requirements are met:

- 10
11 a. Wastewater shall have a pH of 6.5 – 8.5 prior to discharge.
12
13 b. The amount of flocculant added to the slurry shall be kept to the minimum
14 needed to adequately settle out solids. The flocculant shall be thoroughly
15 mixed into the slurry.
16
17 c. The slurry removed from the shaft shall be contained in a leak proof cell or
18 tank for a minimum of 3 hours.
19
20 d. The infiltration rate shall be reduced if needed to prevent wastewater from
21 leaving the infiltration location. The infiltration site shall be monitored
22 regularly during infiltration activity. All wastewater discharged to the
23 ground shall fully infiltrate and discharges shall stop before the end of
24 each work day.
25
26 e. Drilling spoils and settled sediments remaining in the containment cell or
27 tank shall be disposed of in accordance with Section 6-19.3(4)F.
28
29 f. Infiltration locations shall be in upland areas at least 150 feet away from
30 surface waters, wells, on-site sewage systems, aquifer sensitive recharge
31 areas, sole source aquifers, well head protection areas, and shall be
32 marked on the plan sheets before the infiltration activity begins.
33
34 g. Prior to infiltration, the Contractor shall submit a Shaft Drilling Slurry
35 Wastewater Management and Infiltration Plan as a Type 2 Working
36 Drawing. This Plan shall be kept on-site, adapted if needed to meet the
37 construction requirements, and updated to reflect what is being done in
38 the field. The Working Drawing shall include, at a minimum, the following
39 information:
40
41 i. Plan sheet showing the proposed infiltration location and all surface
42 waters, wells, on-site sewage systems, aquifer-sensitive recharge
43 areas, sole source aquifers, and well-head protection areas within
44 150 feet.
45
46 ii. The proposed elevation of soil surface receiving the wastewater for
47 infiltration and the anticipated phreatic surface (i.e., saturated soil).
48
49 iii. The source of the water used to produce the slurry.
50
51 iv. The estimated total volume of wastewater to be infiltrated.
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- 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:

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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.

1 When seeding by hand, the seed shall be incorporated into the top ¼ inch of soil by
2 hand raking or other method that is allowed by the Engineer.

3
4 Seed applied using a hydroseeder shall have a tracer added to visibly aid uniform
5 application. This tracer shall not be harmful to plant, aquatic, or animal life. If Short-
6 Term Mulch is used as a tracer, the application rate shall not exceed 250 pounds
7 per acre.

8
9 Seed and fertilizer may be applied in one application provided that the fertilizer is placed
10 in the hydroseeder tank no more than 1 hour prior to application.

11
12 **8-01.3(2)D Mulching**

13 This section, including title, is revised to read:

14
15 **8-01.3(2)D Temporary Mulching**

16 Temporary mulch shall be straw, wood strand, or HECP mulch and shall be used for the
17 purpose of erosion control by protecting bare soil surface from particle displacement.
18 Mulch shall not be applied below the anticipated water level of ditch slopes, pond
19 bottoms, and stream banks. HECP mulch shall not be used within the Ordinary High
20 Water Mark. Non-HECP mulches applied below the anticipated water level shall be
21 removed or anchored down so that it cannot move or float, at no additional expense to
22 the Contracting Agency.

23
24 Straw or wood strand mulch shall be applied at a rate to achieve at least 95 percent
25 visual blockage of the soil surface.

26
27 Short Term Mulch shall be hydraulically applied at the rate of 2500 pounds per acre and
28 may be applied in one lift.

29
30 Moderate Term Mulch and Long Term Mulch shall be hydraulically applied at the rate of
31 3500 pounds per acre with no more than 2000 pounds applied in any single lift.

32
33 Mulch sprayed on signs or sign Structures shall be removed the same day.

34
35 Areas not accessible by mulching equipment shall be mulched by accepted
36 hand methods.

37
38 **8-01.3(2)F Dates for Application of Final Seed, Fertilizer, and Mulch**

39 This section is deleted in its entirety.

40
41 **8-01.3(2)G Protection and Care of Seeded Areas**

42 This section is deleted in its entirety.

43
44 **8-01.3(2)H Inspection**

45 This section is deleted in its entirety.

46
47 **8-01.3(2)I Mowing**

48 This section is deleted in its entirety.

49
50 **8-01.3(3) Placing Biodegradable Erosion Control Blanket**

51 This section's title is revised to read:

52

1 **8-01.3(3) Placing Erosion Control Blanket**

2
3 The first sentence of the first paragraph is revised to read:

4
5 Erosion Control Blankets are used as an erosion prevention device and to enhance the
6 establishment of vegetation.

7
8 The second paragraph is revised to read:

9
10 When used to enhance the establishment of seeded areas, seeding and fertilizing shall
11 be done prior to blanket installation.

12
13 **8-01.3(4) Placing Compost Blanket**

14 This section is revised to read:

15
16 Compost blankets are used for erosion control. Compost blanket shall be only be placed
17 on ground surfaces that are steeper than 3-foot horizontal and 1-foot vertical though
18 steeper slopes shall be broken by wattles or compost socks placed according to the
19 Standard Plans. Compost shall be placed to a depth of 3 inches over bare soil. An
20 organic tackifier shall be placed over the entire composted area when dry or windy
21 conditions are present or expected. The tackifier shall be applied immediately after the
22 application of compost to prevent compost from leaving the composted area.

23
24 Medium compost shall be used for the compost blanket. Compost may serve the
25 purpose of soil amendment as specified in Section 8-02.3(6).

26
27 **8-01.3(5) Plastic Covering**

28 The first paragraph is revised to read:

29
30 **Erosion Control** – Plastic coverings used to temporarily cover stockpiled materials,
31 slopes or bare soils shall be installed and maintained in a way that prevents water from
32 intruding under the plastic and prevents the plastic cover from being damaged by wind.
33 Plastic coverings shall be placed with at least a 12-inch overlap of all seams and be a
34 minimum of 6 mils thick. Use soil stabilization and energy dissipation BMPs to minimize
35 the erosive energy flows coming off sloped areas of plastic (e.g., toe of slope). When
36 feasible, prevent the clean runoff from plastic from hitting bare soil. Direct flows from
37 plastic to stabilized outlet areas.

38
39 **8-01.3(7) Stabilized Construction Entrance**

40 The first paragraph is revised to read:

41
42 Temporary stabilized construction entrance shall be constructed in accordance with the
43 *Standard Plans*, prior to construction vehicles entering the roadway from locations that
44 generate sediment track out on the roadway. Material used for stabilized construction
45 entrance shall be free of extraneous materials that may cause or contribute to track out.

46
47 **8-01.3(8) Street Cleaning**

48 This section is revised to read:

49
50 Self-propelled pickup street sweepers shall be used to remove and collect dirt and other
51 debris from the Roadway. The street sweeper shall effectively collect these materials
52 and prevent them from being washed or blown off the Roadway or into waters of the

1 State. Street sweepers shall not generate fugitive dust and shall be designed and
2 operated in compliance with applicable air quality standards. Material collected by the
3 street sweeper shall be disposed of in accordance with Section 2-03.3(7)C.
4

5 When allowed by the Engineer, power broom sweepers may be used in non-sensitive
6 areas. The broom sweeper shall sweep dirt and other debris from the roadway into the
7 work area. The swept material shall be prevented from entering or washing into waters
8 of the State.
9

10 Street washing with water will require the concurrence of the Engineer.
11

12 **8-01.3(12) Compost Socks**

13 The first two sentences of the first paragraph are revised to read:
14

15 Compost socks are used to disperse flow and sediment. Compost socks shall be
16 installed as soon as construction will allow but before flow conditions create erosive
17 flows or discharges from the site. Compost socks shall be installed prior to any mulching
18 or compost placement.
19

20 **8-01.3(13) Temporary Curb**

21 The last two sentences of the second paragraph are revised to read:
22

23 Temporary curbs shall be a minimum of 4 inches in height. Temporary curb shall be
24 installed so that ponding does not occur in the adjacent roadway.
25

26 **8-01.3(14) Temporary Pipe Slope Drain**

27 The third and fourth paragraphs are revised to read:
28

29 The pipe fittings shall be water tight and the pipe secured to the slope with metal posts,
30 wood stakes, or sand bags.
31

32 The water shall be discharged to a stabilized conveyance, sediment trap, stormwater
33 pond, rock splash pad, or vegetated strip, in a manner to prevent erosion and maintain
34 water quality compliance.
35

36 The last paragraph is deleted.
37

38 **8-01.3(15) Maintenance**

39 This section is revised to read:
40

41 Erosion and sediment control BMPs shall be maintained or adaptively managed as
42 required by the CSWGP until the Engineer determines they are no longer needed.
43 When deficiencies in functional performance are identified, the deficiencies shall be
44 rectified immediately.
45

46 The BMPs shall be inspected on the schedule outlined in Section 8-01.3(1)B for
47 damage and sediment deposits. Damage to or undercutting of BMPs shall be repaired
48 immediately.
49

50 In areas where the Contractor's activities have compromised the erosion control
51 functions of the existing grasses, the Contractor shall overseed at no additional cost to
52 the Contracting Agency.

1
2 The quarry spalls of construction entrances shall be refreshed, replaced, or screened to
3 maintain voids between the spalls for collecting mud and dirt.
4

5 Unless otherwise specified, when the depth of accumulated sediment and
6 debris reaches approximately $\frac{1}{2}$ the height of the BMP the deposits shall be removed.
7 Debris or contaminated sediment shall be disposed of in accordance with Section 2-
8 03.3(7)C. Clean sediments may be stabilized on-site using BMPs as allowed by the
9 Engineer.
10

11 **8-01.3(16) Removal**

12 This section is revised to read:

13
14 The Contractor shall remove all temporary BMPs, all associated hardware and
15 associated accumulated sediment deposition from the project limits prior to Physical
16 Completion unless otherwise allowed by the Engineer. When the temporary BMP
17 materials are made of natural plant fibers unaltered by synthetic materials the Engineer
18 may allow leaving the BMP in place.
19

20 The Contractor shall remove BMPs and associated hardware in a way that minimizes
21 soil disturbance. The Contractor shall permanently stabilize all bare and disturbed soil
22 after removal of BMPs. If the installation and use of the erosion control BMPs have
23 compacted or otherwise rendered the soil inhospitable to plant growth, such as
24 construction entrances, the Contractor shall take measures to rehabilitate the soil to
25 facilitate plant growth. This may include, but is not limited to, ripping the soil,
26 incorporating soil amendments, or seeding with the specified seed.
27

28 At the request of the Contractor and at the sole discretion of the Engineer the CSWGP
29 may be transferred back to the Contracting Agency. Approval of the Transfer of
30 Coverage request will require the following:

- 31
32 1. All other Work required for Contract Completion has been completed.
33
- 34 2. All Work required for compliance with the CSWGP has been completed to the
35 maximum extent possible. This includes removal of BMPs that are no longer
36 needed and the site has undergone all Stabilization identified for meeting the
37 requirements of Final Stabilization in the CSWGP.
38
- 39 3. An Equitable Adjustment change order for the cost of Work that has not been
40 completed by the Contractor.
41
- 42 4. Submittal of the Washington State Department of Ecology Transfer of
43 Coverage form (Ecology form ECY 020-87a) to the Engineer.
44

45 If the Engineer approves the transfer of coverage back to the Contracting Agency, the
46 requirement in Section 1-07.5(3) for the Contractor's submittal of the Notice of
47 Termination form to the Washington State Department of Ecology will not apply.
48

49 **8-01.4 Measurement**

50 This section's content is deleted and replaced with the following new subsections:
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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.

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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.

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- 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.

1 "Tackifier", per acre.
2
3 "Erosion/Water Pollution Control", by force account as provided in Section 1-09.6.
4
5 Maintenance and removal of erosion and water pollution control devices including
6 removal and disposal of sediment, stabilization and rehabilitation of soil disturbed
7 by these activities, and any additional Work deemed necessary by the Engineer to
8 control erosion and water pollution will be paid by force account in accordance with
9 Section 1-09.6.
10
11 To provide a common Proposal for all Bidders, the Contracting Agency has entered an
12 amount in the Proposal to become a part of the Contractor's total Bid.

13
14 **8-01.5(3) Reinstating Unit Items with Lump Sum Erosion Control and Water**
15 **Pollution Prevention**

16 The Contract may establish the project as lump sum, in accordance with Section 8-
17 01.4(1) and also reinstate the measurement of one or more of the items described in
18 Section 8-01.4(2), except for Erosion/Water Pollution Control, by force account. When
19 that occurs, the corresponding payment provision in Section 8-01.5(2) is not deleted
20 and the Work under that item will be paid as specified.

21
22 **8-01.5(4) Items not included with Lump Sum Erosion Control and Water Pollution**
23 **Prevention**

24 Payment will be made for the following Bid item when it is included in the Proposal:

25
26 "High Visibility Fence", per linear foot.

27
28 8-02.AP8
29 **Section 8-02, Roadside Restoration**
30 **April 1, 2019**

31 This section, including all subsections, is revised to read:

32
33 **8-02.1 Description**
34 This Work consists of preserving, maintaining, establishing and augmenting vegetation
35 on the roadsides and within mitigation or sundry site areas. It includes vegetation
36 preservation, weed and pest control, furnishing and placing topsoil, compost, and soil
37 amendments, and furnishing and planting seed, sod and plants of all forms and
38 container types. It includes performing plant establishment activities and soil
39 bioengineering. Work shall be performed in accordance with these Specifications and
40 as shown in the Plans or as designated by the Engineer.

41
42 Trees, whips, shrubs, ground covers, cuttings, live stakes, live poles, live branches,
43 rhizomes, tubers, rootstock, and seedlings will hereinafter be referred to collectively as
44 "plants" or "plant material". Grass, wildflowers, and other plant materials installed in
45 seed form will hereinafter be referred to collectively as "seed".

46
47 **8-02.2 Materials**
48 Materials shall meet the requirements of the following sections:

- 49
50 Erosion Control and Roadside Planting 9-14
51 Water 9-25.2

1
2 Botanical identification and nomenclature of plant materials shall be based on
3 descriptions by Hitchcock and Cronquist in "Flora of the Pacific Northwest". Botanical
4 identification and nomenclature of plant material not found in "Flora" shall be based on
5 Bailey in "Hortus Third" or superseding editions and amendments or as referenced in
6 the Plans.
7

8 **8-02.3 Construction Requirements**

9 **8-02.3(1) Responsibility During Construction**

10 The Contractor shall prepare, install, and ensure adequate and proper care of all
11 roadside seeded, planted, and lawn areas on the project until all plant
12 establishment periods required by the Contract are complete or until Physical
13 Completion of the project, whichever is last.
14

15 Adequate and proper care shall include, but is not limited to, keeping all plant
16 material in a healthy, growing condition by watering, pruning, and other actions
17 deemed necessary for plant health. This Work shall include keeping the project
18 area free from insect infestation, weeds or unwanted vegetation, litter, and other
19 debris along with retaining the finished grades and mulch in a neat uniform
20 condition.
21

22 Existing desirable vegetation shall be saved and protected unless removal is
23 required by the Contract or allowed by the Engineer.
24

25 The Contractor shall have sole responsibility for the maintenance and appearance
26 of the roadside restoration.
27

28 **8-02.3(2) Work Plans**

29 Three Work Plan submittals exist under this Section:
30

- 31 1. Roadside Work Plan: This plan is required when Work will disturb the
32 roadside beyond 20 feet from the pavement or where trees or native
33 vegetation will be removed, the Contractor shall submit a Type 2 Working
34 Drawing.
35
- 36 2. Weed and Pest Control Plan: This plan is required when the proposal
37 contains the item "Weed and Pest Control," and prior to application of any
38 chemicals or weed control activities, the Contractor shall submit a Type 2
39 Working Drawing.
40
- 41 3. Plant Establishment Plan: This plan is required when the proposal
42 contains the item "PSIPE__", and prior to completion of Initial Planting, the
43 Contractor shall submit a Type 2 Working Drawing.
44

45 **8-02.3(2)A Roadside Work Plan**

46 The Roadside Work Plan shall define the expected impacts to the roadside
47 and restoration resulting from Work necessary to meet all Contract
48 requirements. The Contractor shall define how the roadside restoration Work
49 included in the Contract will be phased and coordinated with project Work such
50 as earthwork, staging, access, erosion and water pollution control, irrigation,
51 etc. The Roadside Work Plan shall include the following:
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1. Limiting impacts to roadsides:
 - a. Limits of Work including locations of staging or parking.
 - b. Means and methods for vegetation protection (in accordance with Section 1-07.16(2)).
 - c. Locations outside of clearing limits where vegetation shall be removed to provide access routes or other needs to accomplish the Work.
 - d. Plans for removal, preservation and stockpile of topsoil or other native materials, if outside of clearing and grubbing limits and within the project limits.
2. Roadside Restoration:
 - a. Plan for propagation and procurement of plants, ground preparation for planting, and installation of plants.
 - b. Means and methods to limit soil compaction where seeding and planting are to occur, such as steel plates, hog fuel access roads, wood mats for sensitive areas (including removal) and decompaction for unavoidable impacts.
 - c. Plan and timing to incorporate or remove erosion control items.
3. Lawn Installation:
 - a. Schedule for lawn installation work.
 - b. Establishment and maintenance of lawns.

8-02.3(2)B Weed and Pest Control Plan

The Weed and Pest Control Plan shall describe all weed and pest control needs for the project.

The plan shall be prepared and signed by a licensed Commercial Pest Control Operator or Consultant. The plan for control of weeds and pests on the Contract in accordance with Section 8-02.3(3) shall include the following:

1. Names of plan preparer and pesticide operators, including contact information. The Contractor shall furnish the Engineer evidence that all operators are licensed with appropriate endorsements, and that the pesticide used is registered for use by the Washington State Department of Agriculture.
2. Means and methods of weed control, including mechanical and/or chemical.
3. Schedule for weed control including re-entry times for pesticide application by pesticide type.

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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, defoliant 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

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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

1 the Washington State Department of Agriculture, the local Weed District, or the
2 County Noxious Weed Control Board outside of planting areas within the
3 project limits.
4

5 **8-02.3(4) Topsoil**

6 Topsoil shall not be worked or placed when the ground or topsoil is frozen, or
7 excessively wet.
8

9 The Contractor shall protect topsoil stockpiled for project use to prevent erosion
10 and weed growth. Weed growth on topsoil stockpile sites shall be immediately
11 eliminated in accordance with the accepted Weed and Pest Control Plan and
12 Section 8-02.3(3)C.
13

14 The subsoil where topsoil is to be placed shall be tilled to a depth of 1 foot or as
15 specified in the Special Provisions or the Plans. Topsoil of the type specified shall
16 be evenly spread over the specified areas to the depth shown in the Plans or as
17 otherwise ordered by the Engineer. Topsoil depths greater than 6 inches shall be
18 placed in lifts no more than 6 inches in depth. The first lift of topsoil shall be
19 incorporated with sub-soil to a depth of 8 inches and subsequent lifts placed and
20 lightly tamped between lifts. After the topsoil has been spread, all large clods, hard
21 lumps, and rocks 2 inches in diameter and larger, and litter shall be raked up,
22 removed, and disposed.
23

24 **8-02.3(4)A Topsoil Type A**

25 Topsoil Type A shall be as specified in the Special Provisions. The Contractor
26 shall submit a certification by the supplier that the contents of the Topsoil meet
27 the requirements in the Special Provisions.
28

29 **8-02.3(4)B Topsoil Type B**

30 Topsoil Type B shall be naturally occurring topsoil taken from within the project
31 limits and shall meet the requirements of Section 9-14.1(2). Topsoil Type B
32 shall be taken from areas shown in the Plans to the designated depth and
33 stockpiled at locations that will not interfere with the construction of the project,
34 and outside of sensitive areas, as allowed by the Engineer. A minimum of two
35 weeks prior to excavation of Topsoil Type B, the Contractor shall pre-treat the
36 vegetation on the designated Topsoil Type B areas according to the Weed and
37 Pest Control Plan. Areas beyond the slope stakes shall be disturbed as little as
38 possible in the above operations and under no circumstances shall Topsoil
39 Type B be stockpiled within 10 feet of any existing tree or vegetation area
40 designated to be saved and protected. The Contractor shall protect topsoil
41 stockpile from weed infestation.
42

43 The Contractor shall set aside sufficient material to satisfy the needs of the
44 project.
45

46 Upon completion of topsoil placement, the Contractor shall dispose of
47 remaining stockpiled Topsoil Type B not required for use on the project at no
48 additional expense to the Contracting Agency in accordance with Section 2-
49 03.3(7)C.
50

1 Should a shortage of Topsoil Type B occur, and the Contractor has wasted or
2 otherwise disposed of topsoil material, the Contractor shall furnish Topsoil
3 Type A or C at no additional expense to the Contracting Agency.
4

5 **8-02.3(4)C Topsoil Type C**

6 Topsoil Type C shall be naturally occurring topsoil obtained from a source
7 provided by the Contractor outside of the Contracting Agency-owned Right of
8 Way. Topsoil Type C shall meet the requirements of Sections 8-02.3(4)B and
9 9-14.1(3). The Contractor shall not begin removal of Topsoil Type C from the
10 proposed source until the material has been allowed for use by the Engineer.
11

12 **8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation**

13 This Work includes preparing worked areas for the installation of all types of
14 permanent erosion control planting. Work shall be conducted so the flow lines in
15 drainage channels are maintained. Material displaced by the Contractor's
16 operations that interferes with drainage shall be removed from the channel and
17 disposed of as allowed by the Engineer.
18

19 **8-02.3(5)A Seeding Area Preparation**

20 The Contractor shall prepare roadside seeding areas as follows:

- 21
- 22 1. Remove all excess material, debris, stumps, and rocks greater than 3
23 inches in diameter from areas to be seeded. Dispose of removed
24 materials offsite.
- 25
- 26 2. Prepare roadside seeding area to a weed free and bare condition.
27
- 28 3. Bring area to uniform grade and install topsoil, soil amendments, or
29 compost as specified. Any slopes 3(H) to 1(V) or steeper shall not be
30 tilled unless otherwise specified.
- 31
- 32 4. Compact to provide a reasonably firm but friable seedbed; tractor
33 walk to uniformly cover the surface with longitudinal depressions at
34 least 2 inches deep formed perpendicular to the natural flow of water
35 on the slope. Condition the soil with sufficient water so the
36 longitudinal depressions remain in the soil surface until completion of
37 the seeding.
- 38
- 39 5. Seed and mulch within 2 days of preparation.
40

41 **8-02.3(5)B Lawn Area Preparation**

42 The Contractor shall prepare lawn areas as follows:

- 43
- 44 1. Prepare lawn area to a weed free and bare condition in accordance
45 with Section 8-02.3(3)B.
- 46
- 47 2. Remove excess material, stumps, wood or rocks over 3 inches in
48 diameter and remove from site.
- 49
- 50 3. Bring area to uniform grade and install topsoil or soil amendments in
51 accordance with Section 8-02.3(4) and 8-02.3(6).
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- 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.

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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 1/3 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

1 be located such that mature branching pattern will not block sight distance, signs,
2 or other traffic-related devices. No trees shall be placed where the mature canopy
3 will grow to within 10 feet of existing power lines. Where roadside ditches are
4 present, planting areas shall begin 5 feet from the centerline of the ditch unless
5 shown otherwise in the Plans.
6

7 **8-02.3(8) Planting**

8 **8-02.3(8)A Dates and Conditions for Planting**

9 No plant material shall be planted until it has been inspected and accepted for
10 planting by the Engineer. Rejected material shall be removed from the project
11 site immediately. All plants for the project or a sufficient quantity to plant 1-acre
12 of the site, whichever is less, shall be received on site prior to the Engineer
13 beginning inspection of the plants.
14

15 Under no circumstances will planting be permitted during unsuitable soil or
16 weather conditions as determined by the Engineer. Unsuitable conditions may
17 include frozen soil, freezing weather, saturated soil, standing water, high
18 winds, heavy rains, and high water levels. The ground shall be moist at the
19 time of planting. All planting shall be accomplished during the following
20 periods:
21

- 22 1. Non-Irrigated Plant Material
23 Western Washington (West of the Cascade Mountain Crest) –
24 October 1 to March 1.
25 Eastern Washington (East of the Cascade Mountain Crest) – October
26 1 to November 15.
27

- 28 2. Irrigated Plant Material
29

30 In irrigated areas, plant material shall not be installed until the irrigation
31 system is fully operational and accepted by the Engineer. Trees and
32 shrubs may be planted in irrigated areas during the non-irrigated planting
33 window before the irrigation system is functional with the written
34 concurrence of the Engineer only if the irrigation system is guaranteed to
35 be operational prior to the end of the non-irrigated planting window.
36

37 **8-02.3(8)B Plant Installation**

38 The Contractor shall handle plant material in the following manner:
39

- 40 1. Root systems shall be kept covered and damp at all times. Plant
41 material shall be kept in containers until the time of planting.
42
- 43 2. Roots shall not be bunched, curled, twisted, or unreasonably bent
44 when placed in the planting hole. Bare root plant material shall be
45 dormant at the time of harvesting and planting. The root systems of
46 all bare root plant material shall be dipped in a slurry immediately
47 prior to planting.
48
- 49 3. Plant material supplied in wrapped balls shall not be removed from
50 the wrapping until the time of planting at the planting location. The
51 root system of balled plant material shall be moist at the time of
52 planting. Root balls shall be loosened prior to planting. All burlap,

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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.

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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 HECF 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:

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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.

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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.

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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.

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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 PSIFE_____ (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.

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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

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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.

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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 3/4 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.

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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.

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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.

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“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.

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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.

1 Blended Hydraulic Cement Concrete Pavement conforming to the requirements of
2 Section 5-05.

3
4 8-07.AP8

5 **Section 8-07, Precast Traffic Curb**
6 **April 2, 2018**

7 **8-07.3(1) Installing Curbs**

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

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10 The curb shall be firmly bedded for its entire length and breadth on a mortar bed
11 conforming to Section 9-20.4(3) composed of one part Portland cement or blended
12 hydraulic cement and two parts sand.

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14 The fourth paragraph is revised to read:

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16 All joints between adjacent pieces of curb except joints for expansion and/or drainage
17 as designated by the Engineer shall be filled with mortar composed of one part Portland
18 cement or blended hydraulic cement and two parts sand.

19

20 8-09.AP8

21 **Section 8-09, Raised Pavement Markers**
22 **April 1, 2019**

23 **8-09.5 Payment**

24 The last paragraph is revised to read:

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26 The unit Contract price per hundred for "Raised Pavement Marker Type 1", "Raised
27 Pavement Marker Type 2", "Raised Pavement Marker Type 3 _____ In.", and
28 "Recessed Pavement Marker" shall be full pay for furnishing and installing the markers
29 in accordance with these Specifications.

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31 8-11.AP8

32 **Section 8-11, Guardrail**
33 **April 1, 2019**

34 **8-11.3(1)A Erection of Posts**

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

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37 Posts shall be set to the true line and grade of the Highway after the grade is in place
38 and compaction is completed.

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40 **8-11.3(1)C Terminal and Anchor Installation**

41 The first paragraph is revised to read:

42

43 All excavation and backfilling required for installation of anchors shall be performed in
44 accordance with Section 2-09, except that the costs thereof shall be included in the unit
45 Contract price for the anchor installed.

46

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

48

1 Assembly and installation of Beam Guardrail Non-flared Terminals for Type 31 guardrail
2 shall be supervised at all times by a manufacturer's representative, or an installer who
3 has been trained and certified by the manufacturer.
4

5 The last paragraph is revised to read:
6

7 Beam Guardrail Non-flared Terminals for Type 31 guardrail shall meet the crash test
8 and evaluation criteria in the Manual for Assessing Safety Hardware (MASH).
9

10 **8-11.4 Measurement**

11 The third paragraph is revised to read:
12

13 Measurement of beam guardrail _____ terminal will be per each for the
14 completed terminal.
15

16 The fourth paragraph is revised to read:
17

18 Measurement of beam guardrail Type 31 buried terminal Type 2 will be per linear foot
19 for the completed terminal.
20

21 The sixth paragraph is revised to read:
22

23 Measurement of beam guardrail anchor Type 10 will be per each for the completed
24 anchor, including the attachment of the anchor to the guardrail.
25

26 **8-11.5 Payment**

27 The Bid item "Beam Guardrail Anchor Type ____", per each is revised to read "Beam
28 Guardrail Anchor Type 10", per each.
29

30 The Bid item "Beam Guardrail Buried Terminal Type 1", per each is deleted from this
31 section.
32

33 The Bid item "Beam Guardrail Buried Terminal Type 2", per linear foot and the following
34 paragraph are revised to read:
35

36 "Beam Guardrail Type 31 Buried Terminal Type 2", per linear foot.
37

38 The unit Contract price per linear foot for "Beam Guardrail Type 31 Buried Terminal
39 Type 2" shall be full payment for all costs to obtain and provide materials and perform
40 the Work as described in Section 8-11.3(1)C.
41

42 8-14.AP8

43 **Section 8-14, Cement Concrete Sidewalks**

44 **April 2, 2018**

45 **8-14.2 Materials**

46 In the first paragraph, the reference to "Portland Cement" is revised to read:
47

48 Cement 9-01
49

50 In the second paragraph, each reference to "Federal Standard 595" is revised to read "SAE
51 AMS Standard 595".

1
2 8-16.AP8
3 **Section 8-16, Concrete Slope Protection**
4 **April 2, 2018**

5 **8-16.2 Materials**

6 In the first paragraph, the last two material references are revised to read:

7

8 Poured Portland Cement or Blended Hydraulic Cement	
9 Concrete Slope Protection	9-13.5(2)
10 Pneumatically Placed Portland Cement or Blended	
11 Hydraulic Cement Concrete Slope Protection	9-13.5(3)

12

13 8-17.AP8
14 **Section 8-17, Impact Attenuator Systems**
15 **January 7, 2019**

16 **8-17.3 Construction Requirements**

17 This section is supplemented with the following:

18
19 Permanent impact attenuators shall meet the crash test and evaluation criteria of the
20 Manual for Assessing Safety Hardware (MASH), except as otherwise noted in the Plans
21 or Special Provisions.

22
23 8-20.AP8
24 **Section 8-20, Illumination, Traffic Signal Systems, Intelligent Transportation**
25 **Systems, and Electrical**
26 **August 6, 2018**

27 **8-20.1(1) Regulations and Code**

28 The last paragraph is revised to read:

29
30 Persons performing electrical Work shall be certified in accordance with and supervised
31 as required by RCW 19.28.161. Proof of certification shall be worn at all times in
32 accordance with WAC 296-46B-942. Persons failing to meet these certification
33 requirements may not perform any electrical work, and shall stop any active electrical
34 work, until their certification is provided and worn in accordance with this Section.

