CITY OF
Federal Way

BID AND CONTRACT DOCUMENTS
AND SPECIFICATIONS
FOR

SR 99 AT S 373RD ST ROUNDABOUT & ACCESS MANAGEMENT

PROJECT # 36224
RFB # 26-012
TIB # 8-1-113(014)-1

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

UNOFFICIAL COPY Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com

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Bids Accepted Until 2:00 p.m., October 22, 2026 at
City of Federal Way
33325 8th Avenue South
Federal Way, WA 98003

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

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

Public Works Director / Deputy Public Works Director

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ADVERTISEMENT FOR BIDS
SR 99 AT S 373RD ST ROUNDABOUT AND ACCESS MANAGEMENT

SUBMITTAL OF SEALED BIDS: Notice is hereby given that the City of Federal Way will receive sealed bids through October 22, 2026, at 2:00 p.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 City Council Chambers, City Hall 33325 8th Avenue South, Federal Way, Washington 98003 at 2:05 p.m. on October 22, 2026.

This project shall consist of: Installation of a multi-lane roundabout at the intersection of SR 99 and S 373rd Street and concrete barrier for access management, roadway grading, stormwater drainage, islands, curb, channelization, signing, landscaping, roadway lighting, and other work, all in accordance with the attached Contract Plans, the Contract Provisions, and the Standard Specifications.

The City anticipates awarding this project to the successful bidder and intends to give Notice to Proceed as soon as the Contract and all required documents are executed in full. Regardless of the date of award or Notice to Proceed, the Contractor must complete all work within 170 WORKING DAYS.

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

QUESTIONS: Any questions must be directed to JOHN COLE, CIVIL ENGINEER, by email at JOHN.COLE@CITYOFFEDERALWAYWA.GOV, 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.

PRE-BID MEETING: An informational meeting will be held Thursday, October 8, 2026, at 2:30 p.m. at Hylebos Room, City Hall, 33325 8th Avenue S, Federal Way, Washington, to discuss the project. All prospective bidders are strongly encouraged to attend.

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 2026 (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 recipient, in accordance with Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color or national origin 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.

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DATES OF PUBLICATION:

Daily Journal of Commerce	Publish September 25, 2026 , October 2, 2026 and October 9, 2026
Federal Way Mirror	Publish September 25, 2026, October 2, 2026 and October 9, 2026

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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 JOHN COLE, CIVIL ENGINEER, by email at JOHN.COLE@CITYOFFEDERALWAYWA.GOV, 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

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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.
- ☐ **Retainage Option:** This form shall be filled in and executed by the bidder to inform the City of their Retainage Option in the event they are the lowest, responsive, responsible 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 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.
- ☐ **NPDES Transfer of Coverage Form:** The successful bidder will provide the filled-in Transfer of Coverage Form provided by the City.

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BID PROPOSAL
SR 99 AT S 373RD ST ROUNDABOUT AND ACCESS MANAGEMENT

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
- □ Limited Liability Company/Partnership
- □ Individual
- □ Other

State Contractor's License No.: _____

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

State UBI No.: _____

Employment Security Department No.: _____

Labor and Industries Department Account, ID No.: _____

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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: ROADWAY IMPROVEMENTS
(Base Bid)

All unit prices shall include applicable sales tax (Roadway Improvements)

Item No.	Spec. Div.	Bid Item Description	Unit	Plan Quantity	Unit Price	Amount
DIVISION 1 – GENERAL REQUIREMENTS						
A1	1-04.4	Minor Changes	FA	1	$ 25,000	$ 25,000
A2	1-05.4 SP	Roadway Surveying	LS	1	$	$
A3	1-05.4 SP	ADA Feature Surveying	LS	1	$	$
A4	1-05.17 SP	As-Built Survey and Record Drawings	LS	1	$	$
A5	1-06.2 SP	Material Testing	LS	1	$	$
A6	1-07.9(3) SP	Apprenticeship Incentive / Penalty	CALC	1	$ 2,000	$ 2,000
A7	1-07.15(1)	SPCC Plan	LS	1	$	$
DIVISION 2 – TEMPORARY FEATURES						
A8	2-01.5	Mobilization	LS	1	$	$
A9	2-02.5	Settlement and Vibration Monitoring	LS	1	$	$
A10	2-04.5	Traffic Control Supervisor	LS	1	$	$
A11	2-04.5	Pedestrian Traffic Control	LS	1	$	$
A12	2-04.5	Flaggers	HR	500	$	$
A13	2-04.5	Other Traffic Control Labor	HR	2,800	$	$
A14	2-04.5	Sequential Arrow Sign	HR	2,000	$	$

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A15	2-04.5	Transportable Attenuator	HR	2,000	$	$
A16	2-04.5	Other Temporary Traffic Control Devices	LS	1	$	$
A17	2-04.5(2) SP	Work Zone Safety Contigency	FA	1	$ 50,000	$ 50,000
DIVISION 3 – EARTHWORK						
A18	3-01.5	Roadside Cleanup	FA	1	$ 10,000	$ 10,000
A19	3-01.5 SP	Clearing and Grubbing	LS	1	$	$
A20	3-02.5 SP	Removal of Structures and Obstructions	LS	1	$	$
A21	3-02.5 SP	Sawcutting	LF	105	$	$
A22	3-02.5 SP	Remove Existing Catch Basin	EA	6	$	$
A23	3-02.5 SP	Remove Existing Storm Sewer Pipe	LF	870	$	$
A24	3-03.5	Roadway Excavation Incl. Haul	CY	4,490	$	$
A25	3-03.5	Roadway Excavation Incl. Haul - Area Pond	CY	11,190	$	$
A26	3-03.5	Roadway Excavation Incl. Haul - Wetland Mitigation Area	CY	2,090	$	$
A27	3-03.5	Gravel Borrow	CY	1,960	$	$
A28	3-03.5	Ditch Excavation Incl. Haul	CY	30	$	$
A29	3-07.5	Structure Excavation Class A incl. Haul	CY	1,290	$	$
A30	3-07.5	Shoring or Extra Excavation Cl. A	LS	1	$	$
A31	3-07.5 SP	Trench Saftey System	LS	1	$	$
A32	3-08.5	Trimming and Cleanup	LS	1	$	$
A33	3-09.5	Construction Geosynthetic for Separation	SY	170	$	$
DIVISION 4 – BASES						

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A34	4-04.5	Crushed Surfacing Base Course	TON	510	$	$
A35	4-04.5	Crushed Surfacing Top Course	TON	3,820	$	$
DIVISION 5 – SURFACE TREATMENTS AND PAVEMENTS						
A36	5-04.5 SP	HMA CL. 1/2" PG 58H-22	TON	4,520	$	$
A37	5-04.5 SP	Planing Bituminous Pavement	SY	3,680	$	$
DIVISION 6 – STRUCTURES						
A38	6-10.5	Precast Conc. Barrier Type Single Slope	LF	1,175	$	$
A39	6-20.5 SP	Construction Dewatering	LS	1	$	$
DIVISION 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS						
A40	7-02.5	Solid Wall PVC Culv. Pipe 4 In. Diam.	LF	55	$	$
A41	7-02.5	Solid Wall PVC Culv. Pipe 12 In. Diam.	LF	10	$	$
A42	7-04.5	Dual Wall HDPE Storm Sewer Pipe 12 In. Diameter	LF	1,330	$	$
A43	7-04.5	Dual Wall HDPE Storm Sewer Pipe 18 In. Diameter	LF	400	$	$
A44	7-05.5	Catch Basin Type 1	EA	15	$	$
A45	7-05.5	Catch Basin Type 1L	EA	1	$	$
A46	7-05.5	Catch Basin Type 2 48" In. Diam.	EA	5	$	$
A47	7-05.5	Catch Basin Type 2 54" In. Diam.	EA	3	$	$
A48	7-08.5	Plugging Existing Pipe	EA	1	$	$
A49	7-17.5	Ductile Iron Sewer Pipe 12 in. Diam	LF	200	$	$
A50	7-20.5 SP	Oldcastle Panel Vault System	LS	1	$	$
A51	7-20.5 SP	Oldcastle 25-CPS Oil/Water Separator	EA	1	$	$
A52	7-20.5 SP	Oldcastle 660-CPS Oil/Water Separator	EA	1	$	$

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A53	7-20.5 SP	Gravel Backfill for Drains	CY	60	$	$
A54	7-20.5 SP	Construction Geosynthetic for Underground Drainage	SY	180	$	$
A55	7-20.5 SP	Perforated PVC Underdrain Pipe 4 In. Diameter	LF	185	$	$
A56	7-20.5 SP	Dual Wall HDPE Storm Sewer Pipe 4 In. Diameter	LF	210	$	$
A57	7-21.5 SP	Clay Liner	CY	220	$	$
A58	7-22.5 SP	Gravel Backfill for Drains	CY	430	$	$
A59	7-22.5 SP	Sand for Sand Filter	TON	400	$	$
A60	7-22.5 SP	Construction Geosynthetic of Underground Drainage	SY	650	$	$
A61	7-22.5 SP	Treatement Liner	CY	320	$	$
A62	7-22.5 SP	Perforated PVC Underdrain Pipe 6 in. Diameter	LF	680	$	$
A63	7-22.5 SP	Anchored Plate Flow Spreader	LF	35	$	$
A64	7-23.5 SP	Gravel Backfill for Drains	CY	30	$	$
A65	7-23.5 SP	Construction Geosynthetic for Underground Drainage	SY	60	$	$
A66	7-23.5 SP	Perforated PVC Underdrain Pipe 6 In. Diameter	LF	255	$	$
A67	7-23.5 SP	Bioretention Soil Mix	CY	120	$	$
A68	7-23.5 SP	Bioretention Compost	SY	150	$	$
A69	7-23.5 SP	Wood Chip Mulch	SF	100	$	$
DIVISION 8 – MISCELLANEOUS CONSTRUCTION						
A70	8-01.5(1)	Erosion Control and Water Pollution Prevention	LS	1	$	$
A71	8-01.5(2)	Stablized Construction Entrance	SY	445	$	$
A72	8-01.5(4)	High Visibility Silt Fence	LF	2,950	$	$
A73	8-02.2 SP	Topsoil Type A-1	CY	1,710	$	$

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A74	8-02.5	Seeding, Fertilizing and Mulching	ACRE	1.1	$	$
A75	8-02.5	Seeding and Fertilizing by Hand	SY	445	$	$
A76	8-02.5	Bark or Wood Chip Mulch Rings	EA	1,155	$	$
A77	8-02.5 SP	PSIPE Hard stem bulrush, plug	EA	600	$	$
A78	8-02.5 SP	PSIPE Small fruited bullrush, plug	EA	500	$	$
A79	8-02.5 SP	PSIPE Red stem dogwood, 3 ft ht, live stake	EA	250	$	$
A80	8-02.5 SP	PSIPE Pacific willow 4 ft ht, live stake	EA	105	$	$
A81	8-02.5 SP	PSIPE Scouler willow, 4 ft ht, live stake	EA	150	$	$
A82	8-02.5 SP	PSIPE Oregon ash, bare root	EA	45	$	$
A83	8-02.5 SP	PSIPE Black cottonwood, bare root	EA	70	$	$
A84	8-02.5 SP	PSIPE Quaking aspen, bare root	EA	75	$	$
A85	8-02.5 SP	PSIPE Nootka rose, bare root	EA	100	$	$
A86	8-02.5 SP	PSIPE Pacific ninebark, bare root	EA	90	$	$
A87	8-02.5 SP	PSIPE Salmonberry, bare root	EA	90	$	$
A88	8-02.5 SP	PSIPE Douglas spirea, bare root	EA	180	$	$
A89	8-02.5 SP	Property Restoration	FA	1	$ 5,000	$ 5,000
A90	8-02.5 SP	Hydroseed, Temporary Erosion Control Seed Mix	ACRE	1.1	$	$
A91	8-02.5 SP	Topsoil Type A	CY	845	$	$
A92	8-02.5 SP	Fine Compost	CY	425	$	$
A93	8-02.5 SP	Bark or Wood Chip Mulch	CY	25	$	$
A94	8-02.5 SP	Root Barrier	LF	230	$	$
A95	8-02.5 SP	Incense Cedar 6' Ht. Min.	EA	3	$	$

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A96	8-02.5 SP	Incense Cedar 8'-10' Ht. Min.	EA	3	$	$
A97	8-02.5 SP	Tall Oregon Grape 2 Gal	EA	26	$	$
A98	8-02.5 SP	Kinnikinnick 4" Pot	EA	550	$	$
A99	8-02.5 SP	Beach Strawberry 4" Pot	EA	540	$	$
A100	8-02.5 SP	Bioretention Seed Mix	SY	875	$	$
A101	8-02.5 SP	Wet Area Seed Mix	SY	910	$	$
A102	8-03.5 SP	Contractor Designed Temporary Irrigation System, Complete	LS	1	$	$
A103	8-04.5	Roundabout Truck Apron Cem. Conc. Curb and Gutter	LF	885	$	$
A104	8-04.5	Roundabout Cement Concrete Curb and Gutter	LF	1,665	$	$
A105	8-04.5	Roundabout Central Island Cement Concrete Curb	LF	245	$	$
A106	8-04.5	Cement Conc. Pedestrian Curb	LF	130	$	$
A107	8-04.5	Roundabout Splitter Island Nosing Curb	EA	5	$	$
A108	8-04.5 SP	Modified Roundabout Cement Concrete Curb and Gutter	LF	220	$	$
A109	8-10.5	Flexible Guide Post with Curb Base	EA	2	$	$
A110	8-11.5	Removing Guardrail	LF	100	$	$
A111	8-11.5	Beam Guardrail Type 31	LF	100	$	$
A112	8-11.5	Beam Guardrail Anchor Type 11	EA	1	$	$
A113	8-12.5 SP	Black Vinyl Coated Chain Link Fence	LF	1,425	$	$
A114	8-12.5 SP	Relocate Existing Temporary Fence	LF	170	$	$
A115	8-13.5	Monument Case and Cover	EA	1	$	$
A116	8-14.3	Detectable Warning Surface	SF	125	$	$
A117	8-14.5 SP	Stamped Cement Concrete Class 4000	CY	280	$	$

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A118	8-15.5	Quarry Spalls	CY	120	$	$
A119	8-15.5 SP	Riprap for Sand Filter	CY	11	$	$
A120	8-17.5	Permanent Impact Attenuator	EA	4	$	$
A121	8-18.5	Mailbox Support, Type 1	EA	3	$	$
A122	8-20.5 SP	Illumination System	LS	1	$	$
A123	8-20.5 SP	Adjust Junction Box to Grade	EA	1	$	$
A124	8-20.5 SP	RRFB System	EA	4	$	$
A125	8-21.5 SP	Permanent Signing	LS	1	$	$
A126	8-22.5	Plastic Line	LF	11,260	$	$
A127	8-22.5	Plastic Wide Line	LF	2,260	$	$
A128	8-22.5	Plastic Yield Line Symbol	EA	25	$	$
A129	8-22.5	Plastic Crosswalk Line	SF	400	$	$
A130	8-22.5	Plastic Traffic Arrow	EA	16	$	$
A131	8-22.5 SP	Removing Pavement Markings	LS	1	$	$
A132	8-23.5	Temporary Pavement Marking - Short Duration	LF	11,175	$	$
A133	8-23.5	Temporary Stop Line - Short Duration	LF	65	$	$
A134	8-30.5 SP	Wetland Mitigation High-Draining Soil Delineation	LS	1	$	$
A135	8-30.5 SP	Habitat Piles	EA	4	$	$
A136	8-30.5 SP	Wetland Silt/Clay	CY	230	$	$
A137	8-33.5 SP	Potholing	FA	1	$ 15,000	$ 15,000
A138	8-33.5 SP	Resolution of Utility Conflicts	FA	1	$ 10,000	$ 10,000

TOTAL - SCHEDULE A	$

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NOTE "B": Specification section refers to technical section. See Division 10 for all Measurement and Payment sections.

SCHEDULE B: LAKEHAVEN WATER IMPROVEMENTS

All unit prices shall NOT include applicable sales tax.
Sales tax should be applied to the subtotal for this bid schedule.

Item No.	Spec. Div.[B]	Bid Item Description	Unit	Plan Quantity	Unit Price[A]	Amount
DIVISION 1 – GENERAL REQUIREMENTS						
B1	1-05	As-Built Survey and Record Drawings (Min. Bid of $5,000)	LS	1	$	$
B2	1-05	Utility Pothole	EA	18	$	$
B3	1-07	Permits	LS	1	$	$
B4	1-07	Resolution of Utility Conflicts	FA	1	$ 12,000.00	$ 12,000.00
DIVISION 3 – EARTHWORK						
B5	3-02	Sawcutting**	LF	800	$	$
B6	3-02	Asphalt Pavement Removal	SY	560	$	$
B7	3-02	Decomission Existing Water Main (6-Inch, & 8-Inch)	LF	330	$	$
B8	3-02	Remove Service Line	EA	6	$	$
B9	3-02	Remove Water Valve (6-Inch, & 8-Inch)	EA	5	$	$
B10	3-02	Remove AC Water Main (6-Inch, & 8-Inch)	LF	890	$	$
B11	3-02	Remove Steel Water Main (6-Inch)	LF	150	$	$
B12	3-02	Remove DI Water Main (8-Inch)	LF	20	$	$
B13	3-02	Remove Abandoned Steel Water Main (6-Inch)*	LF	310	$	$

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B14	3-02	Repurpose Steel Casing (10-Inch)	LS	1	$	$
B15	3-02	Remove Hydrant Assembly	EA	1	$	$
B16	3-07	Shoring or Extra Excavation Class B	LS	1	$	$
DIVISION 4 – BASES						
B17	4-04	Crushed Surfacing Top Course for Roadway***	TON	290	$	$
DIVISION 5 – SURFACE TREATMENTS AND PAVEMENTS						
B18	5-04	Planing Bituminous Pavement**	SY	140	$	$
B19	5-04	HMA Cl. ½" PG 58H-22 for New Pavement**	TON	280	$	$
B20	5-04	HMA Cl. ½" PG 58H-22 for Wearing Course**	TON	120	$	$
B21	5-04	Temporary Pavement*	TON	170	$	$
DIVISION 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS						
B22	7-09	Minor Change for Water Improvements	FA	1	$ 50,000.00	$ 50,000.00
B23	7-09	Class 52 Ductile Iron Pipe for Water Main, 8-Inch Diameter w/Restrained Joint Fittings	LF	1,570	$	$
B24	7-09	Steel Casing, 18-Inch Diameter	LF	80	$	$
B25	7-09	Additional Ductile Iron Fittings*	LB	300	$	$
B26	7-09	Connect to Existing Water Main 8-Inch Diameter	EA	3	$	$
B27	7-09	Removal and Replacement of Unsuitable Foundation Material*	CY	10	$	$
B28	7-09	Crushed Sufacing Top Course for Trench Backfill*	TON	1,140	$	$
B29	7-09	Dewatering	LS	1	$	$
B30	7-10	Temporary Water Service	LS	1	$	$
B31	7-10	Construction Sequencing	LS	1	$	$
B32	7-12	Gate Valve, 8-Inch	EA	6	$	$

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B33	7-14	Hydrant Assembly	EA	2	$	$
B34	7-15	Service Replacement 5/8-Inch x 3/4 Inch	EA	5	$	$
B35	7-15	4-Inch PVC C-900 Casing for 2" Service Line	LF	80	$	$
DIVISION 8 – MISCELLANEOUS CONSTRUCTION						
B36	8-01	Ditch Protection	EA	3	$	$
B37	8-01	High Visibility Silt Fence**	LF	260	$	$
B38	8-02	Fine Compost**	CY	30	$	$
B39	8-02	Hydroseed, Temporary Erosion Control Seed Mix**	ACRE	1	$	$
B40	8-02	Property Restoration	EST	1	$ 10,000.00	$ 10,000.00
B41	8-11	Beam Guardrail Type 31**	LF	160	$	$
B42	8-11	Removing Guardrail**	LF	160	$	$
B43	8-22	Paint Line**	LF	260	$	$
B44	8-35	Controlled Density Fill and Polyethylene Encasement*	LF	130	$	$
					SUBTOTAL - SCHEDULE B* **	$
					SALES TAX (10.4%)	$
					TOTAL – SCHEDULE B	$

*These bid items are not subject to the provisions of 1-04.6 of the Standard Specifications, as amended by the Special Provision.

**Bid Item Unit Price shall precisely match the corresponding Bid Unit Price within Bid Schedule A. This shall apply when the Item Description for a bid item is identifcal in both Bid Schedule B and Bid Schedule A. When a concflict occurs between the bid item unit price for a bid item with identical Item Descriptions in Bid Schedule B and Bid Schedule A, the Contracting Agency shall apply the lower bid item unit price from either Bid Schedule A or Bid Schedule B to the bid item in the conflicting Bid Schedule.

***All unit prices shall not include applicable sales tax

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BID SUMMARY	
ITEM	**BID AMOUNT**
SCHEDULE A: ROADWAY IMPROVEMENTS	$
SCHEDULE B: LAKEHAVEN WATER IMPROVEMENTS	$
TOTAL BID AMOUNT *(including Washington State sales tax, all other government taxes, assessments and charges)*	$

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

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

NON-COLLUSION AFFIDAVIT

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

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

CONFLICTS OF INTEREST, GRATUITIES, & NON-COMPETITIVE PRACTICES

By signing this proposal, the undersigned agrees as follows:

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

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

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

AFFIDAVIT OF ELIGIBILITY

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

CERTIFICATION OF LAWFUL EMPLOYMENT

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

Receipt of the following Addendums is hereby acknowledged:

Addendum No. ___ Date Issued: _____

Addendum No. ___ Date Issued: _____

Addendum No. ___ Date Issued: _____

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

By: _____
Signature

_____
Printed Name

_____
Title

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

_____
Signature of Notary

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

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BID BOND
SR 99 AT S 373RD ST ROUNDABOUT AND ACCESS MANAGEMENT

OPTION 1: BID BOND DEPOSIT
Attached is a deposit in the form of a certified check, cashier's check, or cash in the amount of $_____, which amount is not less than five percent (5%) of the total bid.

_____
Principal – Signature of Authorized Official *Date*

_____
Title

—OR—

OPTION 2: BID BOND
KNOW ALL PERSONS BY THESE PRESENTS that we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the City of Federal Way, as Obligee, in the sum of five (5) percent of the total amount of the bid proposal for the payment of which the Principal and the Surety bond themselves, their heirs and executors, administrators, successors and assigns, jointly and severally, by these presents.

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

SIGNED, SEALED AND DATED THIS ____ DAY OF _____, 20___.

_____ _____
Principal – Signature of Authorized Official *Surety – Attorney in Fact*
(Attach Power of Attorney)

_____
Title

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

_____

_____

_____

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SUBCONTRACTOR LIST

CITY OF FEDERAL WAY

33325 8TH AVENUE S
FEDERAL WAY, WA 98003-6325

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 structural steel installation, rebar installation, 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 structural steel installation, rebar installation, 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 it 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.

DOT Form 271-015A
Revised 06/2020

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

Date: _____

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PROPOSAL FOR INCORPORATING RECYCLED MATERIALS

APWA-WA Division 1 Committee rev. 5/13/2022

Proposal for Incorporating Recycled Materials into the Project

In compliance with RCW 70A.205.700, 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: _____

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RETAINAGE OPTION

IDENTIFICATION AND DESCRIPTION

Project Title: SR 99 at S 373rd St Roundabout & Access Management

RFB No: 26-012

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.

BIDDER'S INSTRUCTIONS

If deemed to be the lowest responsive, responsible bidder and 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 the contract and further request the appropriate forms be included in the Contract documents prepared for execution.

- ☐ **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.

_____

Signature *Date*

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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.

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

3. COMPENSATION

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

3.2 The City shall pay the Contractor for Work performed under this Contract as detailed in the Bid Proposal, which is incorporated herein and made a part hereof by this reference, and as detailed in the Contract Documents. The City shall have the right to withhold payment to the Contractor for any of the Work not completed in a satisfactory manner, in the City's sole and absolute discretion, which shall be withheld until such

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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.

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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

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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.

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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: JOHN COLE, CIVIL 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

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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: John Cole
33325 8th Ave S
Federal Way, WA 98003

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

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

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

9. PERFORMANCE/PAYMENT BOND

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

DATED the day and year set forth above.

CITY OF FEDERAL WAY:

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

ATTEST:

_____
Heather Dumlao, CMC, CPRO, City Clerk

APPROVED AS TO FORM:

_____
J. Ryan Call, City Attorney

CONTRACTOR:

_____
Signature of Authorized Individual

_____
Printed Name of Authorized Individual

_____
Street Address

_____
City, State, Zip

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NOTARY OF CONTRACTOR'S SIGNATURE:

STATE OF WASHINGTON)
) ss.
COUNTY OF _____)

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

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

Notary's signature _____
Notary's printed name _____
Notary Public in and for the State of Washington.
My commission expires_____

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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? ☐ Yes ☐ No
If "Yes" Will the Policies Be Extended? ☐ Yes ☐ No

MODIFICATIONS TO UNIT PRICES:

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

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

ITEM NO.	ITEM	QTY	UNIT PRICE	ADD OR DELETE

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

DEPARTMENT RECAP TO DATE:

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

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

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

_____

CONTRACTOR'S SIGNATURE DATE

_____

PUBLIC WORKS DIRECTOR DATE

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

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CERTIFICATE OF INSURANCE

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

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PERFORMANCE AND PAYMENT BOND
SR 99 AT S 373RD ST ROUNDABOUT AND ACCESS MANAGEMENT

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:

_____
Principal Signature *Date*

_____
Printed Name

_____
Title

SURETY:

_____
Surety Signature *Date*

_____
Printed Name

_____
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

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RETAINAGE BOND TO CITY OF FEDERAL WAY
SR 99 AT S 373RD ST ROUNDABOUT AND ACCESS MANAGEMENT

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: _____

_____

CERTIFICATE 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

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CORPORATE SEAL:

SURETY:

By: _____
Attorney-in-Fact
(Attach Power of Attorney)

Title: _____

Address: _____

_____

CERTIFICATE AS TO CORPORATE SEAL

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

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INTRODUCTION TO THE SPECIAL PROVISIONS

(January 4, 2024 APWA GSP, Option A)

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, 2026 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 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 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)
(May 1, 2013 CFW GSP) City of Federal Way Special Provision

Project specific special provisions are labeled without a date as such:
(*****)

Also incorporated into the Contract Documents by reference are:

- *Manual on Uniform Traffic Control Devices for Streets and Highways*, currently adopted edition, with Washington State modifications, if any
- *Standard Plans for Road, Bridge and Municipal Construction*, WSDOT Manual M21-01, current edition
- 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.

DESCRIPTION OF WORK

(March 13, 1995 WSDOT GSP)

This Contract provides for the improvement of the SR99 at S 373rd St Roundabout Improvements and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

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DIVISION 1
GENERAL REQUIREMENTS

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1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

(January 19, 2022 APWA GSP)

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

Dates

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

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

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

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

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

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

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

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

Supplement this Section with the following:

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

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

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

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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.

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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

(February 17, 2026 APWA GSP, Option A)

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")	1	Furnished automatically upon award.
Contract Provisions	1	Furnished automatically upon award.
Large Plans (e.g., 22" x 34")	1	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

(December 30, 2022 APWA GSP, Option B)

The first sentence of the ninth paragraph, beginning with "Prospective Bidder desiring…", is revised to read:

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

1-02.5 Proposal Forms

(February 17, 2026 APWA GSP)

Delete this section and replace it with the following:

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

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in legible figures (not words) written in ink or typed and expressed in U.S. dollars. 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

(February 17, 2026, APWA GSP, OPTION A)

Revise the fourth paragraph to read:

Subcontractor's List

The Bidder shall submit with the Bid the completed Subcontractor List included in the Contracting Agency Proposal Package. If a Subcontractor List Form is not included in the package, use DOT Form 271-015. The Form shall contain the following:

1. Subcontractors who will perform the Work of structural steel installation, rebar installation, heating, ventilation, air conditioning, and plumbing as described in RCW 18.106 and electrical as described in RCW 19.28,

2. The Work those subcontractors will perform on the Contract and the proof of license when required as described in RCW 39.04.350(1), and

3. No more than one subcontractor for each category of Work identified, except, when subcontractors vary with Bid alternates, in which case the Bidder shall identify which subcontractor will be used for which alternate.

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

(February 17, 2026 APWA GSP)

Revise the third sentence of the first paragraph to read:

For projects that are selected by the Contracting Agency to be Bid electronically, the proposal bond may be in either a physical format, or an electronic format via N/A. The City of Federal Way requires physical bids be submitted.

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;

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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

(November 21, 2025 APWA GSP, OPTION B)

Delete this section and replace it with the following:

GENERAL

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.

Proposals that are received as required will be publicly opened and read as specified in Section 1-02.12. 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" that is received after the time specified or received in a location other than that specified in the Call for Bids.

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be received at the office designated for receipt of bids as specified in Section 1-02.12 the time specified for receipt of the Proposal will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which the normal work processes of the Contracting Agency resume.

Supplemental bid information submitted after the Proposal submittal but within 48 hours of the time and date the Proposal is due, shall be submitted as follows:

1. In a sealed envelope labeled the same as for the Proposal, with "Supplemental Information" added, or
2. By facsimile to the following FAX number: N/A, or
3. By e-mail to the following e-mail address: John.Cole@FederalWayWA.gov

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.

1-02.10 Withdrawing, Revising, or Supplementing Proposal

(February 17, 2026 APWA GSP)

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Delete this section, and replace it with the following:

After submitting a physical or an electronic bid, if allowed under 1-02.9, 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, if a physical Bid Proposal was submitted, or recalled electronically via electronic method described in 1-02.9 if an electronic Bid Proposal was submitted, 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 before the time set for receipt of Bid Proposals, 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. Requests to withdraw, revise, or supplement a Bid Proposal may be submitted by the following methods:

1. In person

1-02.13 Irregular Proposals

(July 15, 2026 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 Bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
   c. A price per unit cannot be determined from the Bid Proposal;
   d. The Proposal form is not properly executed;
   e. The Bidder fails to submit or properly complete a subcontractor list as required in Section 1-02.6; or
   f. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.

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. The authorized Proposal Form furnished by the Contracting Agency is not used or is altered;
   d. The completed Proposal form contains unauthorized additions, deletions, alternate Bids, or conditions;
   e. Receipt of Addenda is not acknowledged;
   f. 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);

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g. The Bidder fails to submit the Bidder Questionnaire, if applicable, as required by Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions; or
h. 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

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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

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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

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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.

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1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(December 30, 2022 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.

(January 19, 2024 CFW GSP)

Section 1-03.1 is supplemented with the following:

The owner reserves the right to reject bids on any or all schedules or alternates of the proposal. After reviewing the bids, the Owner may elect to delete any one or combination of schedules from the proposal.

(******)

Section 1-03.1 is supplemented with the following:

Bid item Unit Price shall precisely match the corresponding Bid Unit Price within Bid Schedule A. This shall apply when the Item Description for a bid item is identical in both Bid Schedule B and Bid Schedule A. When a conflict occurs between the bid item unit price for a bid item with identical Item Descriptions in Bid Schedule B and Bid Schedule A, the Contracting Agency shall apply the lower bid item unit price from either Bid Schedule A or Bid Schedule B to the bid item in the conflicting Bid Schedule.

1-03.1(1) Identical Bid Totals

(February 17, 2026 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 that proposed to use the highest percentage of recycled materials in the Project, per the form submitted with the Bid Proposal, if required. If those percentages are also exactly equal or if the form was not required, 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 alphabetical order by the name of the firm. 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.

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1-03.3 Execution of Contract

(February 17, 2026 APWA GSP, Option A)

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, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the Contract by the Contracting Agency, the successful Bidder shall provide, if required, any of the following: pre-Award information required by the Contracting Agency as listed under Section 1-02.15, proof of licensure for electrical, HVAC, or plumbing subcontractors. If the Prime Contractor lists themselves as performing electrical, HVAC, or plumbing they are required to submit proof of licensure prior to execution.

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

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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

(December 30, 2022 APWA GSP)

Revise this section to read:

All decision made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

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1-04 SCOPE OF THE WORK

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

(December 30, 2022 APWA GSP)

Revise the second paragraph to read:

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

1. Addenda,
4. Proposal Form,
5. Special Provisions,
6. Contract Plans,
7. Standard Specifications,
8. Contracting Agency's Standard Plans or Details (if any), and
9. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

1-04.4 Changes

(January 19, 2022 APWA GSP)

The first two sentences of the last paragraph of Section 1-04.4 are deleted.

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1-05 CONTROL OF WORK

1-05.4 Conformity With and Deviations from Plans and Stakes

(January 13, 2021 WSDOT GSP, OPTION 2)

Section 1-05.4 is supplemented with the following:

Contractor Surveying – Roadway

The Contracting Agency has provided primary survey control in the Plans.

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the roadbed, drainage, surfacing, paving, channelization and pavement marking, illumination and signals, guardrails and barriers, and signing. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments noted on the plans “DO NOT DISTURB” shall be protected throughout the length of the project or be replaced at the Contractors expense.

Detailed survey records shall be maintained, including a description of the work performed on each shift, the methods utilized, and the control points used. The record shall be adequate to allow the survey to be reproduced. A copy of each day's record shall be provided to the Engineer within three working days after the end of the shift.

The meaning of words and terms used in this provision shall be as listed in "Definitions of Surveying and Associated Terms" current edition, published by the American Congress on Surveying and Mapping and the American Society of Civil Engineers.

The survey work shall include but not be limited to the following:

1. Verify the primary horizontal and vertical control furnished by the Contracting Agency, and expand into secondary control by adding stakes and hubs as well as additional survey control needed for the project. Provide descriptions of secondary control to the Contracting Agency. The description shall include coordinates and elevations of all secondary control points.

2. Establish, the centerlines of all alignments, by placing hubs, stakes, or marks on centerline or on offsets to centerline at all curve points (PCs, PTs, and PIs) and at points on the alignments spaced no further than 50 feet.

3. Establish clearing limits, placing stakes at all angle points and at intermediate points not more than 50 feet apart. The clearing and grubbing limits shall be 5 feet beyond the toe of a fill and 10 feet beyond the top of a cut unless otherwise shown in the Plans.

4. Establish grading limits, placing slope stakes at centerline increments not more than 50 feet apart. Establish offset reference to all slope stakes. If Global Positioning Satellite (GPS) Machine Controls are used to provide grade control, then slope stakes may be omitted at the discretion of the Contractor

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5. Establish the horizontal and vertical location of all drainage features, placing offset stakes to all drainage structures and to pipes at a horizontal interval not greater than 25 feet.

6. Establish roadbed and surfacing elevations by placing stakes at the top of subgrade and at the top of each course of surfacing. Subgrade and surfacing stakes shall be set at horizontal intervals not greater than 50 feet in tangent sections, 25 feet in curve sections with a radius less than 300 feet, and at 10-foot intervals in intersection radii with a radius less than 10 feet. Transversely, stakes shall be placed at all locations where the roadway slope changes and at additional points such that the transverse spacing of stakes is not more than 12 feet. If GPS Machine Controls are used to provide grade control, then roadbed and surfacing stakes may be omitted at the discretion of the Contractor.

7. Establish intermediate elevation benchmarks as needed to check work throughout the project.

8. Provide references for paving pins at 25-foot intervals or provide simultaneous surveying to establish location and elevation of paving pins as they are being placed.

9. For all other types of construction included in this provision, (including but not limited to channelization and pavement marking, illumination and signals, guardrails and barriers, and signing) provide staking and layout as necessary to adequately locate, construct, and check the specific construction activity.

10. Contractor shall determine if changes are needed to the profiles or roadway sections shown in the Contract Plans in order to achieve proper smoothness and drainage where matching into existing features, such as a smooth transition from new pavement to existing pavement. The Contractor shall submit these changes to the Engineer for review and approval 10 days prior to the beginning of work.

The Contractor shall provide the Contracting Agency copies of any calculations and staking data when requested by the Engineer.

The Contractor shall ensure a surveying accuracy within the following tolerances:

	Vertical	Horizontal
Slope stakes	±0.10 feet	±0.10 feet
Subgrade grade stakes set 0.04 feet below grade	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)

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Stationing on roadway	N/A	±0.1 feet
Alignment on roadway	N/A	±0.04 feet
Surfacing grade stakes	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
Roadway paving pins for surfacing or paving	±0.01 feet	±0.2 feet (parallel to alignment) ±0.1 feet (normal to alignment)

The Contracting Agency may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

When staking roadway alignment and stationing, the Contractor shall perform independent checks from different secondary control to ensure that the points staked are within the specified survey accuracy tolerances.

The Contractor shall calculate coordinates for the alignment. The Contracting Agency will verify these coordinates prior to issuing approval to the Contractor for commencing with the work. The Contracting Agency will require up to seven calendar days from the date the data is received.

Contract work to be performed using contractor-provided stakes shall not begin until the stakes are approved by the Contracting Agency. Such approval shall not relieve the Contractor of responsibility for the accuracy of the stakes.

Stakes shall be marked in accordance with Standard Plan A-10.10. When stakes are needed that are not described in the Plans, then those stakes shall be marked, at no additional cost to the Contracting Agency as ordered by the Engineer.

Payment

Payment will be made for the following bid item when included in the proposal:

"Roadway Surveying", lump sum.

The lump sum contract price for "Roadway Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

(April 22, 2025, APWA GSP, OPTION D)

Supplement this section 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

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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 Contract Compliance
The Contractor shall be responsible for completing measurements to verify all ADA features comply with the Contract in the presence of the Engineer.

ADA Feature Measurements
The Contractor shall be responsible for providing the latitude and longitude of each ADA feature as indicated on the ADA Post Inspection Form(s) (WSDOT Form 224-020LP).

The completed ADA Post Inspection Form(s) (WSDOT Form 224-020LP) shall be submitted as a Type 3 Working Drawing and transmitted to the Engineer within 30 calendar days of completing the ADA feature. After acceptance, the Contracting Agency will retain the final form(s) for their records.

Payment
Payment will be made for the following bid item that is included in the Proposal:

"ADA Feature Surveying", lump sum.

The lump sum Contract price for "ADA Feature Surveying" shall be full pay for all the Work as specified.

In the instance where an ADA feature does not meet accessibility requirements, all work to replace non-compliant work and then to measure, record the measurements, and transmit the electronic forms to the Engineer shall be completed at no additional cost to the Contracting Agency.

1-05.7 Nonconforming Work
(February 17, 2026 APWA GSP)
Supplement this section with the following:

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. The Engineer has the right to reject all or part of the Nonconforming Work, and the Engineer's decision is final and not subject to protest.

No additional contract time or compensation will be allowed when the Contracting Agency exercises their rights provided by this Section.

1-05.7(1) Identification of Nonconforming Work
Replace this section with the following:

The Contractor is responsible for quality control and shall identify all Nonconforming Work. The Contracting Agency may also identify Nonconforming Work. However, failure by the Contracting Agency to identify Nonconforming Work shall not relieve the Contractor from their responsibility for the quality of the Work, nor shall it constitute acceptance or approval of the Nonconforming Work.

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1-05.7(2) Reporting of Nonconforming Work

Replace this section with the following:

The Contractor shall immediately report all Nonconforming Work to the Engineer and shall include any relevant information known for suggested remediation of Nonconforming Work.

When the Contracting Agency identifies Nonconforming Work, the Engineer will notify the Contractor in writing specifying a time when a remedy must be complete. If the Contractor fails to remedy Nonconforming 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.

1-05.7(3) Remediation of Nonconforming Work

Supplement this section with the following:

The Contractor shall be responsible and bear all costs for remediating Nonconforming Work.

If the Contracting Agency remedies Nonconforming Work after the specified time when a remedy was to be completed, by any means deemed necessary, direct and indirect costs incurred by the Contracting Agency attributable to correcting and remedying Nonconforming Work not corrected by the time provided in the notice, or Work the Contractor failed or refused to perform, shall be paid by the Contractor.

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 Nonconforming Work corrected immediately, have the 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 risk of loss or damage to the public.

When costs are incurred by the Contracting Agency, payment will be deducted by the Engineer from monies due, or to become due, to the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and compensation for removal, repair, replacement and/or correction of the Contractor's Nonconforming Work.

1-05.10 Guarantees

(January 19, 2024 CFW GSP)

Section 1-05.10 is supplemented with the following:

All work performed by the Contractor shall maintain a warranty. The warranty period shall be established by the Contract Documents. When not specified in the Contract Documents, the warranty period shall be one year. 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, 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

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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.

If within one year after the date of Project Acceptance by the Owner, defective and/or unauthorized Work is discovered, the Owner shall notify the Contractor in writing (either e-mail or USPS mail). The Contractor shall start work to remedy such defects within seven (7) calendar days of notice of discovery by the Owner and shall complete such work within a reasonable time. The Contractor shall either correct such Work, or if such Work has been rejected by the Engineer, remove it from the Project Site and replace it with non-defective and authorized Work, all without cost to the Owner.

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. If the Contractor does not promptly comply with the written request to correct defective and authorized Work, or if an emergency exists, the Owner reserves the right to have defective and/or unauthorized Work corrected or rejected, and replaced pursuant to the provisions of Section 1-05.7 of these Specifications. The Owner will pursue payment for the incurred costs from the project Performance and Payment Bond. 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 warranty 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 4.16.040 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.

The Contract performance and payment bond shall remain in effect throughout the above stated warranty period.

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.

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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

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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.

1-05.12(1) One-Year Guarantee Period
(March 8, 2013 APWA GSP)
Add the following new section.

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
(January 4, 2024 APWA GSP)

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Revise the second paragraph to read:

All correspondence from the Contractor shall be served and directed to the 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 written in paper format, hand delivered or sent via certified mail delivery service with return receipt requested to the Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

1-05.16 Water and Power

(October 1, 2005 APWA GSP)

Add the following new section:

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 As-Built Survey and Record Drawings

(April 17, 2026 CFW GSP)

Section 1-05.17 is a new section:

As-Built Survey

After construction has been completed the Contractor shall perform an as-built survey of new or modified infrastructure and provide the information (including point files) in a format compatible with AutoCAD 2024 or later version file to the Engineer. The applicable tolerance limits for the as-built survey are: ± 0.01 foot vertical, ± 0.01 foot horizontal.

This as-built survey shall consist of the following:

- Rim elevation, sump elevations, and invert elevations of all sanitary sewer and storm drainage structures; Flowline of open channel conveyance systems at 50-foot max. intervals; and Retaining wall footing drains, including cleanouts.

- Utility infrastructure such as: vaults, handholes, valves, fire hydrants, water meters, junction boxes, signal poles, etc. Infrastructure with round covers should have one survey shot in the center of the manhole or valve cover, or at the center of the fire hydrant. Utility handholes and boxes shall have two shots on opposite corners of the cover.

- Final curb elevations at 25-foot max. intervals, with a minimum of 8 shots at each curb return. Also, final shots along all curb and gutter, block curb, integral curb and extruded curb installed in this contract (at flowline of the curbs).

- Final elevations at the front and back of walk throughout the project limits, at 25-foot max. intervals or where there are changes in width or direction.

- Final wall elevations at the face and top of all walls installed in this contract, at 10-foot max. intervals or where there is a step in elevation.

- Signs, illumination and signal equipment.

- Channelization at 25-foot max. intervals or at changes in the geometry.

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- Monuments.
- Street trees.

Record Drawings
Throughout construction, the Contractor shall be responsible for tracking all relevant field changes to the approved construction drawings. These changes shall be clearly identified in red ink on one set of full size Plans that are clearly marked as Record Drawings. The Record Drawings shall be available for review by the Contracting Agency at all times.

Upon completion of construction, the Contractor shall submit to the City a legible set of electronically marked-up construction drawings in PDF format that are signed and certified by the Contractor or their surveyor. The Certification on each page of the record drawings shall state that said drawings are an accurate depiction of built conditions. The record drawings shall consist all pages issued as the official construction plans.

The certified Record Drawings shall, at a minimum, consist of the following:

- Existing or abandoned utilities that were encountered during construction that were not shown on the approved construction drawings.
- Accurate locations of storm drainage (including invert elevations), sanitary sewer, water mains and other water appurtenances, structures, conduits, light standards, vaults, width of roadways, sidewalks, landscaping areas, channelization and pavement markings, etc. Record drawings shall reflect actual dimensions, arrangement, and materials used when different than shown in the Plans.
- Changes made by Change Order or Field Directive.
- Changes made by the Contractor as approved by the Engineer.
- Pothole information gathered by the Contractor.

Payment
"As-Built Survey and Record Drawings", lump sum.

The lump sum contract price for “As-Built Survey and Record Drawings " shall be full pay for all labor, equipment, materials, and supervision utilized to perform the work specified, including any surveying, checking, correction of errors, preparation of record drawings, and coordination efforts. Payment will be made after AutoCad files and record drawings are submitted to and approved by the City. No partial payments will be made.

1-05.18 Contractor’s Daily Diary

(March 22, 2023 CFW GSP)

Section 1-05.18 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.

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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 in 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.

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1-06 CONTROL OF MATERIAL

1-06.2 Acceptance of Materials

1-06.2(1) Samples and Tests for Acceptance

(September 20, 2024 CFW GSP)

Section 1-06.2(1) is supplemented as follows:

The Contractor shall be responsible to hire an independent, third-party testing company to conduct testing for the project, including but not limited to, gradation, concrete compressive strength, and compaction testing for aggregates and hot mix asphalt. The testing company shall be designated as a WSDOT-certified testing firm.

The testing company shall provide prompt results. Original test results shall be sent directly from the testing company to the City's Project Engineer at John.Cole@FederalWayWA.gov. Copies of test results shall also be sent to the Contractor.

Contractor shall cooperate with testing company's personnel and provide access to work to be tested. Contractor shall be responsible to notify testing company in advance of operations requiring testing and inspection services. If Contractor does not coordinate for testing services with sufficient advance notice, they are responsible for any delays caused by the inability to proceed with work due to lack of testing. This will not be grounds for assignment of a non-working day.

Required tests and frequency shall be in conformance with the WSDOT Construction Manual.

The bid item "Material Testing" shall be measured on a lump sum basis and shall include all material testing required for the1-07.11
project. When the bid item for "Material Testing" appears on the proposal, the lump sum contract price for "Material Testing" shall include all costs associated with all Bid Schedules unless noted otherwise.

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.

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1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

(March 9, 2026 WSDOT GSP, OPTION 7)

Section 1-07.1 is supplemented with the following:

Unmanned Aircraft Systems (UAS)

The procurement and/or use of any drone (UAS) on this Contract shall comply with the following directives:

- National Defense Authorization Act (NDAA) – American Security Drone Act of 2023 (ASDA, Pub. L. No. 118-31).

- Office of Management and Budget Memorandum M-26-02 – Restrictions on using federal funds to purchase or operate prohibited foreign UAS.

Contractors, subcontractors, and lower-tier subcontractors shall not procure, operate, maintain, or process data from prohibited UAS manufactured or assembled by "covered foreign entities" as defined in the Federal Acquisition Security Council (FASC) in the performance of this Contract.

(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.

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(April 12, 2019 CFW GSP)

Section 1-07.1(2) is supplemented with the following:

Confined Space

Confined spaces are known to exist at the following locations:

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

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

The Contractor shall prepare and implement a confined space program for each of the confined spaces identified above. The Contractors Confined Space program shall be sent to the contracting agency at least 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

(June 27, 2011 APWA GSP)

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

1-07.2 State Sales Tax

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

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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).

1-07.5 Environmental Regulations

(September 20, 2010, WSDOT GSP, OPTION 1)

Section 1-07.5 is supplemented with the following:

Environmental Commitments

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the various documents referenced in the Special Provision **Permits and Licenses**. Throughout the work, the Contractor shall comply with the following requirements:

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

(*****)

Section 1-07.5(5) is supplemented with the following:

The Contracting Agency is in the process of obtaining permit(s) from the U.S. Army Cops of Engineers. The Contractor shall provide cultural resource monitor, consulting party

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notifications and weekly updates to consulting parties, and compile and submit final cultural resources monitoring report as referenced in permit special conditions. The Contractor will be responsible for any additional permit conditions and requirements once finalized.

(August 3, 2009, WSDOT GSP, OPTION 2)

Section 1-07.5 is supplemented with the following:

Payment

All costs to comply with this special provision for the environmental commitments and requirements are incidental to the contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the contract.

1-07.6 Permits and Licenses

(December 16, 2022 CFW GSP)

Section 1-07.6 is supplemented with the following:

Oversized Loads

The Contractor must obtain a permit from the City of Federal Way (Development Services Division) for any Oversize / Overweight Loads. Loads are classified as oversized / overweight if they exceed the following criteria:

Size

- 8'6" wide, 14' tall, 53' length (tractor/trailer)
- 40' single unit
- 75' overall with a truck and trailer
- 3' of front overhang and 15' of rear overhang

Weight

- Heavy loads require a permit for overweight if they exceed the vehicle weight table published by WSDOT. The gross vehicle weight for a vehicle or a vehicle combination is determined by an overlapping set of three criteria: tire size, axle weight, and the weight table.

(November 14, 2025 CFW GSP)

Section 1-07.6 is supplemented with the following:

The Contractor is responsible to obtain any required noise variance or approvals for night work.

(*****)

Section 1-07.6 is supplemented with the following:

The Contracting Agency is in process of receiving the below listed permit(s) . Once these permits are received it will be the Contractors responsibility to transfer coverage and assume responsibility. A copy of the permit(s) isattached as an appendix for informational purposes. Copies of these permits, including a copy of the Transfer of Coverage form, when applicable, are required to be onsite at all times.

Contact with the permitting agencies, concerning the below-listed permit(s), shall be made through the Engineer with the exception of when the Construction Stormwater General Permit coverage is transferred to the Contractor, direct communication with the Department of Ecology is allowed. The Contractor shall be responsible for obtaining Ecology's approval for any Work requiring additional approvals (e.g. Request for Chemical Treatment Form). The Contractor shall obtain additional permits as necessary. All costs

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to obtain and comply with additional permits shall be included in the applicable Bid items for the Work involved.

- Construction Stormwater General Permit
- Any other permits included in Appendices

1-07.7 Load Limits

(March 13, 1995 WSDOT GSP, OPTION 6)

Section 1-07.7 is supplemented with the following:

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

1-07.8 High-Visibility Apparel

1-07.8(1) Traffic Control Personnel

(September 16, 2025 WSDOT GSP, OPTION 1)

Section 1-07.8(1) is supplemented with the following:

All personnel performing the Work described in Section 2-04 (including traffic control supervisors, flaggers, and others performing traffic control labor of any kind) shall comply with the following:

1. During daylight hours with clear visibility, workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; and a high visibility hardhat that is white, yellow, yellow-green, orange, or red in color; and

2. During hours of darkness (1/2 hour before sunset to ½ hour after sunrise) or other low-visibility conditions (snow, fog, etc.), workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; a high-visibility lower garment meeting ANSI/ISEA 107 Class E, and a high visibility hardhat marked with at least 12 square inches of retroreflective material applied to provide 360 degrees of visibility.

1-07.9 Wages

1-07.9(3) Apprentices

(July 15, 2026 APWA GSP)

Section 1-07.9(3) is supplemented with the following:

Apprentice Utilization

This Contract includes an Apprentice Utilization Requirement. Fifteen percent or more of project Labor Hours shall be performed by Apprentices unless Good Faith Efforts are accepted**.** Apprentice Utilization will be determined using the Department of Labor and Industries (L&I) online Prevailing Wage Intent & Affidavit (PWIA) system.