35
36 **8-20.2(2) Equipment List and Drawings**

37 This section is renumbered:

38
39 **8-20.2(1) Equipment List and Drawings**

40
41 **8-20.3(4) Foundations**

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

43
44 Concrete for Type II, III, IV, V, and CCTV signal standards and light standard
45 foundations shall be Class 4000P and does not require air entrainment.

46
47 **8-20.3(5)A General**

48 The last two sentences of the last paragraph is deleted.

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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.

1 9-00.AP9
2 **Section 9-00, Definitions and Tests**
3 **January 7, 2019**

4 **9-00.4 Sieves for Testing Purposes**

5 This section is revised to read:

6

7 Test sieves shall be made of either: (1) woven wire cloth conforming to ASTM E11, or
8 (2) square-hole, perforated plates conforming to ASTM E323.

9

10 **9-00.7 Galvanized Hardware, AASHTO M 232**

11 The first sentence is revised to read:

12

13 An acceptable alternate to hot-dip galvanizing in accordance with AASHTO M 232 will
14 be zinc coatings mechanically deposited in accordance with ASTM B695, providing the
15 minimum thickness of zinc coating is not less than that specified in AASHTO M 232,
16 and the process will not produce hydrogen embrittlement in the base metal.

17

18 9-02.AP9

19 **Section 9-02, Bituminous Materials**
20 **January 7, 2019**

21 **9-02.1 Asphalt Material, General**

22 The second paragraph is revised to read:

23

24 The Asphalt Supplier of Performance Graded (PG) asphalt binder and emulsified
25 asphalt shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 2
26 "Standard Practice for Asphalt Suppliers That Certify Performance Graded and
27 Emulsified Asphalts". The Asphalt Supplier's QCP shall be submitted and receive the
28 acceptance of the WSDOT State Materials Laboratory. Once accepted, any change to
29 the QCP will require a new QCP to be submitted for acceptance. The Asphalt Supplier
30 of PG asphalt binder and emulsified asphalt shall certify through the Bill of Lading that
31 the PG asphalt binder or emulsified asphalt meets the Specification requirements of the
32 Contract.

33

34 **9-02.1(4) Performance Graded Asphalt Binder (PGAB)**

35 This section's title is revised to read:

36

37 **Performance Graded (PG) Asphalt Binder**

38

39 The first paragraph is revised to read:

40

41 PG asphalt binder meeting the requirements of AASHTO M 332 Table 1 of the grades
42 specified in the Contract shall be used in the production of HMA. For HMA with greater
43 than 20 percent RAP by total weight of HMA, or any amount of RAS, the new asphalt
44 binder, recycling agent and recovered asphalt (RAP and/or RAS) when blended in the
45 proportions of the mix design shall meet the PG asphalt binder requirements of
46 AASHTO M 332 Table 1 for the grade of asphalt binder specified by the Contract.

47

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

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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.							

4

The third paragraph is revised to read:

5

The RTFO $J_{nr\text{diff}}$ and the PAV direct tension specifications of AASHTO M 332 are not required.

6

7

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9

10

11

9-02.1(6) Cationic Emulsified Asphalt

This section is revised to read:

12

13

Cationic Emulsified Asphalt meeting the requirements of AASHTO M 208 Table 1 of the grades specified in the Contract shall be used.

14

15

16

17

9-02.5 Warm Mix Asphalt (WMA) Additive

This section, including title, is revised to read:

18

19

20

9-02.5 HMA Additive

Additives for HMA shall be accepted by the Engineer.

21

22

23

9-03.AP9

24

Section 9-03, Aggregates

25

January 7, 2019

26

9-03.1 Aggregates for Portland Cement Concrete

27

This section's title is revised to read:

28

29

Aggregates for Concrete

30

31

9-03.1(1) General Requirements

32

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

33

34

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.

35

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

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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							
	3/8 inch		1/2 inch		3/4 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%
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In the table in item number 1, the following new row is inserted before the last row:

Voids in Mineral Aggregate, VMA	-1.0%		
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1 **9-03.9(1) Ballast**

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

3

4 Aggregates for ballast shall meet the following test requirements:

5

6 **9-03.14(4) Gravel Borrow for Structural Earth Wall**

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

8

9 The material shall be substantially free of shale or other soft, poor durability particles,
10 and shall not contain recycled materials, such as glass, shredded tires, concrete rubble,
11 or asphaltic concrete rubble.

12

13 **9-03.21(1)B Recycled Concrete Aggregate Approval and Acceptance**

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

15

16 Recycled concrete aggregate may be used as coarse aggregate or blended with coarse
17 aggregate for Commercial Concrete, Class 3000 concrete, or Cement Concrete
18 Pavement.

19

20 Item number 4 of the second paragraph is revised to read:

21

- 22 4. For Cement Concrete Pavement mix designs using recycled concrete aggregates,
23 the Contractor shall submit evidence that ASR mitigating measures control
24 expansion in accordance with Section 9-03.1(1).

25

26 This section is supplemented with the following new subsection:

27

28 **9-03.21(1)B1 Recycled Concrete Aggregate Approval and Acceptance**

29 Recycled concrete aggregate may be approved through a three tiered system that
30 consists of the following:

31

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	

32

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	

1

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	

2

1 For Reclamation Facilities that do not participate in Tier 2 and Tier 3, approval of
2 recycled concrete aggregate will be in accordance with Section 9-03.21(1), and
3 acceptance will be in accordance with Section 3-04.
4

5 **9-03.21(1)E Table on Maximum Allowable percent (By Weight) of Recycled**
6 **Material**

7 "Portland Cement" is deleted from the first two rows in the table.
8

9 The following new row is inserted after the second row:
10

Coarse Aggregate for Concrete Pavement	9-03.1(4)	0	100	0	0
--	-----------	---	-----	---	---

11

12 The first column of the fourth row (after the preceding Amendment is applied) is revised to
13 read:

14

15 Coarse Aggregate for Commercial Concrete and Class 3000 Concrete
16

17 9-04.AP9

18 **Section 9-04, Joint and Crack Sealing Materials**

19 **January 7, 2019**

20 This section's title is revised to read:

21

22 **Joint Sealing Materials**

23

24 **9-04.1(2) Premolded Joint Filler for Expansion Joints**

25 In this section, each reference to "AASHTO T 42" is revised to read "ASTM D 545".
26

27 **9-04.2(1)A1 Hot Poured Sealant for Cement Concrete Pavement**

28 This section is supplemented with the following:
29

30 Hot poured sealant for cement concrete pavement is acceptable for installations in joints
31 where cement concrete pavement abuts a bituminous pavement.
32

33 **9-04.2(1)A2 Hot Poured Sealant for Bituminous Pavement**

34 This section is supplemented with the following:
35

36 Hot poured sealant for bituminous pavement is acceptable for installations in joints
37 where cement concrete pavement abuts a bituminous pavement.
38

39 **9-04.2(1)B Sand Slurry for Bituminous Pavement**

40 Item number 2 of the first paragraph is revised to read:
41

42 2. Two percent portland cement or blended hydraulic cement, and
43

44 **9-04.3 Joint Mortar**

45 The first paragraph is revised to read:
46

47 Mortar for hand mortared joints shall conform to Section 9-20.4(3) and consist of one
48 part portland cement or blended hydraulic cement, three parts fine sand, and sufficient
49 water to allow proper workability.

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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.

- 1 3. Fittings shall be factory welded, injection molded, or PVC.

2
3 **9-05.24(2) Polypropylene Sanitary Sewer Pipe**

4 This section is revised to read:

5
6 Polypropylene sanitary sewer pipe shall conform to the following requirements:

- 7
8 1. For pipe sizes up to 60 inches: ASTM F2764.
9
10 2. Fittings shall be factory welded, injection molded, or PVC.

11
12 9-06.AP9

13 **Section 9-06, Structural Steel and Related Materials**

14 **January 7, 2019**

15 **9-06.5 Bolts**

16 This section's title is revised to read:

17
18 **Bolts and Rods**

19
20 **9-06.5(4) Anchor Bolts**

21 This section, including title, is revised to read:

22
23 **9-06.5(4) Anchor Bolts and Anchor Rods**

24 Anchor bolts and anchor rods shall meet the requirements of ASTM F1554 and, unless
25 otherwise specified, shall be Grade 105 and shall conform to Supplemental
26 Requirements S2, S3, and S4.

27
28 Nuts for ASTM F1554 Grade 105 black anchor bolts and anchor rods shall conform to
29 ASTM A563, Grade D or DH. Nuts for ASTM F1554 Grade 105 galvanized anchor bolts
30 and anchor rods shall conform to either ASTM A563, Grade DH, or AASHTO M292,
31 Grade 2H, and shall conform to the overtapping, lubrication, and rotational testing
32 requirements in Section 9-06.5(3). Nuts for ASTM F1554 Grade 36 or 55 black or
33 galvanized anchor bolts and anchor rods shall conform to ASTM A563, Grade A or DH.
34 Washers shall conform to ASTM F436.

35
36 The bolts and rods shall be tested by the manufacturer in accordance with the
37 requirements of the pertinent Specification and as specified in these Specifications.
38 Anchor bolts, anchor rods, nuts, and washers shall be inspected prior to shipping to the
39 project site. The Contractor shall submit to the Engineer for acceptance a
40 Manufacturer's Certificate of Compliance for the anchor bolts, anchor rods, nuts, and
41 washers, as defined in Section 1-06.3. If the Engineer deems it appropriate, the
42 Contractor shall provide a sample of the anchor bolt, anchor rod, nut, and washer for
43 testing.

44
45 All bolts, rods, nuts, and washers shall be marked and identified as required in the
46 pertinent Specification.

47
48 **9-06.15 Welded Shear Connectors**

49 The third paragraph is revised to read:

50
51 Mechanical properties shall be determined in accordance with AASHTO T 244.

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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

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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
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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

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- 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

1 **9-08.1(2)E Epoxy Polyamide**

2 This section is revised to read:

3
4 Epoxy polyamide shall be a two-component system conforming to MIL-DTL-24441 or
5 SSPC Coating Standard No. 42.

6
7 **9-08.1(2)H Top Coat, Single-Component, Moisture-Cured Polyurethane**

8 This section is revised to read:

9
10 Vehicle Type: Moisture-cured aliphatic polyurethane.

11
12 Color and Gloss: Meet the SAE AMS Standard 595 Color as specified in the table
13 below.

14
15 The Top Coat shall meet the following requirements:

16 The resin shall be an aliphatic urethane.

17
18 Minimum-volume solids 50 percent.

19
20 The top coat shall be semi-gloss.

21
22

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

23
24 **9-08.1(2)I Rust-Penetrating Sealer**

25 This section is revised to read:

26
27 Rust-penetrating sealer shall be a two-component, chemically-cured, 100 percent solids
28 epoxy.

29
30 **9-08.1(2)J Black Enamel**

31 This section is revised to read:

32
33 The enamel shall conform to Federal Specification MIL PRF 24635E Type II Class 2.

34
35 **9-08.1(2)K Orange Equipment Enamel**

36 The first paragraph is revised to read:

37
38 The enamel shall be an alkyd gloss enamel conforming to Federal Specification MIL-
39 PRF-24635E Type II Class 1. The color, when dry, shall match that of SAE AMS
40 Standard 595, color number 12246.

41
42 **9-08.1(2)L Exterior Acrylic Latex Paint-White**

43 The first paragraph is revised to read:

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45 This paint shall conform to Federal Specification MIL-PRF-24635E Type II Class 1, 2 or
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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

1 color sample shall be labeled with the product number, batch number, and size of
2 batch. The Contractor shall submit the specified samples and readings to the
3 Engineer at least 14 calendar days prior to the scheduled application of the sealer.
4 The Contractor shall not begin applying pigmented sealer until receiving the
5 Engineer's written approval of the pigmented sealer color samples.
6

7 **9-08.3(2) Exposed Aggregate Concrete Coatings and Sealers**

8 **9-08.3(2)A Retardant Coating**

9 Retardant coating shall exhibit the following properties:

- 10
- 11 1. Retards the set of the surface mortar of the concrete without
12 preventing the concrete to reach the specified 28 day compressive
13 strength.
 - 14 2. Leaves the aggregate with its original color and luster, and firmly
15 embedded in the concrete matrix.
 - 16 3. Allows the removal of the surface mortar in accordance with the
17 methods specified in Section 6-02.3(14)E without the use of acidic
18 washing compounds.
 - 19 4. Allows for uniform removal of the surface mortar.
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24 If the Contractor proposes use of a retardant coating that is not listed in the
25 current WSDOT QPL, the Contractor shall submit a Type 2 Working Drawing
26 consisting of a one quart product sample from a current lot along with
27 supporting product information, Safety Data Sheet, and a Manufacturer's
28 Certificate of Compliance stating that the product conforms to the above
29 performance requirements.
30

31 **9-08.3(2)B Clear Sealer**

32 The sealer for concrete surfaces with exposed aggregate finish shall be a
33 clear, non-gloss, penetrating sealer of either a silane, siloxane, or silicone
34 based formulation.
35

36 **9-08.3(3) Permeon Treatment**

37 Permeon treatment shall be a product of known consistent performance in
38 producing the SAE AMS Standard 595 Color No. 30219 target color hue
39 established by WSDOT, either selected from the WSDOT Qualified Products List
40 (QPL), or an equivalent product accepted by the Engineer. For acceptance of
41 products not listed in the current WSDOT QPL, the Contractor shall submit Type 3
42 Working Drawings consisting of a one quart product sample from a current lot,
43 supporting product information and a Safety Data Sheet.
44

45 9-13.AP9

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

49 **9-13.1(1) General**

50 The last paragraph is revised to read:
51

1 Riprap and quarry spalls shall be free from segregation, seams, cracks, and other
2 defects tending to destroy its resistance to weather and shall meet the following test
3 requirements:
4

5 **9-13.5 Concrete Slope Protection**

6 This section is revised to read:
7

8 Concrete slope protection shall consist of reinforced portland cement or blended
9 hydraulic cement concrete poured or pneumatically placed upon the slope with a
10 rustication joint pattern or semi-open concrete masonry units placed upon the slope
11 closely adjoining each other.
12

13 **9-13.5(2) Poured Portland Cement Concrete Slope Protection**

14 This section's title is revised to read:
15

16 **Poured Portland Cement or Blended Hydraulic Cement Concrete Slope Protection**
17

18 **9-13.5(3) Pneumatically Placed Portland Cement Concrete Slope Protection**

19 This section's title is revised to read:
20

21 **Pneumatically Placed Portland Cement or Blended Hydraulic Cement Concrete**
22 **Slope Protection**
23

24 The first paragraph is revised to read:
25

26 **Cement** – This material shall be portland cement or blended hydraulic cement as
27 specified in Section 9-01.
28

29 **9-13.7(1) Rock for Rock Walls and Chinking Material**

30 The first paragraph (up until the colon) is revised to read:
31

32 Rock for rock walls and chinking material shall be hard, sound and durable material,
33 free from seams, cracks, and other defects tending to destroy its resistance to weather,
34 and shall meet the following test requirements:
35

36 9-14.AP9

37 **Section 9-14, Erosion Control and Roadside Planting**

38 **August 6, 2018**

39 **9-14.4(2) Hydraulically Applied Erosion Control Products (HECPs)**

40 In Table 1, the last four rows are deleted.
41

42 **9-14.4(2)A Long-Term Mulch**

43 The first paragraph is supplemented with the following:
44

45 Products containing cellulose fiber produced from paper or paper components will not
46 be accepted.
47

48 Table 2 is supplemented with the following new rows:
49

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

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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.

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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%

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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:

1
2 Grout Type 3 shall be a prepackaged material that does not include expansive
3 admixtures meeting the following requirements:
4

- 5 • Compressive strength shall be 4000 psi or higher at 28 days in accordance
6 with AASHTO T 22 (ASTM C 39) for grout extended with coarse aggregate or
7 AASHTO T 106 (ASTM C109) otherwise.
- 8 • Bond strength shall meet one of the following:
 - 9
 - 10 ◦ 250 psi or higher at 28 days or less in accordance with ASTM C1583.
 - 11
 - 12
 - 13 ◦ 2000 psi or higher at 28 days or less in accordance with ASTM C882. The
14 following modification to ASTM C882 is acceptable: use Type 3 Grout in
15 lieu of epoxy resin base bonding system and freshly mixed portland-
16 cement mortar in the procedure for testing Type II and V systems.
 - 17
- 18 • Drying shrinkage shall be 0.08 percent (800 microstrain) or lower at 28 days in
19 accordance with AASHTO T 160 (ASTM C157). The following modification to
20 AASHTO T 160 is acceptable: use a standard specimen size of 3 x 3 x 11-¼
21 inches.
22

23 **9-20.5 Bridge Deck Repair Material**

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

- 25
- 26 3. Permeability of less than 2,000 coulombs at 28-days or more in accordance with
27 AASHTO T 277.
28

29 9-21.AP9

30 **Section 9-21, Raised Pavement Markers (RPM)** 31 **January 2, 2018**

32 **9-21.2 Raised Pavement Markers Type 2**

33 This section's content is deleted.
34

35 **9-21.2(1) Physical Properties**

36 This section, including title, is revised to read:
37

38 **9-21.2(1) Standard Raised Pavement Markers Type 2**

39 The marker housing shall contain reflective faces as shown in the Plans to reflect
40 incident light from either a single or opposite directions and meet the requirements of
41 ASTM D 4280 including Flexural strength requirements.
42

43 **9-21.2(2) Optical Requirements**

44 This section, including title, is revised to read:
45

46 **9-21.2(2) Abrasion Resistant Raised Markers Type 2**

47 Abrasion Resistant Raised Markers Type 2 shall comply with Section 9-21.2(1) and
48 meet the requirements of ASTM D 4280 with the following additional requirement: The
49 coefficient of luminous intensity of the markers shall be measured after subjecting the
50 entire lens surface to the test described in ASTM D 4280 Section 9.5 using a sand drop

1 apparatus. After the exposure described above, retroreflected values shall not be less
2 than 0.5 times a nominal unblemished sample.

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4 **9-21.2(3) Strength Requirements**

5 This section is deleted in its entirety.

6
7 9-23.AP9

8 **Section 9-23, Concrete Curing Materials and Admixtures**
9 **April 1, 2019**

10 **9-23.12 Natural Pozzolan**

11 This section is revised to read:

12
13 Natural Pozzolans shall be ground Pumice and shall conform to the requirements of
14 AASHTO M295 Class N, including supplementary optional chemical requirements as
15 set forth in Table 2.

16
17 **9-23.13 Blended Supplementary Cementitious Material**

18 The second sentence is revised to read:

19
20 Blended SCMs shall be limited to binary or ternary blends of fly ash, ground granulated
21 blast furnace slag and microsilica fume.

22
23 The second to last sentence is deleted.

24
25 9-26.AP9

26 **Section 9-26, Epoxy Resins**
27 **January 7, 2019**

28 **9-26.1(1) General**

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

30
31 For pre-packaged cartridge kits, the epoxy bonding agent shall meet the requirements
32 of ASTM C881 when mixed according to manufacturer instructions, utilizing the
33 manufacturer's mixing nozzle.

34
35 **9-26.1(2) Packaging and Marking**

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

37
38 The components of the epoxy system furnished under these Specifications shall be
39 supplied in separate containers or pre-packaged cartridge kits that are non-reactive with
40 the materials contained.

41
42 The second paragraph is revised to read:

43
44 Separate containers shall be marked by permanent marking that identify the formulator,
45 "Component A" (contains the Epoxy Resin) and "Component B" (Contains the Curing
46 Agent), type, grade, class, lot or batch number, mixing instructions and the quantity
47 contained in pounds or gallons as defined by these Specifications.

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49 The following new paragraph is inserted after the second paragraph:

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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.

1 **9-28.11 Hardware**

2 The last paragraph is revised to read:

3
4 All steel parts shall be galvanized in accordance with AASHTO M111. Steel bolts and
5 related connecting hardware shall be galvanized in accordance with ASTM F 2329.
6

7 **9-28.14(2) Steel Structures and Posts**

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

9
10 Anchor rods for sign bridge and cantilever sign structure foundations shall conform to
11 Section 9-06.5(4), including Supplemental Requirement S4 tested at -20°F.
12

13 In the second sentence of the fourth paragraph, "AASHTO M232" is revised to read "ASTM
14 F 2329".
15

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

17
18 Except as otherwise noted, steel used for sign structures and posts shall have a
19 controlled silicon content of either 0.00 to 0.06 percent or 0.15 to 0.25 percent.
20

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

22
23 If such modifications are contemplated, the Contractor shall submit a Type 2 Working
24 Drawing of the proposed modifications.
25

26 9-29.AP9

27 **Section 9-29, Illumination, Signal, Electrical**

28 **April 1, 2019**

29 **9-29.1 Conduit, Innerduct, and Outerduct**

30 This section is supplemented with the following new subsections:

31
32 **9-29.1(10) Pull Tape**

33 Pull tape shall be pre-lubricated polyester pulling tape. The pull tape shall have a
34 minimum width of ½-inch and a minimum tensile strength of 500 pounds. Pull tape may
35 have measurement marks.
36

37 **9-29.1(11) Foam Conduit Sealant**

38 Foam conduit sealant shall be self-expanding waterproof foam designed to prevent both
39 water and pest intrusion. The foam shall be designed for use in and around electrical
40 equipment, including both insulated and bare conductors.
41

42 **9-29.2(1) Junction Boxes**

43 The first paragraph is revised to read:

44
45 For the purposes of this Specification concrete is defined as portland cement or blended
46 hydraulic cement concrete and non-concrete is all others.
47

48 **9-29.2(1)A2 Non-Concrete Junction Boxes**

49 The first paragraph is revised to read:
50

1 Material for the non-concrete junction boxes shall be of a quality that will provide for a
2 similar life expectancy as portland cement or blended hydraulic cement concrete in a
3 direct burial application.
4

5 **9-29.2(2)A Standard Duty Cable Vaults and Pull Boxes**

6 In the table in the last paragraph, the fourth, fifth and sixth rows are revised to read:
7

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

8

9 **9-29.3(2)A1 Single Conductor Current Carrying**

10 This second sentence is revised to read:

11

12 Insulation shall be XLP (cross-linked polyethylene) or EPR (Ethylene Propylene
13 Rubber), Type USE (Underground Service Entrance) or USE-2, and rated for 600-volts
14 or higher.
15

16 **9-29.6 Light and Signal Standards**

17 In the first sentence of the third paragraph, "AASHTO M232" is revised to read "ASTM F
18 2329".
19

20 Item number 2 of the last paragraph is revised to read:

21

- 22 2. The steel light and signal standard fabricator's shop drawing submittal, including
23 supporting design calculations, submitted as a Type 2E Working Drawing in
24 accordance with Section 8-20.2(1) and the Special Provisions.
25

26 **9-29.6(1) Steel Light and Signal Standards**

27 In the second paragraph, "AASHTO M232" is revised to read "ASTM F 2329".
28

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

30

31 Steel used for light and signal standards shall have a controlled silicon content of either
32 0.00 to 0.06 percent or 0.15 to 0.25 percent.
33

34 **9-29.6(5) Foundation Hardware**

35 In the last paragraph, "AASHTO M232" is revised to read "ASTM F 2329".
36

37 **9-29.10(1) Conventional Roadway Luminaires**

38 This section is revised to read:
39

40 All conventional roadway luminaires shall meet 3G vibration requirements as described
41 in ANSI C136.31.
42

43 All luminaires shall have housings fabricated from aluminum. The housing shall be
44 painted flat gray, SAE AMS Standard 595 color chip No. 26280, unless otherwise
45 specified in the Contract. Painted housings shall withstand a 1,000 hour salt spray test
46 as specified in ASTM B117.
47

1 Each housing shall include a four bolt slip-fitter mount capable of accepting a nominal 2"
2 tenon and adjustable within +/- 5 degrees of the axis of the tenon. The clamping
3 bracket(s) and the cap screws shall not bottom out on the housing bosses when
4 adjusted within the +/- 5 degree range. No part of the slipfitter mounting brackets on the
5 luminaires shall develop a permanent set in excess of 0.2 inch when the cap screws
6 used for mounting are tightened to a torque of 32 foot-pounds. Each luminaire shall
7 include leveling reference points for both transverse and longitudinal adjustment.
8

9 All luminaires shall include shorting caps when shipped. The caps shall be removed and
10 provided to the Contracting Agency when an alternate control device is required to be
11 installed in the photocell socket. House side shields shall be included when required by
12 the Contract. Order codes shall be modified to the minimum extent necessary to include
13 the option for house side shields.
14

15 This section is supplemented with the following new subsections:
16

17 **9-29.10(1)A High Pressure Sodium (HPS) Conventional Roadway Luminaires**

18 HPS conventional roadway luminaires shall meet the following requirements:
19

- 20 1. General shape shall be "cobrahead" style, with flat glass lens and full cutoff
21 optics.
22
- 23 2. Light pattern distribution shall be IES Type III.
24
- 25 3. The reflector of all luminaires shall be of a snap-in design or secured with
26 screws. The reflector shall be polished aluminum or prismatic borosilicate
27 glass.
28
- 29 4. Flat lenses shall be formed from heat resistant, high-impact, molded
30 borosilicate or tempered glass.
31
- 32 5. The lens shall be mounted in a doorframe assembly, which shall be hinged to
33 the luminaire and secured in the closed position to the luminaire by means of
34 an automatic latch. The lens and doorframe assembly, when closed, shall
35 exert pressure against a gasket seat. The lens shall not allow any light output
36 above 90 degrees nadir. Gaskets shall be composed of material capable of
37 withstanding the temperatures involved and shall be securely held in place.
38
- 39 6. The ballast shall be mounted on a separate exterior door, which shall be
40 hinged to the luminaire and secured in the closed position to the luminaire
41 housing by means of an automatic type of latch (a combination hex/slot
42 stainless steel screw fastener may supplement the automatic-type latch).
43
- 44 7. Each luminaire shall be capable of accepting a 150, 200, 250, 310, or 400 watt
45 lamp complete and associated ballast. Lamps shall mount horizontally.
46

47 **9-29.10(1)B Light Emitting Diode (LED) Conventional Roadway Luminaires**

48 LED Conventional Roadway Luminaires are divided into classes based on their
49 equivalent High Pressure Sodium (HPS) luminaires. Current classes are 200W,
50 310W, and 400W. LED luminaires are required to be pre-approved in order to verify
51 their photometric output. To be considered for pre-approval, LED luminaires must meet
52 the requirements of this section.

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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.

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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

1 automatically when either door to that respective rack is opened. Each door switch
2 shall be labeled "Light".
3

4 Item number 7 is revised to read:
5

- 6 7. Rack mounted equipment shall be as shown in the Standard Plans. The cabinet
7 shall use PDA #2LX and Output File #1LX. Where an Auxiliary Output File is
8 required, Output File #2LX shall also be included.
9

10 This section is supplemented with the following new item:
11

- 12 9. The PCB connectors for Field Terminal Blocks FT1 through FT6 on Output Files
13 #1LX and #2LX shall be capable of accepting minimum 14 AWG field wiring, have
14 a pitch of 5.08 mm, and use screw flange type locking to secure the plug and
15 socket connection. The sockets on the Field Terminal Panel shall be secured to the
16 panel such that unplugging a connector will not result in the socket moving or
17 separating from the panel.
18

19 **9-29.13(11) Traffic Data Accumulator and Ramp Meters**

20 Item number 2 is revised to read:
21

- 22 2. Rack mounted equipment shall be as shown in the Standard Plans.
23

24 Item number 3 is revised to read:
25

- 26 3. PDA #3LX shall be furnished with three Model 200 Load Switches installed. PDA
27 #3LX shall be modified to include a second Model 430 transfer relay, mounted on
28 the rear of the PDA and wired as shown in the Standard Plans.
29

30 **9-29.13(12) ITS Cabinet**

31 This section's title is revised to read:
32

33 **Type 331L ITS Cabinet**

34
35 The first paragraph (excluding the numbered list) is revised to read:
36

37 Basic ITS cabinets shall be Model 331L Cabinets, unless otherwise specified in the
38 Contract. Type 331L Cabinets shall be constructed in accordance with the TEES, with
39 the following modifications:
40

41 Item number 6 of the first paragraph is revised to read:
42

- 43 6. LED light strips shall be provided for cabinet lighting, powered from the Equipment
44 breaker on the Power Distribution Assembly. Each LED light strip shall be
45 approximately 12 inches long, have a minimum output of 320 lumens, and have a
46 color temperature of 4100K (cool white) or higher. There shall be three light strips
47 for each rack within the cabinet. Lighting shall be ceiling mounted – rack mounted
48 lighting is not permitted. Light strips shall be installed in the locations shown in the
49 Standard Plans. Lighting shall not interfere with the proper operation of any other
50 ceiling mounted equipment. All lighting fixtures above a rack shall energize
51 automatically when either door to that respective rack is opened. Each door switch
52 shall be labeled "Light".

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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:

1 If the geosynthetics material is not listed in the current WSDOT QPL, a Manufacturer's
2 Certificate of Compliance including Certified Test Reports of each proposed
3 geosynthetic shall be submitted to the State Materials Laboratory in Tumwater for
4 evaluation.
5

6 The last paragraph is revised to read:
7

8 Geosynthetics used as reinforcement in permanent geosynthetic retaining walls,
9 reinforced slopes, reinforced embankments, and other geosynthetic reinforcement
10 applications require proof of compliance with the National Transportation Product
11 Evaluation Program (NTPEP) in accordance with AASHTO Standard Practice R 69,
12 Standard Practice for Determination of Long-Term Strength for Geosynthetic
13 Reinforcement.
14

15 9-34.AP9

16 **Section 9-34, Pavement Marking Material**
17 **January 7, 2019**

18 **9-34.2(2) Color**

19 The first sentence is revised to read:
20

21 Paint draw-downs shall be prepared according to ASTM D823.
22

23 Each reference to "Federal Standard 595" is revised to read "SAE AMS Standard 595".
24

25 **9-34.2(3) Prohibited Materials**

26 This section is revised to read:
27

28 Traffic paint shall not contain mercury, lead, chromium, diarylide pigments, toluene,
29 chlorinated solvents, hydrolysable chlorine derivatives, ethylene-based glycol ethers
30 and their acetates, nor any other EPA hazardous waste material over the regulatory
31 levels in accordance with CFR 40 Part 261.24.
32

33 **9-34.2(5) Low VOC Waterborne Paint**

34 The heading "Standard Waterborne Paint" is supplemented with "Type 1 and 2".
35

36 The heading "High-Build Waterborne Paint" is supplemented with "Type 4".
37

38 The heading "Cold Weather Waterborne Paint" is supplemented with "Type 5".
39

40 In the row beginning with "° @90°F", each minimum value is revised to read "60".
41

42 In the row beginning with "Fineness of Grind, (Hegman Scale)", each minimum value is
43 revised to read "3".
44

45 The last four rows are replaced with the following:
46

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	@ 5 cycles show no coagulation or change in viscosity greater	@ 3 cycles show no coagulation or change in viscosity greater

		than ± 10 KU	than ± 10 KU	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	$\geq 70\%$ paint retention in wheel track*		
Mud Cracking	(See note 7)	No Cracks	No Cracks	

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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			
$\geq 70\%$ paint retention in wheel track			
No Cracks			

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The footnotes are supplemented with the following:

⁴Cross-linking acrylic shall meet the requirements of federal specification TT-P-1952F Section 3.1.1.

⁵Cold 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 \pm 10% RH and 72 \pm 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.

1
2 ⁶NTPEP test deck, or a test deck conforming to ASTM D713, shall be conducted for a
3 minimum of six months with the following additional requirements: it shall be applied at
4 15 wet mils to a test deck that is located at 40N latitude or higher with at least 10,000
5 ADT and which was applied during the months of September through November.
6

7 ⁷Paint is applied to an approximately 4"x12" aluminum panel using a drawdown bar with
8 a 50 mil gap. The coated panel is allowed to dry under ambient conditions (50±10% RH
9 and 72±5 °F) for 24 hours. Visual evaluation of the dry film shall reveal no cracks.
10

11 **9-34.3 Plastic**

12 In the first sentence of the last paragraph, "Federal Standard 595" is revised to read "SAE
13 AMS Standard 595".
14

15 **9-34.3(2) Type B – Pre-Formed Fused Thermoplastic**

16 In the last two paragraphs, each reference to "Federal Standard 595" is revised to read "SAE
17 AMS Standard 595".
18

19 **9-34.3(4) Type D – Liquid Cold Applied Methyl Methacrylate**

20 The Test Method value for **Adhesion to PCC or HMA, psi** is revised to read "ASTM
21 D4541¹".
22

23 **9-34.4 Glass Beads for Pavement Marking Materials**

24 In the Test Method column of the table titled Metal Concentration Limits, "EPA 3052 SW-846
25 6010C" is revised to read "EPA 3052 SW-846 6010D".
26

27 **9-34.5(1) Temporary Pavement Marking Tape – Short Duration**

28 This section, including title, is revised to read:
29

30 **9-34.5(1) Temporary Pavement Marking Tape – Short Duration (Removable)**

31 Temporary pavement marking tape for short duration (usage is for up to two months)
32 shall conform to ASTM D4592 Type I except that black tape, black mask tape and the
33 black portion of the contrast removable tape, shall be non-reflective.
34

35 **9-34.5(2) Temporary Pavement Marking Tape – Long Duration**

36 This section's title is revised to read:
37

38 **Temporary Pavement Marking Tape – Long Duration (Non-Removable)**

39
40 The first sentence is revised to read:

41
42 Temporary pavement marking tape for long duration (usage is for greater than two
43 months and less than one year) shall conform to ASTM D4592 Type II.
44

45 ASTM E2176 is deleted from the second sentence.
46

47 **9-34.7(1) Requirements**

48 The first paragraph is revised to read:
49

50 Field performance evaluation is required for low VOC solvent-based paint per Section 9-
51 34.2(4), Type A – liquid hot applied thermoplastic per Section 9-34.3(1), Type B –
52 preformed fused thermoplastic per Section 9-34.3(2), Type C – cold applied preformed

1 tape per Section 9-34.3(3), and Type D – liquid applied methyl methacrylate per Section
2 9-34.3(4).

3
4 The last paragraph is deleted.

5
6 **9-34.7(1)C Auto No-Track Time**

7 The first paragraph is revised to read:

8
9 Auto No-Track Time will only be required for low VOC solvent-based paint in
10 accordance with Section 9-34.2(4).

11
12 The second and third sentences of the second paragraph are deleted.

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 2019-2021 NEIGHBORHOOD TRAFFIC SAFETY (NTS) PROGRAM and other work, all in accordance with the attached 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."

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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.

1-02.4(2) Subsurface Information

(March 8, 2013 APWA GSP)

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

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

1-02.5 Proposal Forms

(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

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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.

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
(July 23, 2015 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 36.01.05 shall control venue and jurisdiction.

1-04 SCOPE OF THE WORK

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

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(April 12, 2019 CFW 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. Contract
2. Change Orders, with those of a later date taking precedence of those of an earlier date
3. Addenda, with those of a later date taking precedence of those of an earlier date
4. Bid Proposal Form,
5. Special Provisions,
6. Contract Plans,
7. Amendments to the Standard Specifications,
8. Standard Specifications,
9. Contracting Agency's Standard Plans or Details (if any), and
10. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

1-05 CONTROL OF WORK

1-05.4 Conformity With and Deviations from Plans and Stakes

(April 2, 2018, WSDOT GSP, OPTION 4)

Section 1-05.4 is supplemented with the following:

Contractor Surveying - ADA Features

ADA Feature Staking Requirements

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, and grades necessary for the construction of the ADA features. Calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. The Contractor shall build the ADA features within the specifications in the Standard Plans and contract documents.

ADA Feature As-Built Measurements

The Contractor shall be responsible for providing electronic As-Built records of all ADA feature improvements completed in the Contract.

The survey work shall include but not be limited to completing the measurements, recording the required measurements and completing other data fill-ins found on the ADA Measurement Forms, and transmitting the electronic Forms to the Engineer. The ADA Measurement Forms are found at the following website location:

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

In the instance where an ADA Feature does not meet accessibility requirements, all work to replace non-conforming work and then to measure, record the as-built measurements, and transmit the electronic Forms to the Engineer shall be

completed at no additional cost to the Contracting Agency, as ordered by the Engineer.

Payment

Payment will be made for the following bid item that is included in the Proposal:

"ADA Features Surveying", lump sum.

The unit Contract price per lump sum for "ADA Features Surveying" shall be full pay for all the Work as specified.

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.

1-05.12 Final Acceptance
(April 12, 2019 CFW GSP)

Delete the third and fourth sentences in the first paragraph and replace it with the following:

Final acceptance date of the work shall be the date the Federal Way City Council accepts the project as complete.

Add the following new section.

1-05.12(1) One-Year Guarantee Period
(March 8, 2013 APWA GSP)

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

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

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

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

Delete the sixth and seventh paragraphs of this section.

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.

1-05.17 Contractor's Daily Diary
(April 12, 2018 CFW GSP)

Section 1-05.17 is a new section:

The Contractor and subcontractors, as additional consideration for payment for this contract work, hereby agree to maintain and provide to the Owner and the Engineer a Daily Diary Record of this Work. The diary must be kept and maintained by the Contractor's designated project superintendent. Entries must be made on a daily basis and must accurately represent all of the project activities on each day.

At a minimum, the diary shall show on a daily basis:

- The day and date.
- The weather conditions, including changes throughout the day.
- A complete description of work accomplished during the day with adequate references to the Plans and Specifications so that the reader can easily and accurately identify said work on the Plans.
- An entry for each and every changed condition, dispute or potential dispute, incident, accident, or occurrence of any nature whatsoever which might affect the Contract, Owner, or any third party in any manner.
- Listing of any materials received and stored on or off-site by the Contractor for future installation, to include the manner of storage and protection of the same.

- Listing of materials installed during each day.
- List of all subcontractors working on-site during each day.
- Listing of the number of Contractor's employees working during each day by category of employment.
- Listing of Contractor's equipment working on the site during each day. Idle equipment on the site shall be listed and designated as idle.
- Notations to explain inspections, testing, stake-out, and all other services furnished to the Contractor by the Owner or other during each day.
- Entries to verify the daily (including non-work days) inspection and maintenance of traffic control devices and condition of the traveled roadway surfaces. The Contractor shall not allow any conditions to develop that would be hazardous to the public.
- Any other information that serves to give an accurate and complete record of the nature, quantity, and quality of the Contractor's progress on each day.
- Summary of total number of working days to date, and total number of delay days to date.

The Contractor's designated project superintendent must sign the diary at the end of each working day. The Contractor must provide a copy of the diary to the Owner and the Engineer each morning for the preceding workday. All copies must be legible.

It is expressly agreed between the contractor and the owner that the daily diary maintained by the Contractor shall be the "Contractor's Book of Original Entry" for the documentation of any potential claims or disputes that might arise during this contract. Failure of the Contractor to maintain this diary in the manner described above will constitute a waiver of any such claims or disputes by the Contractor. The daily diary maintained by the Contractor does not constitute the official record of the project. The official record of the project is prepared and maintained exclusively by the engineer.

1-05.19 Defects Arising in One Year and Remedies
(February 15, 2019 CFW GSP)

Section 1-05.19 is a new section:

The Contractor shall, at its own sole cost and expense, be responsible for correcting all defects in workmanship and material discovered within one year after acceptance of this work by the City of Federal Way. When corrections of defects are made, the Contractor shall be responsible for correcting all defects in workmanship and/or materials in the corrected work for one year after acceptance of the corrections by the Owner. Conducting of tests and inspections, review of specifications or plans, payment for goods or services, or acceptance by the City does not constitute waiver, modification, or exclusion of any express or implied warranty or any right under law. This warranty shall survive termination of this Contract.

The Contractor shall start work to remedy such defects within seven (7) calendar days of mailing notice of discovery thereof by the Owner and shall complete such work within a reasonable time. In emergencies, where damage may result from delay or where loss of services may result, such corrections may be made by the Owner, in which case the cost shall be borne by the Contractor. In the event the Contractor does not accomplish corrections at the time specified, the work will be otherwise accomplished and the cost of

same shall be paid by the Contractor. These actions will be pursuant to the provisions of Section 1-05.8 of the Standard Specifications.

The Contractor shall be liable for any costs, losses, expenses, or damages, including consequential damages suffered by the Owner resulting from defects in the Contractor's work including, but not limited to, cost of materials and labor extended by Owner in making emergency repairs and cost of engineering, inspection and supervision by the Owner or the Engineer. The Contractor shall hold the Owner harmless from any and all claims which may be made against the Owner as a result of any defective work, and the Contractor shall defend any such claims at his own expense.

The Contractor agrees the above one-year limitation shall not exclude or diminish the Owner's rights under any law to obtain damages and recover costs resulting from defective and unauthorized work discovered after one year but prior to the expiration of the legal time period set forth in RCW 9.16.040 limiting actions upon a contract in writing or liability, expressed or implied, arising out of a written agreement. This warranty may also extend beyond the one year time period pursuant to any other warranties specified in the Special Provisions, Contract Plans, other parts of the Contract Documents, or incorporated by this reference.

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.

1-06.7 Hazardous Chemicals ***(April 12, 2019 CFW GSP)***

Section 1-06.7 is a new section:

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SP-21

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SAFETY (NTS) PROGRAM
RFB #19-006**

In order to comply with WAC 296-62-054 Hazard Communication, the Contractor shall submit with each shipment a Material Safety Data Sheet (MSDS) for all products containing any toxic products that may be harmful to the end user. The MSDS Sheet is to accompany the toxic product(s) to the specified delivery sites.

Include the following in the MSDS:

- A. Chemical Abstract Service (CAS) numbers for every chemical that is listed in the MSDS.
- B. If the product is actually used diluted, the dilution rate should be so stated in the MSDS and the hazards and corresponding personal protection, etc., also be listed.
- C. A statement as to the intended use of the product.

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 12, 2019 CFW GSP)

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 Contractor's Confined Space program shall be sent to the contracting agency at least 5 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).

1-07.6 Permits and Licenses
(April 12, 2018 CFW GSP)

Section 1-07.6 is supplemented with the following:

Survey Monuments

In accordance with RCW 58.24.040(8), no cadastral or geodetic survey monument may be disturbed without a valid permit to remove or destroy a survey monument, issued by the Washington State Department of Natural Resources. Permit applications can be obtained on the DNR Public Land Survey Office website. The permit application must be stamped by a registered Washington State Land Surveyor. The Contractor shall obtain the permit to Remove or Destroy a Survey Monument as necessary. All costs to obtain and comply with the permit shall be considered incidental to other bid items and no additional payment will be made.

1-07.7 Load Limits
(March 13, 1995 WSDOT GSP, OPTION 6)

Section 1-07.7 is supplemented with the following:

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SP-24

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SAFETY (NTS) PROGRAM
RFB #19-006**

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.

1-07.13 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 (northbound or southbound) may be closed to traffic between the hours of 7:00AM and 3:30PM. Approval to close both one northbound and one southbound 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 7AM to 7PM. Any closures between 7PM to 7AM require prior approval by the City
- 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 is not allowed for this project.
- 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.

1-07.28 Communication with Businesses and Property Owners

(April 12, 2018 CFW GSP)

Section 1-07.28 is added:

The Contractor will be responsible for communicating all work activities with the property owners / tenants that are located adjacent to the project. The Contractor, along with the City's inspector & project engineer, shall have one formal meeting (door-to-door project walk-through) with the property owners/tenants prior to the start of construction. It will be the Contractor's responsibility to initiate and set up the meeting.

Thereafter, the Contractor shall keep the property owners / tenants informed of their general work locations and upcoming activities by distributing a monthly status/schedule memo to the businesses. The memo shall be approved by the City's Project Engineer prior to distribution.

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 17, 2018 APWA GSP, OPTION B)

Delete the eighth paragraph.

Revise the ninth paragraph to read:

The Contractor shall comply with the requirements of RCW 39.04.250, 39.76.011, 39.76.020, and 39.76.040, in particular regarding prompt payment to Subcontractors. Whenever the Contractor withholds payment to a Subcontractor for any reason including disputed amounts, the Contractor shall provide notice within 10 calendar days to the Subcontractor with a copy to the Contracting Agency identifying the reason for the withholding and a clear description of what the Subcontractor must do to have the withholding released. Retainage withheld by the Contractor prior to completion of the Subcontractors work is exempt from reporting as a payment withheld and is not included in the withheld amount. The Contracting Agency's copy of the notice to Subcontractor for deferred payments shall be submitted to the Engineer concurrently with notification to the Subcontractor.

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

(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

(March 13, 1995 WSDOT GSP, OPTION 7)

Section 1-08.5 is supplemented with the following:

This project shall be physically complete within 20 working days.

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

(April 12, 2018 CFW GSP)

Supplement Section 1-09.7 with the following:

Obtaining a site for the Contractor's mobilization, field office(s), storage of materials, access and personnel parking spaces, and other general operations shall be the responsibility of the Contractor. The Contractor will be responsible for maintaining these spaces in a safe and orderly condition throughout the duration of the project. The Contractor shall provide the City with a copy of agreement(s) with property owner. All costs associated with securing sites shall be included in the other bid items on the project and no other compensation will be made.

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.

1-09.11 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

1-10.1(2) Description
(April 12, 2018 CFW GSP)

Section 1-10.1(2) is supplemented with the following:

Business Open During Construction Signs

The Contractor shall provide a "Business Open During Construction" sign at every non-residential driveway approach within the project limits. Business Open During Construction Signs shall be considered Construction Signs Class A.

City of Federal Way Project Signs

City of Federal Way Project signs shall be considered Construction Signs Class A. The Contractor shall provide two (2) project signs (4' x 8') per the detail available from the City.

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

1-10.2(2) Traffic Control Plans
(April 12, 2018 CFW GSP)

Section 1-10.2(2) is supplemented with the following:

The following minimum Traffic Control requirements shall be maintained during the construction of the project:

1. Detours will not be allowed except as noted herein or Section 1-07.23(2) as amended.
2. Temporary paint striping, reflective marking tape, and/or retroreflective tubular markers shall be required for each shift of traffic control. The Contractor shall provide temporary striping, reflective marking tape, and/or reflective tubular markers as required at the direction of the Engineer.
3. The Contractor provided Traffic Control Plans shall lay out traffic control device spacing, tapers, etc., to scale, and shall contain accurate dimensions and legends and shall be signed by the preparer.

1-10.3 Traffic Control Labor, Procedures and Devices

1-10.3(1) Traffic Control Labor
(April 12, 2018 CFW GSP)

Section 1-10.3(1) is supplemented with the following:

Off-Duty Uniformed Police Officer

The City shall reimburse the Contractor for the use of off-duty uniformed police officers at the invoiced cost with no mark-up per Standard Specifications 1-09.6 Force Account.

Off-duty uniformed police officer will be required only when the signal system is in flashing mode or is not operational or when otherwise deemed necessary by the Project Engineer.

The Contractor shall direct all Extra Duty requests, questions, or issues to Lynette Allen with the Federal Way Police Department at (253) 835-6701, or lynette.allen@cityoffederalway.com. On Fridays (or other times you cannot reach Lynette), please call (253) 835-6700 and ask for Diane Shines or Tami Parker.

If the Contractor needs to cancel a job on Saturday or Sunday, please call (253) 835-6851 and ask them to inform the officer that the job is cancelled. Follow that up with an email to Lynette Allen.

When scheduling off-duty uniformed police officers in the City of Federal Way, City of Federal Way Police Department (CFWPD) officers must be contacted first. If CFWPD cannot fill the job, off-duty King County Sheriff's Officers or Washington State Patrol Officers are allowed to work within the City of Federal Way, but must receive the CFWPD Chief's prior permission to work extra duty and fill the Contractor's request. No other agencies or private companies are authorized to perform off duty work within the City of Federal Way without project-specific approval from the CFWPD Chief or their designee. The CFWPD Chief has designated Lynette Allen as the program administrator so she can give the required permission.

The use of off-duty uniformed police officers shall be in accordance with the City of Federal Way Police Department's guidelines as follows:

- The Contractor will be billed for the entire duration of the job as it was requested. For example, if the Contractor requested an officer for 8 hours and the job was completed in 4 hours, the Contractor will still be billed for the entire 8 hours. A minimum of three (3) hours call out time shall be paid by the Contractor for each request for off-duty police officers.
- If a job is cancelled with less than 24 hours' notice, the Contractor will be required to pay a 3 hour minimum. It shall be the Contractor's responsibility to arrange a work schedule to minimize any additional costs incurred by the minimum three (3) hour call out requirement. No reimbursement of any portion of the minimum callout will be allowed where Contractor-made schedule revisions occur after an off-duty officer has been procured.
- The Contractor's request for a police officer does not guarantee they will get one. The Contractor must provide the date(s), times, location, and other details of their request and the CFWPD will put the job out to the officers. Whether an officer signs up for it depends on many variables, especially their availability on the day requested. The more advance notice provided by the Contractor, the more likely it is that the job will be filled. Requests shall be made a minimum of forty-eight (48) hours before the use of the off-duty police officers on the project site.
- The officer usually arrives at the extra duty job in a police car.
- Officers cannot work extra duty jobs in plain clothes; they must wear their police uniform.
- If a major emergency occurs, the off-duty officer may be pulled from the project. An officer may also get pulled off the job if he/she is required to appear in court.
- Officers must be given breaks and lunch according to the Federal Labor Standards Act (FLSA).

1-10.3(1) Traffic Control Labor

Section 1-10.3(1) is supplemented with the following:

All Traffic Control Labor necessary for the successful completion of items included in work- orders issued under this contract are incidental to each and every work item. Any work described under this section performed by a Traffic Control Supervisor will not be paid but will be considered incidental to other items of work.

1-10.4 Measurement

Supplement with the following:

All traffic control items, including Temporary Traffic Control, Traffic Control Labor and Traffic Control Supervisor shall be incidental to the contract and no measurement will be made.

1-10.5 Payment

Section 1-10.5 is supplemented with the following:

No Payment will be made for any traffic control items, Temporary Traffic Control, Traffic Control Labor or Traffic Control Supervisor and shall be considered incidental to the contract.

END OF DIVISION 1

DIVISION 2 EARTHWORK

2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

2-01.1 Description

(March 13, 1995 WSDOT GSP, OPTION 1)

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 trees as noted on the plans or as directed by the Engineer to accommodate the improvements. Tree removal shall include removal of stumps and/or grinding of stumps to a depth at least two feet below finish grade.

2-01.3 Construction Requirements

2-01.3(3) Clearing Limit Fence

(April 12, 2018 CFW GSP)

Section 2-01.3(3) is a new section:

Clearing limit fence shall be 4-foot high, orange, high density polyethylene fencing with mesh openings 1½-inch by 3-inches nominal and weigh at least 7 oz. per linear foot. Either wood or steel posts shall be used. Wood posts shall have minimum dimensions of 1½ inches by 1½ inches by the minimum length of 5 feet, and shall be free of knots, splits, or gouges. Steel posts shall consist of either size No. 6 rebar or larger, ASTM A 120 steel pipe with a minimum diameter of 1 inch, U, T, L or C shape steel posts with a minimum weight of 1.35 lbs./ft. or other steel posts having equivalent strength and bending resistance to the post sizes listed. The spacing of the support posts shall be a maximum of 6½ feet.

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.

2-01.4 Measurement

(April 12, 2018 CFW GSP)

Section 2-01.4 is supplemented with the following:

"Clearing and Grubbing" will be measured on a lump sum basis. Installation, maintenance, and removal of the Clearing Limit Fence shall be included in the Clearing and Grubbing bid item.

"Roadside Cleanup", will be not measured and incidental to contract work order.

2-01.5 Payment

(April 12, 2018 CFW GSP)

Section 2-01.5 is supplemented with the following:

“Clearing and Grubbing”, lump sum.

“Roadside Cleanup”, incidental to contract work order.

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.3(6) Existing Utilities to Remain

(April 12, 2018 CFW GSP)

2-02.3(6) is a new section:

Utilities indicated in the Plans to remain shall be protected and supported in place in such a manner that they remain functional and undamaged. Utilities indicated to remain that are damaged as a result of Contractor’s activity shall be repaired or replaced to the satisfaction of the Contracting Agency at no additional cost.

2-02.3(7) Remove Existing Pedestrian Refuge Island, Speed Hump, Speed Table and Raised CrossWalk

New Section

(*****)

2-02.3(7) Remove Existing Pedestrian Refuge Island, Speed Hump, Speed Table and Raised CrossWalk

In removing the Pedestrian Refuge Island, Complete the contractor shall complete the following items as shown on plans and as incidental to this Bid item:

1. Remove permanent signage including signs and posts unless flashing beacons are present, then signage and beacons are to be removed by others. Salvaged signs become property of the City.
2. Remove pair of islands as shown in the scope of City of Federal Way detail drawing 3-58 including removal and haul of waste asphalt surface, crushed rock, and extruded curb.
3. Remove Detectable Warning Surface(s) its residue and any other adhesive residue within the scope of the island per City of Federal Way detail drawing 3-58.
4. Remove tubular markers per City of Federal Way detail drawing 3-58.
5. Remove Raised Pavement Markers as detailed per City of Federal Way detail drawing 3-58.
6. Removal of paint, MMA, and thermoplastic permanent pavement markings done by others.

2-02.4 Vacant

(April 12, 2018 CFW GSP)

Section 2-02.4 Vacant shall be deleted and replaced with the following:

2-02.4 Measurement

“Remove Pedestrian Refuge Island” will be measured per each

“Remove Speed Hump”, will be measured per each.

“Remove Speed Table”, will be measured per each.

“Remove Raised Crosswalk”, will be measured per each.

2-02.5 Payment

(April 12, 2018 CFW GSP)

Section 2-02.5 is supplemented with the following:

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

“Removal of Structure and Obstruction”, lump sum. Structure Excavation Class B for the removal of items shall be considered included in this bid item.

“Remove Pedestrian Refuge Island Complete”, per each.

“Remove Speed Hump, Speed Table, or Raised Crosswalk”, per each.
Remove Speed Table”, per each.

“Remove Raised Crosswalk”, per each.

END OF DIVISION 2

**DIVISION 3
AGGREGATE PRODUCTION AND ACCEPTANCE**

3-01 PRODUCTION FROM QUARRY AND PIT SITES

3-01.4 Contractor Furnished Material Sources

3-01.4(1) Acquisition and Development

(April 12, 2018 CFW GSP)

Section 3-01.4(1) is supplemented with the following:

No source has been provided for any materials necessary for the construction of these improvements.

If the source of material provided by the Contractor necessitates hauling over roads other than City streets, the Contractor shall, at his own cost and expense, make all arrangements for the use of haul routes.

END OF DIVISION 3

DIVISION 4 BASES

4-04 BALLAST AND CRUSHED SURFACING

4-04.3 Construction Requirements

4-04.3(3) Mixing

(April 12, 2018 CFW GSP)

Item 2 of Section 4-04.3(3), is replaced with the following:

2. **Road Mix Method** - The road mix method of mixing surfacing material will not be allowed.

4-04.3(4) Placing and Spreading

(April 12, 2018 CFW GSP)

Item 2 of Section 4-04(4), is replaced with the following:

2. **Road Mix Method** - The road mix method of mixing surfacing material will not be allowed.

4-04.5 Payment

(April 12, 2018 CFW GSP)

Section 4-04.5 is supplemented with the following:

The unit contract price for Ballast and Crushed Surfacing shall also include compacting, and removing and hauling to waste when required by the Engineer.

END OF DIVISION 4

DIVISION 5 SURFACE TREATMENTS AND PAVEMENTS

5-04 HOT MIX ASPHALT ***(July 18, 2018 APWA GSP)***

Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the following:

5-04.1 Description

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

5-04.2 Materials

Materials shall meet the requirements of the following sections:

Asphalt Binder	9-02.1(4)
Cationic Emulsified Asphalt	9-02.1(6)
Anti-Stripping Additive	9-02.4
HMA Additive	9-02.5
Aggregates	9-03.8
Recycled Asphalt Pavement	9-03.8(3)B
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21
Portland Cement	9-01
Sand	9-03.1(2)
(As noted in 5-04.3(5)C for crack sealing)	
Joint Sealant	9-04.2
Foam Backer Rod	9-04.2(3)A

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP. The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced and not less than ten samples per project. The asphalt content and gradation test data shall be reported to the Contracting Agency when submitting the mix design for approval on the QPL. The Contractor shall include the RAP as part of the mix design as defined in these Specifications.

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01.

Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

5-04.2(1) How to Get an HMA Mix Design on the QPL

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

5-04.2(1)A Vacant

5-04.2(2) Mix Design – Obtaining Project Approval

No paving shall begin prior to the approval of the mix design by the Engineer.

Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

Nonstatistical Mix Design. Fifteen days prior to the first day of paving the contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.**

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Approval of a mix design for “Commercial Evaluation” will be based on a review of the Contractor’s submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL’s) appropriate for the required use.

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

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

- Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.
- Before using additives, obtain the Engineer’s approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Minimum Surface Temperature for Paving

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55°F	45°F

0.10 to .20	45°F	35°F
More than 0.20	35°F	35°F

5-04.3(2) Paving Under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

Plants used for the preparation of HMA shall conform to the following requirements:

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.
2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.

3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.
4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).
5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:
 - a. A mechanical sampling device attached to the HMA plant.
 - b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include, precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyor shall be in operation during the process of applying the release agent.

5-04.3(3)C Pavers

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting

Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless other-wise required by the contract.

Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4) Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be

applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A Crack Sealing

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks ¼ inch in width and greater.

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

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

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

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

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

1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
2. Cracks greater than 1 inch in width – fill with sand slurry.

Hot Poured Sealant: For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product information and recommendations to the Engineer prior to the start of work, including the manufacturer's recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor's method of sealing the cracks with hot poured sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material.

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

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

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

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

- A. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
- B. Cracks greater than 1 inch in width – fill with sand slurry.

5-04.3(4)B Vacant

5-04.3(4)C Pavement Repair

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished

with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

5-04.3(5) Producing/Stockpiling Aggregates and RAP

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

5-04.3(5)A Vacant

5-04.3(6) Mixing

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

5-04.3(7) Spreading and Finishing

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used

to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

HMA Class 1"	0.35 feet
HMA Class ¾" and HMA Class ½"	
wearing course	0.30 feet
other courses	0.35 feet
HMA Class ⅜"	0.15 feet

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

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

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

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

5-04.3(9) HMA Mixture Acceptance

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

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

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

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

HMA Tolerances and Adjustments

1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows:

For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

For Aggregates in the mixture:

- a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

Aggregate Passing	Percent	Non-Statistical Evaluation	Commercial Evaluation
1", ¾", ½", and 3/8" sieves		+/- 6%	+/- 8%
No. 4 sieve		+/-6%	+/- 8%
No. 8 Sieve		+/- 6%	+/-8%
No. 200 sieve		+/- 2.0%	+/- 3.0%

- b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.
2. Job Mix Formula Adjustments – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.
 - a. **Aggregates** –2 percent for the aggregate passing the 1½", 1", ¾", ½", ⅜", and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).
 - b. **Asphalt Binder Content** – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent

5-04.3(9)A Vacant

5-04.3(9)B Vacant

5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 800 tons, whichever is less except that the final subplot will be a minimum of 400 tons and may be increased to 1200 tons.

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

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

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall to be tested.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the dis-cretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer’s discretion.
- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

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

Testing of HMA for compliance of Va will at the option of the Contracting Agency. If tested, compliance of Va will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	Factor “F”
All aggregate passing: 1½", 1", ¾", ½", ⅜" and No.4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40

Air Voids (Va) (where applicable)	20
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Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

5-04.3(9)C5 Vacant

5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests

The Contractor may request a subplot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency, Va. The results of the retest will be used for the acceptance of the HMA in place of the original subplot sample test results. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of \$500 per sample.

5-04.3 (9)D Mixture Acceptance – Commercial Evaluation

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the commercial tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product

of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(10) HMA Compaction Acceptance

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a Composite Pay Factor (CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item "Roadway Core" the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at locations designated by the Engineer. If the Contract does not include the Bid item "Roadway Core" the Contracting Agency will obtain the cores.

For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

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

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

Test Results

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

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

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

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

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

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

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

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

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

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

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 400 tons, whichever is less except that the final subplot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per subplot per WSDOT T 738.

The subplot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

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

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

5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each subplot, with one test per subplot.

5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a subplot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

For compaction below the required 92% a Non-Conforming Compaction Factor (NCCF) will be determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the

product of CPF, the quantity of HMA in the compaction control lot in tons, and the unit Contract price per ton of mix.

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

Work that is defective or does not conform to Contract requirements shall be rejected. The Contractor may propose, in writing, alternatives to removal and replacement of rejected material. Acceptability of such alternative proposals will be determined at the sole discretion of the Engineer. HMA that has been rejected is subject to the requirements in Section 1-06.2(2) and this specification, and the Contractor shall submit a corrective action proposal to the Engineer for approval.