Definitions

For the purposes of this specification the following definitions apply:

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1. Apprentice is a person enrolled in a State-approved Apprenticeship Training Program.

2. Apprentice Utilization is the apprentice labor hours, on the project, expressed as a percentage of project Labor Hours based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up.

3. Apprentice Utilization Requirement is the minimum percentage of apprentice labor hours required by the Contract.

4. Good Faith Effort(s) (GFE) describes the Contractor's efforts to meet the Apprentice Utilization Requirement including but not limited to the specific steps as described elsewhere in this specification.

5. Labor Hours are the total hours performed by all workers receiving an hourly wage who are subject to prevailing wage requirements for work performed on the Contract as defined by RCW 39.04.320. Labor Hours are determined based on the scope of work performed by the individuals, rather than the title of their occupations in accordance with WAC 296-127.

6. State-approved Apprenticeship Training Program is an apprenticeship training program approved by the Washington State Apprenticeship Council.

7. Apprentice Wage Rates are the applicable wage rates that are to be paid for an apprentice registered in a training program, separate from Journey Level rates, as set by the Washington State Apprenticeship Training Council and Washington State Department of Labor and Industries (L&I).

Electronic Reporting
The Contractor shall use the PWIA System to submit the "Apprentice Utilization Plan". Reporting instructions are available in the application.

Apprentice Utilization Plan
The Contractor shall submit an Apprentice Utilization Plan Form (WSDOT Form 424-004) or (L&I Form F100-538) prior to Notice to Proceed or the preconstruction meeting, whichever is earlier. The Apprentice Utilization Plan must demonstrate how and when they intend to achieve the Apprentice Utilization Requirement. The Plan shall be in sufficient detail for the Engineer to track the Contractor's progress in meeting the utilization requirements. An Apprentice Utilization Plan shall be updated and resubmitted as the Work progresses or when requested by the Engineer or other Contracting Agency representative.

If the Contractor is unable to demonstrate the ability to meet the Apprentice Utilization Requirement with their initial Apprentice Utilization Plan submission, an effort must be made to find additional registered apprentices to perform on the contract. If after attempts have been made at every tier and every scope, the Contractor must submit GFE documentation to the Contracting Agency. The Contractor shall actively seek out opportunities to meet the Apprentice Utilization Requirement during the construction Work.

Subcontracts
The Contractor must not require subcontractors to attain more than 15% of a subcontract's proposed labor hours for the subcontract's scope of Work.

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Contacts
The Contractor may obtain information on State-approved Apprenticeship Training Programs by using the Apprentice Registration and Tracking System (ARTS) https://secure.lni.wa.gov/arts-public/#/program-search or contacting the Department of Labor and Industries directly at:

Specialty Compliance and Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530 or by phone at (360) 902-5320.

Compliance
The Contractor is expected to make attempts to employ Apprentices and shall include the requirement in any subcontracts at any tier. In the event that the Contractor is unable to achieve the Apprentice Utilization Requirement, the Contractor shall submit GFE documentation demonstrating the efforts and attempts they made. Final GFE documentation shall be submitted to the Contracting Agency after Substantial Completion but no later than 30 days after Physical Completion.

If the Contractor fails to actively attempt to employ Apprentices, submit GFE documentation, or if the Engineer does not approve the GFE, the Contractor will be assessed a penalty. The Engineer will provide the Contractor with a written notice at Final Acceptance of the project informing the Contractor of the failure to comply with this specification which will include a calculation of the penalty to be assessed as provided for in the Payment section in this special provision.

If the Contractor achieves the required Apprentice Utilization an incentive will be assessed with Final Payment.

Good Faith Efforts
The GFE shall document the attempts (efforts) the Contractor (and any subcontractor at any tier) made to meet the Apprentice Utilization Requirement. Emails, letters, or other written communications with letterhead, titles, and contact information are required.

Documentation must include one or more of the following accepted GFEs:

1. Demonstrated Lack of Availability of Apprentices. Correspondence from State-approved Apprenticeship Training Program(s), with project specific responses confirming there is a lack of availability of Apprentices for this project.

2. Demonstrated Disproportionate Ratio of Material/Equipment/Products to Labor Hours. Documentation explaining the bid includes a disproportionate high cost of material/equipment/products to Labor Hours. (E.g., a $2 M estimated contract includes $1 M or more in procurement costs of equipment to be installed.)

3. Demonstrated Lack of Necessary Labor Hours. Correspondence from a State-approved Apprentice Training Programs confirming there is not enough time in the project to meet required journey level to apprentice training ratios.

4. Demonstrated Lack of Available Approved Programs. Correspondence from State-approved Apprentice Training Programs, confirming there are no programs that train for the scopes included/anticipated on the project. Contractor and state programs to

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submit training program detail needs and details that could be used for future program creation.

5. Funding Precedent. Documentation that shows conflicting, more restrictive, or precedent requirements for other training on the Project. Examples include, but are not limited to, Tribal Employment Rights (TERO), Federal Training Hours, or Special Training that affect the ability to use state-registered apprentices.

6. Warranty Work. Documentation from Original Equipment Manufacturers, or similar, confirming that Work performed must only be completed by certified journey-level installers or risk voiding warranty, or similar.

7. Other Effort. The Contractor may submit other evidence, documentation, or rationale for not being able to achieve the required Apprentice Utilization that are not covered in the other efforts named. Other efforts will still need to be corroborated by an independent, knowledgeable third-party.

Contractors may receive GFE credit for graduated Apprentice hours through the end of the calendar year for all projects worked on as long as the Apprentice remains continuously employed with the same Contractor/subcontractor they were working for when they graduated. If an Apprentice graduates during employment on a project of significant duration, they may be counted towards a GFE credit for up to one year after their graduation or until the end of the project (whichever comes first). Determination of whether Contract requirements were met in good faith will be made by subtracting the hours from the journeyman total reported hours for the project and adding them to the apprentice hour total. If the new utilization percentage meets the Contract requirement, the Contractor will be reported as meeting the requirement in good faith.

Approving Good Faith Efforts
The Contracting Agency will review submitted Good Faith Efforts and issue a determination. The Engineer may request additional information, documentation, evidence or similar in order to approve such efforts. A determination by the Engineer is final. The approved Good Faith Efforts will be loaded into the PWIA system by the Contracting Agency.

Measurement
Apprenticeship hours used to calculate the item “Apprentice Incentive/Penalty”, by calculation, will be measured for each hour of Work performed by an apprentice as shown on the Monthly Apprentice Utilization Report, based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up. The calculation of incentive/penalty will be assessed based on the Final Payment for Contractors who meet the Apprentice Utilization Requirement without a reduction by GFE.

Payment
Payment will be made for the following Bid Items when included in the proposal:

“Apprenticeship Incentive/Penalty”, by calculation.

When the Contractor meets the apprenticeship requirement of 15% an incentive will be assessed. When the Contractor fails to meet the apprenticeship requirement of 15%, a

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penalty will be assessed for each hour that is not achieved, unless a GFE is approved by the Contracting Agency.

Apprenticeship Incentive/Penalty will be calculated as described below:

Percent of requirement met	Incentive	Penalty per hour of unmet requirement
100%	$2,000	N/A
90% to 99%	N/A	$4.00
75% to 89%	N/A	$8.00
50% to 74%	N/A	$12.00
1% to 49%	N/A	$16.00
0%	N/A	$20.00

For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an incentive amount in the Proposal to become a part of the total bid by the Contractor.

The Contractor shall include all related costs in the unit Bid prices of the Contract, included but not limited to implementing, developing, documenting, and administering an apprenticeship utilization program, recording and reporting hours and all other costs to comply with this provision.

1-07.9(5)A Required Documents
(February 17, 2026 APWA GSP, Option B)
Revise this section to read:

All Statements of Intent to Pay Prevailing Wages and Affidavits of Wages Paid shall be submitted to the Engineer through the State L&I online Prevailing Wage Intent & Affidavit (PWIA) system. When apprenticeship is a requirement of the Contract, include all apprentices in PWIA.

1-07.11 Requirements for Nondiscrimination
1-07.11(1) Regulatory Authorities

1-07.11(1)C Nondiscrimination Authorities
(March 9, 2026, WSDOT GSP, OPTION 1.2027)
Section 1-07.11(1)C is revised to read:

During the performance of this Contract, the Contractor, for itself, its assignees, and successors in interest agrees to comply with the following nondiscrimination statues and authorities; including but not limited to:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), and its implementing regulations and case law, prohibit discrimination on the basis of race, color, or national origin. 49 C.F.R. 21.5(b)(2) prohibits a recipient of federal funds from utilizing “criteria or methods of administration which have the effect of subjecting persons to discrimination because of their race, color, or national origin, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program with respect to

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individuals of a particular race, color, or national origin." This includes taking reasonable steps to provide limited English proficiency (LEP) persons meaningful access to all programs, activities and services, where necessary to avoid discrimination on the basis of national origin.

2. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C §4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects).

3. Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et. seq.), as amended, (prohibits discrimination on the basis of sex).

4. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 C.F.R. Part 27.

5. The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age).

6. Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex).

7. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age of Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition and terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not).

8. Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. § 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38.

9. The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123), (prohibits discrimination on the basis of race, color national origin, and sex).

10. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq.).

1-07.11(2) Contractual Requirements

(November 25, 2024, APWA GSP)

Delete item 11 of the first paragraph of Section 1-07.11(2).

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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 (POWER & GAS)
Randy Blackie, Senior Project Manager – Randy.Blackie@pse.com
Cell: (425) 457-2614
6509 S 228th St; Kent, WA 98032

LAKEHAVEN WATER & SEWER DISTRICT
Naveen Chandra, Assistant Engineering Manager - nchandra@lakehaven.org
Tele: (253) 946-5440
3203 SW Dash Point Rd; Federal Way, WA 98023

LUMEN
Rob Bair, SR Network Implementation Engineer – Rob.Bair@Lumen.com
Tele: (253) 393-5384
Cell: (253) 831-2059
2503 S 80th St Bldg B; Tacoma, WA 98409

COMCAST
Kyle Kinney – Kyle_Kinney@comcast.com
Tele: (253) 293-3838
410 Valley Ave NW; Puyallup, WA 98371

ADDITIONAL CONTACTS

CITY OF FEDERAL WAY POLICE
Tele: (253) 835-6701 (for officer traffic control scheduling)
Tele: (253) 835-6767 (for traffic / road closure issues)
33325 8th Ave S; Federal Way, WA 98003

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SOUTH KING FIRE & RESCUE
Tele: 253) 946-7253
31617 1st Ave S; Federal Way, WA 98003

KING COUNTY METRO TRANSIT
Tele: (206) 684-2785
81270 6th Ave S, Bldg 2; Seattle, WA 98134

FEDERAL WAY SCHOOL DISTRICT
Please notify this entire group
Rob Bryant, Chief Finance & Operations Officer - rbryant@fwps.org
Michael Swartz, Exec. Director of Capital Projects - mswartz@fwps.org
Michelle Turner, Exec. Director of Transportation - mturner@fwps.org
Renee Swayze - rswayze@fwps.org
Mike Benzien, Exec. Director of Maint. & Operations - mbenzien@fwps.org
Brian Humphreys, Maintenance Manager - bhumphre@fwps.org
Paula Benz - pbenz@fwps.org

PIERCE TRANSIT
Tele: (253) 581-8130
3701 96th St SW; Lakewood, WA 98499

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
(February 17, 2026 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.

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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.

I. Under no circumstances shall a wrap up policy be obtained, for either initiating or maintaining coverage, to satisfy insurance requirements for any policy required under this Section. A **"**wrap up policy**"** is defined as an insurance agreement or arrangement under which all the parties working on a specified or designated project are insured under one policy for liability arising out of that specified or designated project**.**

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 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

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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.

5. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against the Contracting Agency, its elected or appointed officers, agents, officials, employees, and volunteers or shall specifically allow the Contractor or others providing insurance evidence in compliance with these Specifications to waive their right of subrogation prior to a loss. The Contractor hereby waives its own right of subrogation against the Contracting Agency and shall require similar written express waivers and insurance clauses from each of its subcontractors.

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.

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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:

$2,000,000	Each Occurrence
$3,000,000	General Aggregate
$3,000,000	Products & Completed Operations Aggregate
$2,000,000	Personal & Advertising Injury each offence
$2,000,000	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.

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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)

This is a new section as follows:

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:

$2,000,000 each loss and annual aggregate

1-07.24 Rights of Way
(April 22, 2025 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 as described below.

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

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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.

(April 12, 2018 CFW GSP)

Section 1-07.24 is supplemented with the following:

The Contractor shall be responsible to abide by any special conditions outlined in the temporary construction easement(s) that have been obtained (if any) by the City from adjacent property owners for this project. Please note these agreements may be included as an appendix or will be made available upon request of the Contractor.

Temporary construction easements on adjacent private property may have been secured for purposes such as: construction of driveways, slope restoration, drainage, utilities, irrigation, and/or property restoration. The Contractor is expressly forbidden from using temporary construction easement areas for vehicle or equipment storage or material stockpiling without first receiving written approval from the property owner. A copy of the written approval shall be provided to the Engineer before the Contractor stores any equipment or materials. Written permission from property owners does not relieve the Contractor of their obligation to receive permission from the City Community Development Department for the use of sites as staging areas, if required.

Temporary construction easement agreements may include responsibilities for the Contractor, such as: listing property owners as additional insured; providing advance notice to certain representatives; or daily site cleanup requirements. These responsibilities are listed as examples

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only and the documents should be reviewed by the Contractor to determine all necessary requirements

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.

1-07.29 Coordination with Transit Agencies

(July 3, 2025 CFW GSP)

Section 1-07.29 is added:

The Contractor is required to coordinate with impacted transit agencies. King County Metro and/or Pierce Transit personnel will remove and reinstall all existing bus stop signs and supports within the project limits. A copy of all communications between the contractor and transit agencies shall be forwarded to the City of Federal Way.

Pierce Transit: Pierce Transit should be notified at (253) 581-8130 to coordinate.

King County Metro: King County should be notified in writing to starting any work impacting bus stops, a temporary lane or road closure. King County Metro requires the following be sent to them via email to construction.coord@kingcounty.gov:

- Construction Information Request form (available on Metro website)
- Copies of approved Traffic Control Plans

In order to provide timely notification to riders, notification must be made to King County Metro as follows:

- Single Bus Stop Closure: 5 business days (not including holidays)
- Projects that require multiple bus stop closures: 10 business days (not including holidays)
- Street closures that impact transit: 10 business days (not including holidays)
- Long-term bus stop moves that require the closure and relocation of a layover or access to Metro facilities: 30 business days (not including holidays)

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1-08 PROSECUTION AND PROGRESS

1-08.0 Preliminary Matters

(May 25, 2006 APWA GSP)

Add this new section.

1-08.0(1) Preconstruction Conference

(October 21, 2025 APWA GSP)

Add the following new section:

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 review Training or Apprenticeship Plans, when applicable.
5. To discuss FSBE Goals when applicable.
6. To establish normal working hours for the work;
7. To review safety standards and traffic control; and
8. 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.

(April 17, 2026 CFW GSP)

Supplement 1-08.0(1) with the following:

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

1. A curb ramp staging plan. This can be a simple map with dots on each corner showing the order they will be removed and how an accessible pedestrian route will be maintained during construction.

1-08.0(2) Hours of Work

(February 17, 2026 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 5:00 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

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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 two full business 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.

If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll.

(December 1, 2021 CFW GSP)

Add the following new section:

The Contractor may request extended work hours on days when paving operations are occurring. Work hours may be modified to 7:00 a.m. to 5:30 p.m. on paving days if the Engineer determines that the benefits of extended working hours will minimize the overall impacts to traffic. Extended work hours for paving will require PCMS boards to be placed a minimum of 2 business days prior to the paving day. Payment for PCMS boards shall be considered incidental to the Contractor's operations, unless there is a specific bid item for PCMS boards.

1-08.1 Subcontracting

1-08.1(1) General

(February 17, 2026 APWA GSP)

Delete the first paragraph, and replace it with the following:

For purposes of this Section, all Work that is not self-performed by the Contractor will be considered as subcontracting except the following, hereinafter referred to as materials

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supplying: (1) when purchased directly by the Contractor - sand, gravel, crushed stone, crushed slag, batched concrete aggregates, ready-mix concrete, off-site fabricated structural steel, other off-site fabricated items, and any other materials supplied by established and recognized commercial plants; or (2) delivery of these materials to the Work site in vehicles owned or operated by such plants or by recognized independent or commercial hauling companies hired by those commercial plants; or (3) the presence of a uniformed law enforcement officer and marked law enforcement vehicle.

1-08.1(7) Payments to Subcontractors and Lower-Tier Subcontractors

1-08.1(7)A Payment Reporting

(November 25, 2024 APWA GSP)

Delete this section and replace it with the following:

1-08.1(7)A VACANT

1-08.1(8)B Clauses Required in Subcontracts of All Tiers

(November 25, 2024 APWA GSP)

Delete item 8 of the second paragraph of Section 1-08.1(8)B.

1-08.1(9) Submittal of Executed Subcontracts

(April 22, 2025 APWA GSP, Option B)

Section 1-08.1(9) content and title are deleted and replaced with the following:

Vacant

1-08.3 Progress Schedule

1-08.3(1) General Requirements

(October 3, 2022 WSDOT GSP, OPTION 2)

Section 1-08.3(1) is supplemented with the following:

In addition to information required in Items 1 through 6, the Progress Schedule shall include the following milestones and/or activities:

7. Materials requiring long procurement or fabrication periods, such as signal or light poles, structural elements, or mechanical items.

1-08.3(2)A Type A Progress Schedule

(February 17, 2026 APWA GSP)

Revise this section to read:

The Contractor shall submit 2 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 accept 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

(February 17, 2026 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.

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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 2-04.3. 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.

(December 1, 2021 CFW GSP)

Section 1-08.4 is supplemented with the following.

The Contractor shall provide adequate equipment and forces to carry out the construction schedule to completion of the contract by the date specified.

1-08.5 Time for Completion

(February 17, 2026 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 all partial or whole days the Engineer declares as unworkable. The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, 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

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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 Engineer prior to establishing a completion date:
    a. Certified Payrolls (per Section 1-07.9(5)).
    b. Material Acceptance Certification Documents
    c. Monthly Reports in DMCS of the amounts paid including the final payment confirmation to all firms required by Section 1-08.1(7)A if applicable
    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 **170** working days.

1-08.6 Suspension of Work

(February 6, 2023 WSDOT GSP, OPTION 2)

Section 1-08.6 is supplemented with the following:

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

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

- Stormwater Detention Vault
- Rectangular Rapid Flashing Beacon Poles
- Luminaire Poles

Charging of contract time will resume upon delivery of the critical materials to the Contractor or 90 calendar days after execution by the Contracting Agency, whichever occurs first.

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1-08.9 Liquidated Damages

(February 17, 2026 APWA GSP, Option B)

Revise the second and third paragraphs to read:

Accordingly, the Contractor agrees:

1. To pay (according to the following formula) liquidated damages for each working day beyond the number of working days established for Physical Completion, and

2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

Liquidated Damages Formula

LD=0.15C/T

Where:

LD = liquidated damages per working day (rounded to the nearest dollar)
C = original Contract amount
T = original time for Physical Completion

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract 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 Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

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1-09 MEASUREMENT AND PAYMENT

1-09.2(1) General Requirements for Weighing Equipment

(November 25, 2024 APWA GSP, OPTION B)

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 422-027LP, 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

(December 30, 2022 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

(December 30, 2022 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 the Engineer.

1-09.9 Payments

(February 17, 2026 APWA GSP, OPTION B)

Delete the fourth paragraph and replace it with the following:

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 payment. 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.

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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.

The sixth paragraph of Section 1-09.9 is deleted.

(April 17, 2026 CFW GSP)

Supplement Section 1-09.9 with the following:

Progress estimates will be developed following receipt of a complete invoice submitted by the Contractor to the Project Engineer per RCW 39.76.011. The Contractor's invoice shall conform to the City's Payment Application form along with all required supporting documentation.

1-09.11(3) Time Limitation and Jurisdiction

(December 30, 2022 APWA GSP)

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that all 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 all 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 all such claims or causes of action. It is further mutually agreed by the parties that when 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 all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13 Claim Resolution

1-09.13(3)A Arbitration General

(January 19, 2022 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

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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.

1-09.13(4) Venue for Litigation

(December 30, 2022 APWA GSP)

Revise this section to read:

Litigation shall be brought in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. It is mutually agreed by the parties that when litigation occurs, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

END OF DIVISION 1

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DIVISION 2
TEMPORARY FEATURES

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2-01 MOBILIZATION

2-01.5 Payment

(April 17, 2026 CFW GSP)

Supplement Section 2-01.5 with the following:

Payment for mobilization includes the contractor obtaining a field office and/or location for storage of materials and equipment. Materials and equipment are not allowed to be stored within the public right-of-way. 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 Mobilization bid item.

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2-02 SETTLEMENT AND VIBRATION MONITORING

(******)
Section 2-02 is a new section:

2-02.1 Description
This Work consists of developing and implementing a settlement and vibration monitoring plan for the project.

2-02.2 Vacant

2-02.3 Construction Requirements
The Contractor shall not begin any vibration-inducing or settlement-inducing activity (including, but not limited to, pile driving, sheet pile installation or extraction, dynamic compaction, vibratory compaction, demolition, blasting, drilling, or excavation dewatering) until the preconstruction survey, instrumentation installation, and baseline readings required by this Section have been completed and accepted by the Engineer.

The requirements of this Section are independent of, and in addition to, any requirements for noise control, erosion control, or environmental monitoring specified elsewhere in the Contract.

Nothing in this Section relieves the Contractor of responsibility for damage to adjacent property caused by the Contractor's operations.

2-02.3(1) Settlement Monitoring Plan
Prior to beginning construction, the Contractor shall hire a Monitoring Specialist to develop and submit a Settlement Monitoring Plan for all structures within 100 ft of any vibration-inducing activity and obtain acceptance by the Engineer for the method, installation, and details of the Settlement Monitoring Plan. The Settlement Monitoring Plan shall be signed and stamped by a professional Engineer licensed in the State of Washington. Vibration-inducing activities include, but are not limited to sheet pile installation, construction drilling, soil compaction, and excavation. The Settlement Monitoring Plan shall include the following:

1. The qualifications of the individual(s) responsible for settlement monitoring.
2. Descriptions of equipment to be used for settlement monitoring.
3. A detailed plan of locations for monitoring vertical and horizontal displacements. The plan shall also include the locations of survey benchmarks to be used in settlement monitoring.
4. Methods for installation of monitoring points.
5. Methods for protecting monitoring points from damage or vandalism.
6. Methods and frequency for baseline and follow-up measurements.
7. Descriptions of monitoring report content and format.
8. Description of the vertical and horizontal accuracy of settlement monitoring measurements.
9. Descriptions of action levels for movement of structures and a Corrective Action Plan to be implemented in the event of unacceptable movement.

2-02.3(2) Pre-Construction Condition Survey
Prior to beginning construction, the Contractor’s Monitoring Specialist shall conduct a Pre-Construction Condition Survey to provide a baseline for the pre-construction condition of nearby

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structures including, but not limited to: any building foundations, driveways, sidewalks, roadway surfaces, or retaining walls within 100 ft of any planned vibration-inducing activity.

A detailed examination shall be performed at each structure that is to be monitored. The detailed examination shall provide adequate numbers of photographs of each building exterior and interior to document the pre-construction condition of the structure and include all cracks, sticking doors and windows, and areas of structural distress. The Contractor shall be responsible for obtaining Right of Entry permission from the building owners.

Documentation of cracks, sticking doors and windows, and areas of structural distress shall include to-scale drawings indicating the location and orientation of existing cracks and structural distress. Documentation of cracks shall include nominal crack width.

During the Pre-Construction Condition Survey, 2-dimensional crack measurement templates, such as Avongard or similar, shall be placed at critical and representative locations. Crack measurements shall be taken on at least two occasions no less than 24 hours apart before start of construction.

A baseline ambient vibration survey shall be recorded at each monitoring location prior to the start of construction activity.

The Contractor shall notify the Contracting Agency a minimum of five working days prior to completing Pre-Construction Condition Survey inspections to allow the Contracting Agency's representative to be present during inspections.

The settlement monitoring points described above shall be maintained by the Contractor and surveyed by a Washington State Licensed land surveyor hired by the Contractor. To establish baseline conditions prior to beginning construction activities, the settlement monitoring points shall be measured on at least two occasions no less than 24 hours apart.

A copy of the Pre-Construction Condition Survey shall be furnished to the Contracting Agency, Engineer, and, unless the property owner declines in writing, to the affected property owner.

2-02.3(3) Settlement Monitoring and Reporting

During vibration-inducing construction activities, monitoring points shall be measured in accordance with the Settlement Monitoring Plan, as approved by the Engineer. At a minimum, monitoring points shall be measured weekly.

Settlement Monitoring Reports shall be provided to the Engineer within one day of measurement. The Engineer shall be notified immediately if displacements occur or if cracks, sags, or other damage is evident in adjacent structures.

Settlement Monitoring Reports shall include all data recorded in the 24-hour period, as well as all previously recorded data to facilitate review and analysis of data trends. At a minimum, settlement monitoring data shall include reading dates, initial elevations and/or coordinates, current elevations and/or coordinates, displacement compared to initial measurements, and descriptions of construction activities at the time of the readings.

Settlement monitoring points shall be measured for a minimum of 4 weeks following the completion of construction.

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2-02.3(4) Vibration Monitoring Plan

Prior to beginning construction, the Contractor shall hire a Monitoring Specialist to develop and submit a Vibration Monitoring Plan for all structures within 100 ft of any vibration-inducing activity and obtain acceptance by the Engineer for the method, installation, and details of the Vibration Monitoring Plan. The Vibration Monitoring Plan shall be signed and stamped by a professional Engineer licensed in the State of Washington. Vibration-inducing activities include, but are not limited to sheet pile installation, construction drilling, soil compaction, and excavation. The Vibration Monitoring Plan shall include the following:

1. Construction methods and equipment that the Contractor chooses to use to achieve low project vibration levels.
2. Appropriate Peak Particle Velocity (PPV) thresholds for all structures to be monitored for vibrations.
3. A Corrective Action Plan, including alternative construction methods and equipment that will be used if the PPV threshold is reached or exceeded.
4. Detailed description(s) of the vibration monitoring system(s) and if necessary, catalog cuts of monitoring equipment that will be used; how the equipment will be calibrated and re-calibrated, if necessary during the life of the project; description and schematics if necessary of how the independent components will function as a system.
5. Identification of the individual, and their contact information, designated to oversee the vibration monitoring system(s); and the daily recording activities required in this specification. A brief description of qualifications or resume of the individual is also required.
6. A description of how site monitoring equipment will be deployed to continuously record vibration events during construction activity. Depending on the equipment deployed and method chosen for networking, it is possible there will need to be both electrical power and telecommunications connections available at multiple locations. The Vibration Monitoring Plan shall address how the Contractor will provide utility service to the equipment, protect the equipment from potential vandalism and the elements, and monitor the overall system's day-to-day operation.
7. Details for establishing and deploying an alarm system to announce immediate shut down of all site activities if a vibration event occurs that exceeds the PPV threshold. The alarm system shall provide emails and/or text messages to pre-determined Contracting Agency and Contractor personnel in the event of an exceedance.
8. A protocol for the identification of the activity or equipment that caused the PPV threshold to be exceeded.
9. Description of the process that will be used to verify that the equipment will function as planned before starting work and the process that will be used to verify (daily) that the equipment remains in calibrated working order.
10. A detailed protocol including responsible parties to be notified if an exceedance occurs. This includes but is not limited to the construction superintendent and the Engineer.
11. Daily activity log of vibration activity to ensure the identification of the cause of any vibration event. A daily log shall be maintained either in written or electronic form.

2-02.3(5) Vibration Limits

After a thorough conditions evaluation, the Contractor shall propose in the Vibration Monitoring Plan appropriate PPV limits for the monitored structures. The PPV limit proposed by the Contractor shall be determined by a qualified expert in the field of vibration monitoring. In no case shall the PPV limit exceed 0.5 inches per second (ips). To ensure the PPV limit is not exceeded, an alert threshold shall be implemented to signal any vibration event that equals 80 percent of the PPV limit.

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2-02.3(6) Monitoring and Reporting

During vibration-inducing construction activities, monitoring points shall be measured in accordance with the Vibration Monitoring Plan, as approved by the Engineer. Vibration monitoring data shall be recorded continuously. No site work shall begin until all monitoring equipment is deployed and verified to be operating in accordance with factory recommendations and specifications.

Vibration Monitoring Reports shall be provided to the Engineer daily. The Engineer shall be notified immediately if displacements occur or if cracks, sags, or other damage is evident in adjacent structures. The Engineer shall also be notified if the PPV limits for the monitored structures are exceeded.

2-02.3(7) Post-Construction Condition Survey

Upon completion of construction, the Contractor shall perform a Post-Construction Condition Survey and analysis at the designated structures to determine if any structural changes occurred during the construction activity.

The Contractor shall notify the Contracting Agency a minimum of five working days prior to completing Post-Construction Condition Survey inspections to allow the Contracting Agency's representative to be present during inspections.

Crack measurement templates shall be measured upon completion of construction activities and prior to removal on at least two occasions no less than 24 hours apart.

A copy of the Post-Construction Condition Survey shall be furnished to the Contracting Agency, Engineer, and, unless the property owner declines in writing, to the affected property owner. The Contractor shall also provide the Contracting Agency and Engineer with a copy of all daily log summaries for all settlement, vibration, and crack monitors, and analysis documents comparing pre- and post-structural conditions prior to total project completion.

2-02.3(8) Removal of Monitoring Points

Upon completion of the settlement and vibration monitoring programs, the Contractor shall remove all associated equipment and restore the monitoring locations to pre-construction conditions.

2-02.3(9) Contractor Damage

The Contractor shall be responsible for limiting damage to and repairing damages to nearby structures and site features because of construction efforts, at no expense to the Contracting Agency. Repair of structures includes but is not limited to jacking of foundations and repair of concrete surfacing.

2-02.4 Measurement

Settlement and Vibration Monitoring will not be measured for payment.

2-02.4 Payment

Payment will be made for the following Bid item:

"Settlement and Vibration Monitoring," lump sum.

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The lump sum Contract price for “Settlement and Vibration Monitoring” shall be full pay for performing all Work as specified. There will be no compensation for delays as a result of exceeding PPV thresholds or limits or delays from faulty or damaged monitoring equipment. There will be no compensation for adjustment of construction activities or equipment to reduce the vibration levels to less than the PPV limits, should an exceedance occur.

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2-03 PUBLIC CONVENIENCE AND SAFETY

2-03.3 Construction Requirements

2-03.3(1) Construction Under Traffic

(February 17, 2026 APWA GSP)

Revise the third sentence of the second paragraph to read:

Accessibility to existing or temporary pedestrian push buttons shall not be impaired, if approved by the Contracting Agency activating pedestrian recall timing or other accommodation may be allowed during construction.

(September 11, 2026 WSDOT GSP, OPTION 5)

Section 2-03.3(1) is supplemented with the following:

Lane, ramp, shoulder, and roadway closures are only permitted as follows:

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

- No paving or planing (milling) shall occur in residential areas on refuse, recycle, and yard waste collection days. Collection schedules are available at www.federalwaywa.gov/page/solid-waste-and-recycling.

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. Exceptions to these restrictions are listed below and when applicable take precedence over closures listed above. The Engineer may also consider on a case-by-case basis additional exceptions following a written request by the Contractor.

Lane, ramp, shoulder, and roadway 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.

5. Within the City Center zone from the Friday after Thanksgiving Day (“Black Friday”) until the first City recognized business day of the following year without written approval by the Engineer. The boundaries of the City Center zone are identified in the City of Federal Way Comprehensive Plan. In general, it is the area located within the following boundaries:

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Northern boundary: S 312th Street
Southern boundary: S 324th Street
Eastern boundary: Interstate 5
Western boundary: 14th Ave S (future extension) / Federal Way 320th Library / 11th Pl S

6. During student drop-off and pick-up times on school days if a school is located in or within 1/8 mile of the project limits or if the engineer determines the construction could impact school traffic during these peak times.
   a. Student Drop-Off (typically in morning): 20 minutes prior to school start time until 10 minutes after school start time.
   b. Student Pick-Up (typically in afternoon): 20 minutes prior to school end time until 20 minutes after school end time.
   c. Daily bell schedules, as well as calendars which reflect no-school days, early release days, and half-days are available on FWPS.org.

Traffic Delays
When Automated Flagger Assistance Devices (AFADs) or flaggers are used to control traffic, traffic shall not be stopped for more than two minutes at any time. All traffic congestion shall be allowed to clear before traffic is delayed again.

If the delay becomes greater than two minutes, the Contractor shall immediately begin to take action to cease the operations that are causing the delays. If the two minute delay limit has been exceeded, as determined by the Engineer, the Contractor shall provide to the Engineer, a written proposal to revise his work operations to meet the two minute limit. This proposal shall be accepted by the Engineer prior to resuming any work requiring traffic control.

There shall be no delay to medical, fire, or other emergency vehicles. The Contractor shall alert all flaggers and personnel of this requirement.

General Restrictions
Construction vehicles using a closed traffic lane shall travel only in the normal direction of traffic flow unless expressly allowed in an accepted traffic control plan. Construction vehicles shall be equipped with flashing or rotating amber lights.

No two consecutive on-ramps, off-ramps, or intersections shall be closed at the same time and only one ramp at an interchange shall be closed, unless specifically shown in the Plans.

Roads or ramps that are designated as part of a detour shall not be closed or restricted during the implementation of that detour, unless specifically shown in the Plans.

Controlled Access
No special access or egress shall be allowed by the Contractor other than normal legal movements or as shown in the Plans.

Contractor's vehicles of 10,000 GVW or greater shall not exit or enter a lane open to public traffic except as follows:

Egress and ingress shall only occur during the hours of allowable lane closures, and:

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1. For exiting an open lane of traffic, by decelerating in a lane that is closed during the allowable hours for lane closures.

2. For entering an open lane of traffic, by accelerating in a closed lane during the allowable hours for lane closures.

Traffic control vehicles are excluded from the gross vehicle weight requirement. If placing construction signs will restrict traveled lanes, then the work will be permitted during the hours of allowable lane closures.

Advance Notification
The Contractor shall notify the Engineer in writing of any traffic impacts related to lane closure, shoulder closure, sidewalk closure, or any combination for the week by 12:00 p.m. (noon) Wednesday the week prior to the stated impacts.

The Contractor shall notify the Engineer in writing ten working days in advance of any traffic impacts related to full roadway closure, ramp closure, or both.

The Contractor shall notify the Engineer in writing of any changes to the stated traffic impacts a minimum of 48 hours prior to the traffic impacts.

(November 14, 2025, CFW GSP)
Section 2-03.3(1) is supplemented with the following:

At least 48 hours prior to conducting work that temporarily impacts access to adjacent properties (i.e. paving operations), the Contractor shall notify all affected property owners and tenants. Notification shall be in the format of a door hanger. Information provided on the door hanger must be approved by the City prior to distribution.

(November 14, 2025, CFW GSP)
Section 2-03.3(1) is supplemented with the following:

For projects with bid schedules located in multiple locations throughout the City, the Contractor shall not have personnel or subcontractors working on-site at more than two schedules at any given time.

(March 21, 2025, CFW GSP)
Section 2-03.3(1) is supplemented with the following:

Traffic signals shall only be switched into flash mode by City staff or King County Traffic personnel. Placing a signalized intersection into flash mode requires pre-approval by the City via an approved traffic control plan. The type of work that requires signals to be placed into flash mode may include, but is not limited to: installation of signal poles; signal switchover; paving, striping, or excavation in the intersection.

2-03.3(3) Work Zone Clear Zone
(April 17, 2026 CFW GSP)
Section 2-03.3(3) is supplemented with the following:

During nonworking hours equipment or materials shall not be within the public right-of-way unless approved by the City. Storage of materials and equipment is not allowed within the public right-of-way.

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2-04 TEMPORARY TRAFFIC CONTROL

2-04.3(1) Traffic Control Management

(September 2, 2025 WSDOT GSP, OPTION 1)

Section 2-04.3(1) is supplemented with the following:

Work Zone Safety Contingency

Enhancements to improve the effectiveness of the accepted traffic control plans to increase the safety of the work zones shall be discussed on a weekly basis between the Contractor and the Contracting Agency. Enhancements shall be mutually agreed upon by the Contractor and Engineer prior to performing any Work to implement the enhancement.

Enhancements do not include the use of Uniformed Police Officers or WSP, address changes to the allowed work hour restrictions, or changes to the staging plans in the Contract (if applicable). If allowed by the Engineer, these items will be addressed in accordance with Section 1-04.4.

The Contractor shall be solely responsible for submitting any traffic control plan revision to implement the enhancement in accordance with Section 2-04.3(2).

(March 9, 2026 WSDOT GSP, OPTION 2)

Section 2-04.3(1) is supplemented with the following:

The Traffic Control Supervisor shall be certified by one of the following:

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
https://atssa.com/training

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778
https://www.esc.org

Integrity Safety
13912 NE 20th Ave
Vancouver, WA 98686
(360) 574-6071
https://www.integritysafety.com

K&D Services Inc.
2719 Rockefeller Ave.
Everett, WA 98201
(800) 343-4049
https://www.kndservices.net

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.

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Kingston, WA 98346
(360) 297-3035
https://www.nwlett.edu

Trafficorp
5077 N. Bldg Center Drive
Coeur d'Alene, ID 83815
(208) 665-4683
https://trafficorp.com/contact-us/

US Safety Alliance
(904)705-5660
https://www.ussafetyalliance.com

2-04.3(2) Traffic Control Plans
(November 6, 2025 CFW GSP)

Section 2-04.3(2) is supplemented with the following:

If the Contractor opts to utilize traffic control plans other than those provided in these Contract Documents, the Contractor shall provide traffic control plans to the City of Federal Way for review and approval a minimum of five (5) working days prior to implementation. The plans shall include the following information:

- Location and spacing of traffic control devices
- Minimum lane widths provided for vehicular travel.
- Turn pocket length, gap, and tapers
- Location of proposed flagger stations

2-04.3(4)A Flaggers
(******)

Section 2-04.3(4)A is supplemented with the following:

Flaggers shall only be utilized when identified in the approved Traffic Control Plan. The use of a flagger for any location, movement, or operation not shown on the approved Traffic Control Plan is prohibited, except for emergency situations as described in Section 1-10.2(2). If flagging is determined to be necessary for a condition not anticipated in the approved Traffic Control Plan, the Contractor shall submit a revised or supplemental Traffic Control Plan to the Engineer for review and approval prior to implementing the flagging operation.

2-04.3(4)B Other Traffic Control Labor
(February 17, 2026, APWA GSP)

Section 2-04.3(4)B is supplemented with the following:

Uniformed Police Officer

Definitions:

Uniformed Police Officer as used in this specification is a "General Authority Washington Peace Officer" as defined by RCW 10.93.020 (4), or a "Specially Commissioned Washington Peace Officer" as defined by RCW 10.93.020(11).

Law Enforcement Agency as used in this specification is a "General Authority Washington Law Enforcement Agency" as defined by RCW 10.93.020(3).

The Contractor shall arrange for off-duty UPOs to be present for the following activities:

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1. At the commissioning of a new traffic signal, or the recommissioning of an existing traffic signal which has been upgraded.

2. Countermanding a traffic signal indication at a signalized intersection.

3. Directing vehicle and pedestrian traffic when a traffic signal indication is turned off or is inoperative.

4. Where the Engineer deems it necessary for safety, including Work during hours of darkness.

It shall be the Contractor's responsibility to secure the off duty UPO as required by the Contract, including the costs to arrange, coordinate, and supervise.

The following contact information is supplied for the Contractor's convenience:

Agency Police Officer
Contact: City of Federal Way Police
Phone: (253) 835-6701
County Deputy Sheriff
Contact: King County Sheriff
Phone: (206) 296-4155
Washington State Patrol
Contact: Washington State Patrol
Phone: (425) 401-7788

The Contractor must obtain prior approval for use of off-duty UPOs through an approved traffic control plan and approved amendments to the Contract traffic control Plans. The off-duty UPO shall be in addition to all other personnel required for flagging according to the approved traffic control plan.

A UPO shall be provided in the event of accidental power outages or disruption of a signalized intersection as a result of Contractor's Work and remain in place until the intersection becomes satisfactorily operational as determined by Agency Engineer or his/her representative.

The UPO shall provide their Agency Police Vehicle with active light bars for night visibility.

(November 13, 2025, CFW GSP)

Section 2-04.3(4)B is supplemented with the following:

The Federal Way Chief of Police must approve the use of UPO's from another law enforcement agency.

Agency Police Vehicles are required to be on-site at all times when a UPO is present.

2-04.3(6)A Construction Signs

(November 14, 2025 CFW GSP)

Section 2-04.3(6)A is supplemented with the following:

Business Open During Construction Signs

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The Contractor shall provide a "Business Open During Construction" sign at every non-residential driveway approach within the project limits.

City of Federal Way Project Signs
The Contractor shall provide two (2) City project signs (4' x 8') to be posted on either end of the project to display the project name, partners, and funding sources. The Contractor shall request the sign template from the City prior to fabrication.

2-04.3(6)K Pedestrian Traffic Control
(November 14, 2025 CFW GSP)
Section 2-04.3(6)K is supplemented with the following:

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.

2-04.4 Measurement

2-04.4(2) Item Bids with Lump Sum for Incidentals
(November 14, 2025 CFW GSP)
Section 2-04.4(2) is supplemented with the following:

"Traffic Control Supervisor" shall be inclusive of all office engineering, CAD drafting, technical reviews, and plan revisions required to refine, modify, or secure approval for temporary traffic control plans (TCPs) throughout the duration of the project.

"Other Temporary Traffic Control Devices" shall be inclusive of flexible guide posts, Construction Signs Class A, and City Project signs.

2-04.5 Payment

2-04.5(2) Item Bids with Lump Sum for Incidentals
(November 2, 2022 WSDOT GSP, OPTION 7)
Section 2-04.5(2) is supplemented with the following:

"Work Zone Safety Contingency", by force account.

All costs as authorized by the Engineer will be paid for by force account as specified in Section 1-09.6.

For purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount for the item "Work Zone Safety Contingency" in the Proposal to become a part of the Contractor's total bid.

The Engineer may choose to use existing bid items for the implementation of the agreed upon enhancement.

DIVISION 3
EARTHWORK

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3-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

3-01.1 Description

(March 13, 1995 WSDOT GSP, OPTION 1)

Section 3-01.1 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.

3-01.3 Construction Requirements

3-01.3(4) Roadside Cleanup

(January 5, 1998 WSDOT GSP, OPTION 1)

Section 3-01.3(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.

3-01.3(5) Clearing Limit Fence

(April 12, 2018 CFW GSP)

Section 3-01.3(5) is a new section:

Clearing limit fence shall be 4-feet 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.

3-01.4 Measurement

(April 12, 2018 CFW GSP)

Section 3-01.4 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.

3-01.5 Payment

(April 12, 2018 CFW GSP)

Section 3-01.5 is supplemented with the following:

"Clearing and Grubbing", lump sum.

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3-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

3-02.3 Construction Requirements

(September 7, 2021 WSDOT GSP, OPTION 1)

Section 3-02.3 is supplemented with the following:

Removal of Obstructions

The following miscellaneous Obstructions shall be removed and disposed of:

ITEMS TO BE REMOVED: [1, 2]		
STATION / OFFSET	**ITEM DESCRIPTION**	**QUANTITY**
24+06.0 to 41+41.8	Remove Tuff Curb and Post	1736 LF
1+50 to 32+00, 53.0' RT	Remove Ecology Blocks	7 EA
27+35.8 to 32+57.2, 35.7' LT 28+62.7 to 29+35.5, 94.9' LT 30+73.3 to 31+50.0, 110.0' LT	Remove Fence	1372 LF
100+87.6, 26.2' RT 100+87.8, 23.5' RT	Remove Existing Stand Pipes and Concrete Foundations	2 EA
102+74.1, 14.6' RT	Remove Existing Mailbox	1 EA
32+54.4, 41.4' LT	Remove Existing Power Meter	1 EA
ITEMS TO BE SALVAGED TO THE CITY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING:		
Tuff Curb and Post Ecology Blocks		
[1] The above list of items to be removed and disposed of is provided for the convenience of the contractor. The contractor shall review the plans, specifications, and project site to verify other items to be removed. *[2] Removal of pavements, curbs, sidewalks, concrete panels, and driveway approaches are included in the "Roadway Excavation Incl. Haul" bid item.*		

(October 4, 2021 WSDOT GSP, OPTION 5)

Section 3-02.3 is supplemented with the following:

Removal and Disposal of Asbestos Material

In the event suspected Asbestos Containing Material (ACM) is encountered, the Contractor shall immediately notify the Engineer and the provisions of Section 1-04.7 shall apply. Prior to commencing asbestos related work, the Contractor shall obtain all permits from and provide notification to, the Washington State Department of Labor and Industries, the Washington State Department of Ecology, the local clean air agency, and other permitting and regulatory agencies with jurisdiction over the work involving asbestos as the laws, rules, and regulations require.

The ACM shall only be disturbed under the supervision of a Washington State Certified Asbestos Supervisor (CAS). The CAS shall be certified in accordance with WAC 295-65-012.

The CAS shall supervise the asbestos removal and ensure that the handling and removal of asbestos is accomplished by certified asbestos workers and in accordance with Washington State Department of Labor and Industries standards. The Contractor shall ensure that the removal and disposal of asbestos meets the requirements of EPA regulation 40 CFR Part 61, local health department regulations, and all other applicable regulations.

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No asbestos is expected to be encountered. However, if the Contractor believes they have encountered asbestos, they shall immediately notify the Engineer in accordance with Section 1-04.7.

3-02.3(2)B Removal of Drainage Structures
(April 12, 2018 CFW GSP)

Section 3-02.3(2)B is a new section:

Where shown in the Plans or where designated by the Engineer, the Contractor shall remove existing catch basins, manholes, pipes, and other drainage features in accordance with the Standard Specifications. Removal shall be conducted in such a manner as to prevent damage to surrounding facilities including any existing storm sewers, sanitary sewers, electrical conduits or other facilities to remain. All remaining facilities including but not limited to storm sewers, sanitary sewers, monuments, valves, vaults, and electrical conduits damaged due to the Contractor's operations shall be replaced by the Contractor to the satisfaction of the Engineer at no additional cost to the Contracting Agency. Catch basins, manholes, and other drainage structures designated for removal, including all debris, shall be completely removed. All removed catch basins, manholes, and other drainage structures shall become the property of the Contractor and shall be disposed of in accordance with the Standard Specifications. All undamaged frames, grates, and solid covers in a re-useable condition shall be the property of the City of Federal Way and shall be delivered to a location specified by the Engineer.

Sawcutting (full depth) of existing asphalt concrete pavement and cement concrete curb and gutter surrounding the structure required for removal will be considered incidental to the removal of the catch basin, manhole, or other drainage structures. Sawcuts shall be in accordance with Section 3-02 of these Special Provisions.

Backfilling of catch basins, manholes, pipes and other drainage structures to be removed and replaced shall not be performed until the new structure is installed and shall be in accordance with Section 7-05. Backfilling of a structure to be replaced shall be considered incidental to the construction and installation of the new catch basin, manhole, or other drainage structure. Backfilling of catch basins, manholes, pipes and other drainage structures to be completely removed shall be performed using gravel borrow paid in accordance with the Bid Schedule.

Prior to backfilling any voids, the Contractor shall remove pipe as noted in the plans. Pipe shown to be abandoned or ordered by the Engineer to be abandoned shall be filled with CDF in accordance with Section 3-07.3(1)E of the Standard Specifications. Plugging pipe ends shall be considered incidental and included in the pipe removal and no additional payment will be made.

The Contractor shall maintain existing drainage, where designated by the Engineer, until the new drainage system is completely installed and functioning.

3-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters
(September 11, 2026 CFW GSP)

Section 3-02.3(3) is supplemented with the following:

No wastewater from the sawcutting operation shall be released directly to any stream or storm sewer system.

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3-02.4 Vacant

(April 17, 2026 CFW GSP)

Section 3-02.4 Vacant shall be deleted and replaced with the following:

3-02.4 Measurement

"Sawcutting" will be measured by the linear foot. Sawcutting necessary for utility and stormwater installation and removal are incidental to the measurement and payment of those contract items.

"Remove Existing Catch Basin" will be measured per each.

"Remove Existing Storm Sewer Pipe" will be measured per lineal foot.

3-02.5 Payment

(April 17, 2026 CFW GSP)

Section 3-02.5 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 Structures and Obstructions", lump sum. Structure Excavation Class B for the removal of items shall be considered included in this bid item.

"Sawcutting", per linear foot.

"Remove Existing Catch Basin", per each.

"Remove Existing Storm Sewer Pipe", per linear foot.

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3-03 ROADWAY EXCAVATION AND EMBANKMENT

3-03.3 Construction Requirements

Section 3-03.3(3) Excavation Below Subgrade
(November 4, 2025 CFW GSP)

Section 3-03.3(3) is supplemented with the following:

All excavations shall be founded on dense, non-yielding granular foundation soil as approved by the engineer. Remove all organic materials and debris, trash, or other deleterious material prior to beginning construction above subgrade. Proof roll the subgrade as directed by the Engineer.

Section 3-03.3(10) Selected Material
(November 4, 2025 CFW GSP)

Section 3-03.3(10) is supplemented with the following:

If the Contractor requests the use of Selected Material, the Contractor shall complete and provide material gradation test results to the City for the City's use in evaluating the material.

Section 3-03.3(14)G Backfilling
(February 21, 2024 CFW GSP)

Section 3-03.3(14)G is supplemented with the following:

Remove all water and non-compatible materials from excavations prior to backfilling or attempting to compact embankment soil. Provide import Gravel Borrow as required to complete the work. Backfill all embankments in accordance with 3-03.3(14)C, Compacting Earth Embankments, Method C.

Section 3-03.3(20) Wet Weather Earthwork
(November 4, 2025 CFW GSP)

Section 3-03.3(20) is a new section:

Excavation and embankment work completed in wet weather or under wet conditions shall be accomplished in small sections to minimize exposure to wet weather. Each section shall be sufficiently small so that the removal of materials and placement of backfill can be accomplished on the same day. No soil shall be left un-compacted and exposed to water. Soil that is too wet for compaction shall be removed and replaced with Gravel Borrow material. Grading and earthwork should not be accomplished during periods of heavy continuous rainfall.

3-03.4 Measurement
(March 13, 1995 WSDOT GSP, OPTION 2)

Section 3-03.4 is supplemented with the following:

Only one determination of the original ground elevation will be made on this project. Measurement for roadway excavation and embankment will be based on the original ground elevations recorded previous to the award of this contract.

If discrepancies are discovered in the ground elevations which will materially affect the quantities of earthwork, the original computations of earthwork quantities will be adjusted accordingly.

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Earthwork quantities will be computed, either manually or by means of electronic data processing equipment, by use of the average end area method or by the finite element analysis method utilizing digital terrain modeling techniques.

Electronic Design Files will be available by request for the Bidder's Inspection before the opening of the Bids.