5-04.3(11)B Rejection by Contractor

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

5-04.3(11)C Rejection Without Testing (Mixture or Compaction)

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Material rejected before placement shall not be incorporated into the pavement. Any rejected section of Roadway shall be removed.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples will be obtained and tested. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

5-04.3(11)D Rejection - A Partial Sublot

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)E Rejection - An Entire Sublot

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this sublot will be obtained. These additional samples and the original sublot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)F Rejection - A Lot in Progress

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

1. When the Composite Pay Factor (CPF) of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
3. When either the PFi for any constituent or the CPF of a lot in progress is less than 0.75.

5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

An entire lot with a CPF of less than 0.75 will be rejected.

5-04.3(12) Joints

5-04.3(12)A HMA Joints

5-04.3(12)A1 Transverse Joints

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

5-04.3(12)A2 Longitudinal Joints

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the maximum aggregate size or more than $\frac{1}{2}$ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

5-04.3(12)B Bridge Paving Joint Seals

5-04.3(12)B1 HMA Sawcut and Seal

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

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

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

5-04.3(12)B2 Paved Panel Joint Seal

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

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

5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than $\frac{1}{8}$ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than $\frac{1}{4}$ inch in 10 feet from the rate of transverse slope shown in the Plans.

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

1. Removal of material from high places by grinding with an approved grinding machine, or
2. Removal and replacement of the wearing course of HMA, or
3. By other method approved by the Engineer.

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

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

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing (Milling) Bituminous Pavement

The planing plan must be approved by the Engineer and a pre planing meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planning submittals.

Locations of existing surfacing to be planed are as shown in the Drawings.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. Intersections:
 - a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure, must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).
 - b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.
 - c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.
 - d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.
 - e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.

2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.
3. Permanent pavement marking must comply with Section 8-22.

5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic control plan must show where peace officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.
2. A copy of each intersection's traffic control plan.
3. Haul routes from Supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.
4. Names and locations of HMA Supplier facilities to be used.
5. List of all equipment to be used for paving.
6. List of personnel and associated job classification assigned to each piece of paving equipment.
7. Description (geometric or narrative) of the scheduled sequence of planing and of paving, and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.

8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
9. A copy of the approved Mix Designs.
10. Tonnage of HMA to be placed each day.
11. Approximate times and days for starting and ending daily operations.

5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, Metro transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both Paving Plan and for Planing Plan:
 - a. The actual times of starting and ending daily operations.
 - b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
 - c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, to public convenience and safety, and to other contractors who may operate in the Project Site.
 - d. Notifications required of Contractor activities, and coordinating with other entities and the public as necessary.
 - e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and to paving.
 - f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed
 - g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, see Section 5-04.3(14)B2.
 - h. Description of how flaggers will be coordinated with the planing, paving, and related operations.
 - i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.
 - j. Other items the Engineer deems necessary to address.
2. Paving – additional topics:
 - a. When to start applying tack and coordinating with paving.
 - b. Types of equipment and numbers of each type equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type equipment as it relates to meeting Specification requirements.
 - c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are

distinguished if more than one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.

- d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.
- e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

5-04.3(16) HMA Road Approaches

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

5-04.3(17) Temporary Asphalt Pavement
(April 12, 2018 CFW GSP)

Section 5-04.3(17) is a new section:

Temporary asphalt pavement shall be placed by the Contractor immediately upon the request of the Engineer for the maintenance of traffic during construction. These areas include: voids created by the removal of existing improvements (i.e. Traffic islands, curbs), providing paved access to private properties, and ramps for property access during cement concrete driveway approach construction. All temporary paving shall be approved by the Engineer before placement. Any areas of temporary pavement to be removed and replaced shall be approved by the Engineer beforehand. This work shall also include the removal of temporary asphalt concrete pavement in its entirety prior to final paving.

Hot Mix Asphalt Temporary Pavement: Hot mix asphalt will be used for any trench restoration within the traveled way. Whether temporary or permanent, saw cut and treat edges with CSS-1 asphalt emulsion and apply a minimum 3-inch pavement depth or match existing, whichever is greater. Also, fill voids created by the removal of existing traffic islands and curbing, paving over excavated roadway to temporary access to adjacent properties, and ramps for property access during concrete approach construction.

Cold Mix Asphalt Temporary Pavement: Cold mix asphalt is allowed for temporary paving outside the traveled way. The cold mix shall be approved by the Engineer and placed in a 2-inch minimum thickness. Placement of temporary pavement without prior approval of the Engineer shall be considered as a benefit of the Contractor and no cost to the owner. Any areas of temporary pavement to be removed and replaced require prior approval by the Engineer. This work shall include the removal of the temporary pavement prior to paving of final asphalt concrete pavement.

5-04.4 Measurement

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being

made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Roadway cores will be measured per each for the number of cores taken.

Preparation of untreated roadway will be measured by the mile once along the centerline of the main line Roadway. No additional measurement will be made for ramps, Auxiliary Lanes, service roads, Frontage Roads, or Shoulders. Measurement will be to the nearest 0.01 mile.

Soil residual herbicide will be measured by the mile for the stated width to the nearest 0.01 mile or by the square yard, whichever is designated in the Proposal.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Asphalt for prime coat will be measured by the ton in accordance with Section 1-09.2.

Prime coat aggregate will be measured by the cubic yard, truck measure, or by the ton, whichever is designated in the Proposal.

Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.

Longitudinal joint seals between the HMA and cement concrete pavement will be measured by the linear foot along the line and slope of the completed joint seal.

Planing bituminous pavement will be measured by the square yard.

Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.

Water will be measured by the M gallon as provided in Section 2-07.4.

(April 12, 2018 CFW GSP)

Section 5-04.4 is supplemented with the following:

Hot Mix Asphalt Temporary Pavement shall be measured by the ton of material actually placed, with no deduction being made for the weight of liquid asphalt, blending sand, mineral filler, or any other component of the mixture. Hot Mix Asphalt Temporary Pavement shall be paid under the "Temporary Pavement" bid item and shall include placement and compaction of hot mix asphalt, removal and disposal of temporary pavement.

Cold Mix Asphalt Temporary Pavement will not be measured and shall be considered incidental to other bid items.

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

“HMA Cl. ____ PG ____”, per ton.

“HMA for Approach Cl. ____ PG ____”, per ton.

“HMA for Preleveling Cl. ____ PG ____”, per ton.

“HMA for Pavement Repair Cl. ____ PG ____”, per ton.

“Commercial HMA”, per ton.

The unit Contract price per ton for “HMA Cl. ____ PG ____”, “HMA for Approach Cl. ____ PG ____”, “HMA for Preleveling Cl. ____ PG ____”, “HMA for Pavement Repair Cl. ____ PG ____”, and “Commercial HMA” shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

“Preparation of Untreated Roadway”, per mile.

The unit Contract price per mile for “Preparation of Untreated Roadway” shall be full pay for all Work described under 5-04.3(4) , with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ____ PG ____” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Preparation of Existing Paved Surfaces”, per mile.

The unit Contract Price for “Preparation of Existing Paved Surfaces” shall be full pay for all Work described under Section 5-04.3(4) with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ____ PG ____” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Crack Sealing”, by force account.

“Crack Sealing” will be paid for by force account as specified in Section 1-09.6. For the purpose of providing a common Proposal for all Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the total Bid by the Contractor.

“Pavement Repair Excavation Incl. Haul”, per square yard.

The unit Contract price per square yard for “Pavement Repair Excavation Incl. Haul” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4) with the exception, however, that all costs involved in the placement of HMA shall be included in the unit Contract price per ton for “HMA for Pavement Repair Cl. ____ PG ____”, per ton.

“Asphalt for Prime Coat”, per ton.

The unit Contract price per ton for “Asphalt for Prime Coat” shall be full payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).

“Prime Coat Agg.”, per cubic yard, or per ton.

The unit Contract price per cubic yard or per ton for “Prime Coat Agg.” shall be full pay for furnishing, loading, and hauling aggregate to the place of deposit and spreading the aggregate in the quantities required by the Engineer.

“Asphalt for Fog Seal”, per ton.

Payment for “Asphalt for Fog Seal” is described in Section 5-02.5.

“Longitudinal Joint Seal”, per linear foot.

The unit Contract price per linear foot for “Longitudinal Joint Seal” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(12).

“Planing Bituminous Pavement”, per square yard.

The unit Contract price per square yard for “Planing Bituminous Pavement” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14).

“Temporary Pavement Marking”, per linear foot.

Payment for “Temporary Pavement Marking” is described in Section 8-23.5.

“Water”, per M gallon.

Payment for “Water” is described in Section 2-07.5.

“Job Mix Compliance Price Adjustment”, by calculation.

“Job Mix Compliance Price Adjustment” will be calculated and paid for as described in Section 5-04.3(9)C6.

“Compaction Price Adjustment”, by calculation.

“Compaction Price Adjustment” will be calculated and paid for as described in Section 5-04.3(10)D3.

“Roadway Core”, per each.

The Contractor’s costs for all other Work associated with the coring (e.g., traffic control) shall be incidental and included within the unit Bid price per each and no additional payments will be made.

“Cyclic Density Price Adjustment”, by calculation.

“Cyclic Density Price Adjustment” will be calculated and paid for as described in Section 5-04.3(10)B.

(April 12, 2018 CFW GSP)

Section 5-04.5 is supplemented with the following:

“Temporary Pavement”, per ton.

END OF DIVISION 5

DIVISION 8 MISCELLANEOUS CONSTRUCTION

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.4 Measurement

Section 8-01.4 is supplemented with the following:

There will be no separate measurement for all temporary water pollution/erosion control work during construction.

8-01.4 Payment

Section 8-01.5 is supplemented with the following:

There will be no separate payment for all temporary water pollution/erosion control work during construction. This work will be considered incidental to other bid prices in the Proposal.

8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements

(April 12, 2018 CFW GSP)

Section 8-04.3 is supplemented with the following:

The sub-base for curb and gutter sections shall be compacted to 95 percent density at or below optimum moisture content, as per Section 2-03.3(14)D revised, before placing the curb and gutter.

White-pigmented curing compounds will not be allowed.

The top of the finished concrete shall not deviate more than one-eighth (1/8") in ten feet (10') or the alignment one-fourth (1/4") in ten feet (10').

Where shown on the Plans, the concrete curb will be ramped for wheel chairs as shown in the City Standard Plan Details.

Where shown on the plans, the Contractor shall paint the curbs with 2 full coats of Paint formula No. H-2-83 or H-3-83 as shown on plans or directed by the Engineer. Paint and application shall conform to the Standard Specifications for traffic paint striping.

Under 8-04.3(1)A, delete the second sentence of the second paragraph and the third paragraph. Extruded Curb Type 6 shall be installed without the #3 bar shown in Standard Plan F-10.42.

Remove and replace curb and gutter as shown on the plans

8-04.4 Measurement

(April 12, 2018 CFW GSP)

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Section 8-04.4 is supplemented with the following:

Painting of curbs, where required, will not be measured and is considered incidental to the unit price of the type of curb.

Measurement for Cement Concrete Curb and Gutter and Removing Cement Concrete Curb and Gutter up to twenty-five (25) feet for curb ramp construction will be incidental to Bid item "Remove & Replace Curb Ramp, Complete".

"Pedestrian Refuge Island, Complete" shall be measured per each, and shall include all items necessary to install a complete Pedestrian Refuge, per appropriate detail. The City inspector shall designate the locations and limits of installation, removal, and replacement.

All other work, materials, tools, equipment, and labor necessary for the completion of "Pedestrian Refuge Island, Complete" shall be considered incidental to the same. Such items may include, but are not limited to sawcutting, hauling, asphalt removal, asphalt restoration, and traffic control which shall be considered incidental and will not be measured.

8-04.5 Payment

(April 12, 2018 CFW GSP)

Section 8-04.5 is supplemented with the following:

"Extruded Curb, Type 6", per linear foot.

"Remove and Replace Concrete Curb and Gutter, Complete, per linear foot.

"Pedestrian Refuge Island, Complete", per each

8-05 ROUNDABOUT AND TRAFFIC CIRCLE ISLANDS

8-05.1 Description

(July 9, 2019 CFW GSP)

Roundabout or traffic circle islands shall consist of the construction of precast cement concrete curbs, removal of pavement and crushed rock within the curb circle, monument case/cover adjustment, and topsoil placement. All utility cover and lid adjustments will be performed by the utility. See CFW Development Standard Drawing No. 3-59.

8-05.4 Measurement

(July 9, 2019 CFW GSP)

The outer diameter of each circular island will be measured to determine the appropriate diameter range and pay item. Non-circular islands will be measured by averaging the measured diameter of the widest and narrowest points. The individual quantities of materials for each island will not be measured. Roundabout or Traffic Circle Islands will be measured as a lump sum for each complete island.

8-05.5 Payment

(July 9, 2019 CFW GSP)

Payment will be made for each Bid item that is requested in a work order:

"Traffic Circle Island, Complete (10'-16' Diameter)", per each

"Traffic Circle Island, Complete (17'-24' Diameter)", per each

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SP-80

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“Traffic Circle Island, Complete (25’-32’ Diameter)”, per each

8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES

8-06.3 Construction Requirements

(April 12, 2018 CFW GSP)

Section 8-06.3 is supplemented with the following:

All driveways shall remain open except as necessary to permit curing of construction materials or for short periods of time as required for excavations. However, at least one (1) driveway per parcel shall remain open to vehicular traffic at all times unless otherwise approved by the Engineer and affected property owner in writing. If a parcel has only one driveway, then that driveway must be constructed one-half at a time to allow the passage of vehicles. The amount of time that a driveway can be closed will be limited. To meet these requirements, the Contractor may use a quick setting concrete. The Engineer shall approve the quick-setting mix prior to use.

Property owners shall be notified in writing at least 48 hours in advance of any planned driveway closures

Crushed rock may be used, with Engineer approval, to maintain a driving surface.

8-06.5 Payment

(April 12, 2018 CFW GSP)

Section 8-06.5 is supplemented with the following:

If the Contractor chooses to use a quick-setting concrete mix for driveway construction, any additional costs to use such mix shall be incidental to the bid item for “Cement Conc. Driveway” and no additional payment will be made.

If the Contractor chooses to use crushed rock to maintain a driveway surface, it shall be incidental to the bid item for “Cement Conc. Driveway” and no additional payment shall be made.

8-07 PRECAST TRAFFIC CURB

8-07.1 Description

(December 12, 2012 CFW GSP)

Section 8-07.1 is deleted and replaced with the following:

This Work consists of furnishing, removing, and installing precast traffic curb, block traffic curb, sloped mountable curb, or dual faced sloped mountable curb of the design and type specified in the Plans in accordance with these Specifications and the Standard Plans, in the locations indicated in the Plans or as identified by the Engineer.

8-07.2 Materials

(August 9, 2014 CFW GSP)

Section 8-07.2 is supplemented with the following:

Block Traffic Curb

9-18.3

8-07.3 Construction Requirements

8-07.3(1) Installing Curbs

(March 30, 2018 CFW GSP)

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SP-81

RFB #19-006

Section 8-07.3(1) is supplemented with the following:

For both types of curb, nosing pieces, connecting dividers, and radial sections, as detailed in the Plans, will be required at the ends of the curb lines, at transitions from Type C traffic curb to Type A traffic curb, and at Type A traffic curb installation with radii less than 10 feet.

8-07.4 Measurement

(August 9, 2014 CFW GSP)

Section 8-07.4 is supplemented with the following:

Type A precast traffic curb and Type A block traffic curb will be measured by the linear foot along the front face of the curb and return. Type A nosing pieces and dividers will be measured as Type A curb.

Type C precast traffic curb and Type C block traffic curb will be measured by the linear foot along the axis of the curb. Type C nosing pieces will be measured as Type C curb.

8-07.5 Payment

(August 9, 2014 CFW GSP)

Section 8-07.5 is supplemented with the following:

“Type A Precast Traffic Curb”, per linear foot.

“Type C Precast Traffic Curb”, per linear foot.

“Type A Block Traffic Curb”, per linear foot.

“Type C Block Traffic Curb”, per linear foot.

“Remove Precast, Block or Extruded Curb per Linear Foot.

“Precast Traffic Curb, Painted”, per linear foot.

“Block Traffic Curb, Painted”, per linear foot.

8-13 MONUMENT CASES

8-13.1 Description

(March 13, 1995 WSDOT GSP, OPTION 1)

Section 8-13.1 is deleted and replaced by the following:

This work shall consist of furnishing and placing monument cases, covers, and pipes in accordance with the Standard Plans and these Specifications, in conformity with the lines and locations shown in the Plans or as staked by the Engineer.

8-13.2 Materials

(March 13, 1995 WSDOT GSP, OPTION 1)

Section 8-13.2 is supplemented with the following:

The pipe shall be Schedule 40 galvanized pipe.

8-13.3 Construction Requirements

(April 12, 2018 CFW GSP)

The last paragraph of Section 8-13.3 is revised to read:

The Contractor will be responsible for placing the concrete core and tack or wire inside the pipe.

Section 8-13.3 is supplemented with the following:

Where shown in the Plans or where directed by the Engineer, existing monument case and covers shall be adjusted to grade as designated by the Engineer. The existing monument shall be carefully protected so as not to disturb its location in any way. The

Contractor shall have a licensed professional land surveyor locate the monument prior to the case and cover adjustment if any disturbance of the existing monument is probable. The existing cast iron ring and cover shall first be removed and thoroughly cleaned for reinstalling at the new elevation. From that point, the existing structure shall be raised or lowered to the required elevation. The materials and method of construction shall conform to the requirements of the Standard Plan as approved by the Engineer.

8-13.4 Measurement

(March 13, 1995 WSDOT GSP, OPTION 1)

Section 8-13.4 is deleted and replaced by the following:

Measurement of monument case, cover, and pipe will be not be made as it is incidental to other bid item.

8-13.5 Payment

(April 12, 2018 CFW GSP)

Section 8-13.5 is supplemented with the following:

No payment will be made for monument case, cover, and pipe as these items are incidental to other bid item.

8-14 CEMENT CONCRETE SIDEWALKS

8-14.1 Cement Concrete Sidewalks

(April 3, 2017 WSDOT GSP, OPTION 1)

Section 8-14.1 is supplemented with the following:

This work shall also include construction of pervious cement concrete sidewalks.

8-14.2 Materials

(April 12, 2018 CFW GSP)

Section 8-14.2 is supplemented with the following:

The Cement Concrete Sidewalk and curb ramps shall be constructed of Class 3000 concrete or greater.

Pervious Cement Concrete

Concrete Mix Design: The Contractor shall submit a proposed mix design for the pervious cement concrete, with proportions of materials, to the Engineer 7 working days prior to commencement of work. ACI 522R-10 shall be used to determine mix design proportions. The data for the mix design shall include fresh density of the proposed pervious concrete mixture as determined in accordance with AASHTO T 19M/T 19 paragraph 11, jiggling procedure.

Concrete Mix Design Criteria

- The cementitious content, including pozzolans if used, shall be between 450 and 550 pounds per cubic yard.
- Total void content shall be greater than 15 percent and less than 25 percent, as measured by ASTM C 1688.
- The water/cementitious material ratio, by weight, shall be between 0.27 and 0.35.

- Cement: Portland Cement Type I or II conforming to ASTM C 150 or Portland Cement Type IP or IS conforming to ASTM C 595.
- Aggregate: Use crushed gravel, stone meeting No. 8 coarse aggregate or No. 89 coarse aggregate per ASTM D 448. If other gradation of aggregate is to be used, submit data on proposed material to the Engineer for approval at least 7 working days prior to performing the work.
- Air Entraining Agent: Comply with ASTM C 260
- Water: Comply with ASTM C 94

8-14.3 Construction Requirements

(April 3, 2017 WSDOT GSP, OPTION 1)

Section 8-14.3 is supplemented with the following:

The Contractor shall request a pre-meeting with the Engineer to be held 2 to 5 working days before any work can start on cement concrete sidewalks, curb ramps or other pedestrian access routes to discuss construction requirements. Those attending shall include:

1. The Contractor and Subcontractor in charge of constructing forms, and placing, and finishing the cement concrete.
2. Engineer (or representative) and Project Inspectors for the cement concrete sidewalk, curb ramp or pedestrian access route Work.

Items to be discussed in this meeting shall include, at a minimum, the following:

1. Slopes shown on the Plans.
2. Inspection
3. Traffic control
4. Pedestrian control, access routes and delineation
5. Accommodating utilities
6. Form work
7. Installation of detectable warning surfaces
8. Contractor ADA survey and ADA Feature as-built requirements
9. Cold Weather Protection

(January 7, 2019 WSDOT GSP, OPTION 2)

Section 8-14.3 is supplemented with the following:

Timing Restrictions

Curb ramps shall be constructed on one leg of the intersection at a time. The curb ramps shall be completed and open to traffic within five calendar days before construction can begin on another leg of the intersection unless otherwise allowed by the Engineer.

Unless otherwise allowed by the Engineer, the five calendar day time restriction begins when an existing curb ramp for the quadrant or traffic island/median is closed to pedestrian use and ends when the quadrant or traffic island/median is fully functional and open for pedestrian access.

(January 7, 2019 WSDOT GSP, OPTION 3)

Section 8-14.3 is supplemented with the following:

Layout and Conformance to Grades

Using the information provided in the Contract documents, the Contractor shall layout, grade, and form each new curb ramp, sidewalk, and curb and gutter.

(April 12, 2018 CFW GSP)

Section 8-14.3 is supplemented with the following :

Cement concrete sidewalk thickness shall be as shown on the Plans. Score joints shall be constructed at a maximum distance of 5 feet from each full depth expansion joint, except where specific dimensions are detailed on the Plans. Asphalt mastic joint fillers in the sidewalk shall be 3/8" x 4" and of the same material as that used in the curb, and shall be placed in the same location as that in the curb.

No concrete for sidewalk shall be poured against dry forms or dry subgrade.

The Contractor may provide suitable vibrating finishers for use in finishing concrete sidewalks. The type of vibrator and its method of use shall be subject to the approval of the City.

All completed work shall be so barricaded as to prevent damage. Any damaged sections shall be removed and replaced at the Contractor's expense. Landscaped areas disturbed during construction shall be restored to original condition at the Contractor's expense.

Scored Cement Concrete Sidewalk shall be broom finished and scored as detailed on the Plans.

(April 12, 2018 CFW GSP)

Section 8-14.3 is supplemented with the following :

Pervious Cement Concrete Sidewalk

Mix Time: Truck mixers shall be operated at the speed designated as mixing speed by the manufacturer for 75 to 100 revolutions of the drum.

Transportation: The portland cement aggregate mixture may be transported or mixed on site and should be placed within one (1) hour of the introduction of mix water. This time can be increased to 90 minutes when utilizing a hydration stabilizer.

Water may only be added by the concrete producer to obtain the required mix consistency. A minimum of 20 revolutions at the manufacturer's designated mixing speed shall be required following any addition of water to the mix.

Jointing: Control (contraction) joints shall be installed normally at 12 foot to 15 foot intervals, a maximum of 15 foot intervals is allowed. Control joints shall be located so as to match the joints in the curb and gutter, whether the pervious concrete sidewalk is adjacent to the curb or separated by a planter strip. They shall be installed at a depth of 1/4 the thickness of the sidewalk. These joints can be installed in the plastic concrete with a rolling joint tool designed specifically for this purpose or saw cut (with prior approval of Engineer). Sawcutting is not the preferred joint method. If saw cut, the procedure should begin as soon as the sidewalk has hardened sufficiently to prevent raveling and

uncontrolled cracking (normally after curing). Transverse construction joints shall be installed whenever placing is suspended a sufficient length of time that concrete may begin to harden. In order to assure aggregate bond at construction joints, a bonding agent suitable for bonding fresh concrete to existing concrete shall be brushed, rolled or sprayed on the existing sidewalk surface edge. Isolation (expansion) joints will not be used except when sidewalk is abutting slabs or other adjoining structures.

Placing and Finishing Equipment: Unless otherwise approved by the Engineer in writing, the Contractor shall provide mechanical equipment of either slip form or form riding with a following compactive unit that will provide a minimum of 10 psi vertical force. The pervious concrete sidewalk will be placed to the required cross section and shall not deviate more than +/- 3/8 inch in 10 feet from profile grade. If placing equipment does not provide the minimum specified vertical force, a full width roller or other full width compaction device that provides sufficient compactive effort shall be used immediately following the strike-off operation. After mechanical or other approved strike-off and compaction operation, no other finishing operation will be allowed. If vibration, internal or surface applied, is used, it shall be shut off immediately when forward progress is halted for any reason. The Contractor will be restricted to sidewalk placement widths of a maximum of fifteen (15') feet unless the Contractor can demonstrate competence to provide sidewalk placement widths greater than the maximum specified to the satisfaction of the Engineer.

Curing: Curing procedures shall begin immediately after the final placement operations. The pavement surface shall be covered with a minimum of (6) mil thick polyethylene sheet or other approved covering material. Prior to covering, a fog shall be sprayed above the surface when required due to ambient conditions. The cover shall overlap all exposed edges and shall be secured to prevent dislocation due to wind or adjacent traffic conditions. Cure sidewalk for a minimum of 7 days, unless otherwise specified.

Testing and Acceptance of Pervious Cement Concrete Sidewalk

Test Panels: The Contractor shall place, joint and cure one test panel, each to be a minimum of 50 square feet at the project site to demonstrate to Engineer's satisfaction that a satisfactory sidewalk can be installed at the location. If the test panel meets Engineer's approval for aesthetics and pressure wash testing, it can be left in-place and included in the completed work. If the requirements mentioned above are not met, the test panel shall be removed at the Contractor's expense and disposed of in an approved landfill.

Pervious Concrete Void Structure: The Pervious Concrete Void Structure shall be tested in accordance with ASTM C 1688 and shall be between 15 and 25 percent.

Unit Weight: The Contractor shall test, in accordance with WAQTC TM 2 and AASHTO T 121, at least one sample for each day's placement of pervious cement concrete to verify unit weight. Delivered unit weights shall be determined in accordance with AASHTO T 121. The measure shall be filled and compacted in accordance with AASHTO T 19M/T 19 paragraph 11, jiggling procedure. The unit weight of the concrete shall be +/- 5 pcf of the design unit weight.

Pressure Wash Testing: The Contractor shall pressure wash the pervious concrete sidewalk using a washer working at a minimum of 3,000 psi and 1.0 gpm. The nozzle

shall be held a maximum of 3 inches off the concrete. The Contractor shall wash the entire top surface of the pervious concrete sidewalk. Sections of pervious concrete that breaks up, pits or does not infiltrate shall be removed and replaced, at no cost to the Contracting Agency.

Remove and Replace Concrete Curb Ramp, Complete

In Remove and Replace Concrete Curb Ramp, Complete, the contractor shall complete the following items as shown in plans and as incidental to this Bid item:

1. Sawcutting of existing curb and gutter, sidewalk or pavement
2. Removing Cement Concrete Sidewalk to nearest joint or as directed by the City
3. Removing Cement Concrete Curb and Gutter adjacent to curb ramp location to nearest joint or as directed by the City.
4. Install Cement Concrete Curb and Gutter (depressed section) and associated CSTC base
5. Removal and replacement of asphalt pavement with HNA CL 1/2" PG 64-22
6. Install Cement Conc. Curb Ramp, Type as directed by the City, and associated CSTC base.
7. Install any necessary Cement Conc. Pedestrian Curb if required as part of Curb Ramp design selected by City from the list in 8-14.4.
8. Replace any Cement Conc. Sidewalk removed between sidewalk joint and constructed curb ramp

The City shall designate the locations and limits of removals.

8-14.3(5) Detectable Warning Surface ***(April 12, 2018 CFW GSP)***

Section 8-14.3(5) is supplemented with the following:

MMA-Style Truncated Dome Detectable Warning Surfaces applied to asphalt surfaces shall be liquid-applied Vanguard ADA Systems, or approved equal.

8-14.4 Measurement ***(April 12, 2018 CFW GSP)***

Section 8-14.4 is supplemented with the following:

Cement concrete sidewalk and driveway approaches for removal and replacement shall be measured by the square yard of finished surface replaced. The City inspector shall designate the locations and limits of removal.

Remove and Replace Concrete Curb Ramp shall be measured per each, and shall include all items necessary to install a complete curb ramp per appropriate detail, to include as incidental the detectable warning surface, removal and replacement of existing curb ramps, curb, gutter, sidewalks, cement conc. pedestrian curb, and all traffic control. The City inspector shall designate the locations and limits of removal. Asphalt removal, replacement, and/or patching shall be considered incidental. Pedestrian Curb behind the sidewalk (if required) will be considered incidental and not measured.

The specific the type of Curb Ramp to be constructed shall be determined by the City. Accepted Curb Ramp types include:

Combination Curb Ramp, per WSDOT Standard Plan F-40.14,

Parallel Curb Ramp, per City of Federal Way Drawing No. 3-8, 3-8A, or 3-8B
Single-Direction Curb Ramp, per City of Federal Way Drawing No. 3-10 or 3-10A
Perpendicular Curb Ramp, per City of Federal Way Drawing No. 3-11

Measurement for removing and installing Cement Concrete Curb and Gutter up to twenty-five (25) feet for curb ramp construction will be incidental to Bid item "Remove & Replace Curb Ramp, Complete". Measurement for removing and replacing Cement Concrete Sidewalk within the twenty-five (25) foot curb ramp envelope of curb ramp construction will also be incidental to Bid item "Remove & Replace Curb Ramp, Complete".

Pervious cement concrete sidewalk will be measured by the square yard of finished surface.

Thickened Edge Sidewalk will be measured per linear foot.

8-14.5 Payment

(April 12, 2018 CFW GSP)

Section 8-14.5 is supplemented with the following:

Payment for "Cement Conc. Curb Ramp Type ____" will not be made until the City has verified that the ramp(s) meet ADA requirements.

"Pervious Cement Concrete Sidewalk", per square yard.

"Thickened Edge Sidewalk" per linear foot. Payment for "Thickened Edge Sidewalk" will be made in addition to any payment per square yard for "Cement Conc. Sidewalk."

"Remove and Replace Concrete Curb Ramp, Complete", per Each

"Remove and Replace Concrete sidewalk, Complete", per square yard

8-32 ASPHALT CONCRETE SPEED HUMP

New Section

(*****)

8-32.1 Description

The work shall consist of constructing asphalt concrete speed humps with associated pavement striping per City of Federal Way Detail DWG No. 3-26.

8-32.2 Materials

Asphalt concrete for speed humps shall be HMA Class ½" PG 64-22 meeting the requirements of Section 5-04 of the Standard Specifications. Pavement marking materials shall be white plastic meeting the requirements of Section 8-22.2 of the Standard Specifications.

Raised pavement markers should be Type 2 YY and Type 2W meeting the requirements of Section 8-09.2 of the Standard Specifications.

8-32.3 Construction Requirements

The various materials shall be installed as noted on the plan detail.