(November 4, 2025 CFW GSP)

Section 3-03.4 is supplemented with the following:

If the Contractor excavates outside the neat-line limits designated for "Roadway Excavation, Incl. Haul" or performs extra excavation, it shall be considered for the Contractor's benefit and this additional work shall not be eligible for payment from the City.

3-03.5 Payment

(March 13, 1995 WSDOT GSP, OPTION 2)

Section 3-03.5 is supplemented with the following:

All costs in connection with the preparation of waste sites and waste deposits shall be included in the Mobilization.

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3-07 STRUCTURE EXCAVATION

3-07.3 Construction Requirements

3-07.3(1) General Requirements
(March 22, 2023 CFW GSP)

Section 2-09.3(1) is supplemented with the following:

All shoring, including sheeting and bracing, or equivalent trench stabilization and worker protection system required to perform and protect the excavation, and to safeguard the personnel who may enter the excavation, shall be furnished by the Contractor. If workers enter any trench or other excavation four feet (4') or more in depth that does not meet the open pit requirements as generally set forth in Section 2-09.3(3)B, it shall be shored.

The Contractor alone shall be responsible for worker safety, and the Contracting Agency assumes no responsibility therefore.

Upon completing the Work, the Contractor shall remove all shoring, unless otherwise shown in the Plans or directed by the Engineer.

The Contractor is advised that the Contracting Agency has not so delegated, and the Engineer does not purport to be, a trench excavation system safety expert, is not so engaged in that capacity under this Contract, and has neither the authority nor the responsibility to enforce construction safety laws, rules, regulations, or procedures, or to order the suspension of work for claimed violations of trench excavation safety.

The furnishing by the Contracting Agency of resident project representation and inspection shall not make the Contracting Agency responsible for the enforcement of such laws, rules, regulations, or procedures, nor shall such make the Contracting Agency responsible for construction means, methods, techniques, sequences, procedures, or for the Contractor's failure to properly perform the Work necessary for proper trench excavation.

3-07.3(1)D Disposal of Excavated Material
(November 14, 2025 CFW GSP)

Delete paragraph 2 and 3 of this section and replace with the following:

If the Contract includes Structure Excavation, Class A or B, including haul; or Shoring or Extra Excavation, Class A or B, the unit contract price shall include all costs for loading, hauling, and disposing of excavated materials to a permitted disposal site, or to and from a temporary stockpile.

3-07.3(1)E Backfilling
(April 12, 2018 CFW GSP)

The first paragraph of Section 3-07.3(1)E is replaced with the following:

The backfilling of openings dug for Structures or for Removal of Structures and Obstructions shall be a necessary part of and incidental to the excavation. Backfill material shall be Gravel Borrow unless the use of native or other material is approved by the engineer.

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3-07.3(3) Construction Requirements, Structure Excavation, Class A

3-07.3(3)F Trench Safety Systems
(March 17, 2020 CFW GSP)

Add the following new subsection:

The Contractor shall provide all materials, labor, and equipment necessary to shore trenches to protect the Work, and existing improvements and natural features not designated for removal, and to provide safe working conditions in the trench. The Contractor may elect to use any combination of shoring and overbreak, tunneling, boring, sliding trench shield, or other method of accomplishing the Work consistent with applicable local, State, or Federal safety codes.

If workers enter any trench four (4) feet or more in depth that does not meet the open pit requirements of Section 2-09.3(3)B, the excavation shall be shored as provided in Section 2-09.3(4). The Contractor alone shall be responsible for worker safety, and the Contracting Agency assumes no responsibility.

Upon completing the Work, the Contractor shall remove all shoring unless the Plans or the Engineer direct otherwise.

Shoring to be removed, or moveable trench shields or boxes, shall be located at least two and one-half (2-1/2) pipe diameters away from metal or thermoplastic pipe if the bottom of the shoring, shield, or box extends below the top of the pipe, unless a satisfactory means of reconsolidating the bedding or side support material disturbed by shoring removal can be demonstrated.

Damages resulting from improper shoring or failure to shore shall be the sole responsibility of the Contractor.

The furnishing by the Contracting Agency of resident project representation and inspection shall not make the Contracting Agency responsible for the enforcement of such laws, rules, regulations, or procedures, nor shall such make the Contracting Agency responsible for construction means, methods, techniques, sequences, procedures, or for the Contractor's failure to properly perform the Work necessary for proper trench excavation safety.

3-07.4 Measurement
(March 17, 2020 CFW GSP)

Section 3-07.4 is supplemented with the following:

No unit of measurement shall apply to the lump sum price for "Trench Safety System".

3-07.5 Paymen(March 17, 2020 CFW GSP)

Replace the fifteenth paragraph with the following:

"Trench Safety System", lump sum.
If there is no bid item for Shoring or Extra Excavation, Class B on a square foot basis and the nature of the excavation is such that shoring is required then the lump sum contract price for "Trench Safety System" shall be full payment for:

1) All temporary shoring or equivalent trench stabilization including all design and engineering fees.

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2) Furnishing, constructing, and removing all temporary shoring or equivalent trench safety systems.

END OF DIVISION 3

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DIVISION 4
AGGREGATES AND BASES

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4-01 PRODUCTION FROM QUARRY AND PIT SITES

4-01.4 Contractor Furnished Material Sources

4-01.4(1) Acquisition and Development

(April 12, 2018 CFW GSP)

Section 4-01.4(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.

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4-05 BALLAST AND CRUSHED SURFACING

4-05.3 Construction Requirements

4-05.3(3) Mixing

(April 12, 2018 CFW GSP)

Item 2 of Section 4-05.3(3), is replaced with the following:

2. **Road Mix Method** - The road mix method of mixing surfacing material will not be allowed.

4-05.3(4) Placing and Spreading

(April 12, 2018 CFW GSP)

Item 2 of Section 4-05.3(4), is replaced with the following:

2. **Road Mix Method** - The road mix method of mixing surfacing material will not be allowed.

4-05.5 Payment

(January 19, 2024 CFW GSP)

Section 4-05.5 is supplemented with the following:

The unit contract price for Crushed Surfacing and Shoulder Finishing shall also include hauling, compacting, spreading, and removing to waste when required by the Engineer.

END OF DIVISION 4

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DIVISION 5
SURFACE TREATMENTS AND PAVEMENTS

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5-04 HOT MIX ASPHALT

(September 2, 2026 APWA GSP)
Delete Section 5-04 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 (RAP)	9-03.8(3)B, 9-03.21
Reclaimed Asphalt Shingles (RAS)	9-03.8(3)B, 9-03.21
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21

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.

If the Contractor wishes to utilize High RAP/Any RAS, the design must be listed on the WSDOT Qualified Products List (QPL).

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.

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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, temporary pavement, 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. * (see below)
- 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. * (see below)

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:

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- Be designed for 16.3 million equivalent single axle loads (ESALs).
- 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 required, 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 Mix Design. 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 ESALs 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

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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.

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3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.

4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field-testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).

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

    a. A mechanical sampling device attached to the HMA plant.

    b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The Contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

5-04.3(3)C Pavers

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

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The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless otherwise required by the Contract.

Where an MTD/V is required by the Contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to placement 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.

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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

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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. PG grade asphalt or non-tracking tack formulas may be used upon approval of the Engineer.

5-04.3(4)A Crack Sealing

When the Proposal includes a pay item for crack sealing, seal cracks in accordance with Section 5-03.

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

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disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

(******)

Section 5-04.3(4)C is supplemented with the following:

The Contractor shall patch and restore all streets, driveways and parking lots removed or damaged during construction. All damaged or removed pavements, both within the public right-of-way and on private property, shall be patched/restored as specified herein and as required by the Engineer.

Temporary HMA patching is required where there is vehicular and/or pedestrian traffic and permanent pavement cannot be placed immediately or as otherwise approved by the Engineer. Permanent patching shall be constructed at the locations shown on the Contract Drawings or approved by the Engineer.

Unless otherwise approved by the Engineer, temporary patching shall be constructed within 48 hours of street cut and permanent patching shall be completed within 1 week after final service is made.

Within the limits specified herein, unless otherwise approved by the Engineer, actual proportions of aggregates and asphalt binder shall be determined by the Contractor to provide a finished pavement having a smooth, uniform surface texture.

HMA pavement shall be placed and compacted in accordance with the applicable requirements herein - Section 5-04 as amended by the Special Provisions. The material shall be placed to avoid any segregation of aggregate and to form a smooth surface matching the existing pavement. The completed surface shall not vary more than 1/8-inch from the lower edge of a straightedge placed across the patched area.

The neat line joint shall be painted with a coating of cut-back HMA. After placing of new pavement, the surface meet line shall be painted with CSS-1 emulsified asphalt and immediately covered with clean, dry sand.

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

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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 placed 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.

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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.

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Aggregate Percent Passing	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), except as specified below in (c). 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.

c. These tolerances and specification limits constitute the allowable limits as described in Section 1-06.2. The tolerance limit for aggregate shall not exceed the limits of the control points, except the No. 8 tolerance is +/- 6% from the JMF, the No. 200 tolerance is +/- 2.0% from the JMF with a minimum of 2% and a maximum of 8.0% passing the No. 200 sieve. Other tolerance limits for sieves designated as 100 percent passing will be 99-100

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

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Formula placed. Only one lot per JMF is expected. A sublot shall be equal to one day's production or 800 tons, whichever is less except that the final sublot will be a minimum of 400 tons and may be increased to 1200 tons.

All of the test results obtained from the acceptance samples from a given lot shall be evaluated collectively. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

Sampling and testing for evaluation shall be performed on the frequency of one sample per sublot.

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASHTO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall be tested.

Sampling and testing HMA in a structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.

- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a CPF shall be performed.

5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing

Testing of HMA for compliance of V_a will at the option of the Contracting Agency. If tested, compliance of V_a 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 CPF using the following price adjustment factors:

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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

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 CPF.

5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests

The Contractor may request a sublot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency, V_a. The results of the retest will be used for the acceptance of the HMA in place of the original sublot sample test results. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of $500 per sample.

5-04.3(9)D Mixture Acceptance – Commercial Evaluation

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract

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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 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 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.

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For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling wheel rutting shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

Test Results

For a sublot that has been tested with a nuclear density gauge that did not meet the minimum of 92 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative density of the sublot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the sublot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

When cores are taken by the Contracting Agency at the request of the Contractor, they shall be requested by noon of the next workday after the test results for the sublot have been provided or made available to the Contractor. Core locations shall be outside of wheel paths and as determined by the Engineer. Traffic control shall be provided by the Contractor as requested by the Engineer. Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request for cores. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the cost for the coring will be deducted from any monies due or that may become due the Contractor under the Contract at the rate of $200 per core and the Contractor shall pay for the cost of the traffic control.

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

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking, or shoving occurs. Areas inaccessible to large compaction equipment shall be compacted by other mechanical means. Any HMA that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced with new hot mix that shall be immediately compacted to conform to the surrounding area.

The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option, provided the specified densities are attained. Unless the Engineer has approved otherwise, rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F. Regardless of mix temperature, a roller shall not be operated in a mode that results in checking or cracking of the mat. Rollers shall only be operated in static mode on bridge decks.

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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 $1500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

5-04.3(10)D1 HMA Nonstatistical Compaction - Lots and Sublots

HMA compaction which is accepted by nonstatistical evaluation will be based on acceptance testing performed by the Contracting Agency dividing the project into compaction lots.

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot shall be equal to one day's production or 400 tons, whichever is less except that the final sublot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per sublot per WSDOT T 738.

The sublot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used to prelevel wheel ruts shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each sublot, with one test per sublot.

5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a sublot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-

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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).

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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 CPF of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
3. When either the PF for any constituent or the CPF of a lot in progress is less than 0.75.

5-04.3(12) Joints

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)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 placed 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 placed 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

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less than the maximum aggregate size or more than ½ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

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 ⅛ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than ¼ inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, the pavement surface shall be corrected by one of the following methods:

1. Removal of material from high places by grinding with an approved grinding machine, or

2. Removal and replacement of the wearing course of HMA, or

3. By other method approved by the Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of $1500.00 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 and Pre-Planing Briefing (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 planing submittals.

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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.

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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

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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 police 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.

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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, 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 the Paving and Planing:

    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, public convenience and safety, and other Contractors who may operate in the Project limits.

    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 planing and 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, streetcar rail, and castings, before planing as per Section 5-04.3(14)B2.

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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 of 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 of equipment as it relates to meeting Specification requirements.

c. Number of JMFs to be placed, and if more than one JMF is used, how the Contractor will ensure different JMFs are distinguished, how pavers and how MTVs are distinguished, 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(16) HMA Road Approaches

Construct HMA approaches at the locations shown in the Plans or where staked by the Engineer, in accordance with Section 5-04.

5-04.3(17) Temporary Asphalt Pavement

(December 1, 2021 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 or pavement restoration within the traveled way. Whether temporary or permanent, saw cut

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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. ½" PG 58H-22 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.

Planing bituminous pavement will be measured by the square yard.

(******)

Section 5-04.4 is supplemented with the following:

Raised Asphalt Edge shall be included to the cost of HMA Cl. ½" PG 58H-22.

Asphalt for Commercial Driveway shall be included to the cost of HMA Cl. ½" PG 58H-22

(December 1, 2021 CFW GSP)

Section 5-04.4 is supplemented with the following:

"Remove and Replace HMA Speed Hump, Complete", per each. The unit contract price per each for Remove and Replace HMA Speed Hump, Complete shall be full compensation for all tools, labor, equipment, and materials necessary to remove and reinstall the HMA Speed Hump and pavement markings, including, but not limited to: grinding, pavement removal, excavation, asphalt placement, plastic pavement markings, and raised pavement markers.

(June 13, 2023 CFW GSP)

Section 5-04.4 is supplemented with the following:

Existing paving fabric encountered during planing shall be removed incidental to planing bituminous pavement. Additional street sweeping and disposal associated with paving fabric removal shall be incidental to planing bituminous pavement.

(April 17, 2026 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,

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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. ½" PG 58H-22", per ton.
The unit Contract price per ton for "HMA Cl. ½" PG 58H-22 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.

"Planing Bituminous Pavement", per square yard.

END OF DIVISION 5

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DIVISION 6
STRUCTURES

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6-02 CONCRETE STRUCTURES

6-02.3 Construction Requirements

6-02.3(2) Proportioning Materials

6-02.3(2)A Contractor Mix Design
(December 16, 2022 CFW GSP)

The first sentence of the first paragraph of Section 6-02.3(2)A is deleted and replaced with the following:

> The Contractor shall provide a mix design in writing to the Engineer for all classes of concrete.

6-02.3(2)B Commercial Concrete
(December 16, 2022 CFW GSP)

The last sentence of the first paragraph of Section 6-02.3(2)B is deleted and replaced with the following:

> Commercial concrete requires mix design and source approvals for cement, aggregate, and other admixtures.

Section 6-02.3(2)B is supplemented with the following:

> The concrete class requirements in paragraph one and two are applicable for Type I/II Portland cement. See Section 9.01.2(1)B for requirements for Type 1L cement.

6-02.3(4) Construction Requirements

6-02.3(4)A Qualification of Concrete Suppliers
(November 25, 2025 WSDOT GSP, OPT 1)

Section 6-02.3(4)A is revised to read:

> Batch Plant Prequalification requires a certification by the National Ready Mix Concrete Association (NRMCA). Information concerning NRMCA certification may be obtained from the NRMCA at 900 Spring Street, Silver Springs, MD 20910 or online at www.nrmca.org. The NRMCA certification shall be valid for a 2-year period from the date of certificate. The following documentation shall be submitted to the Engineer; a copy of the current NRMCA Certificate of Conformance, the concrete mix design(s) (WSDOT Form 350-040), along with copies of the truck list, batch plant scale certification, admixture dispensing certification, and volumetric water batching devices (including water meters) verification.
>
> For central-mixed concrete, the mixer shall be equipped with a timer that prevents the batch from discharging until the batch has been mixed for the prescribed mixing time. A mixing time of 1 minute will be required after all materials and water have been introduced into the drum. Shorter mixing time may be allowed if the mixer performance is tested in accordance with (AASHTO M157 Annex A1 Concrete Uniformity Requirements). Tests shall be conducted by an independent testing lab or by a commercial concrete producer's lab. If the tests are performed by a producer's lab, the Engineer or a representative will witness all testing.
>
> For shrink-mixed concrete, the mixing time in the stationary mixer shall not be less than 30 seconds or until the ingredients have been thoroughly blended.

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For transit-mixed or shrink-mixed concrete, the mixing time in the transit mixer shall be a minimum of 70 revolutions at the mixing speed designated by the manufacturer of the mixer. Following mixing, the concrete in the transit mixer may be agitated at the manufacturer's designated agitation speed.

All transit-mixers shall be equipped with an operational revolution counter and a functional device for measurement of water added. All mixing drums shall be free of concrete buildup and the mixing blades shall meet the minimum Specifications of the drum manufacturer. A copy of the manufacturer's blade dimensions and configuration shall be on file at the concrete producer's office. A clearly visible metal data plate (or plates) attached to each mixer and agitator shall display: (1) the maximum concrete capacity of the drum or container for mixing and agitating, and (2) the rotation speed of the drum or blades for both the agitation and mixing speeds. Mixers and agitators shall always operate within the capacity and speed-of-rotation limits set by the manufacturer. Mixers, when fully loaded, shall keep the concrete uniformly mixed. All mixers and agitators shall be capable of discharging the concrete at a steady rate. Only those transit-mixers which meet the above requirements will be allowed to deliver concrete to a Contracting Agency project covered by these Specifications.

In transit-mixing, mixing shall begin within 30 seconds after the cement is added to the aggregates.

For each project, at least biannually, or as required, the Plant Manager will examine mixers and agitators to check for buildup of hardened concrete or worn blades. If this examination reveals a problem, or if the Engineer wishes to test the quality of the concrete, slump tests may be performed with samples taken at approximately the ¼ and ¾ points as the batch is discharged. The maximum allowable slump difference shall be as follows:
If the average of the two slump tests is < 4 inches, the difference shall be < 1 inch or if the average of the two slump tests is >4 inches, the difference shall be < 1½ inches.

If the slump difference exceeds these limits, the equipment shall not be used until the faulty condition is corrected. However, the equipment may continue in use if longer mixing times or smaller loads produce batches that pass the slump uniformity tests.

All concrete production facilities will be subject to verification inspections at the discretion of the Engineer. Verification inspections are a check for: current scale certifications; accuracy of water metering devices; accuracy of the batching process; and verification of coarse aggregate quality.

If the concrete producer fails to pass the verification inspection, the following actions will be taken:

1. For the first violation, a written warning will be provided.

2. For the second violation, the Engineer will give written notification and the Contracting Agency will assess a price reduction equal to 15 percent of the invoice cost of the concrete that is supplied from the time of the infraction until the deficient condition is corrected.

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3. For the third violation, the concrete supplier is suspended from providing concrete until all such deficiencies causing the violation have been permanently corrected and the plant and equipment have been reinspected and meets all the prequalification requirements.

4. For the fourth violation, the concrete supplier shall be disqualified from supplying concrete for 1 year from the date of disqualification. At the end of the suspension period the concrete supplier may request that the facilities be inspected for prequalification.

6-02.3(4)D Temperature and Time for Placement
(November 3, 2025 WSDOT GSP, OPT 1)

Section 6-02.3(4)D is revised to read:

When conditions are such that the concrete may experience an accelerated initial set, the Engineer may require a shorter time to discharge. The time to discharge in the above table may be extended 15 minutes upon request from the Contractor and concurrence of the Engineer. Time extensions greater than 15 minutes require a Type 3 Working Drawing submittal. The submittal shall include:

1. An explanation of why an extended placement time is necessary for the Work.

2. The proposed concrete mix design, including the specified dosage of chemical admixtures for the anticipated range of concrete temperatures and details regarding when the admixtures are to be introduced into the mix. Type B (retarding) or Type D (water-reducing and retarding) chemical admixtures are required for structural or self-consolidating concrete.

3. Technical data sheets and supporting information from the admixture supplier indicating the appropriate chemical admixture dosage for the anticipated concrete temperatures, haul times, and working times.

4. The haul distance and estimated range of haul times.

5. The proposed maximum time to discharge for the mix(es) shall not exceed 3 hours.

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6-10 CONCRETE BARRIER

6-10.3 Construction Requirements

6-10.3(1) Precast Concrete Barrier

(December 16, 2022 CFW GSP)

Section 6-10.3(1) is supplemented with the following:

The concrete class requirements are applicable for Type I/II Portland cement. See Section 9-01.2(1)B for requirements for Type 1L cement.

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6-20 BURIED STRUCTURES

6-20.5 Payment

(*****)

Section 6-20.5 is supplemented with the following:

"Construction Dewatering", lump sum.

The lump sum contract price for "Construction Dewatering" shall be full payment to performance the work as specified in Section 6-20.3(5)A.

END OF DIVISION 6

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

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7-01 DRAINS

7-01.1 Description

(April 12, 2018 CFW GSP)

Section 7-01.1 is supplemented with the following:

This work consists of manholes, oil/water separators, bioretention swales, a detention vault, a combined wet pool/detention pond and a sand filter. Installation of these facilities shall be completed according to the stormwater plans.

7-01.3 Construction Requirements

7-01.3(3) Cleanouts and Fittings for Drain and Underdrain Pipe

(April 12, 2018 CFW GSP)

Section 7-01.3(3) is a new section:

The Contractor shall install cleanouts at the terminal end of any drain or underdrain pipe not entering into a drainage structure. Cleanouts shall be installed at 150' maximum spacing with a maximum of two (2) cleanouts per section of drain or underdrain pipe.

(*****)

Section 7-01.3(3) is supplemented with the following:

The Contractor shall install cleanouts on the sand filter underdrain pipe and on the perimeter drain for the Oldcastle Panel Vault System at the locations shown on the stormwater plans. The cleanouts shall have caps or junction boxes and extend to the surface of the sand filter or final grade. A valve box must also be provided for access and the cleanout assembly must be watertight to prevent short circuiting of the sand filter.

7-01.5 Payment

(December 16, 2022 CFW GSP)

Section 7-01.5 is supplemented with the following:

Excavation, potholing, laying pipe, fittings, cleanouts, pipe bedding, imported backfill material, construction geotextile, connections to new or existing storm drainage structures, haul and disposal of trench material to be wasted including unsuitable material, cleaning, and testing will not be measured as these items are incidental to the drain pipe and/or underdrain pipe pay item(s).

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7-04 STORM SEWERS

7-04.2 Materials

(November 14, 2025 CFW GSP)

The first two paragraphs of Section 7-04.2 are deleted and replaced with the following:

Materials shall meet the requirements of the following sections:

Solid Wall PVC Storm Sewer Pipe	9-05.12(1)
Reinforced Concrete Storm Sewer Pipe	9-05.7(2)
Polyvinyl Chloride (PVC) Pressure Pipe (4 inches and over)	9-30.1(5)A
Dual Wall HDPE Storm Sewer Pipe	9-05.12(3)
Ductile Iron Storm Sewer Pipe	9-05.13

7-04.3 Construction Requirements

7-04.3(1) Cleaning and Testing

(April 12, 2018 CFW GSP)

Section 7-04.3(1) is supplemented with the following:

Cleaning and testing of storm sewer pipe shall be in accordance with Section 7-04.3(1) of the Standard Specifications, except as modified herein:

Any departures from the best construction practices by the Contractor, such as pipe line misalignment, presence of foreign matter in the pipes or catch basins, poor catch basin construction, etc., shall be corrected by the Contractor at the Contractor's own expense. Testing will not be authorized until such corrections have been made to the satisfaction of the Engineer.

7-04.5 Payment

(April 17, 2026 CFW GSP)

Section 7-04.5 is modified as follows:

The unit contract price per linear foot of storm sewer pipe of the type and size specified shall be full pay for furnishing all tools, labor, and equipment, and materials necessary for its complete installation, including, but not limited to: sawcutting for trench, sawcutting for "T-Cut" for trench restoration, pavement removal, trench excavation, potholing, dewatering (if required), temporary flow bypass, laying pipe, pipe bedding, imported backfill, compaction, connection to new or existing storm sewers or drainage structures, haul and disposal of trench material to be wasted including unsuitable material, cleaning and testing, and costs related to maintaining existing drainage system during construction or to provide temporary drainage systems.

Paid at 90% upon installation. Remaining 10% paid upon receipt of satisfactory pipe testing results.

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7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.3 Construction Requirements

(March 22, 2023 CFW GSP)

Section 7-05.3 is supplemented with the following:

Storm drain cleanouts shall be provided for retaining wall drainage and connected to the storm drainage system at the locations specified in the plans or as directed by the Engineer.

All lids located within sidewalk areas, along an ADA pedestrian route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, must meet ADA requirements and be slip-resistant. Acceptable slip-resistant products shall be non-slip methyl methacrylate (MMA) coating. Placement of the non-slip MMA coating shall be in accordance with the manufacturer's recommendations. Vertical edges of the utility shall be flush with the adjoining surface to the extent possible after installation.

The following requirements shall be applicable to both existing and proposed structures, as shown in the plans, or as designated by the Engineer:

Vaned Grate vs Solid Lid

A vaned grate and associated frame shall be installed on manholes and catch basins located where they will accept runoff. Bi-directional vaned grates shall be installed at all roadway sag locations and at low points along curb returns.

All structures not receiving surface runoff shall include solid lids, unless otherwise indicated in the plans or directed by the Engineer.

Locking vs Non-Locking Lid

All lids and frames shall be locking unless shown as non-locking on plans or directed otherwise by the Engineer. The Contractor shall place anti-seize compound on all locking lid bolts prior to the final project punch list inspection.

Round vs Square Lid

All structures, new or existing, shall utilize round lids, except for those that accept surface runoff (i.e. those located along a gutter flow line). Catch basins shall include conversion risers to accommodate round lids where indicated in the plans or directed by the Engineer.