8-32.4 Measurement

CITY OF FEDERAL WAY

2019-2021 NEIGHBORHOOD TRAFFIC
SAFETY (NTS) PROGRAM
RFB #19-006

AUGUST 2019

SP-88

Measurement will be per each where a speed hump and associated temporary pavement markings are installed.

8-32.5 Payment

"Speed Hump, Complete", per each.

The unit bid price per each proposal will be full compensation for the cost of all tools, labor, equipment, and materials necessary or incidental to provide and install the asphalt concrete speed hump and pavement markings.

8-33 ASPHALT CONCRETE SPEED TABLE OR RAISED CROSSWALK
New Section (*****)

8-33.1 DESCRIPTION

The work shall consist of constructing asphalt concrete speed table or raised crosswalk with temporary pavement striping per City of Federal Way Detail DWG No. 3-27 or 3-27A.

8-33.2 Materials

Asphalt concrete for raised crosswalk shall be HMA Class 1/2" PG 64-22 meeting the requirements of Section 5-04 of the Standard Specifications.

Permanent pavement markings and Raised pavement markers done by others.

8-33.3 Construction Requirements

A "toe" grind is required on the two long sides as noted on the plan details Drawing 3-27 or 3-27A.

8-33.4 Measurement

Measurement will be per each where a speed table or raised crosswalk when temporary pavement markings are installed.

8-33.5 Payment

"Raised Crosswalk, Complete", per each. "Speed Table, Complete", per each.

The unit bid price per each proposal will be full compensation for the cost of all tools, labor, equipment, traffic control, and materials necessary or incidental to provide and install the asphalt concrete speed table or raised crosswalk with temporary pavement markings.

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:

<u>Sieve Size</u>	<u>Percent Passing</u>
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.

SECTION 9-18 PRECAST TRAFFIC CURB AND BLOCK TRAFFIC CURB

9-18.3 Vacant

(December 12, 2012 CFW GSP)

Section 9-18.3 is deleted and replaced with the following new Section:

9-18.3 Block Traffic Curb

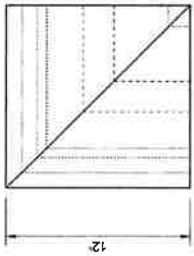
In construction of the block traffic curb, the Contractor shall have the option of using either length block shown in the plans, provided the same length block is used throughout the entire project.

The curb units shall be made from portland cement and high quality sand and gravel, the proportions of which will be left to the discretion of the producer as long as the unit develops a minimum compressive strength of 1,600 psi at 28 days when tested for end loading.

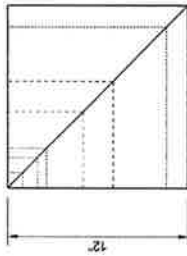
The proportions of sand, gravel, and cement, the type of forms used, and the method of compacting the concrete in the forms shall all be such that as dense, smooth, and uniform a surface as is practicable for a concrete masonry unit is obtained on the finished curb units. The faces that are to be exposed shall be free from chips, cracks, air holes, honeycomb, or other imperfections except that if not more than 5 percent of the curb units contain slight cracks, small chips not larger than ½ inch, or air holes not more than ½ inch in diameter or depth, this shall not be deemed grounds for rejection. The units used in any contiguous line of curb shall have approximately the same color and surface characteristics.

END OF DIVISION 9

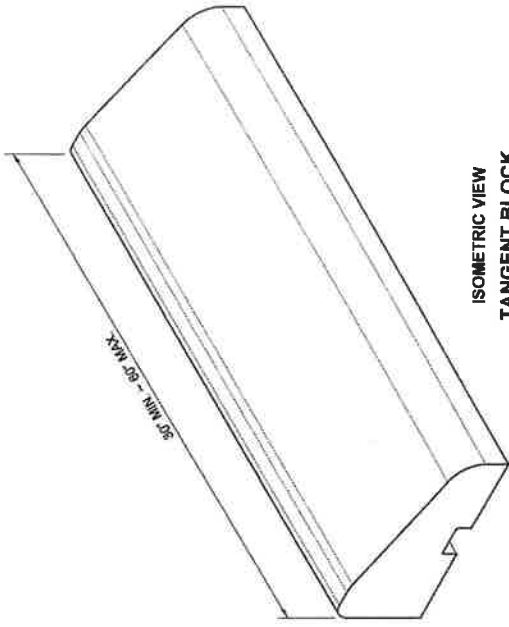
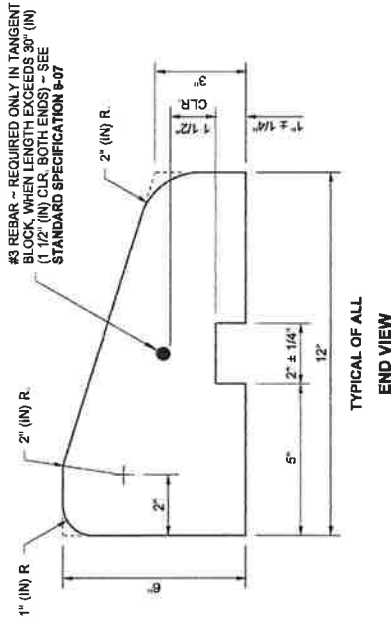
DRAWN BY: BILL BERENS



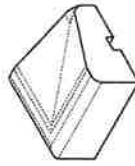
TOP VIEW
INSIDE CORNER BLOCK



TOP VIEW
OUTSIDE CORNER BLOCK



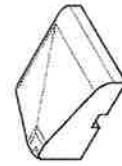
ISOMETRIC VIEW
TANGENT BLOCK



INSIDE CORNER BLOCK



18" (IN) RADIUS BLOCK

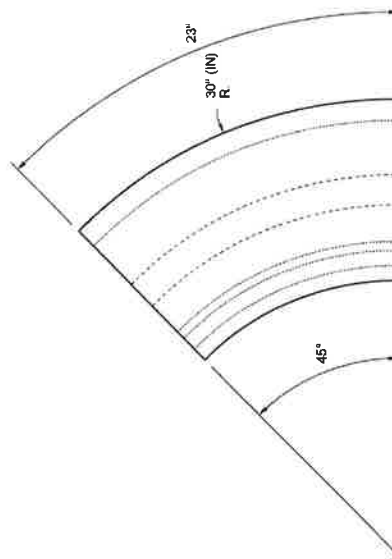


OUTSIDE CORNER BLOCK

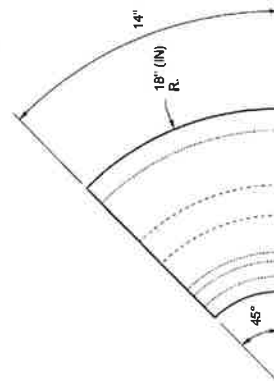


30" (IN) RADIUS BLOCK

ISOMETRIC VIEWS



TOP VIEW
30" RADIUS BLOCK



TOP VIEW
18" RADIUS BLOCK



R. Kotch Pasco III
Hawthorn, Pasco
Apr 22 2014 9:18 AM

**PRECAST SLOPED
MOUNTABLE CURB**

STANDARD PLAN F-10.62-C

SHEET 1 OF 2 SHEETS

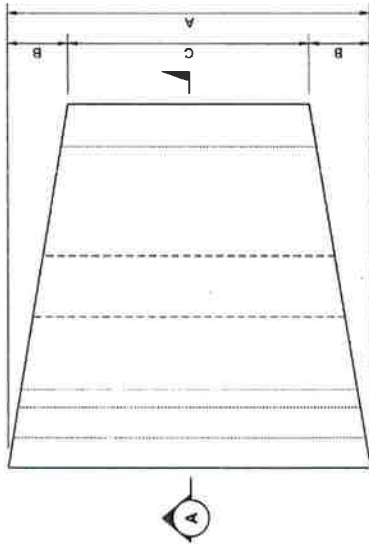
APPROVED FOR PUBLICATION
APR 23 2014 9:18 AM

R. Kotch Pasco III
STATE DESIGN ENGINEER

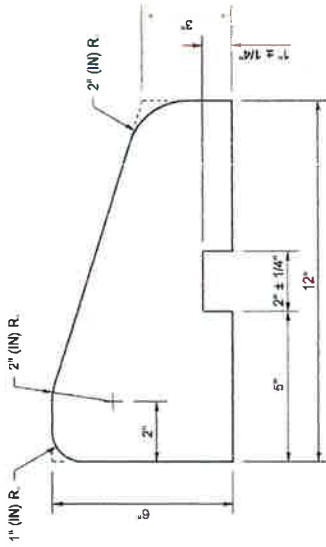


Washington State Department of Transportation

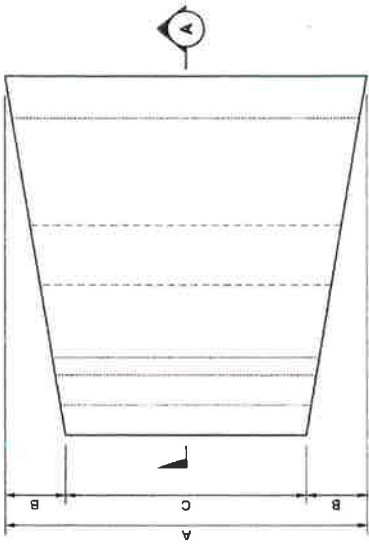
DRAWN BY: BILL BERENS



TOP VIEW
INSIDE RADIUS BLOCK



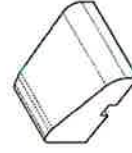
SECTION A-A



TOP VIEW
OUTSIDE RADIUS BLOCK



INSIDE RADIUS BLOCK



OUTSIDE RADIUS BLOCK

ISOMETRIC VIEWS

CURB RADIUS TABLE			
CURB RADIUS	DIMENSION A	DIMENSION B	DIMENSION C
2"	12"	2"	8"
4" TO 5"	12"	1 1/2"	9"
6"	12"	1"	10"
7"	12"	7/8"	10 1/4"
8"	18"	1 1/8"	15 3/4"
9"	18"	1"	16"
13"	16"	7/8"	18 1/4"
11" TO 13"	16"	3/4"	16 1/2"
14" TO 16"	18"	5/8"	16 3/4"
16" TO 17"	24"	3/4"	22 1/2"
18" TO 22"	24"	5/8"	22 3/4"
23" TO 28"	24"	1/2"	23"
30" TO 34"	30"	1/2"	28"
35" TO 48"	30"	3/8"	29 1/4"
49" TO 60"	30"	1/4"	29 1/2"
OVER 60"	USE TANGENT BLOCK, SEE SHEET 1		

THIS TABLE LISTS THE CALCULATED DIMENSIONS FOR CASTING BLOCKS SUITABLE FOR CONSTRUCTING VARIOUS CURB RADII. CURVED BLOCKS OR BLOCKS WITH DIFFERENT DIMENSIONS MAY BE ACCEPTABLE WITH PRIOR APPROVAL OF THE ENGINEER.



Bakotch, Pasco
Apr 22 2014 9:20 AM

**PRECAST SLOPED
MOUNTABLE CURB**

STANDARD PLAN F-10.62-01

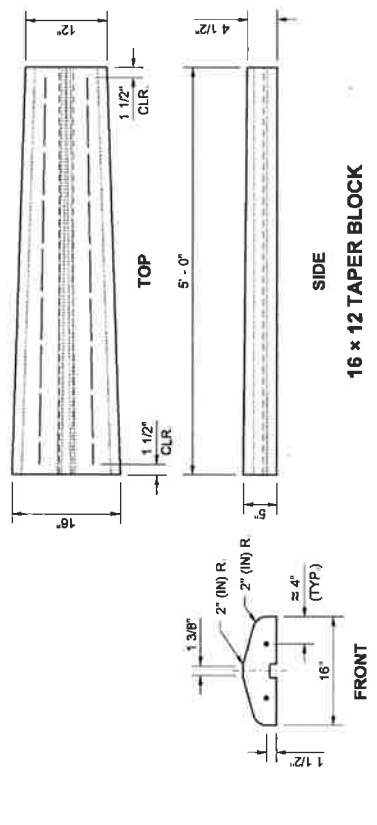
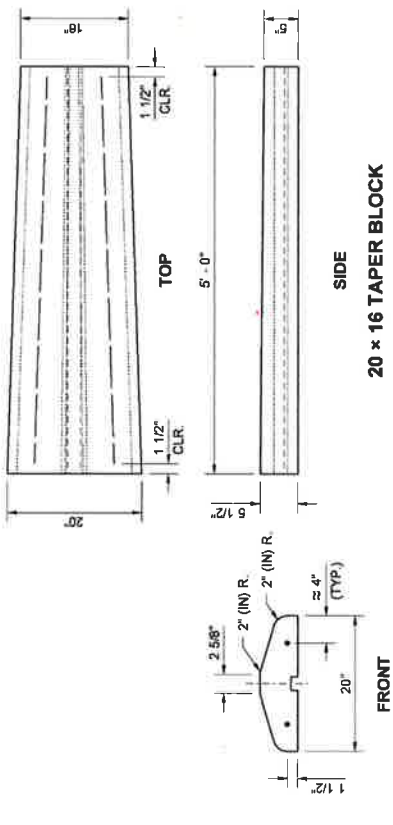
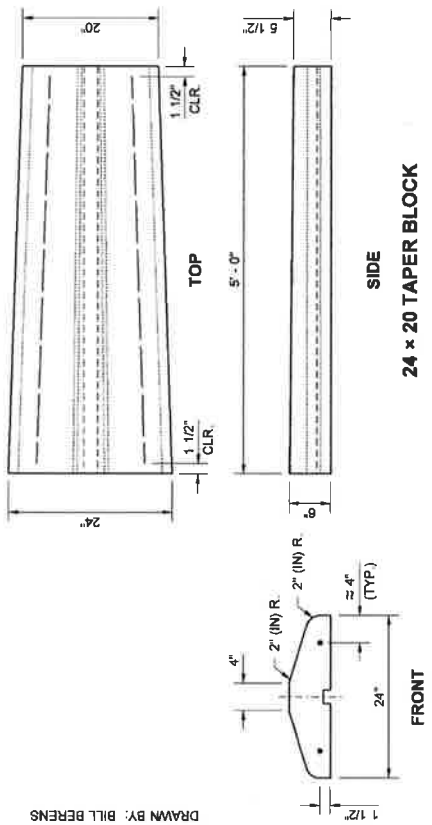
SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
Bakotch, Pasco
Apr 22 2014 9:20 AM

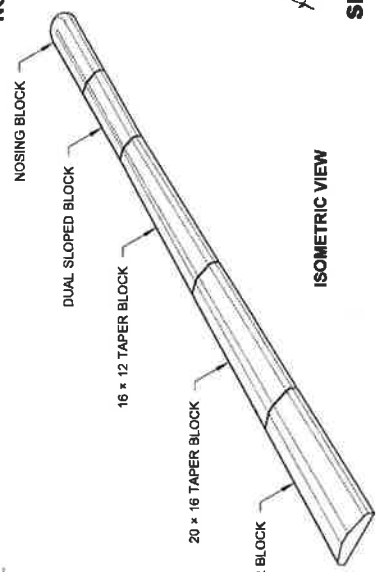
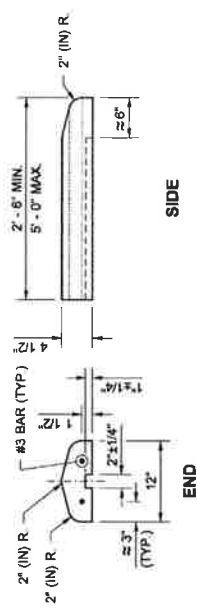
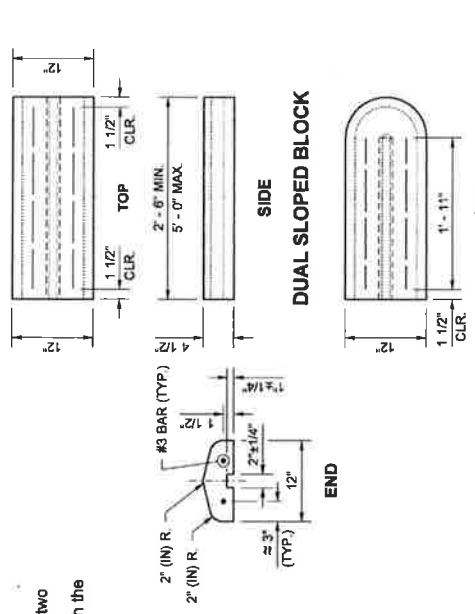
STATE DESIGN ENGINEER

Washington State Department of Transportation

DRAWN BY: BILL BERENS



- NOTES**
- The dual faced curb may be constructed by using two precast sloped mountable curbs (longitudinal halves) so long as the installation is consistent with the dimensions shown in the plan.
 - Reinforcing steel shall conform to **Standard Specification 9-07**.

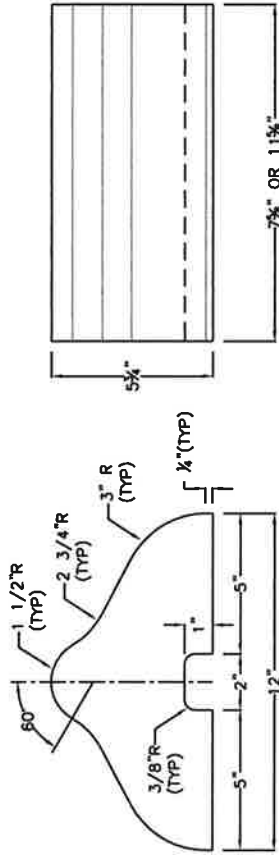


R. B. Blythe
 Bellingham, Pasco
 Apr 22 2014 9:21 AM
PRECAST DUAL FACED SLOPED MOUNTABLE CURB
STANDARD PLAN F-10.64-03

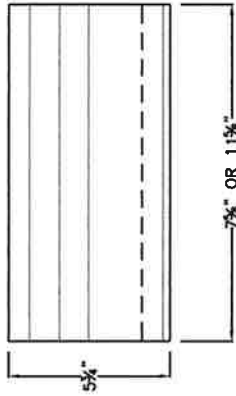
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
 APR 22 2014 9:21 AM
 R. B. Blythe
 STATE DESIGN ENGINEER
 License No. 24557
 Washington State Department of Transportation

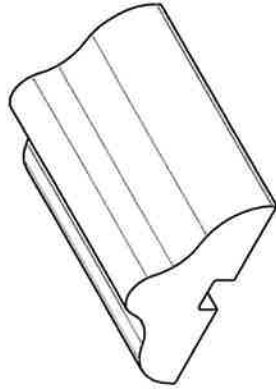
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SECTION



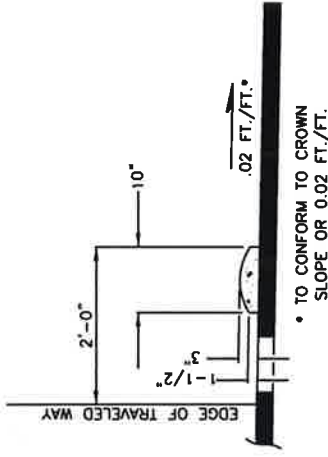
ELEVATION



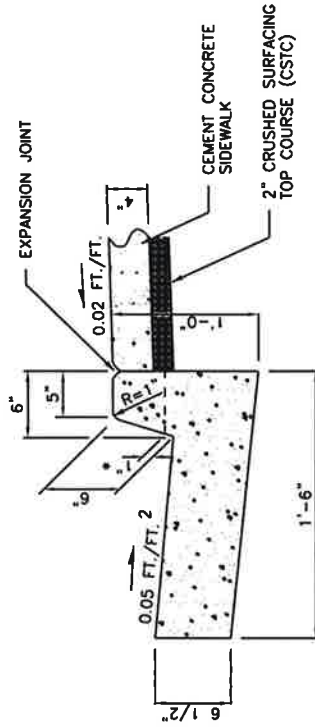
ISOMETRIC

TYPE 'C' BLOCK TRAFFIC CURB

- NOTES:
1. SEE DWG. 3-3 FOR JOINT REQUIREMENTS.
 2. ROLL GUTTER TO MATCH POSITIVE SUPERELEVATION.
 3. TO BE USED ONLY AS APPROVED BY THE PUBLIC WORKS DEPT.

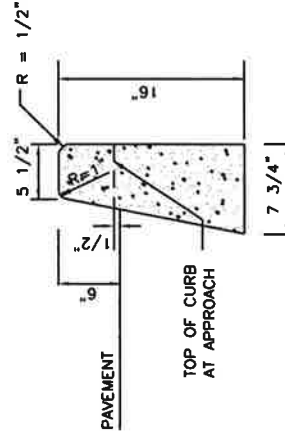


MOUNTABLE CEMENT CONCRETE CURB³



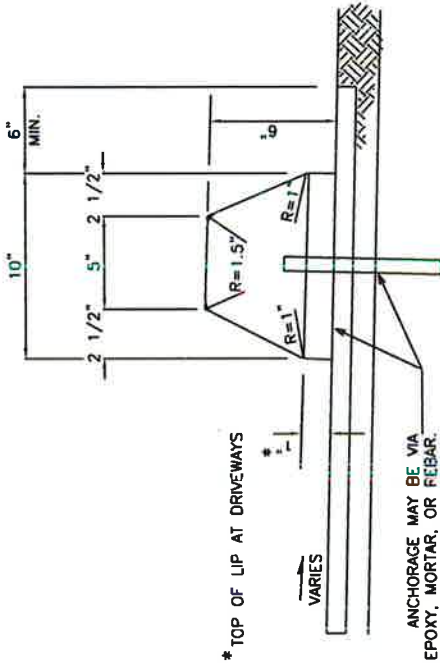
* NOTE: TOP OF LIP AT DRIVEWAYS.

NEW CEMENT CONCRETE CURB & GUTTER



CEMENT CONCRETE BARRIER CURB

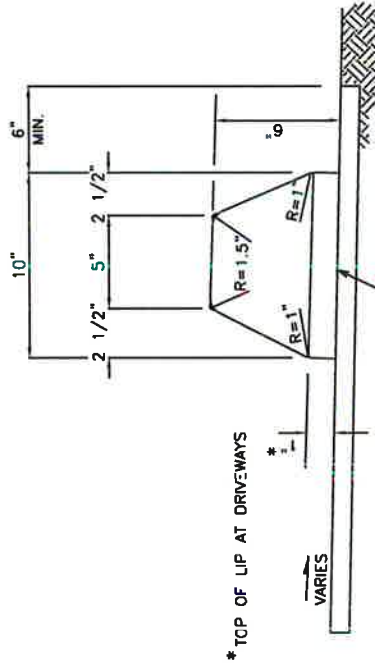
REV: FEB 2011



* TOP OF LIP AT DRIVEWAYS

ANCHORAGE MAY BE VIA EPOXY, MORTAR, OR REBAR.

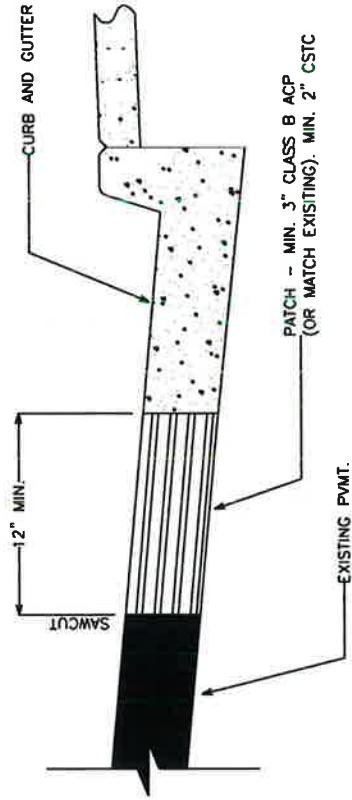
EXTRUDED ASPHALT OR CEMENT CONCRETE CURB
IN PRIVATE PARKING AREAS ONLY



* TOP OF LIP AT DRIVEWAYS

ANCHORAGE SHALL BE VIA EPOXY OR MORTAR. REBAR SHALL NOT BE APPROVED FOR USE IN RIGHT OF WAY.

EXTRUDED CEMENT CONCRETE CURB
FOR USE IN PUBLIC RIGHT OF WAY



CEMENT CONCRETE CURB & GUTTER REPLACEMENT¹

NOTES:

1. EXISTING CURB REPLACEMENT WILL REQUIRE REMOVAL OF ASPHALT A MINIMUM OF 12" FROM FACE OF GUTTER.

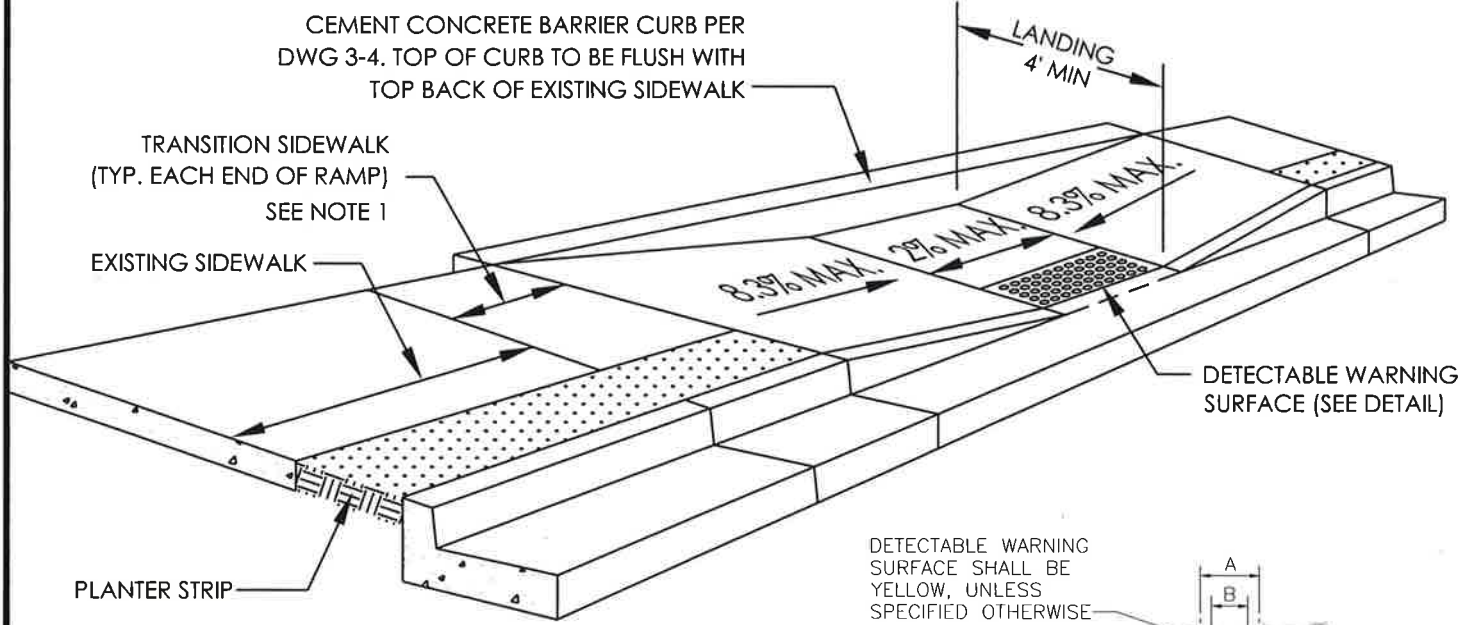
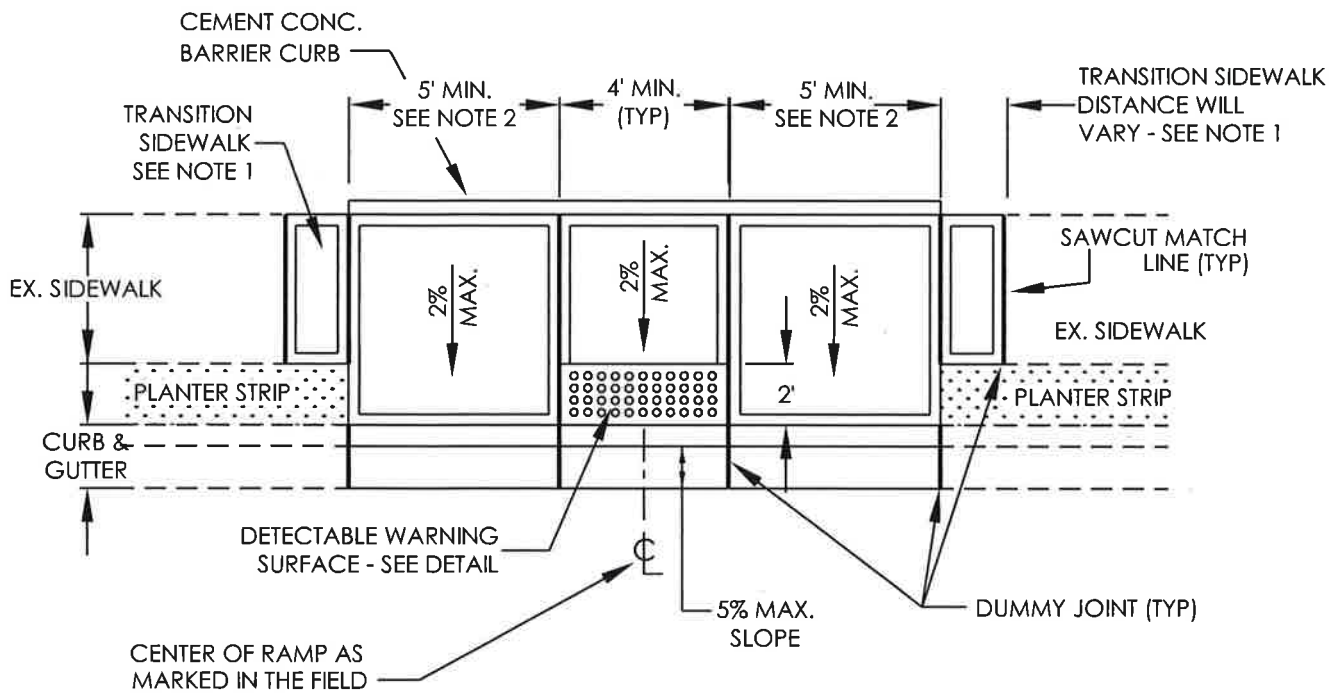
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DWG. NO.
3-4A

CURB AND GUTTER REPLACEMENT
AND EXTRUDED CURB

PUBLIC
WORKS

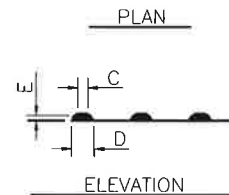
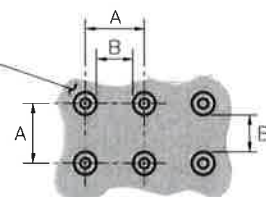




NOTES:

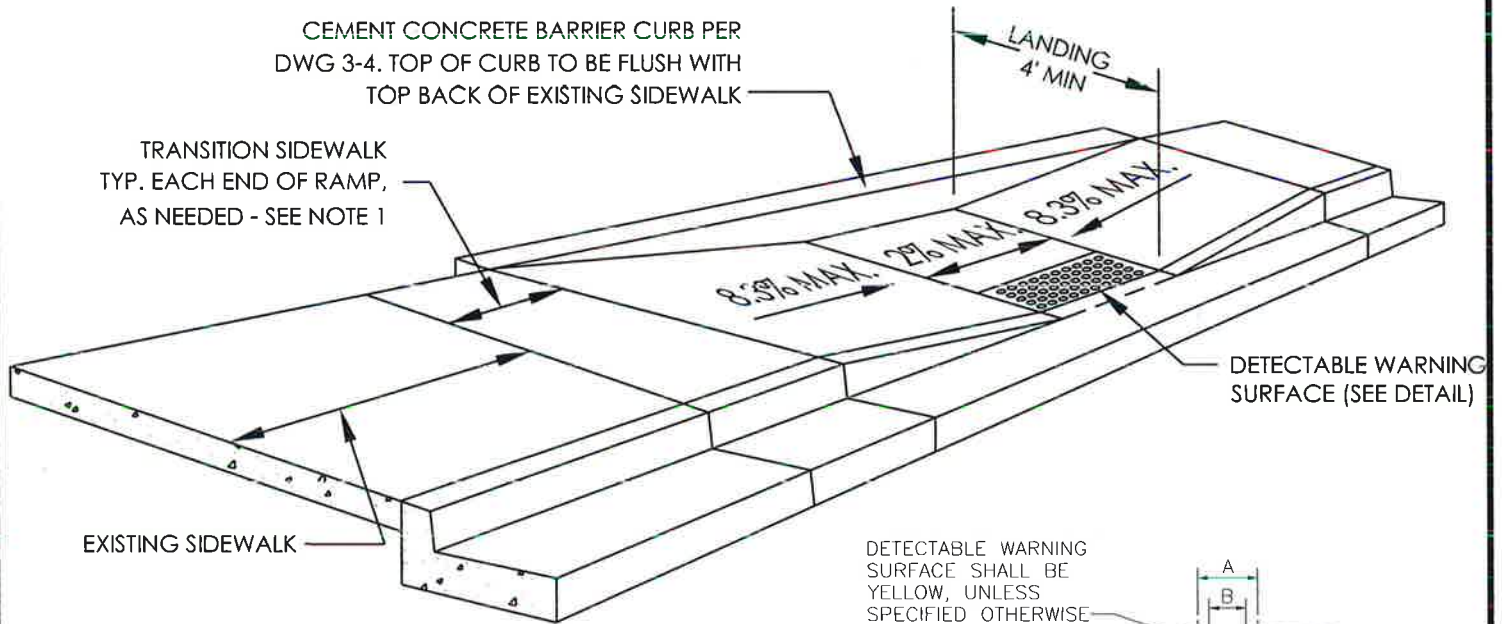
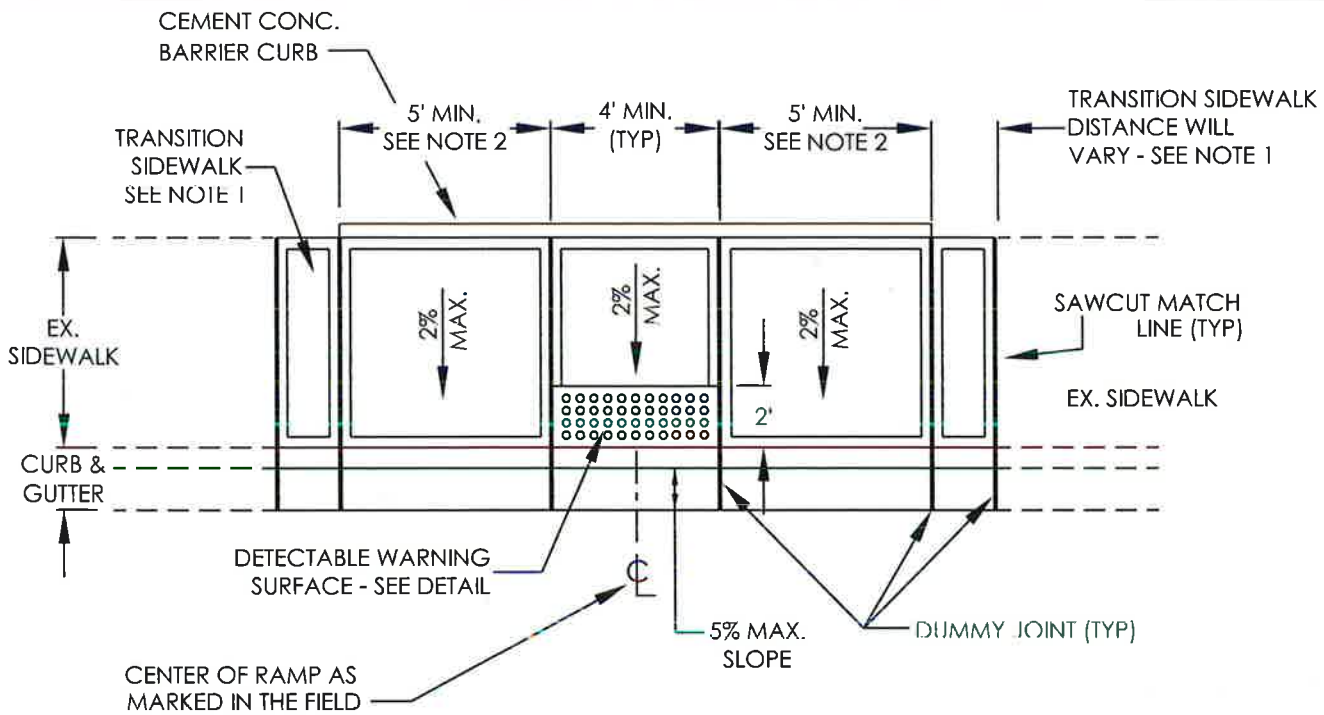
1. THE LENGTH OF THE TRANSITION SIDEWALK SECTION SHALL BE EQUAL TO 1 FOOT MULTIPLIED BY THE DIFFERENCE BETWEEN THE CROSS-SLOPE PERCENTAGE OF THE NEW AND EXISTING PANELS. (I.E., EXISTING PANEL CROSS-SLOPE IS 4% AND NEW PANEL CROSS-SLOPE IS 2% FOR A DIFFERENCE OF 2. 2 MULTIPLIED BY 1 FOOT = 2 FOOT TRANSITION SECTION). IF THE NEW AND EXISTING CROSS-SLOPES ARE EQUAL, THEN THE TRANSITION SECTION IS NOT NEEDED.
2. LENGTH SHALL BE: 5 FEET (MIN.) AND UP TO 8.3%; OR 'x' FEET @ 8.3% (WHERE 'x' IS EQUAL TO THE LENGTH REQUIRED TO ACHIEVE 8.3% MAXIMUM SLOPE), BUT NOT TO EXCEED 15 FEET IN LENGTH.

	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	-
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"



DETECTABLE WARNING SURFACE DETAIL

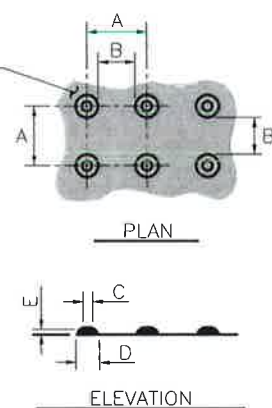
MAR 2017



NOTES:

1. THE LENGTH OF THE TRANSITION SIDEWALK SECTION SHALL BE EQUAL TO 1 FOOT MULTIPLIED BY THE DIFFERENCE BETWEEN THE CROSS-SLOPE PERCENTAGE OF THE NEW AND EXISTING PANELS. (I.E., EXISTING PANEL CROSS-SLOPE IS 4% AND NEW PANEL CROSS-SLOPE IS 2% FOR A DIFFERENCE OF 2. 2 MULTIPLIED BY 1 FOOT = 2 FOOT TRANSITION SECTION). IF THE NEW AND EXISTING CROSS-SLOPES ARE EQUAL, THEN THE TRANSITION SECTION IS NOT NEEDED.
2. LENGTH SHALL BE: 5 FEET (MIN.) AND UP TO 8.3%; OR 'X' FEET @ 8.3% (WHERE 'X' IS EQUAL TO THE LENGTH REQUIRED TO ACHIEVE 8.3% MAXIMUM SLOPE), BUT NOT TO EXCEED 15 FEET IN LENGTH.

	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	-
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"

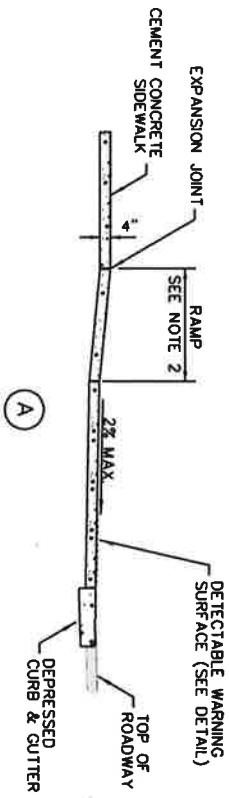
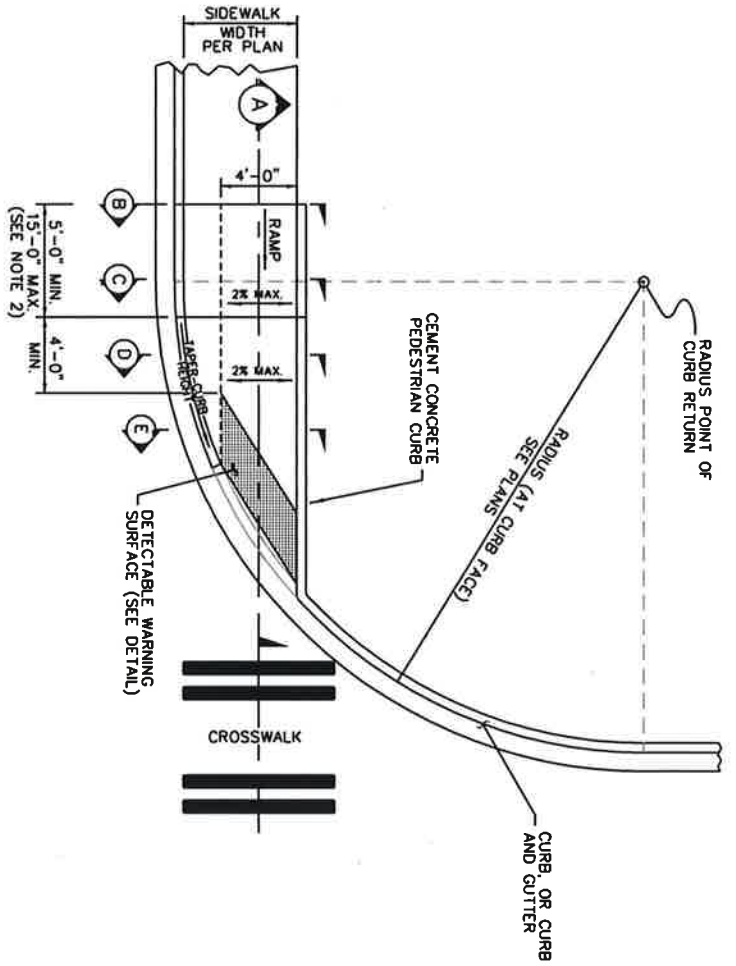


DETECTABLE WARNING SURFACE DETAIL

MAR 2017

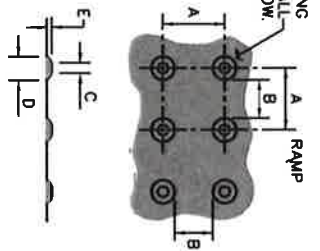
SINGLE DIRECTION CURB RAMP WITHOUT PLANTER STRIP

FEB. 2013

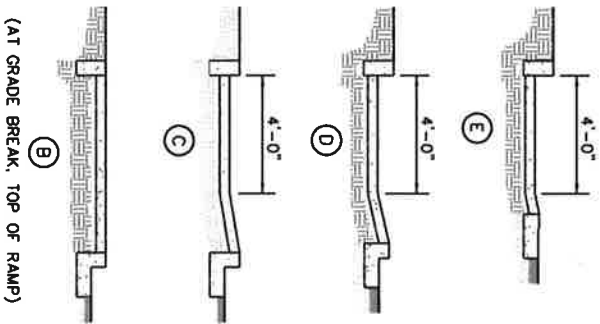


	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	---
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"

DETECTABLE WARNING SURFACE SHALL BE YELLOW.



TRUNCATED DOMES

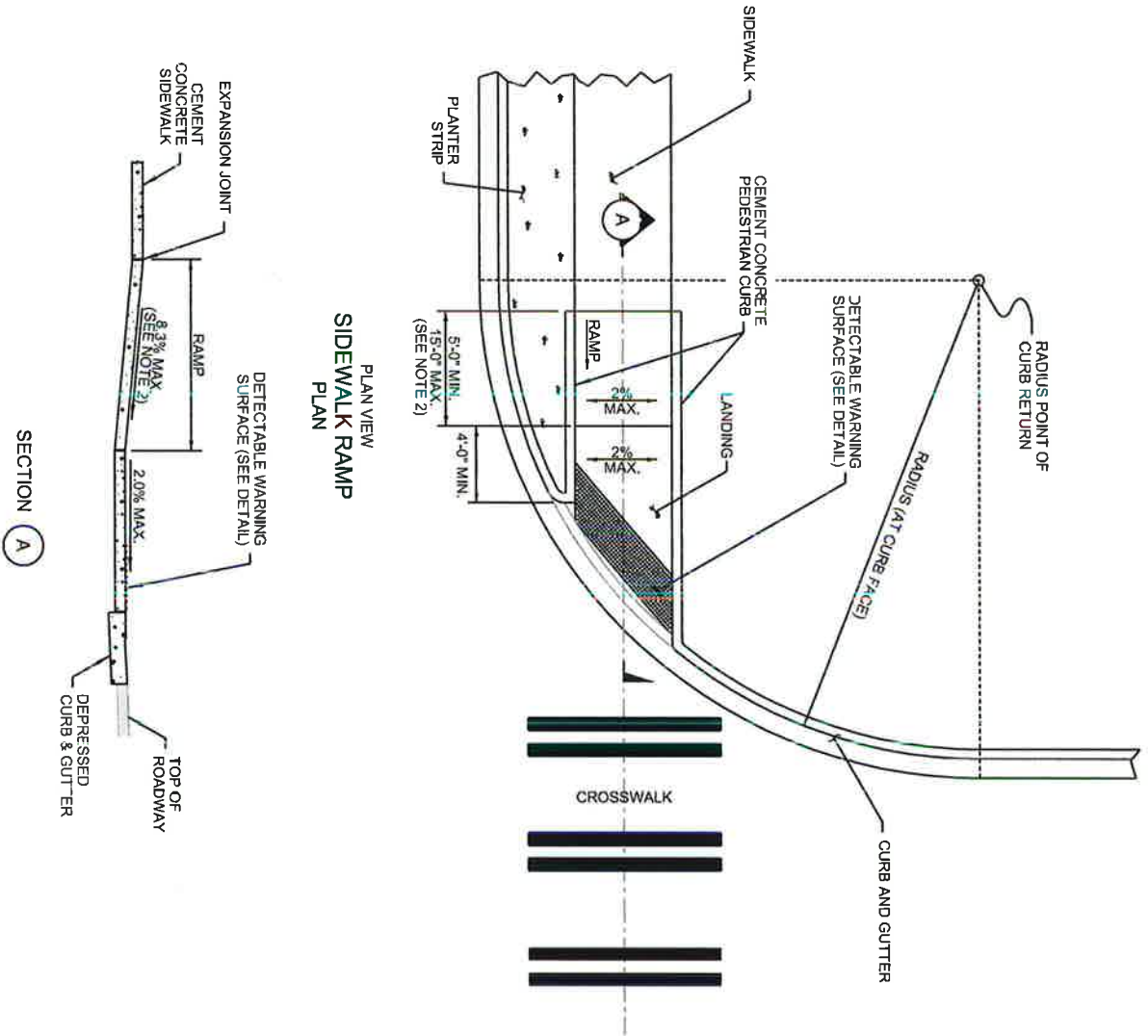


NOTES:

- DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS OR OTHER APPURTANANCES IN FRONT OF THE RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
- THE CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING. THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP SLOPES. WHEN APPLYING THE 15 FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS FEASIBLE.

**SINGLE DIRECTION CURB RAMP
WITH PLANTER STRIP**

REV. JAN 2013



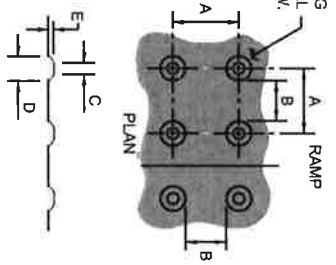
PLAN VIEW
**SIDEWALK RAMP
PLAN**

SECTION
A

	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	---
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"

DETECTABLE WARNING
SURFACE AREA SHALL
BE YELLOW.

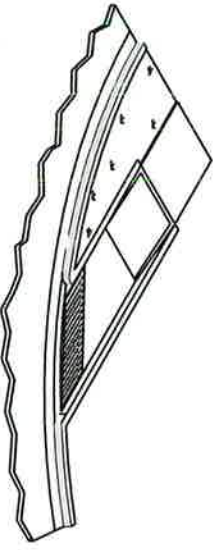
TRUNCATED DOMES
**DETECTABLE WARNING
SURFACE DETAIL**

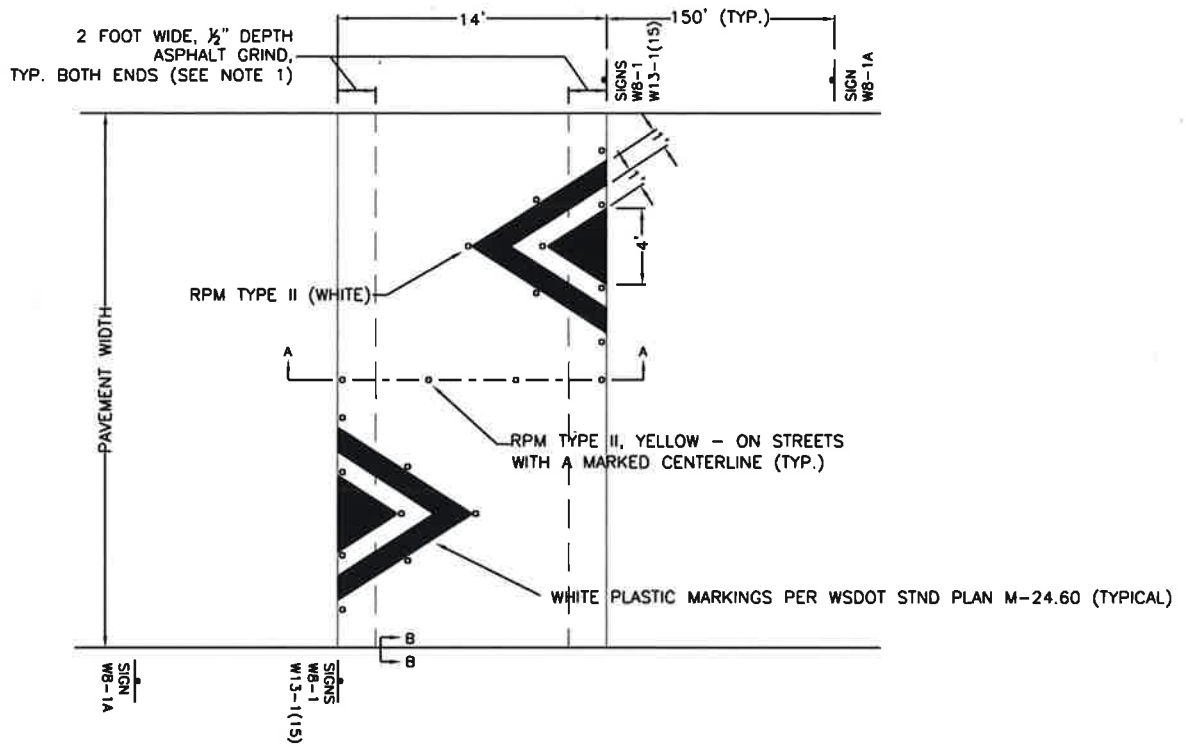


NOTES:

- DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS OR OTHER APPURTANANCES IN FRONT OF THE RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
- THE CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP SLOPES. WHEN APPLYING THE 15 FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS FEASIBLE.

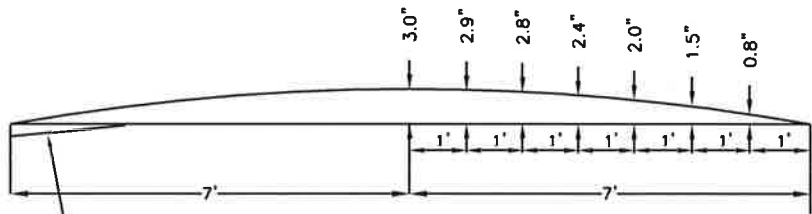
ISOMETRIC VIEW





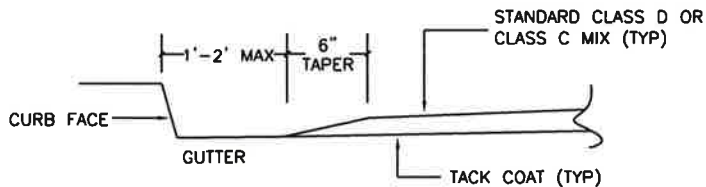
SIGN DESIGNATION / SIZE		
W8-1	BUMP	30" x 30"
W8-1A	BUMP AHEAD	30" x 30"
W13-1(15)	15 MPH ADVISORY PLAQUE	18" x 18"

NOTES:
 1) ADVANCE SIGNS USED ONLY FOR FIRST IN SERIES
 2) WHEN 2 OR MORE BUMPS, REPLACE W8-1A WITH W8-1A(S) (BUMPS AHEAD)

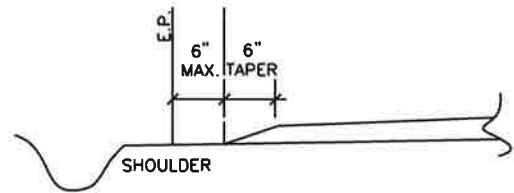


SECTION A-A - PARABOLIC CROWN

2 FOOT WIDE, 1/2" DEPTH ASPHALT GRIND, TYP. BOTH ENDS (SEE NOTE 1)



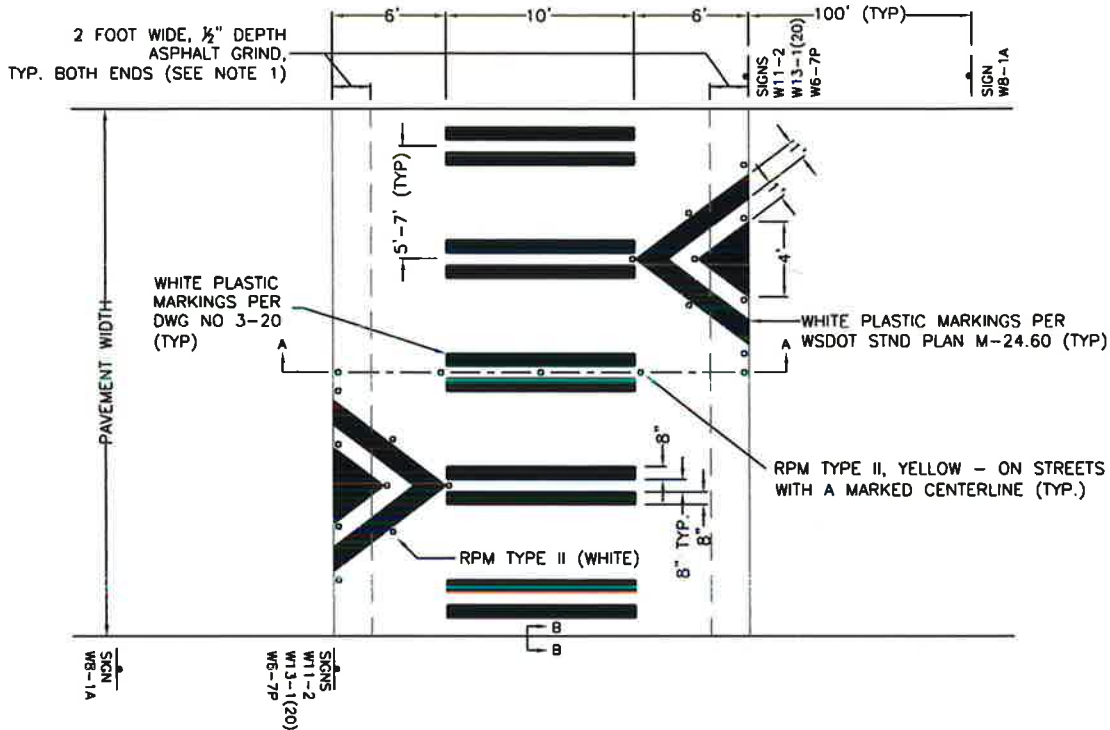
SECTION B-B (CURB AND GUTTER)



SECTION B-B (SHOULDER)

NOTE:
 1.) PRIOR TO SPEED HUMP CONSTRUCTION, THE ENGINEER MAY REQUIRE ASPHALT GRINDING IN ORDER TO PROVIDE A SMOOTH TRANSITION.

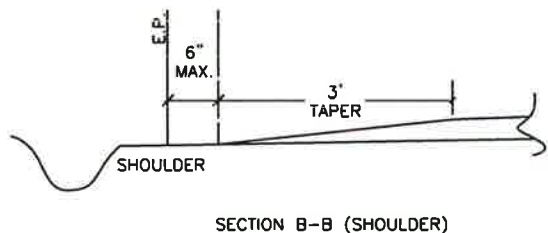
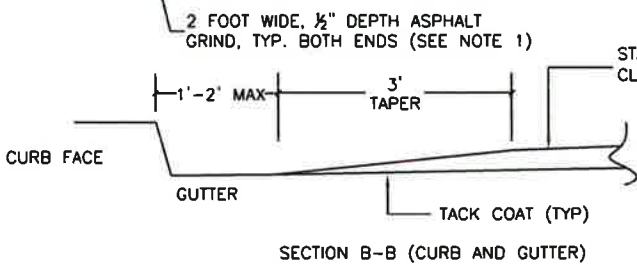
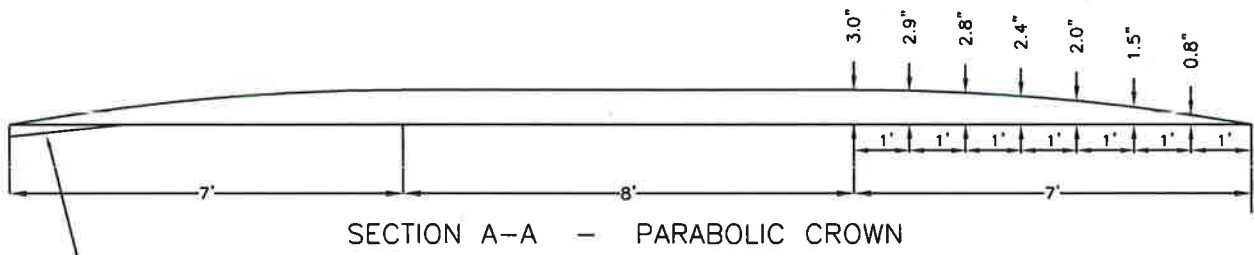
REV. MAY 2015



SIGN DESIGNATION / SIZE		
W11-2	MAN WALKING	30" x 30"
W8-1A	BUMP AHEAD	30" x 30"
W13-1(20)	20 MPH ADVISORY PLAQUE	18" x 18"
W16-7P	ARROW DOWN	24" x 12"

NOTES:

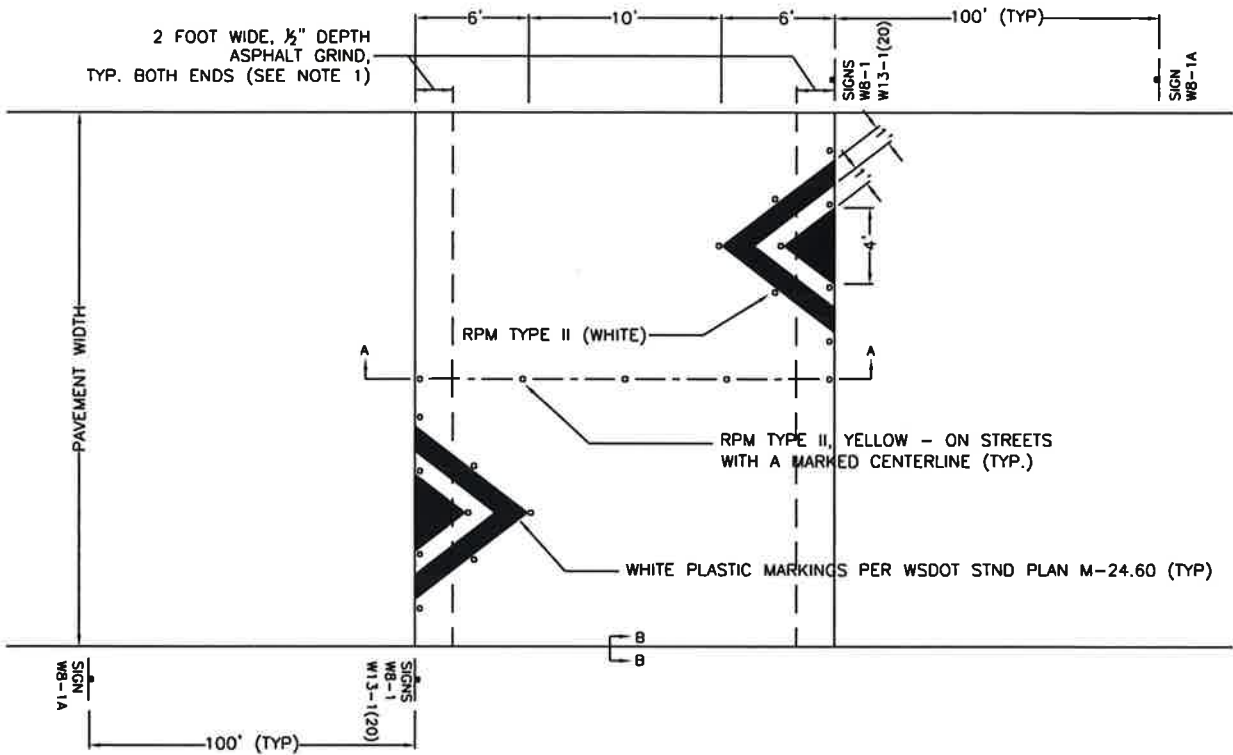
- 1) ADVANCE SIGNS USED ONLY FOR FIRST IN SERIES
- 2) WHEN 2 OR MORE BUMPS, REPLACE W8-1A WITH W8-1A(S) (BUMPS AHEAD)
- 3) USE YELLOW-GREEN SIGNS
- 4) USE S1-1 INSTEAD OF W11-2 FOR SCHOOL CROSSINGS



NOTE:

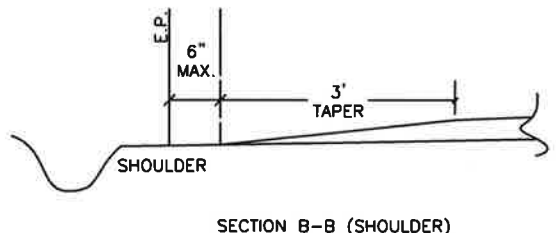
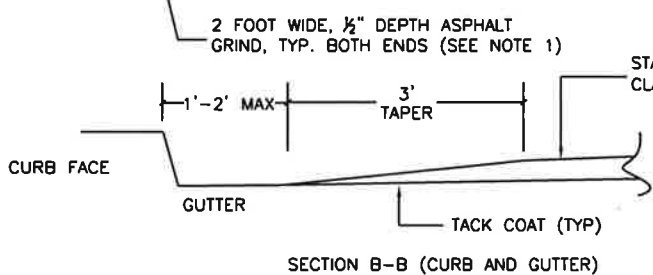
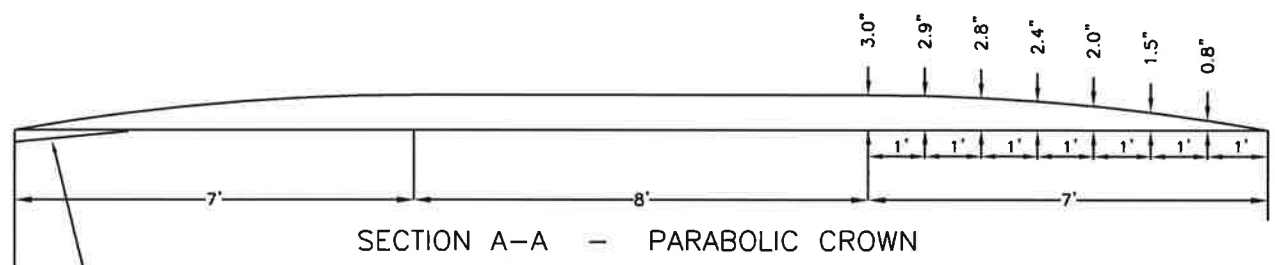
- 1.) PRIOR TO SPEED HUMP CONSTRUCTION, THE ENGINEER MAY REQUIRE ASPHALT GRINDING IN ORDER TO PROVIDE A SMOOTH TRANSITION.