Heavy-Duty Hinged Frames and Covers

Heavy-duty hinged frames and covers shall be installed whenever round, solid lids are required as outlined above.

7-05.3(1) Adjusting Manholes and Catch Basins to Grade

(November 14, 2025 CFW GSP)

Section 7-05.3 is supplemented with the following:

The pavement shall be removed to a neat circular shape for circular grates and covers and a neat rectangular shape for rectangular grates and covers.

Where existing structures are located within the wheel path of a travel lane, adjusting of manholes and catch basins shall include conversion risers and heavy duty locking frames and covers and high-impact risers.

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(*****)

Section 7-05.3(1) is supplemented with the following:

Catch basins with grates installed in the roadway shall be installed such that the grate is aligned with the flowline at the low side of the raised asphalt edge. Grates shall be set 0.1 ft below the finish grade elevation and asphalt surfacing within 2 feet of the rim shall be sloped to direct runoff to the catch basin grate.

7-05.3(3) Connections to Existing Manholes

(April 12, 2018 CFW GSP)

Section 7-05.3(3) is supplemented with the following:

The requirements of this section shall also apply to connections to existing catch basins.

7-05.3(5) Connections to Existing Pipe

(April 12, 2018 CFW GSP)

Section 7-05.3(5) is a new section:

The contractor shall connect (or reconnect) existing pipes to new manholes or catch basins without obstructing flow from upstream locations.

7-05.3(6) Cleaning

(April 12, 2019 CFW GSP)

Section 7-05.3(6) is a new section:

Prior to final project acceptance by the City, the Contractor shall be responsible to ensure the sumps of all manholes, inlets, catch basins, and drywells are clean of sediment and debris.

7-05.5 Payment

(April 17, 2026 CFW GSP)

Section 7-05.5 is supplemented with the following:

The unit contract price for catch basins and/or manholes shall be full pay for furnishing all labor, tools, equipment, and materials necessary to complete each unit according to the Plans and Specifications. This includes all sawcutting, pavement removal and disposal, excavation, potholing, dewatering (if required), temporary flow bypass, connections to existing and new pipe, foundation material, bedding, imported backfill, compaction, surface restoration, testing, cleaning, and furnishing and placing of all accessories and conversion risers, temporary patching hot mix to allow for the passage of traffic, and other items as applicable. Frames and grates or rings and covers, grade rings and adjustment risers including conversion risers, and non-slip MMA coating for new lids in accessible surfaces shall be considered incidental to this bid item and will not be measured for separate payment. 50% of payment will be made once the catch basin or manhole is installed and the pipe inlets and outlets are grouted. The remaining 50% will be paid once risers/rings are grouted to the satisfaction of the City, the frame/grate is installed, and non-slip MMA coating is applied.

(*****)

Section 7-05.5 is supplemented with the following:

All costs associated with control structures as shown in the Plans, including debris cage barriers, orifice plates, cleanout shear gates and riser pipes, shall be considered incidental to and included in the catch basin and/or manhole bid items and no additional payment shall be made.

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7-07 CLEANING EXISTING DRAINAGE STRUCTURES

7-07.5 Payment

(April 12, 2018 CFW GSP)

Section 7-07.5 is replaced with the following:

All costs associated with cleaning existing drainage structures shall be considered incidental to and included in the various bid items and no additional payment shall be made.

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7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

7-08.3(1)A Trenches

(March 22, 2023 CFW GSP)

Section 7-08.3(1)A is supplemented with the following:

Where water is encountered in the trench, it shall be removed during pipe-laying operations and the trench so maintained until the ends of the pipe are sealed and provisions are made to prevent floating of the pipe. Trench water or other deleterious materials shall not be allowed to enter the pipe at any time.

Trenching may disturb existing pavement markings that are not shown to be replaced in the plans. All such pavement markings damaged by trenching shall be repaired after trenching is backfilled and restored. The new pavement markings shall match the damaged pavement marking. All pavement marking repair cost shall be incidental to the pipe installation, including all necessary labor and materials.

7-08.3(3) Backfilling

(December 16, 20228 CFW GSP)

Section 7-08.3(3) is supplemented with the following:

Initial backfilling shall be performed only after inspection and approval of the installed pipe. Backfill shall be accomplished in such a manner that the pipe is not damaged by impact or overloading. Water settling will not be permitted.

If there is an excess of acceptable backfill material obtained from trench excavation at one location on the project, the Contractor may request approval from the City to use it at other locations on the project. Native backfill stockpiles shall be protected to prevent excessive wetting. The cost of transporting the excess backfill material shall be considered incidental to the pipe or structure backfilled.

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7-20 STORMWATER MEDIA FILTERS

(*****)
Section 7-20 and its subsections are new sections.

7-20.1 Description

This work shall consist of installing various precast concrete vault structures: Oldcastle oil/water separator vaults for oil treatment and a Panel Vault system for flow control as shown in the Plans.

7-20.2 Materials

Materials shall meet the requirements of the standard WSDOT specifications:

Gravel Backfill for Drains	9-03.12(4)
Construction Geosynthetic for Underground Drainage	9-33.2(1)
Perforated PVC Underdrain Pipe	9-05.2(6)
Dual Wall HDPE Storm Sewer Pipe	9-05.12(3)

7-20.2(1) Material Submittals

Submittals for the pre-cast concrete structures shall include the following items:

1. Shop Drawings for each oil/water installation and the Panel Vault system including size, location, inlet and outlet inverts, appurtenant piping; bedding, backfill, concrete top slab and lid details. The concrete top slab design shall provide H-20 loading for each structure.
2. Complete materials list,.
3. Manufacturer's recommended installation and maintenance procedures.
4. Manufacturer's certificate of satisfactory installation and warranty.

7-20.2(2) Oil/Water Separator Vaults

Oil/water separator vaults shall consist of Oldcastle precast concrete vaults, as manufactured by Oldcastle Infrastructure Inc., 2808 A Street SE, Auburn, Washington 98002, (253) 839-3500.

Each oil/water separator vault consists of a precast concrete vault with sediment weir and oil retaining baffle walls; coalescing media; inlet and outlet pipe assemblies each consisting of a flexible connector and sampling tee; and top slab with spring assisted galvanized diamond plate doors with a locking latch.

7-20.2(3) Panel Vault System

The Panel Vault system shall consist of Oldcastle precast concrete base, top, wall (insert, pocket and divider) sections, as manufactured by Oldcastle Infrastructure Inc., 2808 A Street SE, Auburn, Washington 98002, (253) 839-3500.

The Panel vault system consists of a precast concrete sections and top slab with a access manhole and 5’ x 10’ access lid.

7-20.2(4) Precast Concrete Vault Structure Bedding and Backfill

Bedding and backfill materials for precast concrete vault structure installation shall be in accordance with Section 7-05.3 and the Plans.

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7-20.3 Construction Requirements

7-20.3(1) Oil/Water Separator Vault Installation

Oil/water separator units shall be constructed as detailed in the Plans and in accordance with these Special Provisions and the manufacturer's installation instructions. Each unit shall be constructed at the locations and elevations according to the sizes shown on the approved Plans. Any modifications to the elevation or location shall be at the direction of and approved by the Engineer.

The unit shall be placed on a compacted sub-grade with a minimum 6-inch base course unless otherwise specified by the manufacturer. The unit shall be placed such that the unit and top slab match the final grade as shown on the approved Plans. Unsuitable material below sub-grade shall be replaced to the site Engineer's approval.

Once the base unit is set, set the top slab. The top slab and riser ring(s) shall be sealed onto the base section before backfilling per manufacturer's installation instructions. The inlet and outlet pipe from each oil/water separator shall be connected to the base unit and the upstream and downstream drainage system as shown in the Plans.

Prior to backfilling, the Contractor shall conduct a leak test by sealing the interceptor, filling with water to the flow-line of the outlet pipe, and letting the water stand for a minimum of 1 hour. Backfilling shall be performed in a careful manner, bringing the appropriate fill material up in 6-inch lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. Installation of oil/water separator vaults shall conform to ASTM specification C891 "Standard Practice for Installation of Underground Precast Utility Structures".

The Contractor is responsible for inlet protection/sediment control and cleaning around each oil/water separator vault unit.

7-20.3(2) Panel Vault System Installation

The Panel Vault system shall be constructed as detailed in the Plans and in accordance with these Special Provisions and the manufacturer's installation instructions. The Panel Vault system shall be constructed at the location and elevations according to the sizes shown on the approved Plans. Any modifications to the elevation or location shall be at the direction of and approved by the Engineer.

The subgrade for the Panel Vault system shall be overexcavated and replaced with the following (in order from top to bottom): 4-inch layer of crushed surfacing top course, construction geosynthetic for separation, 24-inch layer of quarry spalls. The base of the Panel Vault system shall be placed such that the keyways are kept clean and free of rock, dirt, water and debris. The Contractor will then install the walls and top slab as specified by the manufacturer. All joints and recessed connection pockets in the interior of the vault shall be grouted. Place risers and set accesses per the approved Plans. The inlet and outlet pipe from the Panel Vault system shall be connected to the panel vault and the upstream and downstream drainage system as shown in the Plans. Perimeter drains and ventilation pipes for the Panel Vault to be installed as shown on the plans and are included in the Panel Vault system.

Backfilling shall be performed in a careful manner, bringing the appropriate fill material up in 6-inch lifts on all sides. Precast sections shall be set in a manner that will result in a

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watertight joint. Installation of the Panel Vault system shall conform to ASTM specification C891 “Standard Practice for Installation of Underground Precast Utility Structures”. Backfill to include drain rock material, native soil and gravel borrow as noted on the Plans.

The Contractor is responsible for inlet protection/sediment control and cleaning around the Panel Vault system.

7-20.3(3) Installation Verification

Manufacturer's representative shall observe installation of the Panel Vault System and shall provide a certificate of satisfactory installation to Owner prior to operation.

7-20.4 Measurement

“Oldcastle 25-CPS Oil/Water Separator” will be measured per each.
“Oldcastle 660-CPS Oil/Water Separator” will be measured per each.
“Oldcastle Panel Vault System” will be measured per lump sum.
“Gravel Backfill for Drains” will be measured per cubic yard.
“Construction Geosynthetic for Underground Drainage” will be measured per square yard.
“Perforated PVC Underdrain Pipe 4 In. Diameter” will be measured per linear foot.
“Dual Wall HDPE Storm Sewer Pipe 4 In. Diameter” will be measured per linear foot.

7-20.5 Payment

Payment will be made for the following bid items when included in the proposal:

“Oldcastle 25-CPS Oil/Water Separator”, per each.
“Oldcastle 660-CPS Oil/Water Separator”, per each.
“Oldcastle Panel Vault System”, per lump sum.
“Gravel Backfill for Drains”, per cubic yard.
“Construction Geosynthetic for Underground Drainage”, per square yard.
“Perforated PVC Underdrain Pipe 4 In. Diameter”, per linear foot.
“Dual Wall HDPE Storm Sewer Pipe 4 In. Diameter”, per linear foot.

The unit contract price per each and per lump sum for the precast concrete structures shall be full pay for furnishing all labor, tools, equipment, and materials necessary to install the precast concrete structure unit of the size and at the location indicated in the Plans. The unit contract price per each and per lump sum for the precast concrete structures shall also include excavation, plant material (where applicable), gravel base, grates and lids, ventilation pipes, valve boxes, special fittings, imported backfill, compaction and adjustment to finished grade as noted on the Plans.

Gravel borrow used for backfill when the Engineer has determined that native material is not satisfactory for backfill shall be paid in accordance with 2-03.5.

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7-21 COMBINED DETENTION AND WETPOOL FACILITY

(*****)
Section 7-21 and its subsections are new sections.

7-21.1 Description

This work shall consist of construction of the combined detention and wetpool facility for water quality treatment and flow control as shown in the Plans.

7-21.2 Materials

Materials shall meet the requirements of the following special provisions:

Clay Liner	9-03.22

7-21.3 Construction Requirements

The combined detention and wetpool facility shall be constructed as detailed in the Plans and in accordance with these Special Provisions. The facility shall be constructed at the location and elevations as shown on the approved Plans. Any modifications shall be at the direction of and approved by the Engineer. Earthwork and grading as it relates to the combined detention and wetpool facility shall be in accordance with Section 2-03.3.

The inlet and outlet pipes from the facility shall be connected to the structures as shown in the Plans.

7-21.4 Measurement

"Clay Liner" will be measured per cubic yard.

7-21.5 Payment

Payment will be made for the following bid items when included in the proposal:

"Clay Liner", per cubic yard.

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7-22 SAND FILTER

(*****)
Section 7-22 and its subsections are new sections.

7-22.1 Description

This work shall consist of construction of the sand filter facility as part of the water quality treatment and flow control facility as shown in the Plans.

7-22.2 Materials

Materials shall meet the requirements of the following special provisions:

Sand for Sand Filter	9-03.12(7)
Treatment Liner	9-03.23
Perforated PVC Underdrain Pipe	9-05.2(6)

Materials shall meet the requirements of the standard WSDOT specifications:

Gravel Backfill for Drains	9-03.12(4)
Construction Geosynthetic for Underground Drainage	9-33.2(1)

Materials shall meet the requirements stated on the approved design plans:

Anchored Plate Flow Spreader

7-22.3 Construction Requirements

7-22.3(1) General

The sand filter shall be constructed as detailed in the Plans and in accordance with these Special Provisions. The sand filter shall be constructed at the location and elevations as shown on the approved Plans. Any modifications shall be at the direction of and approved by the Engineer. Earthwork and grading as it relates to the sand filter shall be in accordance with Section 2-03.3.

The inlet and outlet pipes from the sand filter shall be connected to the structures as shown in the Plans.

7-22.3(2) Submittals for Sand Filter

The Contractor shall provide submittals for the following materials proposed to be installed:

- Sand for Sand Filter
- Perforated PVC Underdrain Pipe
- Gravel Backfill for Drains
- Construction Geosynthetic for Underground Drainage
- Treatment Liner
- Anchored Plate Flow Spreader

7-22.4 Measurement

“Gravel Backfill for Drains” will be measured per cubic yard.
“Sand for Sand Filter” will be measured per ton.
“Construction Geosynthetic for Underground Drainage” will be measured per square yard.
“Treatment Liner” will be measured per cubic yard.
“Perforated PVC Underdrain Pipe 6 In. Diameter” will be measured per linear foot.
“Anchored Plate Flow Spreader” will be measured per linear foot.

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7-22.5 Payment

Payment will be made for the following bid items when included in the proposal:

"Gravel Backfill for Drains", per cubic yard.

"Sand for Sand Filter", per ton.

"Construction Geosynthetic of Underground Drainage", per square yard.

"Treatment Liner", per cubic yard.

The unit contract price per linear foot for "Perforated PVC Underdrain Pipe 6 In. Diameter", per linear foot shall be full pay for furnishing, hauling and assembling in place the completed installation with the cleanout wyes including, but not limited to, valve boxes and special fittings.

"Anchored Plate Flow Spreader", per linear foot of flow spreader furnishing and installation.

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7-23 BIORETENTION

(*****)
Section 7-23 and its subsections are new sections.

7-23.1 Description

This work shall consist of construction of the bioretention swales for water quality treatment as shown in the Plans.

7-23.2 Materials

Materials shall meet the requirements of the following special provisions:

Perforated PVC Underdrain Pipe	9-05.2(6)
Bioretention Compost	9-14.5(8)
Wood Chip Mulch	9-14.5(3)
Bioretention Soil Mix	9-14.10

Materials shall meet the requirements of the standard WSDOT specifications:

Gravel Backfill for Drains	9-03.12(4)
Construction Geosynthetic for Underground Drainage	9-33.2(1)

7-23.3 Construction Requirements

7-23.3(1) General

The bioretention swales shall be constructed as detailed in the Plans and in accordance with these Special Provisions. The facility shall be constructed at the location and elevations as shown on the approved Plans. Any modifications shall be at the direction of and approved by the Engineer. Earthwork and grading as it relates to the bioretention swales shall be in accordance with Section 2-03.3.

The bioretention PVC outlet structure assemblies shall be constructed as shown on the approved Plans.

7-23.3(2) Submittals for Bioretention

The Contractor shall provide submittals for the following materials proposed to be installed:

- Perforated PVC Underdrain Pipe
- Bioretention Compost
- Wood Chip Mulch
- Bioretention Soil Mix
- Gravel Backfill for Drains
- Construction Geosynthetic for Underground Drainage

7-23.4 Measurement

“Gravel Backfill for Drains” will be measured per cubic yard.
“Perforated PVC Underdrain Pipe 6 In. Diameter” will be measured per linear foot.
“Construction Geosynthetic for Underground Drainage” will be measure per square yard.
“Bioretention Compost” will be measured per square yard.
“Wood Chip Mulch” will be measured per square foot.
“Bioretention Soil Mix” will be measured per cubic yard.

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7-23.5 Payment

Payment will be made for the following bid items when included in the proposal:

"Bioretention Underdrain Gravel", per cubic yard.

The unit contract price per linear foot for "Slotted Underdrain Pipe 6 In. Diameter" shall be full pay for furnishing, hauling and assembling in place the completed installation with the bioretention outlet structures, including, but not limited to, beehive grates and special fittings.

"Bioretention Compost", per square yard.

"Wood Chip Mulch", per square foot.

"Bioretention Soil Mix", per cubic yard.

END OF DIVISION 7

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DIVISION 8
MISCELLANEOUS CONSTRUCTION

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8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.3 Construction Requirements

8.01.3(1) General

(April 12, 2018 CFW GSP)

The first paragraph of 8-01.3(1) is deleted and replaced with the following:

The Contractor shall install a high visibility fence along the right-of-way lines shown in the Plans or as instructed by the Engineer.

8-01.3(1)A Submittals

(April 12, 2018 CFW GSP)

Section 8-01.3(1)A is revised to read:

A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared by the Contractor and submitted for approval to the Engineer. The plan shall consist of the Contractor's complete strategy to meet the requirements of the Department of Ecology's NPDES and State Waste Discharge General Permit for Stormwater Discharges Associated With Construction Activity (General Permit). The SWPPP shall include and modify as necessary the Site Preparation and Erosion Control Plan drawings provided as part of the Contract Plans. The Contractor shall prepare review and modify the SWPPP as necessary to be consistent with the actual work schedule, sequencing, and construction methods that will be used on the project. The Contractor's SWPPP shall meet the requirements of the general permit. The Contractor's modifications to the SWPPP shall also incorporate the content and requirements for the Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with Section 1-07.15(1).

The SWPPP shall document all the erosion and sediment control Best Management Practices (BMPs) proposed, whether permanent or temporary. The plan shall document installation procedures, materials, scheduling, and maintenance procedures for each erosion and sediment control BMP. The Contractor shall submit the SWPPP for the Engineer's approval before any work begins. The Contractor shall allow at least five working days for the Engineer's review of the initial SWPPP or any revisions to the modified SWPPP. Failure to approve all or part of any such plan shall not make the Contracting Agency liable to the Contractor for any work delays. The Contractor may not begin work without an approved Contractor's SWPPP.

The Contractor shall complete and modify the SWPPP to meet the Contractor's schedule and method of construction. All TESC Plans shall meet the requirements of the current edition of the WSDOT Temporary Erosion and Sediment Control Manual M 3109 and be adapted as needed throughout construction based on site inspections and discharge samples to maintain compliance with the CSWGP. The Contractor shall develop a schedule for implementation of the SWPPP work and incorporate it into the Contractor's progress schedule.

In addition, the SWPPP shall outline the procedures to be used to prevent high pH stormwater or dewatering water from entering surface waters. The plan shall include how the pH of the water will be maintained between pH 6.5 and pH 8.5 prior to being discharged from the project or entering surface waters. Prior to beginning any concrete or grinding work, the Contractor shall submit the plan, for the Engineer's review and approval.

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As a minimum, the SWPPP shall include all the SWPPP requirements identified in the General Permit, including:

Narrative discussing and justifying erosion control decisions (12 elements)

Drawings illustrating BMPs types and locations

Engineering calculations for ponds and vaults used for erosion control

A schedule for phased installation and removal of the proposed BMPs, including:

A. BMPs that will be installed at the beginning of project startup.

B. BMPs that will be installed at the beginning of each construction season.

C. BMPs that will be installed at the end of each construction season.

D. BMPs that will be removed at the end of each construction season.

E. BMPs that will be removed upon completion of the project.

An Ecology template is available to the Contractor for producing the SWPPP, using project-specific information added by the Contractor. The template and instructions are available at:
http://www.ecy.wa.gov/programs/wq/stormwater/construction/

Turbidity and pH Exceedances

Following any exceedances of the turbidity or pH benchmarks, the Contractor shall provide the following at no additional cost to the Contracting agency:

1. The necessary SWPPP revisions and on-site measures/revisions including additional source control, BMP maintenance, and/or additional stormwater treatment BMPs that are necessary to prevent continued exceedance of turbidly and/or pH benchmarks.

2. The regulatory notification to the Dept. of Ecology and to the Engineer of any monitoring results requiring regulatory notification.

3. The additional daily sampling and reporting measures described in the General Permit to verify when project site runoff is in compliance.

8-01.3(1)B Erosion and Sediment Control (ESC) Lead
(October 3, 2022 WSDOT GSP, OPTION 1)
Item number 3 and 4 in the second paragraph of Section 8-01.3(1)B are revised to read:

3. Submit to the Engineer no later than the end of the next working day following the inspection a TESC Inspection Report that includes:
    a. When, where, and how BMPs were installed, maintained, modified, and removed.

    b. Observations of BMP effectiveness and proper placement.

    c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal TESC BMP deficiencies.

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d. Identify for each discharge point location whether there is compliance with state water quality standards in WAC 173-201A for turbidity and pH.

8-01.3(2) Temporary Seeding and Mulching

8-01.3(2)B Temporary Seeding
(*****)
Section 8-01.3(2)B all paragraphs are deleted and replaced with the following:
All temporary seeding shall conform to seeding and fertilizing requirements outlined in Section 8-02.3

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8-02 ROADSIDE RESTORATION

8-02.3 Construction Requirements

8-02.3(1) Responsibility During Construction

(April 12, 2018 CFW GSP)

Section 8-02.3(1) is supplemented with the following:

Landscape construction is anticipated to begin after all curbs, sidewalks, walls, and associated roadside work is completed. Landscape materials shall not be installed until weather permits and installation has been authorized by the Engineer. If water restrictions are anticipated or in force, planting of landscape materials may be delayed.

Throughout planting operations, the Contractor shall keep the premises clean, free of excess soils, plants, and other materials, including refuse and debris, resulting from the Contractor's work. At the end of each work day, and as each planting area is completed, it shall be neatly dressed, and all surrounding walks and paved areas shall be cleaned to the satisfaction of the Engineer. No flushing will be allowed. At the conclusion of work, the Contractor shall remove surplus soils, materials, and debris from the construction site and shall leave the project in a condition acceptable to the Engineer.

8-02.3(5) Planting Area Preparation

(April 12, 2018 CFW GSP)

Section 8-02.3(5) is supplemented with the following:

Thoroughly scarify subgrade in tree, and seeded lawn areas to a minimum depth of six-inches (6") except within critical root zones of existing trees to remain, as noted on plans. Scarified subgrade shall be inspected and approved by the Engineer prior to the placement of topsoil. Remove all construction debris and rocks over two-inches (2") in diameter prior to placing topsoil.

Scarified subgrade shall be inspected and approved by the Engineer prior to placement of topsoil. Upon approval of the subgrade, Topsoil A shall be installed to a minimum depth of 4 inches lightly compacted depth in all seeded areas, unless otherwise noted on plans. Topsoil A shall be installed to a minimum depth of 18-inches in the center roundabout island for trees and ground cover. Refer to plans for soil placement requirements.

Lightly compact soil and establish a smooth and uniform finished grade to allow to surface drainage and prevents ponding.

The areas shall be brought to a uniform grade, 1 inch, or the specified depth of mulch, below walks, curbs, junction and valve boxes, and driveways, unless otherwise specified.

The costs of removing all excess material and debris shall be considered incidental to and included in the unit contract prices of other items in this contract.

8-02.3(6)B Fertilizers

(September 3, 2019 WSDOT GSP, OPTION 3)

Section 8-02.3(6)B is supplemented with the following:

Fertilizer shall be a commercially prepared mix of 10-20-20 and shall be applied at the rate of 10 pounds per 1000 square feet.

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8-02.3(8) Planting

(September 20, 2024 CFW GSP)

Section 8-02.3(8) is supplemented with the following:

Use loosened and replaced compacted mineral native soil without organics under tree rootball. Use topsoil on sides of tree rootball only. Use full depth topsoil for shrubs.

Trees shall be handled by the rootball, not by the trunk. Burlap and wire shall remain intact until trees are set in their final positions within each planting pit.

Plant trees and shrubs upright and rotate in order to give the best appearance or relationship to adjacent plants, topography, and structures. Hold plant rigidly in position until topsoil has been backfilled and water settled free of voids and air pockets and tamped firmly around the ball or roots.

When the pit is backfilled halfway, place the specified quantity of fertilizer plant tablets and stakes as shown in the Plans. Evenly space the fertilizer tablets around the perimeter of, and immediately adjacent to the root system. Carefully place water and compact planting topsoil, filling all voids. Tree root crowns to be 1" higher than finished grade to allow for settlement.

When the planting pit is three quarters backfilled, fill with water and allow water to soak away. Fill the pits with additional topsoil to finish grade and continue backfilling as detailed in the Plans. Water trees immediately after planting.

The contractor shall place pea gravel flush with bottom of tree grates in tree wells in accordance with City Standard Details.

8-02.3(9)B Seeding and Fertilizing

(September 3, 2019 WSDOT GSP, OPTION 2)

Section 8-02.3(9)B is supplemented with the following:

Grass seed shall be a commercially prepared mix, made up of low growing species which will grow without irrigation at the project location, and accepted by the Engineer. The application rate required for the seed mix shall conform to the seed mix recommendations noted in section 9-14.3.