REV. MAY 2015



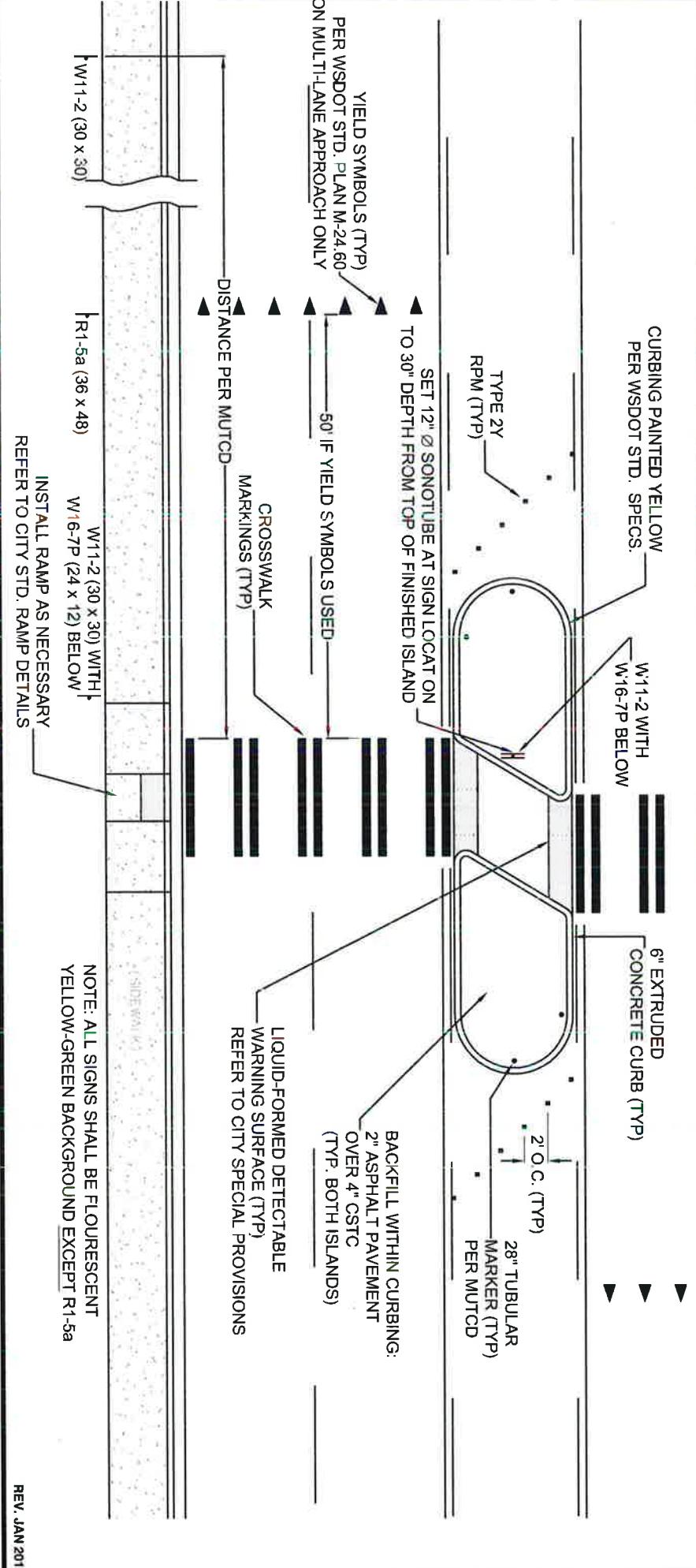
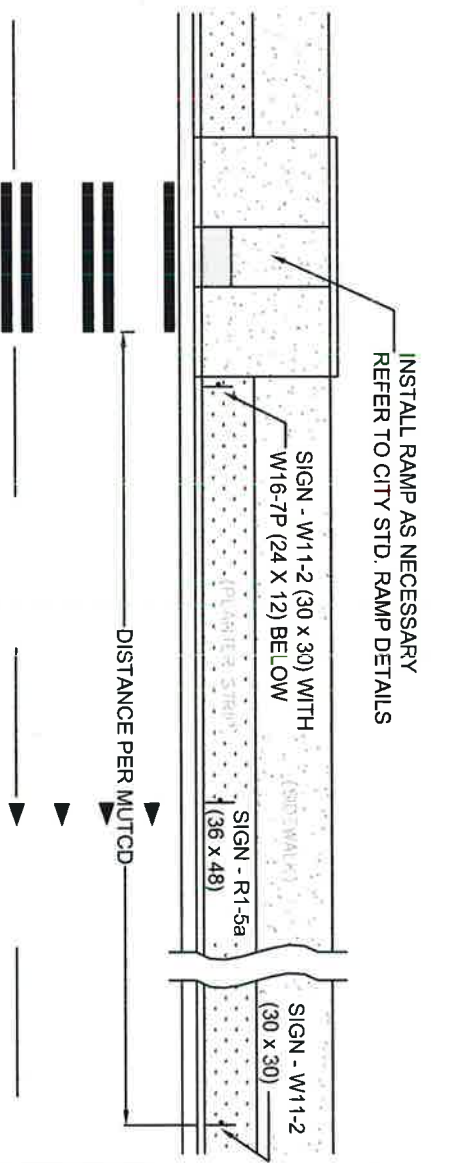
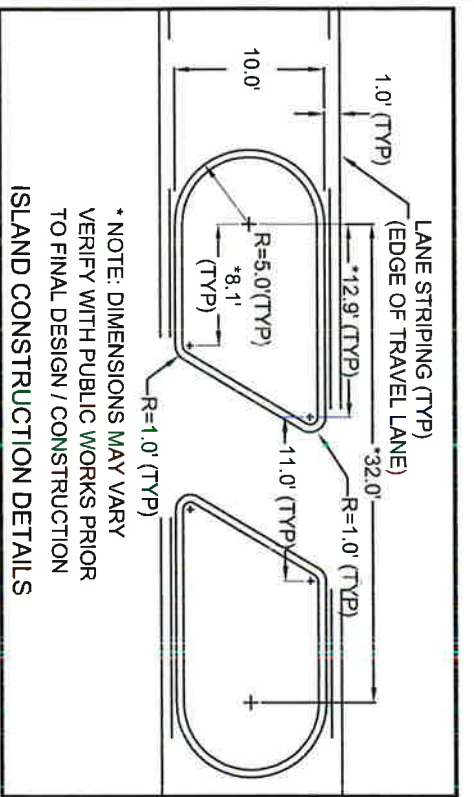
SIGN DESIGNATION / SIZE		
W8-1	BUMP	30" x 30"
W8-1A	BUMP AHEAD	30" x 30"
W13-1(20)	20 MPH ADVISORY PLAQUE	18" x 18"

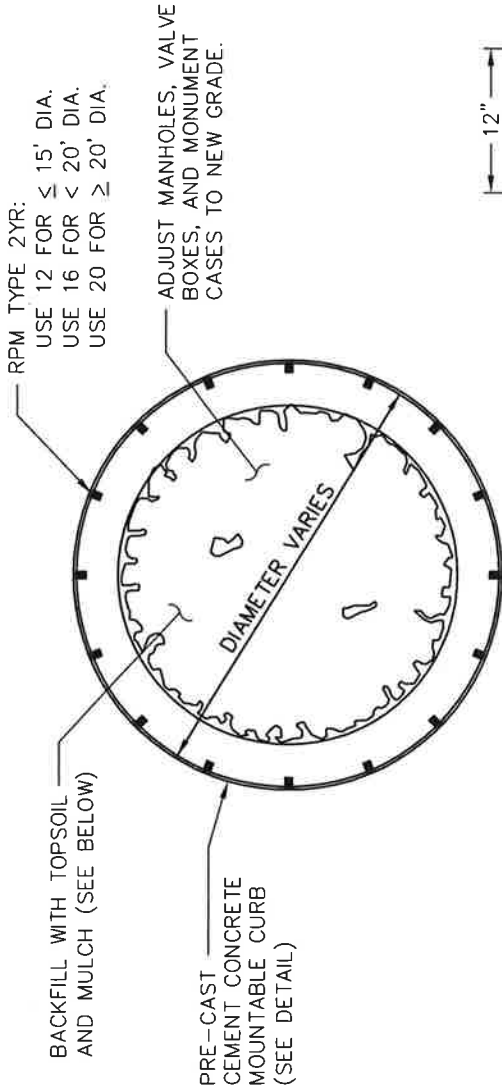
NOTES:
 1) ADVANCE SIGNS USED ONLY FOR FIRST IN SERIES
 2) WHEN 2 OR MORE BUMPS, REPLACE W8-1A WITH W8-1A(S) (BUMPS AHEAD)



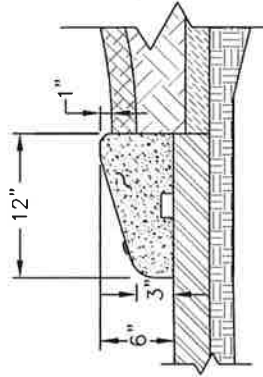
NOTE:
 1.) PRIOR TO SPEED HUMP CONSTRUCTION, THE ENGINEER MAY REQUIRE ASPHALT GRINDING IN ORDER TO PROVIDE A SMOOTH TRANSITION.

REV. MAY 2015

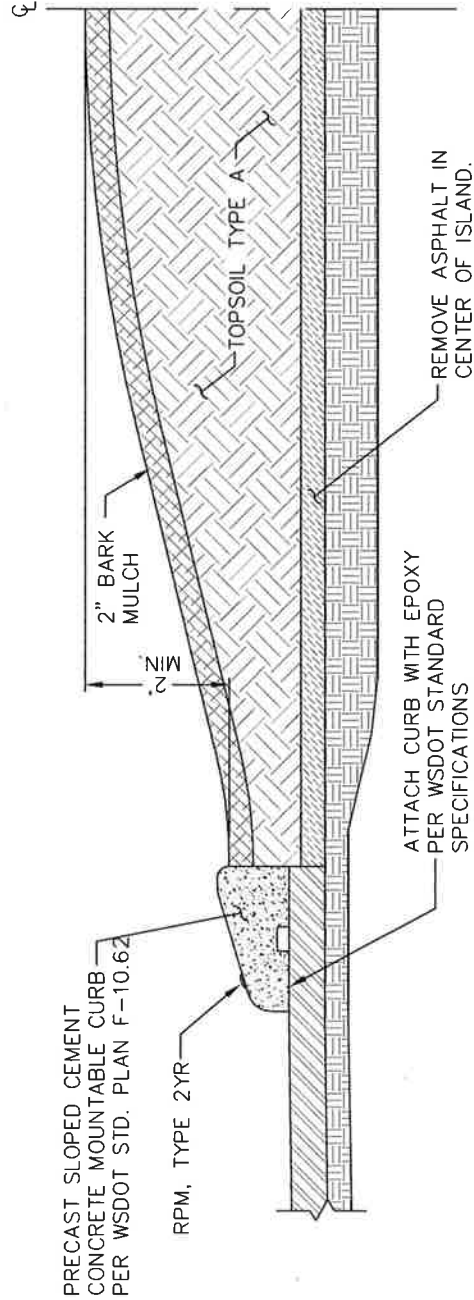




TYPICAL TRAFFIC CIRCLE



CURB DETAIL



TYPICAL SECTION

SIGN NOTES:

1. INSTALL ONE R6-4 CHEVRON SIGN PER INTERSECTION APPROACH, PER MUTCD FIGURE 2B-22.
2. INSTALL EACH R6-4 SIGN 2- FEET INSIDE THE EDGE OF ISLAND CURBING, ALIGNED WITH APPROACH LANES. FINAL LOCATION TO BE DETERMINED BY THE ENGINEER.
3. SIGNS MAY BE CONSOLIDATED TO FEWER POSTS FOR SMALLER DIAMETER CIRCLES, AS APPROVED BY THE ENGINEER.

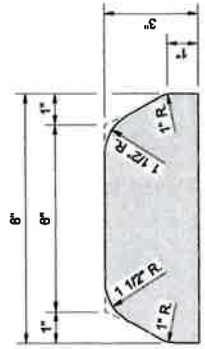
MINI ROUNDABOUTS:

1. FULLY MOUNTABLE MINI ROUNDABOUT CENTER ISLANDS SHALL USE 3-INCH ROLLED CURB AS PER 'CURB 1 - ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB & GUTTER', WSDOT STANDARD PLAN F-10.18.
2. FILL ISLAND WITHIN CURB WITH COMPACTED HMA PAVEMENT OR CL 4,000 CEMENT CONCRETE PAVEMENT. FINISHED TEXTURE AND COLOR MUST CONTRAST WITH ADJACENT CURB AND PAVEMENT.
3. CENTER OF ISLAND SHALL BE SLOPED AT 2% TOWARD CURB, BUT MAXIMUM HEIGHT SHALL NOT EXCEED 3-INCHES ABOVE THE TOP OF CURB.

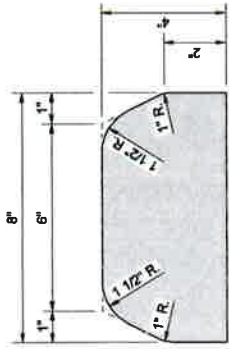
NOTES:

1. LANDSCAPING TO BE DETERMINED BY TRANSPORTATION/PARKS STAFF.
2. MONUMENT PROTECTION/PRESERVATION: RAISE MONUMENT TO GRADE IN APPROPRIATE CASING.

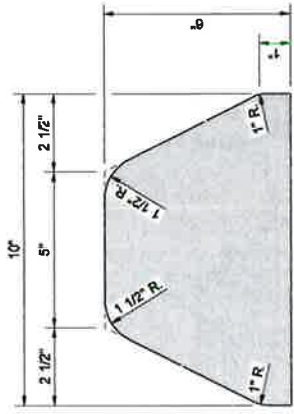
REV. FEB 2017



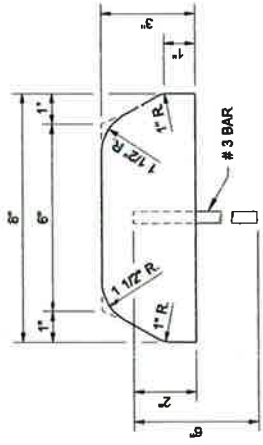
TYPE 1
(HOT MIX ASPHALT)



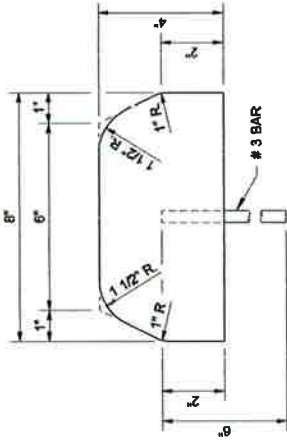
TYPE 2
(HOT MIX ASPHALT)



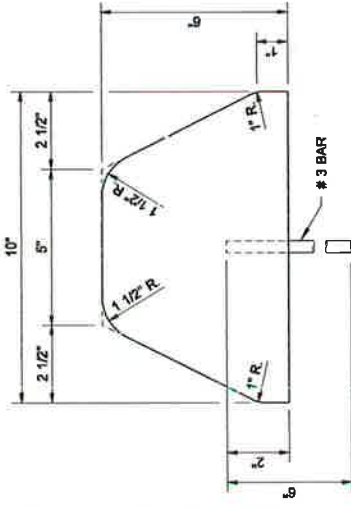
TYPE 3
(HOT MIX ASPHALT)



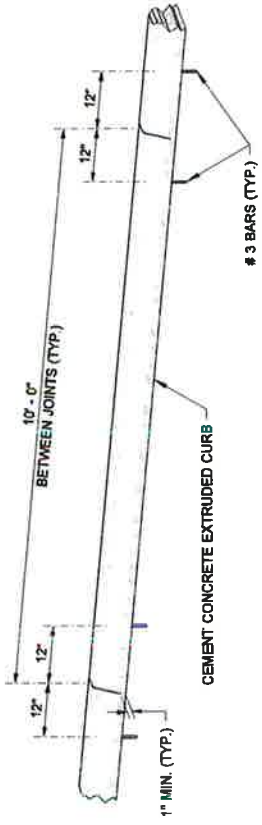
TYPE 4
(CEMENT CONCRETE)



TYPE 5
(CEMENT CONCRETE)



TYPE 6
(CEMENT CONCRETE)



CEMENT CONCRETE EXTRUDED CURB

3 BARS (TYP.)

SPACING OF ANCHOR BARS
(FOR TYPES 4, 5, AND 6)

NOTE

JOINTS MAY BE FORMED DURING INSTALLATION USING A RIGID DIVIDER OR SAWCUT AFTER CONCRETE CURES TO MINIMUM STRENGTH.



EXPIRES AUGUST 26, 2007

EXTRUDED CURB
STANDARD PLAN F-10.42-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Ken L. Smith 01-23-07
 STATE DESIGN ENGINEER DATE
 Washington State Department of Transportation

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT UNLESS IT IS REGISTERED UNDER THE ORIGINAL NUMBER BY THE ENGINEER AND APPROVED FOR PUBLICATION IN WRITING BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
 - B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
 - G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.
 - J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.
 - K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
 - M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Benefit Code Key – Effective 8/31/2019 thru 4/1/2020

Overtime Codes Continued

1. O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.
- P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.
- R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.
- S. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays and all other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.
- W. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.
- Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.
- Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

Overtime Codes Continued

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
 - C. All hours worked on Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at two times the hourly rate of wage.
 - F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.
 - G. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
 - H. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
 - O. All hours worked on Sundays and holidays shall be paid at one and one-half times the hourly rate of wage.
 - R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.
 - U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.
 - W. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The first eight (8) hours worked on the fifth day shall be paid at one and one-half times the hourly rate of wage. All other hours worked on the fifth, sixth, and seventh days and on holidays shall be paid at double the hourly rate of wage.
3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- A. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at time and one-half the straight time rate. Hours worked over twelve hours (12) in a single shift and all work performed after 6:00 pm Saturday to 6:00 am Monday and holidays shall be paid at double the straight time rate of pay. Any shift starting between the hours of 6:00 pm and midnight shall receive an additional one dollar (\$1.00) per hour for all hours worked that shift. The employer shall have the sole discretion to assign overtime work to employees. Primary consideration for overtime work shall be given to employees regularly assigned to the work to be performed on overtime situations. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
 - C. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays shall be paid at double the hourly rate of wage. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

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Overtime Codes Continued

3. E. All hours worked Sundays and holidays shall be paid at double the hourly rate of wage. Each week, once 40 hours of straight time work is achieved, then any hours worked over 10 hours per day Monday through Saturday shall be paid at double the hourly wage rate.
- F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
- H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.
- J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.
- B. All hours worked over twelve (12) hours per day and all hours worked on holidays shall be paid at double the hourly rate of wage.
- C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

Overtime Codes Continued

4. D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

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EXCEPTION:

On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

4. E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

- F. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 20% over the hourly rate of wage. All hours worked on Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- H. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.

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4. M. All hours worked on Sunday and Holidays shall be paid at double the hourly rate. Any employee reporting to work less than nine (9) hours from their previous quitting time shall be paid for such time at time and one-half times the hourly rate.
- N. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays, and all work performed between the hours of midnight (12:00 AM) and eight AM (8:00 AM) every day shall be paid at double the hourly rate of wage.
- O. All hours worked between midnight Friday to midnight Sunday shall be paid at one and one-half the hourly rate of wage. After an employee has worked in excess of eight (8) continuous hours in any one or more calendar days, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of six (6) hours or more. All hours worked on Holidays shall be paid at double the hourly rate of wage.
- P. All hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage.
- Q. The first four (4) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday shall be paid at double the hourly rate. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- R. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- S. All hours worked on Saturdays and Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.
- T. The first two (2) hours of overtime for hours worked Monday-Friday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. For work on Saturday which is scheduled prior to the end of shift on Friday, the first six (6) hours work shall be paid at one and one-half times the hourly rate of wage, and all hours over (6) shall be paid double the hourly rate of wage. For work on Saturday which was assigned following the close of shift on Friday, all work shall be paid at double the hourly rate of wage.
- U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- V. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established or outside the normal shift (5 am to 6pm), and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

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4. W. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

- X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).
- C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).
- H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).
- I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- J. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Eve Day, And Christmas Day (7).
- K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).

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- 5. L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).
- N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.
- Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).
- S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).
- T. Paid Holidays: New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, Christmas Day, And The Day Before Or After Christmas (9).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

Holiday Codes Continued

- 6. A. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- E. Paid Holidays: New Year's Day, Day Before Or After New Year's Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and a Half-Day On Christmas Eve Day. (9 1/2).
- G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).
- H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).
- I. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, And Christmas Day (7).
- T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

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7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

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7. L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- M. Paid Holidays: New Year's Day, The Day after or before New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, And the Day after or before Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- R. Paid Holidays: New Year's Day, the day after or before New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day after or before Christmas Day (10). If any of the listed holidays fall on Saturday, the preceding Friday shall be observed as the holiday. If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- T. Paid Holidays: New Year's Day, the Day after or before New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and The Day after or before Christmas Day. (10). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.
- X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken

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on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.

- 7. Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.
- Z. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

- 15. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the day before Christmas Day and Christmas Day. (8) Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- B. Holidays: New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. (9)
- C. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the day before Christmas Day and Christmas Day. (8)
- D. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, and the day after Christmas.
- E. Holidays: the day before New Years's Day, New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day. (12)

Note Codes

- 8. D. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.
- L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$0.75, Level B: \$0.50, And Level C: \$0.25.
- M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: \$1.00, Levels C & D: \$0.50.
- N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.
- P. Workers on hazmat projects receive additional hourly premiums as follows -Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, And Class D Suit \$0.50.
- Q. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

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8. S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: \$2.00, Class B Suit: \$1.50, And Class C Suit: \$1.00. Workers performing underground work receive an additional \$0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional \$0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional \$0.50 per hour.
- V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.
- Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.
- Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.
- W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.
- X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, and Class D Suit: \$0.50. Special Shift Premium: Basic hourly rate plus \$2.00 per hour.
- When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)
- Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.
- Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Benefit Code Key – Effective 8/31/2019 thru 4/1/2020

8. Z. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Note Codes Continued

9. A. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid \$0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

- (A) – 130' to 199' – \$0.50 per hour over their classification rate.
- (B) – 200' to 299' – \$0.80 per hour over their classification rate.
- (C) – 300' and over – \$1.00 per hour over their classification rate.

- B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

- C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

State of Washington
Department of Labor & Industries
 Prevailing Wage Section - Telephone 360-902-5335
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 09/17/2019

<u>County</u>	<u>Trade</u>	<u>Job Classification</u>	<u>Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>	<u>*Risk Class</u>
King	Asbestos Abatement Workers	Journey Level	\$50.86	5D	1H		View
King	Boilermakers	Journey Level	\$69.04	5N	1C		View
King	Brick Mason	Journey Level	\$58.82	5A	1M		View
King	Brick Mason	Pointer-Caulker-Cleaner	\$58.82	5A	1M		View
King	Building Service Employees	Janitor	\$25.58	5S	2F		View
King	Building Service Employees	Traveling Waxer/Shampooer	\$26.03	5S	2F		View
King	Building Service Employees	Window Cleaner (Non-Scaffold)	\$29.33	5S	2F		View
King	Building Service Employees	Window Cleaner (Scaffold)	\$30.33	5S	2F		View
King	Cabinet Makers (In Shop)	Journey Level	\$22.74		1		View
King	Carpenters	Acoustical Worker	\$62.44	7A	4C		View
King	Carpenters	Bridge, Dock And Wharf Carpenters	\$62.44	7A	4C		View
King	Carpenters	Carpenter	\$62.44	7A	4C		View
King	Carpenters	Carpenters on Stationary Tools	\$62.57	7A	4C		View
King	Carpenters	Creosoted Material	\$62.54	7A	4C		View
King	Carpenters	Floor Finisher	\$62.44	7A	4C		View
King	Carpenters	Floor Layer	\$62.44	7A	4C		View
King	Carpenters	Scaffold Erector	\$62.44	7A	4C		View
King	Cement Masons	Application of all Composition Mastic	\$62.97	7A	4U		View
King	Cement Masons	Application of all Epoxy Material	\$62.47	7A	4U		View
King	Cement Masons	Application of all Plastic Material	\$62.97	7A	4U		View
King	Cement Masons	Application of Sealing Compound	\$62.47	7A	4U		View
King	Cement Masons	Application of Underlayment	\$62.97	7A	4U		View
King	Cement Masons	Building General	\$62.47	7A	4U		View
King	Cement Masons	Composition or Kalman Floors	\$62.97	7A	4U		View
King	Cement Masons	Concrete Paving	\$62.47	7A	4U		View
King	Cement Masons	Curb & Gutter Machine	\$62.97	7A	4U		View

King	Cement Masons	Curb & Gutter, Sidewalks	\$62.47	7A	4U		View
King	Cement Masons	Curing Concrete	\$62.47	7A	4U		View
King	Cement Masons	Finish Colored Concrete	\$62.97	7A	4U		View
King	Cement Masons	Floor Grinding	\$62.97	7A	4U		View
King	Cement Masons	Floor Grinding/Polisher	\$62.47	7A	4U		View
King	Cement Masons	Green Concrete Saw, self-powered	\$62.97	7A	4U		View
King	Cement Masons	Grouting of all Plates	\$62.47	7A	4U		View
King	Cement Masons	Grouting of all Tilt-up Panels	\$62.47	7A	4U		View
King	Cement Masons	Gunite Nozzleman	\$62.97	7A	4U		View
King	Cement Masons	Hand Powered Grinder	\$62.97	7A	4U		View
King	Cement Masons	Journey Level	\$62.47	7A	4U		View
King	Cement Masons	Patching Concrete	\$62.47	7A	4U		View
King	Cement Masons	Pneumatic Power Tools	\$62.97	7A	4U		View
King	Cement Masons	Power Chipping & Brushing	\$62.97	7A	4U		View
King	Cement Masons	Sand Blasting Architectural Finish	\$62.97	7A	4U		View
King	Cement Masons	Screed & Rodding Machine	\$62.97	7A	4U		View
King	Cement Masons	Spackling or Skim Coat Concrete	\$62.47	7A	4U		View
King	Cement Masons	Troweling Machine Operator	\$62.97	7A	4U		View
King	Cement Masons	Troweling Machine Operator on Colored Slabs	\$62.97	7A	4U		View
King	Cement Masons	Tunnel Workers	\$62.97	7A	4U		View
King	Divers & Tenders	Bell/Vehicle or Submersible Operator (Not Under Pressure)	\$116.20	7A	4C		View
King	Divers & Tenders	Dive Supervisor/Master	\$79.23	7A	4C		View
King	Divers & Tenders	Diver	\$116.20	7A	4C	8V	View
King	Divers & Tenders	Diver On Standby	\$74.23	7A	4C		View
King	Divers & Tenders	Diver Tender	\$67.31	7A	4C		View
King	Divers & Tenders	Manifold Operator	\$67.31	7A	4C		View
King	Divers & Tenders	Manifold Operator Mixed Gas	\$72.31	7A	4C		View
King	Divers & Tenders	Remote Operated Vehicle Operator/Technician	\$67.31	7A	4C		View
King	Divers & Tenders	Remote Operated Vehicle Tender	\$67.31	7A	4C		View
King	Dredge Workers	Assistant Engineer	\$56.44	5D	3F		View
King	Dredge Workers	Assistant Mate (Deckhand)	\$56.00	5D	3F		View
King	Dredge Workers	Boatmen	\$56.44	5D	3F		View
King	Dredge Workers	Engineer Welder	\$57.51	5D	3F		View
King	Dredge Workers	Leverman, Hydraulic	\$58.67	5D	3F		View
King	Dredge Workers	Mates	\$56.44	5D	3F		View
King	Dredge Workers	Oiler	\$56.00	5D	3F		View
King	Drywall Applicator	Journey Level	\$62.44	5D	1H		View
King	Drywall Tapers	Journey Level	\$62.94	5P	1E		View
King		Journey Level	\$30.59	5L	1E		View

	<u>Electrical Fixture Maintenance Workers</u>						
King	<u>Electricians - Inside</u>	Cable Splicer	\$83.17	<u>7C</u>	<u>4E</u>		View
King	<u>Electricians - Inside</u>	Cable Splicer (tunnel)	\$89.34	<u>7C</u>	<u>4E</u>		View
King	<u>Electricians - Inside</u>	Certified Welder	\$80.36	<u>7C</u>	<u>4E</u>		View
King	<u>Electricians - Inside</u>	Certified Welder (tunnel)	\$86.25	<u>7C</u>	<u>4E</u>		View
King	<u>Electricians - Inside</u>	Construction Stock Person	\$41.48	<u>7C</u>	<u>4E</u>		View
King	<u>Electricians - Inside</u>	Journey Level	\$77.55	<u>7C</u>	<u>4E</u>		View
King	<u>Electricians - Inside</u>	Journey Level (tunnel)	\$83.17	<u>7C</u>	<u>4E</u>		View
King	<u>Electricians - Motor Shop</u>	Journey Level	\$45.08	<u>5A</u>	<u>1B</u>		View
King	<u>Electricians - Powerline Construction</u>	Cable Splicer	\$79.60	<u>5A</u>	<u>4D</u>		View
King	<u>Electricians - Powerline Construction</u>	Certified Line Welder	\$72.98	<u>5A</u>	<u>4D</u>		View
King	<u>Electricians - Powerline Construction</u>	Groundperson	\$47.94	<u>5A</u>	<u>4D</u>		View
King	<u>Electricians - Powerline Construction</u>	Heavy Line Equipment Operator	\$72.98	<u>5A</u>	<u>4D</u>		View
King	<u>Electricians - Powerline Construction</u>	Journey Level Lineperson	\$72.98	<u>5A</u>	<u>4D</u>		View
King	<u>Electricians - Powerline Construction</u>	Line Equipment Operator	\$62.06	<u>5A</u>	<u>4D</u>		View
King	<u>Electricians - Powerline Construction</u>	Meter Installer	\$47.94	<u>5A</u>	<u>4D</u>	<u>8W</u>	View
King	<u>Electricians - Powerline Construction</u>	Pole Sprayer	\$72.98	<u>5A</u>	<u>4D</u>		View
King	<u>Electricians - Powerline Construction</u>	Powderperson	\$54.55	<u>5A</u>	<u>4D</u>		View
King	<u>Electronic Technicians</u>	Journey Level	\$51.07	<u>7E</u>	<u>1E</u>		View
King	<u>Elevator Constructors</u>	Mechanic	\$94.22	<u>7D</u>	<u>4A</u>		View
King	<u>Elevator Constructors</u>	Mechanic In Charge	\$101.73	<u>7D</u>	<u>4A</u>		View
King	<u>Fabricated Precast Concrete Products</u>	All Classifications - In-Factory Work Only	\$18.25	<u>5B</u>	<u>1R</u>		View
King	<u>Fence Erectors</u>	Fence Erector	\$43.11	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	<u>Fence Erectors</u>	Fence Laborer	\$43.11	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	<u>Flaggers</u>	Journey Level	\$43.11	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	<u>Glaziers</u>	Journey Level	\$66.51	<u>7L</u>	<u>1Y</u>		View
King	<u>Heat & Frost Insulators And Asbestos Workers</u>	Journeyman	\$76.61	<u>5J</u>	<u>4H</u>		View
King	<u>Heating Equipment Mechanics</u>	Journey Level	\$85.88	<u>7F</u>	<u>1E</u>		View
King	<u>Hod Carriers & Mason Tenders</u>	Journey Level	\$52.44	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	<u>Industrial Power Vacuum Cleaner</u>	Journey Level	\$12.00		<u>1</u>		View
King	<u>Inland Boatmen</u>	Boat Operator	\$61.41	<u>5B</u>	<u>1K</u>		View
King	<u>Inland Boatmen</u>	Cook	\$56.48	<u>5B</u>	<u>1K</u>		View
King	<u>Inland Boatmen</u>	Deckhand	\$57.48	<u>5B</u>	<u>1K</u>		View
King	<u>Inland Boatmen</u>	Deckhand Engineer	\$58.81	<u>5B</u>	<u>1K</u>		View

King	Inland Boatmen	Launch Operator	\$58.89	<u>5B</u>	<u>1K</u>		View
King	Inland Boatmen	Mate	\$57.31	<u>5B</u>	<u>1K</u>		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	\$31.49		<u>1</u>		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$12.00		<u>1</u>		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$24.91		<u>1</u>		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$19.33		<u>1</u>		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	\$20.45		<u>1</u>		View
King	Insulation Applicators	Journey Level	\$62.44	<u>7A</u>	<u>4C</u>		View
King	Ironworkers	Journeyman	\$72.18	<u>7N</u>	<u>1O</u>		View
King	Laborers	Air, Gas Or Electric Vibrating Screed	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Airtrac Drill Operator	\$52.44	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Ballast Regular Machine	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Batch Weighman	\$43.11	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Brick Pavers	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Brush Cutter	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Brush Hog Feeder	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Burner	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Caisson Worker	\$52.44	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Carpenter Tender	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Cement Dumper-paving	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Cement Finisher Tender	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Change House Or Dry Shack	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Chipping Gun (30 Lbs. And Over)	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Chipping Gun (Under 30 Lbs.)	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Choker Setter	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Chuck Tender	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Clary Power Spreader	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Clean-up Laborer	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Concrete Dumper/Chute Operator	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Concrete Form Stripper	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Concrete Placement Crew	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Concrete Saw Operator/Core Driller	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Crusher Feeder	\$43.11	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View
King	Laborers	Curing Laborer	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	View

King	Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	\$50.86	7A	4V	8Y	View
King	Laborers	Ditch Digger	\$50.86	7A	4V	8Y	View
King	Laborers	Diver	\$52.44	7A	4V	8Y	View
King	Laborers	Drill Operator (Hydraulic, Diamond)	\$51.80	7A	4V	8Y	View
King	Laborers	Dry Stack Walls	\$50.86	7A	4V	8Y	View
King	Laborers	Dump Person	\$50.86	7A	4V	8Y	View
King	Laborers	Epoxy Technician	\$50.86	7A	4V	8Y	View
King	Laborers	Erosion Control Worker	\$50.86	7A	4V	8Y	View
King	Laborers	Faller & Bucker Chain Saw	\$51.80	7A	4V	8Y	View
King	Laborers	Fine Graders	\$50.86	7A	4V	8Y	View
King	Laborers	Firewatch	\$43.11	7A	4V	8Y	View
King	Laborers	Form Setter	\$50.86	7A	4V	8Y	View
King	Laborers	Gabian Basket Builders	\$50.86	7A	4V	8Y	View
King	Laborers	General Laborer	\$50.86	7A	4V	8Y	View
King	Laborers	Grade Checker & Transit Person	\$52.44	7A	4V	8Y	View
King	Laborers	Grinders	\$50.86	7A	4V	8Y	View
King	Laborers	Grout Machine Tender	\$50.86	7A	4V	8Y	View
King	Laborers	Groutmen (Pressure) Including Post Tension Beams	\$51.80	7A	4V	8Y	View
King	Laborers	Guardrail Erector	\$50.86	7A	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level A)	\$52.44	7A	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level B)	\$51.80	7A	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level C)	\$50.86	7A	4V	8Y	View
King	Laborers	High Scaler	\$52.44	7A	4V	8Y	View
King	Laborers	Jackhammer	\$51.80	7A	4V	8Y	View
King	Laborers	Laserbeam Operator	\$51.80	7A	4V	8Y	View
King	Laborers	Maintenance Person	\$50.86	7A	4V	8Y	View
King	Laborers	Manhole Builder-Mudman	\$51.80	7A	4V	8Y	View
King	Laborers	Material Yard Person	\$50.86	7A	4V	8Y	View
King	Laborers	Motorman-Dinky Locomotive	\$51.80	7A	4V	8Y	View
King	Laborers	Nozzleman (Concrete Pump, Green Cutter When Using Combination Of High Pressure Air & Water On Concrete & Rock, Sandblast, Gunite, Shotcrete, Water Blaster, Vacuum Blaster)	\$51.80	7A	4V	8Y	View
King	Laborers	Pavement Breaker	\$51.80	7A	4V	8Y	View
King	Laborers	Pilot Car	\$43.11	7A	4V	8Y	View
King	Laborers	Pipe Layer Lead	\$52.44	7A	4V	8Y	View
King	Laborers	Pipe Layer/Tailor	\$51.80	7A	4V	8Y	View

King	Laborers	Pipe Pot Tender	\$51.80	7A	4V	8Y	View
King	Laborers	Pipe Reliner	\$51.80	7A	4V	8Y	View
King	Laborers	Pipe Wrapper	\$51.80	7A	4V	8Y	View
King	Laborers	Pot Tender	\$50.86	7A	4V	8Y	View
King	Laborers	Powderman	\$52.44	7A	4V	8Y	View
King	Laborers	Powderman's Helper	\$50.86	7A	4V	8Y	View
King	Laborers	Power Jacks	\$51.80	7A	4V	8Y	View
King	Laborers	Railroad Spike Puller - Power	\$51.80	7A	4V	8Y	View
King	Laborers	Raker - Asphalt	\$52.44	7A	4V	8Y	View
King	Laborers	Re-timberman	\$52.44	7A	4V	8Y	View
King	Laborers	Remote Equipment Operator	\$51.80	7A	4V	8Y	View
King	Laborers	Rigger/Signal Person	\$51.80	7A	4V	8Y	View
King	Laborers	Rip Rap Person	\$50.86	7A	4V	8Y	View
King	Laborers	Rivet Buster	\$51.80	7A	4V	8Y	View
King	Laborers	Rodder	\$51.80	7A	4V	8Y	View
King	Laborers	Scaffold Erector	\$50.86	7A	4V	8Y	View
King	Laborers	Scale Person	\$50.86	7A	4V	8Y	View
King	Laborers	Sloper (Over 20")	\$51.80	7A	4V	8Y	View
King	Laborers	Sloper Sprayer	\$50.86	7A	4V	8Y	View
King	Laborers	Spreader (Concrete)	\$51.80	7A	4V	8Y	View
King	Laborers	Stake Hopper	\$50.86	7A	4V	8Y	View
King	Laborers	Stock Piler	\$50.86	7A	4V	8Y	View
King	Laborers	Swinging Stage/Boatswain Chair	\$43.11	7A	4V	8Y	View
King	Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	\$51.80	7A	4V	8Y	View
King	Laborers	Tamper (Multiple & Self-propelled)	\$51.80	7A	4V	8Y	View
King	Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$51.80	7A	4V	8Y	View
King	Laborers	Toolroom Person (at Jobsite)	\$50.86	7A	4V	8Y	View
King	Laborers	Topper	\$50.86	7A	4V	8Y	View
King	Laborers	Track Laborer	\$50.86	7A	4V	8Y	View
King	Laborers	Track Liner (Power)	\$51.80	7A	4V	8Y	View
King	Laborers	Traffic Control Laborer	\$46.10	7A	4V	9C	View
King	Laborers	Traffic Control Supervisor	\$46.10	7A	4V	9C	View
King	Laborers	Truck Spotter	\$50.86	7A	4V	8Y	View
King	Laborers	Tugger Operator	\$51.80	7A	4V	8Y	View
King	Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	\$120.61	7A	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$125.64	7A	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$129.32	7A	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$135.02	7A	4V	9B	View
King	Laborers		\$137.14	7A	4V	9B	View

		Tunnel Work-Compressed Air Worker 60.01-64.00 psi					
King	Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$142.24	7A	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$144.14	7A	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$146.14	7A	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$148.14	7A	4V	9B	View
King	Laborers	Tunnel Work-Guage and Lock Tender	\$52.54	7A	4V	8Y	View
King	Laborers	Tunnel Work-Guage and Lock Tender	\$52.54	7A	4V	8Y	View
King	Laborers	Vibrator	\$51.80	7A	4V	8Y	View
King	Laborers	Vinyl Seamer	\$50.86	7A	4V	8Y	View
King	Laborers	Watchman	\$39.18	7A	4V	8Y	View
King	Laborers	Welder	\$51.80	7A	4V	8Y	View
King	Laborers	Well Point Laborer	\$51.80	7A	4V	8Y	View
King	Laborers	Window Washer/Cleaner	\$39.18	7A	4V	8Y	View
King	Laborers - Underground Sewer & Water	General Laborer & Topman	\$50.86	7A	4V	8Y	View
King	Laborers - Underground Sewer & Water	Pipe Layer	\$51.80	7A	4V	8Y	View
King	Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	\$39.18	7A	4V	8Y	View
King	Landscape Construction	Landscape Operator	\$68.02	7A	3K	8X	View
King	Landscape Maintenance	Groundskeeper	\$17.87		1		View
King	Lathers	Journey Level	\$62.44	5D	1H		View
King	Marble Setters	Journey Level	\$58.82	5A	1M		View
King	Metal Fabrication (In Shop)	Fitter	\$15.86		1		View
King	Metal Fabrication (In Shop)	Laborer	\$12.00		1		View
King	Metal Fabrication (In Shop)	Machine Operator	\$13.04		1		View
King	Metal Fabrication (In Shop)	Painter	\$12.00		1		View
King	Metal Fabrication (In Shop)	Welder	\$15.48		1		View
King	Millwright	Journey Level	\$63.94	7A	4C		View
King	Modular Buildings	Cabinet Assembly	\$12.00		1		View
King	Modular Buildings	Electrician	\$12.00		1		View
King	Modular Buildings	Equipment Maintenance	\$12.00		1		View
King	Modular Buildings	Plumber	\$12.00		1		View
King	Modular Buildings	Production Worker	\$12.00		1		View
King	Modular Buildings	Tool Maintenance	\$12.00		1		View
King	Modular Buildings	Utility Person	\$12.00		1		View
King	Modular Buildings	Welder	\$12.00		1		View
King	Painters	Journey Level	\$43.40	6Z	2B		View
King	Pile Driver	Crew Tender	\$67.31	7A	4C		View
King	Pile Driver	Crew Tender/Technician	\$67.31	7A	4C		View

King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$77.93	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$82.93	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$86.93	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$91.93	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$94.43	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$99.43	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$101.43	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$103.43	7A	4C		View
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$105.43	7A	4C		View
King	Pile Driver	Journey Level	\$62.69	7A	4C		View
King	Plasterers	Journey Level	\$59.42	7Q	1R		View
King	Playground & Park Equipment Installers	Journey Level	\$12.00		1		View
King	Plumbers & Pipefitters	Journey Level	\$87.69	6Z	1G		View
King	Power Equipment Operators	Asphalt Plant Operators	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Assistant Engineer	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Barrier Machine (zipper)	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Batch Plant Operator: concrete	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Bobcat	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Brokk - Remote Demolition Equipment	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Brooms	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Bump Cutter	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Cableways	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Chipper	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Compressor	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Concrete Finish Machine - Laser Screed	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$68.02	7A	3K	8X	View
King	Power Equipment Operators		\$69.16	7A	3K	8X	View

		Concrete Pump: Truck Mount With Boom Attachment Over 42 M					
King	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Conveyors	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Cranes friction: 200 tons and over	\$71.26	7A	3K	8X	View
King	Power Equipment Operators	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$69.85	7A	3K	8X	View
King	Power Equipment Operators	Cranes: 20 Tons Through 44 Tons With Attachments	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$70.57	7A	3K	8X	View
King	Power Equipment Operators	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$71.26	7A	3K	8X	View
King	Power Equipment Operators	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Cranes: A-frame - 10 Tons And Under	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Cranes: Friction cranes through 199 tons	\$70.57	7A	3K	8X	View
King	Power Equipment Operators	Cranes: through 19 tons with attachments, A-frame over 10 tons	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Crusher	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Deck Engineer/Deck Winches (power)	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Derricks, On Building Work	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Dozers D-9 & Under	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Drilling Machine	\$69.85	7A	3K	8X	View
King	Power Equipment Operators	Elevator And Man-lift: Permanent And Shaft Type	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Forklift: 3000 Lbs And Over With Attachments	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Forklifts: Under 3000 Lbs. With Attachments	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Gradechecker/Stakeman	\$65.05	7A	3K	8X	View

King	Power Equipment Operators	Guardrail Punch	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Horizontal/Directional Drill Locator	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Horizontal/Directional Drill Operator	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Hydralifts/Boom Trucks, 10 Tons And Under	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Loader, Overhead 8 Yards. & Over	\$69.85	7A	3K	8X	View
King	Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Loaders, Overhead Under 6 Yards	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Loaders, Plant Feed	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Loaders: Elevating Type Belt	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Locomotives, All	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Material Transfer Device	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic)	\$69.85	7A	3K	8X	View
King	Power Equipment Operators	Motor Patrol Graders	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Outside Hoists (Elevators And Manlifts), Air Tuggers, Strato	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Overhead, Bridge Type: 100 Tons And Over	\$69.85	7A	3K	8X	View
King	Power Equipment Operators	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Pavement Breaker	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Pile Driver (other Than Crane Mount)	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Plant Oiler - Asphalt, Crusher	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Posthole Digger, Mechanical	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Power Plant	\$65.05	7A	3K	8X	View

King	Power Equipment Operators	Pumps - Water	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Quad 9, Hd 41, D10 And Over	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Rigger and Bellman	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Rigger/Signal Person, Bellman (Certified)	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Rollagon	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Roller, Other Than Plant Mix	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Roto-mill, Roto-grinder	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Saws - Concrete	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Scrapers - Concrete & Carry All	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Service Engineers - Equipment	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Shotcrete/Gunite Equipment	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$69.85	7A	3K	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$70.57	7A	3K	8X	View
King	Power Equipment Operators	Slipform Pavers	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Spreader, Topsider & Screedman	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Subgrader Trimmer	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Tower Bucket Elevators	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Tower Crane Up To 175' In Height Base To Boom	\$69.85	7A	3K	8X	View
King	Power Equipment Operators	Tower Crane: over 175' through 250' in height, base to boom	\$70.57	7A	3K	8X	View

King	Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	\$71.26	7A	3K	8X	View
King	Power Equipment Operators	Transporters, All Track Or Truck Type	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Trenching Machines	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Truck Crane Oiler/driver - 100 Tons And Over	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Truck Crane Oiler/Driver Under 100 Tons	\$68.02	7A	3K	8X	View
King	Power Equipment Operators	Truck Mount Portable Conveyor	\$68.55	7A	3K	8X	View
King	Power Equipment Operators	Welder	\$69.16	7A	3K	8X	View
King	Power Equipment Operators	Wheel Tractors, Farmall Type	\$65.05	7A	3K	8X	View
King	Power Equipment Operators	Yo Yo Pay Dozer	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Asphalt Plant Operators	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Assistant Engineer	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Barrier Machine (zipper)	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Batch Plant Operator, Concrete	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Bobcat	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Brokk - Remote Demolition Equipment	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Brooms	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Bump Cutter	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cableways	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Chipper	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Compressor	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Finish Machine - Laser Screed	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Conveyors	\$68.02	7A	3K	8X	View
King			\$71.26	7A	3K	8X	View

	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes friction: 200 tons and over					
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$69.85	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: 20 Tons Through 44 Tons With Attachments	\$68.55	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$70.57	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$71.26	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$69.16	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: A-frame - 10 Tons And Under	\$65.05	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: Friction cranes through 199 tons	\$70.57	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Cranes: through 19 tons with attachments, A-frame over 10 tons	\$68.02	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Crusher	\$68.55	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Deck Engineer /Deck Winches (power)	\$68.55	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Derricks, On Building Work	\$69.16	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Dozers D-9 & Under	\$68.02	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$68.02	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Drilling Machine	\$69.85	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Elevator And Man-lift: Permanent And Shaft Type	\$65.05	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$68.55	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Forklift: 3000 Lbs And Over With Attachments	\$68.02	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Forklifts: Under 3000 Lbs. With Attachments	\$65.05	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$68.55	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Gradechecker/Stakeman	\$65.05	7A	3K	8X	View
King	<u>Power Equipment Operators- Underground Sewer & Water</u>	Guardrail Punch	\$68.55	7A	3K	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Locator	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Operator	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hydralifts/Boom Trucks Over 10 Tons	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hydralifts/Boom Trucks, 10 Tons And Under	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead 8 Yards. & Over	\$69.85	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders, Overhead Under 6 Yards	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders, Plant Feed	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders: Elevating Type Belt	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Locomotives, All	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Material Transfer Device	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic)	\$69.85	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Motor Patrol Graders	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Outside Hoists (Elevators And Manlifts), Air Tuggers, Strato	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type: 100 Tons And Over	\$69.85	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pavement Breaker	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pile Driver (other Than Crane Mount)	\$68.55	7A	3K	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Posthole Digger, Mechanical	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Power Plant	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pumps - Water	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rigger and Bellman	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rigger/Signal Person, Bellman (Certified)	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rollagon	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roller, Other Than Plant Mix	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roto-mill, Roto-grinder	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Saws - Concrete	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Scrapers - Concrete & Carry All	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Service Engineers - Equipment	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shotcrete/Gunite Equipment	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$69.85	7A	3K	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$70.57	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Slipform Pavers	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Spreader, Topsider & Screedman	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Subgrader Trimmer	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Bucket Elevators	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Crane Up To 175' In Height Base To Boom	\$69.85	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Crane: over 175' through 250' in height, base to boom	\$70.57	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	\$71.26	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Transporters, All Track Or Truck Type	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Trenching Machines	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/driver - 100 Tons And Over	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/Driver Under 100 Tons	\$68.02	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Mount Portable Conveyor	\$68.55	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Welder	\$69.16	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Wheel Tractors, Farmall Type	\$65.05	7A	3K	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Yo Yo Pay Dozer	\$68.55	7A	3K	8X	View
King	Power Line Clearance Tree Trimmers	Journey Level In Charge	\$50.96	5A	4A		View
King	Power Line Clearance Tree Trimmers	Spray Person	\$48.35	5A	4A		View
King	Power Line Clearance Tree Trimmers	Tree Equipment Operator	\$50.96	5A	4A		View
King	Power Line Clearance Tree Trimmers	Tree Trimmer	\$45.54	5A	4A		View
King	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	\$34.51	5A	4A		View
King	Refrigeration & Air Conditioning Mechanics	Journey Level	\$82.51	6Z	1G		View
King	Residential Brick Mason	Journey Level	\$58.82	5A	1M		View
King	Residential Carpenters	Journey Level	\$32.06		1		View
King	Residential Cement Masons	Journey Level	\$29.25		1		View
King	Residential Drywall Applicators	Journey Level	\$46.43	7A	4C		View
King	Residential Drywall Tapers	Journey Level	\$47.17	5P	1E		View

King	Residential Electricians	Journey Level	\$36.01		<u>1</u>	View
King	Residential Glaziers	Journey Level	\$44.15	<u>7L</u>	<u>1H</u>	View
King	Residential Insulation Applicators	Journey Level	\$29.87		<u>1</u>	View
King	Residential Laborers	Journey Level	\$26.18		<u>1</u>	View
King	Residential Marble Setters	Journey Level	\$27.38		<u>1</u>	View
King	Residential Painters	Journey Level	\$27.80		<u>1</u>	View
King	Residential Plumbers & Pipefitters	Journey Level	\$39.43		<u>1</u>	View
King	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$54.12	<u>5A</u>	<u>1G</u>	View
King	Residential Sheet Metal Workers	Journey Level (Field or Shop)	\$51.89	<u>7F</u>	<u>1R</u>	View
King	Residential Soft Floor Layers	Journey Level	\$51.07	<u>5A</u>	<u>3J</u>	View
King	Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$48.18	<u>5C</u>	<u>2R</u>	View
King	Residential Stone Masons	Journey Level	\$58.82	<u>5A</u>	<u>1M</u>	View
King	Residential Terrazzo Workers	Journey Level	\$54.06	<u>5A</u>	<u>1M</u>	View
King	Residential Terrazzo/Tile Finishers	Journey Level	\$24.39		<u>1</u>	View
King	Residential Tile Setters	Journey Level	\$21.04		<u>1</u>	View
King	Roofers	Journey Level	\$53.27	<u>5A</u>	<u>3H</u>	View
King	Roofers	Using Irritable Bituminous Materials	\$56.27	<u>5A</u>	<u>3H</u>	View
King	Sheet Metal Workers	Journey Level (Field or Shop)	\$85.88	<u>7F</u>	<u>1E</u>	View
King	Shipbuilding & Ship Repair	New Construction Boilermaker	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Carpenter	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Crane Operator	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Electrician	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	\$76.61	<u>5J</u>	<u>4H</u>	View
King	Shipbuilding & Ship Repair	New Construction Laborer	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Machinist	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Operating Engineer	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Painter	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Pipefitter	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Rigger	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Sheet Metal	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Shipfitter	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	New Construction Welder / Burner	\$36.36	<u>7V</u>	<u>1</u>	View
King	Shipbuilding & Ship Repair	Ship Repair Boilermaker	\$46.15	<u>7X</u>	<u>4J</u>	View

King	Shipbuilding & Ship Repair	Ship Repair Carpenter	\$44.95	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Crane Operator	\$45.06	7Y	4K		View
King	Shipbuilding & Ship Repair	Ship Repair Electrician	\$46.15	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	\$76.61	5J	4H		View
King	Shipbuilding & Ship Repair	Ship Repair Laborer	\$46.15	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Machinist	\$46.15	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Operating Engineer	\$45.06	7Y	4K		View
King	Shipbuilding & Ship Repair	Ship Repair Painter	\$46.15	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Pipefitter	\$46.15	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Rigger	\$46.15	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Sheet Metal	\$46.15	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Shipwright	\$44.95	7X	4J		View
King	Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	\$45.06	7Y	4K		View
King	Sign Makers & Installers (Electrical)	Journey Level	\$50.90	0	1		View
King	Sign Makers & Installers (Non-Electrical)	Journey Level	\$31.52	0	1		View
King	Soft Floor Layers	Journey Level	\$51.07	5A	3J		View
King	Solar Controls For Windows	Journey Level	\$12.44		1		View
King	Sprinkler Fitters (Fire Protection)	Journey Level	\$81.39	5C	1X		View
King	Stage Rigging Mechanics (Non Structural)	Journey Level	\$13.23		1		View
King	Stone Masons	Journey Level	\$58.82	5A	1M		View
King	Street And Parking Lot Sweeper Workers	Journey Level	\$19.09		1		View
King	Surveyors	Assistant Construction Site Surveyor	\$62.71	7A	3K	8X	View
King	Surveyors	Assistant Construction Site Surveyor	\$62.71	7A	3K	8X	View
King	Surveyors	Chainman	\$58.93	7A	3C	8P	View
King	Surveyors	Construction Site Surveyor	\$63.76	7A	3K	8X	View
King	Telecommunication Technicians	Journey Level	\$51.07	7E	1E		View
King	Telephone Line Construction - Outside	Cable Splicer	\$41.81	5A	2B		View
King	Telephone Line Construction - Outside	Hole Digger/Ground Person	\$23.53	5A	2B		View
King	Telephone Line Construction - Outside	Installer (Repairer)	\$40.09	5A	2B		View
King	Telephone Line Construction - Outside	Special Aparatus Installer I	\$41.81	5A	2B		View
King	Telephone Line Construction - Outside	Special Apparatus Installer II	\$40.99	5A	2B		View
King	Telephone Line Construction - Outside	Telephone Equipment Operator (Heavy)	\$41.81	5A	2B		View

King	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$38.92	5A	2B		View
King	Telephone Line Construction - Outside	Telephone Lineperson	\$38.92	5A	2B		View
King	Telephone Line Construction - Outside	Television Groundperson	\$22.32	5A	2B		View
King	Telephone Line Construction - Outside	Television Lineperson/Installer	\$29.60	5A	2B		View
King	Telephone Line Construction - Outside	Television System Technician	\$35.20	5A	2B		View
King	Telephone Line Construction - Outside	Television Technician	\$31.67	5A	2B		View
King	Telephone Line Construction - Outside	Tree Trimmer	\$38.92	5A	2B		View
King	Terrazzo Workers	Journey Level	\$54.06	5A	1M		View
King	Tile Setters	Journey Level	\$54.06	5A	1M		View
King	Tile, Marble & Terrazzo Finishers	Finisher	\$44.89	5A	1B		View
King	Traffic Control Stripers	Journey Level	\$47.68	7A	1K		View
King	Truck Drivers	Asphalt Mix Over 16 Yards	\$61.59	5D	4Y	8L	View
King	Truck Drivers	Asphalt Mix Over 16 Yards (W. WA-Joint Council 28)	\$61.59	5D	4Y	8L	View
King	Truck Drivers	Asphalt Mix Over 16 Yards (W. WA-Joint Council 28)	\$60.75	5D	4Y	8L	View
King	Truck Drivers	Asphalt Mix To 16 Yards	\$60.75	5D	4Y	8L	View
King	Truck Drivers	Asphalt Mix To 16 Yards (W. WA-Joint Council 28)	\$60.75	5D	4Y	8L	View
King	Truck Drivers	Dump Truck	\$60.75	5D	4Y	8L	View
King	Truck Drivers	Dump Truck & Trailer	\$61.59	5D	4Y	8L	View
King	Truck Drivers	Dump Truck & Trailer	\$60.75	5D	4Y	8L	View
King	Truck Drivers	Dump Truck (W. WA-Joint Council 28)	\$60.75	5D	4Y	8L	View
King	Truck Drivers	Other Trucks	\$61.59	5D	4Y	8L	View
King	Truck Drivers	Other Trucks (W. WA-Joint Council 28)	\$61.59	5D	4Y	8L	View
King	Truck Drivers	Other Trucks (W. WA-Joint Council 28)	\$60.75	5D	4Y	8L	View
King	Truck Drivers - Ready Mix	Dump Trucks, side end and bottom dump, including semi-trucks and trains or combinations thereof: Less than 16 yd. capacity	\$60.75	5D	4Y	8L	View
King	Truck Drivers - Ready Mix	Transit Mix	\$61.59	5D	4Y	8L	View
King	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	\$17.71		1		View
King	Well Drillers & Irrigation Pump Installers	Oiler	\$12.97		1		View
King	Well Drillers & Irrigation Pump Installers	Well Driller	\$18.00		1		View