8-02.3(10) Fertilizer

(April 12, 2018 CFW GSP)

Section 8-02.3(10) is supplemented with the following:

All fertilizers shall be furnished in standard unopened containers with weight, name of plant nutrients and manufacturer's guaranteed statement of analysis clearly marked, in accordance with State and Federal law.

Seeded areas, trees, and shrubs shall be fertilized at a rate according to fertilizer manufacturer's recommendations.

8-02.3(11) Bark or Wood Chip Mulch

(March 22, 2023 CFW GSP)

Section 8-02.3(11) is supplemented with the following:

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Bark Mulch shall be placed over all tree planting pits to a depth no less than three (3) inches, or as detailed in the Plans. Thoroughly water and hose down plants with a fine spray to wash the leaves of the plants immediately after application.

8-02.3(17) Protection of Private Property and Property Restoration
(March 22, 2023 CFW GSP)

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

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

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

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

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

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

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

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

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

8-02.4 Measurement
(*****)

Section 8-02.4 is supplemented with the following:

"Topsoil Type A" shall be measured by the cubic yard in the haul conveyance at the point of delivery.

"Topsoil Type A-1" shall be measured by the cubic yard in the haul conveyance at the point of delivery.

"Bark or Wood Chip Mulch" shall be measured by the cubic yard in the haul conveyance at the point of delivery.

"Fine Compost" shall be measured by the cubic yard in the haul conveyance at the point of delivery.

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Root barrier will be measured per linear foot of installed root barrier.

“PSIPE Incense Cedar Fir 6’ HT. Min.” shall be measured per each.

“PSIPE Incense Cedar 8’-10’ HT. Min.” shall be measured per each.

“PSIPE Tall Oregon Grape 2 GAL.” shall be measured per each.

“PSIPE Kinnikinnick 4” Pot” shall be measured per each.

“PSIPE Beach Strawberry 4” Pot” shall be measured per each.

“Bioretention Seed Mix” will be measured in square yards of actual seeded area completed, established, and accepted.

“Wet Area Seed Mix” will be measured in square yards of actual seeded area completed, established, and accepted.

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

“Hydroseed, Temporary Erosion Control Seed Mix”, including temporary mulching, and tackifiers will be measured by the acre by ground slope measurement.

Fertilizer shall be incidental to other bid items unless specifically listed as a bid item.

“PSIPE Hard stem bulrush, plug” will be measured per each.

“PSIPE Small fruited bulrush, plug” will be measured per each.

“PSIPE Red stem dogwood, 3 ft ht, live stake” will be measured per each.

“PSIPE Pacific willow, 4 ft ht, live stake” will be measured per each.

“PSIPE Scouler’s willow, 4 ft ht, live stake” will be measured per each.

“PSIPE Oregon ash, bare root” will be measured per each.

“PSIPE Black cottonwood, bare root” will be measured per each.

“PSIPE Quaking aspen, bare root” will be measured per each.

“PSIPE Nootka rose, bare root” will be measured per each.

“PSIPE Pacific ninebark, bare root” will be measured per each.

“PSIPE Salmonberry, bare root” will be measured per each.

“PSIPE Douglas spirea, bare root” will be measured per each.

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8-02.5 Payment
(*****)
Section 8-02.5 is supplemented with the following:

"Topsoil Type A", per cubic yard.
The unit Contract price for "Topsoil Type A" shall be full payment for all costs including weed control pre-treatment of topsoil areas, excavation, and stockpiling for the specified Work.

"Topsoil Type A-1", per cubic yard.
The unit Contract price for "Topsoil Type A-1" shall be full payment for all costs including weed control pre-treatment of topsoil areas, excavation, and stockpiling for the specified Work.

"Fine Compost", per cubic yard
The unit Contract price for "Fine Compost", shall be full pay for furnishing and spreading the compost onto the existing soil.

"PSIPE Incense Cedar 6' HT. Min.", per each. The unit contract price per each shall also include all fertilizer, tree stakes, watering bags, as shown in the plans and called for in the specifications.

"PSIPE Incense Cedar 8-10' HT. Min.", per each. The unit contract price per each shall also include all fertilizer, tree stakes, watering bags, as shown in the plans and called for in the specifications.

"PSIPE Tall Oregon Grape 2 GAL", per each. The unit contract price per each shall also include all fertilizer, tree stakes, watering bags, as shown in the plans and called for in the specifications.

"PSIPE Kinnikinnick 4" Pot", per each. The unit contract price per each shall also include all fertilizer and establishment as shown in the plans and called for in the specifications.

"PSIPE Beach Strawberry 4" Pot", per each. The unit contract price per each shall also include all fertilizer and establishment as shown in the plans and called for in the specifications.

"Root Barrier" per linear foot.

"Bark or Wood Chip Mulch" per cubic yard. The unit contract price shall be full pay for furnishing and spreading the mulch.

"Bioretention Seed Mix" per square yard. The unit contract price will include all preparation, application, fertilizer, and establishment, as called for in the specifications.

"Wet Area Seed Mix" per square yard. The unit contract price will include all preparation, application, fertilizer, and establishment, as called for in the specifications.

"Hydroseed, Temporary Erosion Control Seed Mix" per acre, The unit contract price will include temporary mulching, tackifiers, all preparation, application, fertilizer, and establishment, as called for in the specifications.

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“Property Restoration” per force account.

“PSIPE Hard stem bulrush, plug”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Small fruited bulrush, plug”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Red stem dogwood, 3 ft ht, live stake”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Pacific willow, 4 ft ht, live stake”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Scouler’s willow, 4 ft ht, live stake”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Oregon ash, bare root”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Black cottonwood, bare root”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Quaking aspen, bare root”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Nootka rose, bare root”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Pacific ninebark, bare root”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Salmonberry, bare root”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

“PSIPE Douglas spirea, bare root”, per each. The unit contract price per each shall also include establishment as shown in the Plans and called for in the specifications.

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8-03 IRRIGATION SYSTEMS

8-03.1 Description

(*****)

Section 8-03.1 is supplemented with the following:

The work included in this section includes the design and installation of a temporary irrigation system to meet the specifications described in section 8-03.3.

8-03.3 Construction Requirements

(*****)

Section 8-03.3 is supplemented with the following:

The Contractor shall design a temporary underground irrigation system that meets the following minimum criteria and submit schematic plans to the Engineer for approval:

Coverage – Irrigation shall include spray heads for full coverage of all ground cover, shrubs and trees within the center roundabout island.

Materials – All materials shall conform to these standard specifications.

Minimum Design Pressure – 40 static psi. Test water pressure after back flow preventor to verify minimum design pressure is met. Notify Engineer immediately if minimum water pressure cannot be met. If water pressure exceeds 80 static psi, install a pressure reducing valve (PRV) to achieve design irrigation pressure.

Water Service Connection – the Contractor shall include the appropriate backflow preventers and service connections per Lakehaven Utility District requirements. Lakehaven standard installation details included as an appendix in the project manual for reference.

Controller – the irrigation system shall include a controller that meets the minimum requirements of the 8-03.3(13).

All work shall be in strict conformance with the “City of Federal Way” Standards, together with the plans, details and manufacturer’s written information regarding recommended installation procedures.

8-03.3(11) System Operation

(*****)

Section 8-03.3(11) is supplemented with the following:

The Engineer will provide periodic inspections to insure that the Contractor is complying with the terms of the contract. The Contractor shall advise the Engineer at least 48 hours before pressure tests are to be conducted and shall have the approval of the Engineer before backfilling. Irrigation main lines must withstand a pressure test of 150 psi for five minutes, PVC lateral lines a test of 80 psi for five minutes, and the system must pass an electrical resistance test.

Before the sprinkler system will be accepted, the Contractor, in the presence of the Engineer, shall perform a drip emitter water coverage test to determine if the water coverage and operation of the system is complete and satisfactory. This test will take place prior to the placement of bark mulch in drip irrigation areas. If any part of the system

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is inadequate it shall be repaired or replaced at the Contractor's expense and the test repeated until accepted.

The entire sprinkler system shall be guaranteed by the Contractor to give complete and satisfactory service for a period of one year from the date of the final acceptance of the work by the City of Federal Way.

Should any trouble develop within the one year period, which in the opinion of the Engineer, is due to faulty material or workmanship, the trouble shall be corrected, without delay, to the satisfaction of the Engineer at the Contractor's expense.

All backfilled trenches shall be repaired by the Contractor at his expense, including restoration of plant materials.

(*****)

Section 8-03.3(14) is a new section:

8-03.3(14) Battery Powered Irrigation Controller

Furnish and install battery powered irrigation controller, in an Engineer approved vandal resistant locking, waterproof enclosure. The contractor may place the controller on a post within the center of the RAB in a non-conspicuous location, to be approved by the Engineer.

8-03.4 Measurement

(*****)

Replace section 8-03.4 with the following:

Measurement for "Contractor Designed Temporary Irrigation System, Complete" will be for the installation of the new irrigation system within the City's right-of-way outlined in the contract documents, complete and in full operating condition.

8-03.5 Payment

(*****)

Section 8-03.5 is supplemented with the following:

The lump sum contract price for "Contractor Designed Temporary Irrigation System, Complete" shall be full compensation for designing and furnishing all labor, materials, tools, connection costs, and equipment necessary or incidental to the construction of the complete and operable sprinkler irrigation system as shown in the Plans or as directed by the Engineer. Also included in this cost shall be the coordination of the service connections with Lakehaven Utility District, payment of all fees required for the service and installation of the meter for the service

All costs for furnishing and installing controller, enclosure, conduit, wiring, irrigation controller, all control wiring, backflow preventer, valve boxes, strainers, pressure regulating valve, other valves, piping, tapping the water main and setting the meter, and all other required components for a fully functional system where indicated and as detailed in the Plans and all costs of inspections and tests performed on Cross Connection Control shall be considered incidental to and included in the unit contract price for "Contractor Designed Temporary Irrigation System, Complete".

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8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements

(September 20, 2024 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 3-03.3(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 in the Plans, the concrete curb will be ramped for wheel chairs as shown in the City of Federal Way Standard Details and WSDOT Standard Plans.

Where shown in the Plans, the Contractor shall paint the curbs with 2-coats of yellow paint. Paint and application shall conform to the Standard Specifications for traffic paint striping.

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways

(December 16, 2022 CFW GSP)

Section 8-04.3(1) is supplemented with the following:

The concrete class requirements in paragraph one are applicable for Type I/II Portland cement. See Section 9.01.2(1)B for requirements for Type 1L cement.

8-04.3(6) Catch Basin Grouting & Repair

(February 14, 2025 CFW GSP)

Section 8-04.3(6) is a new section:

When installation of new curb and/or curb and gutter disturbs existing catch basins, the Contractor shall adjust the catch basin as needed and shall grout the catch basin. No wooden shims may be used for adjustment.

8-04.4 Measurement

(February 14, 2025 CFW GSP)

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.

Minor adjustments and grouting of catch basins within areas of replaced curbs or curb and gutters is considered incidental to the unit price of the type of curb.

(******)

Section 8-04.4 is supplemented with the following:

"Modified Roundabout Cement Concrete Curb and Gutter" will be measured per linear foot.

8-04.5 Payment

(******)

Section 8-04.5 is supplemented with the following:

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“Modified Roundabout Cement Concrete Curb and Gutter”, per linear foot.

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8-09 RAISED PAVEMENT MARKERS

8-09.1 Description

(September 20, 2024 CFW GSP)

Section 8-09.1 is supplemented with the following:

RPMs shall be installed in accordance with City of Federal Way Standard Details. Type 2BB RPMs (blue, bi-directional) shall be installed at all hydrant locations, near the center line of the street, offset to the side of the street containing the hydrant.

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8-10 GUIDE POSTS AND BARRIER DELINEATORS

8-10.2 Materials

(September 20, 2024 CFW GSP)

Section 8-10.2 is supplemented with the following:

Flexible Guide Posts with Curb Base 9-17

8-10.4 Measurement

(September 20, 2024 CFW GSP)

Section 8-10.4 is supplemented with the following:

Flexible Guide Posts with Curb Base will be measured by the unit for each post and curb base, including any nosing sections, furnished and installed.

8-10.5 Payment

(September 20, 2024 CFW GSP)

Section 8-10.5 is supplemented with the following:

"Flexible Guide Post with Curb Base", per each.

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8-12 CHAIN LINK FENCE AND WIRE FENCE

8-12.2 Materials

(September 8, 2020 WSDOT GSP OPTION 1)

Section 8-12.2 is supplemented with the following:

Coated Chain Link Fence

Chain link fence fabric shall be hot-dip galvanized with a minimum of 0.8 ounce per square foot of surface area.

Fencing materials shall be coated with an ultraviolet-insensitive plastic or other inert material at least 2 mils in thickness. Any pretreatment or coating shall be applied in accordance with the manufacturer's written instructions. The Contractor shall provide the Engineer with the manufacturer's written specifications detailing the product and method of fabrication. The color shall match SAE AMS Standard 595 color number 37038 (black), or be as approved by the Engineer.

Samples of the coated fencing materials shall have received the Engineer's acceptance prior to installation on the project.

The Contractor shall supply the Engineer with 10 aerosol spray cans containing a minimum of 14 ounces each of paint of the color specified above. The touch-up paint shall be compatible with the coating system used.

(September 17, 2019 CFW GSP)

Section 8-12.2 is supplemented with the following:

Chain link fencing installed with the project shall include a top rail.

8-12.4 Measurement

(*****)

Section 8-12.4 is supplemented with the following:

"Relocate Existing Temporary Fence" will be measured per linear foot.

8-12.5 Payment

(April 12, 2018 CFW GSP)

Section 8-12.5 is supplemented with the following:

"Black Vinyl Coated Chain Link Fence", per linear foot.

The unit Contract price per linear foot for "Black Vinyl Coated Chain Link Fence" shall be full payment for all costs for the specified Work including brace post installation; end, corner, and pull posts; gates; top rail and bottom rail; and all other requirements of Section 8-12 for Chain Link Fence, unless covered in a separate Bid Item in this section.

(*****)

Section 8-12.5 is supplemented with the following: "Relocate Existing Temporary Fence", per linear foot.

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8-13 MONUMENT CASES

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(1) Monument Case and Cover

(November 24, 2025 CFW GSP)

The last paragraph of Section 8-13.3(1) is revised to read:

The monument will be furnished and set by the Contractor. A City of Federal Way Monument Record form shall be completed and stamped by a Professional Land Surveyor and submitted to the Project Engineer for each monument installed by the Contractor. Vertical measurements shall be on the NGVD 29 vertical datum. Horizontal positions shall be state plane coordinates on NAD 83/91 datum.

8-13.3(2)A Removing and Lowering Monument Case and Cover

(April 17, 2026 CFW GSP)

Section 8-13.3(2)A is supplemented with the following:

When existing monument cases are lowered prior to planing and/or paving, it is the Contractor's responsibility to notify the City of monument cases that are not able to be opened, lowered, and/or raised. If the Contractor does not notify the City of existing damage/issues with monument cases prior to planing and/or paving, any such damages/issues shall be replaced at the Contractor's expense.

8-13.3(2)B Reinstalling Monument Case and Cover

(November 24, 2025 CFW GSP)

Section 8-13.3(2)B is supplemented with the following:

The concrete class requirements listed are applicable for Type I/II Portland cement. See Section 9.01.2(1)B for requirements for Type 1L cement.

8-13.3(3)C Permit to Remove or Destroy Survey Monuments

(January 19, 2024 CFW GSP)

Section 8-13.3(3)C is a new Section.

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.

8-13.4 Measurement

(*November 24, 2025 CFW GSP*)

The first paragraph of Section 8-13.4 is supplemented as follows:

Incidental to "Monument Case and Cover" is the installation of survey monuments (i.e. brass discs) and the preparation of the City of Federal Way Monument Record form which shall be completed and stamped by a Professional Land Surveyor and submitted to the Project Engineer for each new monument installed by the Contractor.

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8-13.5 Payment

(*November 24, 2025 CFW GSP*)

The first paragraph of Section 8-13.4 is revised to read:

Payment for "Monument Case and Cover", per each, will be paid as follows:

- 50% of bid item – Upon satisfactory installation of monument, case, and cover.
- 100% of bid item – Upon City's acceptance of satisfactory Monument Record Forms.

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8-14 CEMENT CONCRETE SIDEWALKS

8-14.2 Materials

(December 16, 2022 CFW GSP)

Section 8-14.2 is supplemented with the following:

The Cement Concrete Sidewalk and curb ramps shall be constructed of Class 4000 concrete or greater if Type I/II Portland cement is used. If Type 1L Blended hydraulic cement is used, see 9-01.2(1)B.

8-14.3 Construction Requirements

(December 16, 2022 CFW GSP)

Section 8-14.3 is supplemented with the following:

The concrete class requirements in paragraph one are applicable for Type I/II Portland cement. See Section 9.01.2(1)B for requirements for Type 1L cement.

(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.

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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.

(March 22, 2023 CFW GSP)

Section 8-14.3 is supplemented with the following:

Cement concrete sidewalk thickness shall be as shown in 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 in 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 in the Plans.

8-14.3(5)B Cast-in-Place Detectable Warning Surfaces

(******)

Section 8-14.3(5)B is supplemented with the following:

Placement of detectable guidance tiles shall meet the installation requirements of Section 9-38 of the Special Provisions. Vertical edges shall have not more than 1/4" inch vertical displacement from the surface of adjacent pavements after installation.

8-14.3(5)C Surface Applied Detectable Warning Surface

(December 16, 2022 CFW GSP)

Section 8-14.3(5)C is replaced with the following:

Glued or stick down Detectable Warning Surfaces are allowed on asphalt surfaces only for temporary work zone applications.

MMA-Style Truncated Dome Detectable Warning Surfaces applied to asphalt surfaces for permanent installations shall be liquid-applied Vanguard ADA Systems, or approved equal.

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8-14.4 Measurement

(******)

Section 8-14.4 is supplemented with the following:

Stamped Cement Concrete Class 4000 will be measured by the cubic yard.

8-14.5 Payment

(******)

Section 8.14.5 is supplemented with the following:

"Stamped Cement Concrete Class 4000", per cubic yard.

The unit Contract price per cubic yard for Stamped Cem. Conc. Pavement for Truck Apron/Splitter Island shall be full compensation for all costs incurred to carry out the requirements of Section 5-05, including the patterning of the pavement identified in the Plans.

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8-15 RIPRAP

8-15.1 Description

Section 8-15.1 is supplemented with the following:

This work shall also include riprap for the sand filter.

8-15.2 Materials

Section 8-15.2 is supplemented with the following:

Riprap for Sand Filter 9-13.1(6)

8-15.3(4) Riprap for Sand Filter

Riprap shall be placed along the top of the sand filter next to the anchored flow spreader as shown in the Plans.

8-15.4 Measurement

Section 8-15.4 is supplemented with the following:

Riprap for sand filter will be measured by the cubic yard of riprap actually placed.

8-15.5 Payment

Section 8-15.5 is supplemented with the following:

"Riprap for Sand Filter", per cubic yard.

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

8-20.1 Description

8-20.1(1) Regulations and Code
(September 20, 2024 CFW GSP)

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

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

8-20.1(2) Industry Codes and Standards
(March 13, 2012 CFW GSP)

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

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

8-20.1(3) Permitting and Inspections
(April 12, 2018 CFW GSP)

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

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

8-20.2 Materials

8-20.2(1) Equipment List And Drawings
(March 13, 1995 WSDOT GSP, OPTION 1)

Section 8-20.2(1) is supplemented with the following:

Pole base to light source distances (H1) for lighting standards with pre-approved plans shall be as noted in the Plans.

Pole base to light source distances (H1) for lighting standards without pre-approved plans will be furnished by the Engineer as part of the final approved shop drawings, prior to fabrication.

8-20.3 Construction Requirements

8-20.3(2) Excavating and Backfilling
(September 20, 2024 CFW GSP)

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

Controlled density fill (CDF) shall meet the requirements of Washington Aggregates and Concrete Association.

Bedding material shall consist of crushed surface top course free of any deleterious substances.

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

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

The Contractor shall be responsible for potholing for conflicts with underground utility locations prior to determining exact locations of signal and light standard foundations, underground vaults, and directional boring operations. Prior to construction, if any conflicts are expected, it shall be brought to the attention of the Engineer for resolution.

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

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

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

1. Contact the Engineer and determine if there is an alternative location for the foundation, junction box, vault or conduit trench.

2. If an adequate alternate location is not obvious for the underground work, select a location that may be acceptable and pothole to determine the exact location of other utilities. Potholing must be approved by the Engineer.

3. If an adequate alternate alignment still cannot be identified following potholing operations, the pothole area should be restored and work in the area should stop until a new design can be developed.

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

All foundations and anchor bolts shall be removed to 6 feet below new subgrade, and the resulting hole shall be backfilled with compacted gravel borrow meeting the requirements of Section 9-03.14(1), unless the Engineer has approved the use of native material.

Where junction boxes are removed, the conduit and wire shall also be removed to the bottom of the trench and the resulting hole backfilled with gravel borrow meeting the requirements of Section 9-03.14(1), unless the Engineer has approved the use of native material.

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8-20.3(4) Foundations

(September 20, 2024 CFW GSP)

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

During construction of the pole foundations, the Contractor shall ensure the safety of the excavation site. Steel trench plates shall cover the excavation site, when the Contractor is not actively working on the foundations. Trench plates shall be traffic-rated and shall not be able to be moved by a pedestrian to access the excavation area.

Paperboard forms are allowed for the top 12 inches of foundations only and only if the top of foundation will be exposed. Corrugated metal pipe is the preferred method of foundation installation. This applies to all types of foundations, with the exception of cabinet foundations.

The concrete class requirements in paragraph one are applicable for Type I/II Portland cement. See Section 9.01.22(1)B for requirements for Type 1L cement.

Excavation for foundations shall be completed by vactor excavation. This excavation shall be incidental to the illumination, traffic signal systems, intelligent transportation system, or electrical bid items.

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

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

Light Standard Foundations

Foundations for non-decorative light standards shall conform to City of Federal Way Standard Details. No pre-cast foundations will be allowed. Unless otherwise noted in the Plans, all light standards use a fixed base with a 4-bolt anchoring system. Anchor bolts shall be in accordance with Section 9-29.6(5).

Foundations for the decorative light standards shall conform to City of Federal Way Standard Details. Anchor bolts shall be in accordance with Section 9-29.6(5).

Cabinet Foundations

The foundation pedestal for the service/signal controller/battery backup cabinets shall be in conformance with the requirements of Standard Plans, modified as shown in City of Federal Way Standard Details. Conduits shall be centered horizontally except service conduit, which shall be placed at the side of the power panel. See City of Federal Way Standard Details referenced above for other details.

Additionally, the pad mount shall conform to the following:

1. The spare 2-inch conduit shall run to the nearest junction box, unless placement of such would exceed the junction box capacity in which case the spare 2-inch conduit shall run to the next nearest junction box.

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2. Conduits shall be centered horizontally except service conduit which shall be placed at the side of the power panel.
3. Pedestal shall be tapered from top to bottom at 1:10 on all four sides.
4. Unit shall be mounted on a cement concrete pad in accordance with Plan Details.
5. Conduits shall be placed in the front 1/3 of the foundation. Foundations constructed with conduits located within the 3-inch cabinet mounting flange shall be removed and reconstructed. Modification of the 3-inch cabinet mounting flange will not be accepted.

All cabinet foundations shall be cast in one operation. The exposed concrete surfaces shall be formed to present a neat appearance. The pedestal top shall have a smooth, trowel finish with a 0.50-inch round fillet along the outside top edge. The Contractor shall wait a minimum of three full calendar days between pouring the cabinet foundation and mounting the cabinet. Where the cabinet is mounted onto the foundation, an approved clear silicone shall be applied to all metal cabinet surfaces which come into contact with the concrete foundation to provide a complete seal. A complete seal shall be defined as having excess silicone squeeze out on the inside of the cabinet, when it is mounted. If there is no evidence of this, the cabinet will be required to be removed and remounted, with an adequate amount of silicone sealant applied. There shall also be a dressed bead seal placed continuous along all four sides and corners on the outside portion of the cabinet at the point of contact between the metal and concrete foundation. The concrete pad at the base of the foundation on the "house side" shall be sloped uniformly away from the foundation to eliminate puddling. It shall be the Contractor's responsibility to confirm all dimensions and location for the controller, service, and battery backup cabinets prior to forming foundation pedestal.

Corrugated Metal Pipe for Foundations

Corrugated metal pipe, if used for foundations, shall be installed by the Contractor. Refer to Section 8-20.3(4) for construction options for foundations. All corrugated metal pipe segments not needed shall be disposed of by the Contractor.

8-20.3(5) Conduit

8-20.3(5)A General

(September 20, 2024 CFW GSP)

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

Banding of risers to steel or aluminum poles will not be allowed.

A copper ground wire shall be installed with all conduit.

A pull tape shall be installed in all conduit and shall remain upon completion of the project.

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

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

All conduits shall be clearly labeled at each junction box, handhole, vault or other utility appurtenance. Labeling shall be permanent and shall consist of the owner/type name and

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a unique conduit number or color. The owner name shall be approved by the Engineer prior to starting work. The recommended owner/type abbreviations are:

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

8-20.3(5)B Conduit Type
(April 17, 2026 CFW GSP)

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

HDPE conduit shall be installed at the following locations:

1. In areas to be directionally bored, per 8-20.3(5)E. HDPE is not allowed for open-trench installations.

Rigid Polyvinyl Chloride (PVC) (Schedule 80) or Rigid Galvanized Steel shall be installed at the following locations:

1. In areas to be open-trenched as indicated in the Plans.

Liquid-Tight Flexible Metal (LFMC) shall be installed at the following locations:

1. Not allowed unless otherwise indicated in the Plans.

8-20.3(5)E Method of Conduit Installation

8-20.3(5)E1 Open Trenching
(November 24, 2025 CFW GSP)

Section 8-20.3(5)E1 is replaced with the following:

Open trenching shall only be allowed when shown in the Plans or if approved in writing by the Engineer. When open trenching is allowed, trench construction shall conform to the following:

1. The pavement shall be saw-cut the full depth of the existing pavement. The cuts shall be parallel to each other and extend 1-foot beyond the edge of the trench.

2. Pavement shall be removed in an approved manner.

3. Trench depth shall provide a minimum cover of 24-inches over conduits or in accordance with Section 8-20.3(5)D, whichever is greater. The trench bottom shall be graded to provide a uniform grade.

4. Trench width shall be 8-inches or the conduit diameter plus 2-inches, whichever is larger.

5. Bedding material shall be pit run sand. Bedding material shall be placed two inches below the conduits and shall extend to two inches above the conduits.

6. Trenches located within paved roadway areas (back of curb to back of curb), including perpendicular crossings of roadways or underneath driveways, shall

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be backfilled with Controlled density fill (CDF) meeting the requirements of Section 3-07.3(1)E. The controlled density fill shall be placed level to, and at the bottom of, the existing pavement. The pavement shall be replaced with paving material that matches the existing pavement.

7. Trenches located outside of paved roadway areas and driveways shall be backfilled with Bank Run Gravel for Trench Backfill conforming to Section 9-03.19, unless the Engineer approves the use of native material.

8. On new construction, conduit shall be placed prior to placement of base course pavement.

8-20.3(6) Junction Boxes, Cable Vaults, and Pull Boxes
(September 20, 2024 CFW GSP)

Section 8-20.3(6) is supplemented with the following:

Unless otherwise noted in the Plans or approved by the Engineer, junction boxes, cable vaults, and pull boxes shall not be placed within the traveled way or shoulders.

All junction boxes, cable vaults, and pull boxes placed within the traveled way or paved shoulders shall be heavy-duty. Standard Duty nonconcrete junction boxes shall not be installed within the City of Federal Way.

Junction boxes shall not be located within the traveled way, ramps/landings, or driveways, nor should junction boxes interfere with any other previous or relocated installation. The lid of the junction box shall be flush with the surrounding area and be adequately supported by a bed of crushed surfacing. Junction boxes shall be installed in accordance with Standard Plans. Junction boxes placed improperly shall be moved and reset or replaced and reset at the expense of the Contractor, including replacement of any concrete that may have been disturbed as a result.

Junction boxes installed in sidewalks shall have 3/8-inch pre-molded joint filler (full depth) between the concrete and the junction box. Where junction boxes are installed side-by-side in a sidewalk, install 3/8-inch pre-molded joint filler between the junction boxes, as well.

Anti-seize lubricant shall be applied to all junction box penta head bolts.

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

All junction boxes containing illumination conductor shall be welded shut after final inspection and approval by King County.

All junction box lids located within sidewalk areas, along a pedestrian access route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, must meet accessibility requirements and shall be slip-resistant. Acceptable slip-resistant products shall be non-slip Methyl methacrylate (MMA) coating or SlipNot Grade 3. Placement of the slip-resistant MMA coating shall be in accordance with the manufacturer's recommendations. Vertical edges of the utility shall be flush with the adjoining surface to the extent possible after installation.

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Wiring shall not be pulled into any conduit until all associated junction boxes have been adjusted to, or installed in, their final grade and location, unless installation is necessary to maintain system operation. If wire is installed for this reason, sufficient slack shall be left to allow for future adjustment.

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

Junction boxes shall meet the requirements of WSDOT Standard Plans. Junction boxes shall be inscribed based upon system in accordance with Section 9-29.2(4), except as listed below for interconnect systems. Junction box lids and frames shall be grounded in accordance with Section 8-20.3(9).

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

Junction boxes for traffic signal interconnect, whether copper or fiber optic, shall be placed at a maximum interval of 300 feet and shall be inscribed with “TS” as noted in Section 9-29.2(4).

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

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

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

Fiber vaults shall be installed in accordance with the following:

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

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

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

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

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

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

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

8-20.3(8) Wiring

(September 20, 2024 CFW GSP)

The 7th paragraph of 8-20.3(8) is deleted and replaced with the following:

Fused quick-disconnect kits shall be in accordance with Section 9-29.7(2). Underground illumination splices shall be made with epoxy splice kits in accordance with Section 9-29.12(1). Installation shall conform to details in the Standard Plans.

(September 20, 2024 CFW GSP)

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

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

Circuit conductors for illumination shall be stranded aluminum wire, sized as specified in the Plans. Conductors from light standard foundations to the luminaire fixture shall be pole and bracket cable, in accordance with Section 9-29.3(2)D.

The Contractor shall be responsible for the protection of all field wiring until such time that the project has obtained final written acceptance notification from the Contracting Agency. The Contractor shall replace, at no cost to the Contracting Agency, any wiring that has been stolen during the duration of this Contract. Upon final written acceptance of the work by the Contracting Agency, all junction box lids marked “LT” shall be tack welded by the Contractor.

All illumination conductors, traffic signal conductors, and loop wire shall be installed with one complete wrap of slack within each ground level junction box, arranged in a loop around the base of the junction box. In addition, one complete wrap of slack shall be provided at the service cabinet. Existing vehicle heads may or may not have sufficient spare conductor coiled for relocation of vehicle heads for each stage of construction. Contractor shall provide and install any vehicle head conductor required for adjusting existing vehicle signal head locations during various stages of construction.

The conductor for the photocell receptacles/illumination nodes shall be three #14 AWG.

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On all standards where lighting is to be provided, head connecting ends shall be fitted with a 1.5-inch reducing washer and a 0.75-inch box connector at the fixture mounting site. A fused quick-disconnect kit shall be provided for luminaire protection at the base of each standard on which a luminaire is mounted and shall be easily accessible from the hand hole.

Illumination conductors shall be connected to the contactors in the service cabinet by forked connectors.

Wire nuts and split bolt connections are not acceptable for use on City of Federal Way projects.

8-20.3(8)A Splices

(September 20, 2024 CFW GSP)

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

No splicing of traffic signal, service, or photo-electric/illumination node conductors shall be allowed.

In the illumination system wiring, junction box splices shall be allowed only in the illumination system wiring using epoxy resin cast type insulation employing clear rigid plastic molds; all other connections shall be made at terminal locations or at the fused quick-disconnects in the light standard base. Unless otherwise approved by the Engineer, illumination splices shall only be allowed in the junction box located at the base of each light standard. Only wye-type splices will be allowed, unless specifically requested and approved by the Engineer. All illumination wiring shall be in accordance with City of Federal Way Standard Details.

Any splices of conductors of dissimilar metals shall use antioxidant compound.

8-20.3(8)C Wire and Cable Pulling

(September 20, 2024 CFW GSP)

Section 8-20.3(8)C is supplemented as follows:

All wiring, cable, and cords associated with this equipment shall be neatly dressed and secured to the rack frames or cable trays by nylon ties.

8-20.3(9) Bonding, Grounding

(September 20, 2024 CFW GSP)

Section 8-20.3(9) is supplemented with the following:

Contractor shall provide and install bonding and grounding wires as described in Standard Specifications and the National Electric Code for any new junction boxes and any modified existing junction boxes. For the purposes of this section, a junction box shall be considered “modified” if new current-carrying conductors are installed, including low-voltage conductors.

At points where shields of shielded conductors are grounded, the shields shall be neatly wired and terminated on suitable grounding lugs.

Junction box lids and frames shall be grounded in accordance with Department of Labor and Industries standards, and shall be grounded so that the ground will not break when the lid is removed and laid on the ground next to the junction box.

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All conduits shall have continuous grounding wires between junction boxes.

Ground rods shall be copper clad steel, ¾-inch in diameter by 10-feet long, connections shall be made with thermite welds.

At points where wiring shields of shielded conductors are grounded, the shields shall be neatly wired and terminated on suitable grounding lugs.

8-20.3(9)A Supplemental Grounding
(September 20, 2024 CFW GSP)

Section 8-20.3(9)A is supplemented with the following:

In addition to the service grounds provided at the service cabinet, each light and signal standard shall have a supplemental ground installed.

Ground clamps that attach to ground rods or to the rebar cage in a foundation shall be acorn-style. Only those ground clamps on the WSDOT Qualified Products List will be allowed.

8-20.3(9)B Service Grounding
(September 20, 2024 CFW GSP)

Section 8-20.3(9)B is supplemented with the following:

Ground well lids shall be concrete or cast iron. Concrete lids shall have a hole in them, to allow for removal and inspection. Solid concrete lids are not allowed. Concrete lids that do not fit in an acceptable manner shall be replaced by the Contractor, at no additional cost to the City of Federal Way.

8-20.3(10) Service, Transformer and ITS Cabinets
(September 20, 2024 CFW GSP)

Section 8-20.3(10) is supplemented with the following:

The Contractor shall apply for any required electrical service connections with Puget Sound Energy or Tacoma Power as applicable and make arrangements for a new electrical service connection. Coordinate with the Engineer/Traffic Division for the address to be used for the service location.

The Engineer will approve electrical service installations. The Contractor shall request the City of Federal Way Building Department to perform required inspections for service approval.

The electrical service is detailed in the Plans and City of Federal Way Standard Details. All circuit breakers shall be clearly marked or labeled. The electrical service cabinet shall be painted inside with white polyurethane powder coat in accordance with Section 6-07. The outside shall be bare, mill-finish aluminum.

The Contractor shall notify the City of Federal Way Electrical Inspector when the service is ready for connection.

The electrical service shall be provided at 240/120 volts, 60 Hz AC. The underground electrical service shall be brought to the load center in minimum 2-inch conduit. Wire sizes and conduit terminations between the load center and the connection location shall meet the requirements of PSE or Tacoma Power, as applicable. The service shall be split in the

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load center into a 120-volt circuit for the signals and 240 volt for the illumination. When the service is to be provided from an overhead source, the Contractor shall provide conduit from the electrical service to 10 feet up the power pole from which service is provided. Stand-off brackets 14 inches long shall be installed on the pole every 10 feet. In addition, the Contractor shall provide service conductors from the electrical service to the top of the conduit on the power pole with 30 feet of service wire coiled at top and provide the local electrical utility with 30 feet of 2-inch conduit to make the connection.

The electrical service cabinet shall have the service cabinet number painted on the cabinet, facing the street. All numbers/letters shall be 1-inch high with ½-inch spacing between each letter/number. All numbers shall be painted black with Alkyd gloss paint. The service cabinet number shall be provided by the City.

8-20.3(11)C4 Operational Testing
(September 20, 2024 CFW GSP)
Section 8-20.3(11)C4 is a new Section as follows:

Prior to final acceptance, the following fully-operating systems shall be tested for the minimum time frames established by this Section and are as follows:

Traffic Signal System, 14 days;
Illumination System, 14 days;
Interconnect System, 14 days;
RRFB System, 14 days.

The operational testing periods are not intended to be charged working days, unless other Contract work is being performed.

During the operational testing, any parts that fail and were provided by the Contractor or were provided by the City of Federal Way and damaged by the Contractor shall be immediately replaced. The Contractor shall replace the failed part with a new operable part of the same type and model as required by the Contract Documents. Passing the operational test does not reduce any manufacturer guarantees, if applicable, that are to be conveyed to the City of Federal Way after passing of the operational testing.

8-20.3(13) Illumination Systems
(April 12, 2018 CFW GSP)
Section 8-20.3(13) is supplemented with the following:

The existing lighting systems shall remain operational until the new systems are functioning. The Engineer may approve partial interruptions required because of staging. No new light standards shall be energized until a preliminary inspection has been conducted by King County.

8-20.3(13)A Light Standards
(September 20, 2024 CFW GSP)
The 8th paragraph of this section is deleted and replaced with the following:

All new and relocated metal light standards shall be numbered in accordance with City of Federal Way Standard Details.

(September 20, 2024 CFW GSP)
Section 8-20.3(13)A is supplemented with the following:

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Each roadway and decorative luminaire shall be installed with a Cimcon illumination control node, in accordance with Section 9-29.11(2). A node is required for each luminaire fixture.

8-20.3(17) "As Built" Plans

(September 20, 2024 CFW GSP)

Section 8-20.3(17) is deleted and replaced with the following:

Upon completion of the project, the Contractor shall furnish an "as-built" drawing of the intersection showing all signal heads, pole locations, detectors, junction boxes, Illumination system showing luminaire locations, miscellaneous equipment, conductors, cable wires up to the signal controller cabinet, and with a special symbol identifying those items that have been changed from the original contract drawings. All items shall be located to within 1 foot horizontally and 6 inches vertically above or below the finished surface grade.

8-20.4 Measurement

(*****)

Section 8-20.4 is supplemented with the following:

Adjustment of junction boxes to grade will be per each.

8-20.5 Payment

(April 17, 2026 CFW GSP)

Paragraph 2, 3, 4, and 5 of Section 8-20.5 are deleted and replaced with the following:

"Illumination System", per lump sum.

The lump sum price for "Illumination System" shall be full pay for furnishing all labor, equipment, materials and supplies necessary to complete the work as specified. The lump sum price shall include all costs associated with connecting the illumination system to the service cabinet and for making modifications to the existing systems as noted. All items and labor necessary to supply, install, and test the system, including, but not limited to, excavation, potholing, removal of equipment and excavated materials, conduit, junction boxes, service circuit breaker and connections, the illumination control node, electrical service and service cabinet electrical connections, connections with existing conduit and junction boxes, restoring facilities destroyed or damaged during construction, salvaging existing materials, installation of non-slip MMA coating on new or existing lids located within accessible surfaces, and all other components necessary to make a complete system shall be included within the lump sum measurement.

(February 14, 2025 CFW GSP)

Section 8-20.5 is supplemented with the following:

"RRFB System", per each.

The per each price for "RRFB System" is defined as per each location which includes the RRFB components located on both sides of the street and/or the median. The RRFB System may also include a luminaire attached to the RRFB pole. Standalone luminaires would be part of a separate "Illumination System" bid item. The per each price for "RRFB System" shall be full pay for furnishing all labor, equipment, materials, and supplies necessary to complete and test the work as specified, including, but not limited to: the RRFB assembly, solar panel/cabinet (if applicable), pedestrian push buttons and Type II

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or Type III standards, pole foundations, push button frame adapters and mounting hardware, warning signs, rectangular beacons, conduit, junction boxes, light standards and luminaires, new electrical service and fees, permitting, connecting the illumination system to existing or new circuits, making modifications to the existing illumination system as required, wiring, grounding, pull-tape, pole and bracket cables, conductors, epoxy splice kits, fused quick-disconnect kits, excavation, potholing, removal of equipment and excavated materials, and all necessary appurtenances. All items and labor necessary to supply, install, and test the conduit, junction boxes, service circuit breaker and connections, illumination control nodes, electrical service and service cabinet electrical connections, connections with existing conduit and junction boxes, restoring facilities destroyed or damaged during construction, salvaging existing materials, installation of non-slip MMA coating on new or existing lids located within accessible surfaces, and all other components necessary to make a complete system shall be included within the lump sum measurement.

(*****)

Section 8-20.5 is supplemented with the following:

"Adjust Junction Box to Grade", per each

The unit Contract price per each for "Adjust Junction Box to Grade" shall be full pay for all costs necessary to make the adjustment including restoration of adjacent areas in a manner acceptable to the Engineer.

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8-21 PERMANENT SIGNING

8-21.1 Description

(September 20, 2024 CFW GSP)

Section 8-21.1 is deleted and replaced with the following:

This work shall consist of furnishing and installing permanent signing, sign removal, and sign relocation at the locations shown in the Plans or where designated by the Engineer. Signs to be removed as shown in the Plans, shall be returned to the King County Sign Shop in Renton.

Utility locates for sign locations must be completed prior to the installation or relocation of any signs.

8-21.3 Construction Requirements

8-21.3(1) Location of Signs

(September 20, 2024 CFW GSP)

Section 8-21.3(1) is supplemented with the following:

Post lengths shall be determined by the Contractor. Signs shall be installed in accordance with the MUTCD and City of Federal Way Standard Details. Posts shall not extend beyond the top of the installed sign, unless specifically called for in the Plans.

Sign installation and maintenance shall include maintaining proper visibility of all signs, including those part of an RRFB or signal, at all times. If vegetation trimming is required, it shall be completed by the Contractor and considered incidental to the bid item.

8-21.3(2) Placement of Signs

(September 20, 2024 CFW GSP)

Section 8-21.3(2) is supplemented with the following:

The Contractor shall be required to furnish the signs, sign posts, and mounting hardware. Unless otherwise noted in the Plans, the Contractor shall install all signs on metal posts.

Catalog cuts indicating fabrication material, layout, sign size, mounting type, mounting hardware, and specifications for the overhead sign type shall be submitted for approval prior to sign fabrication.

8-21.3(4) Sign Removal

(September 20, 2024 CFW GSP)

Section 8-21.3(4) is supplemented with the following:

This work shall consist of removing existing signs and guide posts within the construction project limits and delivering the signs and guide posts in a timely manner and in good condition to the King County Sign Shop.

The Contractor shall remove and dispose of sign posts, sign anchors, and associated concrete.

The existing signs and guide posts to be removed during this project are listed in the Plans.

No existing sign shall be removed until designated by the Engineer; all signs identified for removal are to be maintained in good condition until removed.

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8-21.3(5) Sign Relocation

(September 20, 2024 CFW GSP)

Section 8-21.3(5) is supplemented with the following:

The sign relocation work shall consist of relocating an existing sign to the new designated location. New posts are to be furnished by the Contractor unless reuse of existing post is approved by the Engineer. The Contractor shall remove and dispose of sign posts, sign anchors, and associated concrete.

No existing sign shall be relocated until designated by the Engineer. All signs identified for relocation are to be maintained in good condition.

The Contractor shall coordinate with King County Metro or Pierce Transit personnel as necessary for removal and reinstallation of all existing bus stop signs and supports within the project limits.

8-21.3(12) Steel Sign Posts

(September 20, 2024 CFW GSP)

Section 8-21.3(12) is supplemented with the following:

All City of Federal Way signs mounted on roadside structures shall use steel posts, in accordance with City of Federal Way Standard Details.

8-21.5 Payment

(September 20, 2024 CFW GSP)

Section 8-21.5 is deleted and replaced with the following:

"Permanent Signing", lump sum.

The lump sum price for "Permanent Signing" shall include all labor, materials, tools, and equipment necessary to furnish and install permanent signing, sign posts, sign removal, and sign relocation. Sign covering shall be incidental and shall not be measured.

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8-22 PAVEMENT MARKING

8-22.1 Description

(September 20, 2024 CFW GSP)

Section 8-22.1 is supplemented with the following:

Pavement markings shall conform to City of Federal Way Standard Details. Longitudinal striping patterns shall be as shown on Standard Plan M-20.20.

The Contractor shall perform all spotting and layout for all permanent pavement markings.

8-22.2 Materials

(September 20, 2024 CFW GSP)

Section 8-22.2 Paragraph #3 is deleted and replaced with the following:

Glass beads for Type A plastic shall be as recommended by the manufacturer.

Section 8-22.2 is supplemented with the following:

Glass beads and Reflective Elements for Type D plastic shall be in accordance with Section 9-34.4. Both glass beads and reflective elements are required to be installed with Type D pavement markings.

8-22.3 Construction Requirements

(March 22, 2023 CFW GSP)

Section 8-22.3 is supplemented with the following:

Permanent pavement markings shall be installed within 30 calendar days after paving. If a project contains paving on multiple streets (i.e., schedules of work), this requirement applies to the paving date for each street / schedule individually.

8-22.3(3) Marking Application

8-22.3(3)E Installation

(September 20, 2024 CFW GSP)

Section 8-22.3(3)E is supplemented with the following:

Profiled Type D lines shall be installed in accordance with Standard Plan M-20.20.

All parallel double lines (narrow pattern and wide pattern) shall be placed in one pass.

All longitudinal pavement markings shall be applied, in cycle, in the direction of traffic, unless specifically approved by the City of Federal Way. The City of Federal Way shall designate in which direction to apply center line striping, as applicable.

For paint, the use of a pushcart or motorized cart is prohibited. A striping truck is required, unless otherwise approved by the Engineer for specific locations.

If Type B plastic markings are allowed, the material shall not overlap and there shall not be gaps between individual segments of the material.

For Type D, liquid cold applied methyl methacrylate, longitudinal line markings, Type D-3 or Type D-4 shall be used. Type D-3 or Type D-4 application method shall be defined as

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machine extrusion. Application by walk-behind carts is not allowed. Application of double center line by means that requires a separate pass for each line is not allowed.

8-22.3(3)G Glass Beads

(March 13, 2012, CFW GSP)

Section 8-22.3(3)G is supplemented with the following:

Glass beads shall be applied to Type D markings at a rate of 8 to 10 pounds per one hundred square feet.

Reflective elements shall be applied to Type D markings at a rate of 10 grams per 4-inch wide by 1 linear foot of marking.

8-22.3(6) Removal of Pavement Markings

(September 20, 2024 CFW GSP)

Section 8-22.3(6) is supplemented with the following:

As indicated in the Plans, the Contractor shall remove existing pavement markings that may consist of paint, plastic, and raised pavement markings.

All existing, plastic pavement markings that are to be paved over, shall be removed prior to paving.

If, in the opinion of the Engineer, the pavement is materially damaged by pavement marking removal or raised pavement marker removal, such damage shall be repaired by the Contractor in accordance with Section 1-07.13(1).

If pavement markings are removed as a part of pavement grinding or removal, that removal will be considered incidental to that bid item and no additional payment will be made under the pavement marking removal bid item.

8-22.4 Measurement

(December 16, 2022 CFW GSP)

Paragraphs 12 and 13 of Section 8-22.4 are replaced with the following:

Measurement for the removal of all pavement markings will be per lump sum.

(March 22, 2023 CFW GSP)

Section 8-22.4 is supplemented with the following:

Raised Pavement Markers are incidental to Pavement Markings. No separate measurement or payment will be made.

8-22.5 Payment

(February 14, 2025 CFW GSP)

Section 8-22.5 is modified as follows:

The following bid items are deleted:

"Removing Paint Line", per linear foot.
"Removing Plastic Line", per linear foot.
"Removing Painted Crosswalk Line", per square foot.
"Removing Plastic Crosswalk Line", per square foot.
"Removing Painted Traffic Marking", per each.
"Removing Plastic Traffic Marking", per each.

The following are new bid items:

"Removing Pavement Markings", lump sum.

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8-23 TEMPORARY PAVEMENT MARKINGS

8-23.1 Description

(March 22, 2023 CFW GSP)

Section 8-23.1 is supplemented with the following:

Temporary pavement markings shall be installed and maintained by the Contractor prior to traffic being released onto public streets when the installation of permanent pavement markings is not yet completed. All pavement markings including lines, symbols, and raised pavement markers shown on the plans and details shall be provided as temporary pavement markings until such time that permanent pavement markings are installed. Temporary pavement markings shall generally follow the alignment for the permanent pavement markings.

8-23.2 Materials

(March 22, 2023 CFW GSP)

Section 8-23.2 is supplemented with the following:

The City of Federal Way does not allow Low VOC Waterborne Paint for temporary or permanent pavement markings.

8-23.3 Construction Requirements

8-23.3(1) General

(September 20, 2024 CFW GSP)

Section 8-23.3(1) is deleted and replaced with the following:

All work zone temporary pavement markings shall be paint, except for markings on the new asphalt or concrete wearing course. This includes lane shifts for construction stages.

All temporary pavement markings that are expected to remain in place for two months or more shall be paint, with raised pavement markers. This includes any work zone markings.

All temporary pavement markings that are installed prior to a winter suspension shall be paint with raised pavement markers. This includes any work zone markings.

Temporary pavement markings that are installed on the wearing course of new asphalt or concrete shall be tape.

Tape may be used for other short-term applications, as approved by the Engineer.

8-23.3(4) Pavement Marking Application

8-23.3(4)A Temporary Pavement Markings – Short Duration

(March 22, 2023 CFW GSP)

Paragraph 2 of Section 8-23.3(4)A is modified as follows:

Temporary Center Line (Double Yellow Center Line) – Two SOLID lines used to delineate adjacent lanes of traffic moving in opposite directions. Temporary raised pavement markings should be installed on both sides of the yellow lines at 40-foot intervals.

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Temporary Center Line (Skip Center Line) – A BROKEN line used to delineate adjacent lanes of traffic moving in opposite directions. The broken pattern shall be based on a 10-foot unit, consisting of a 1-foot line with a 9-foot gap.

8-23.3(4)A2 Temporary Pavement Marking Tape
(September 20, 2024 CFW GSP)

Section 8-23.3(4)A2 is supplemented with the following:

Black mask pavement marking tape shall not be used, unless specifically requested by the Engineer.

8-23.3(4)E Removal of Pavement Markings
(September 20, 2024 CFW GSP)

Section 8-23.3(4)E is supplemented with the following:

Raised pavement markers shall be removed prior to paving. This work shall be performed by the Contractor.

8-23.4 Measurement
(November 7, 2025 CFW GSP)

Section 8-23.4 is supplemented with the following:

Temporary Raised Pavement Markers are incidental to Temporary Pavement Markings. No separate measurement or payment will be made.

Traffic control (Flaggers, Traffic Control Supervisor, Other Traffic Control, etc.) for the initial installation of Temporary Pavement Markings shall be measured and paid in accordance with the respective Traffic Control Bid Items. Traffic control associated with the subsequent maintenance and/or removal of Temporary Pavement Markings shall be incidental to the temporary pavement marking bid items and no additional payment will be made.

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8-30 STREAMS, RIVERS, AND WATERBODIES

8-30.2 Materials

(*****)

For the wetland mitigation areas, Section 8-30.2 is supplemented with the following:

Wetland Silt/Clay 9-03.11(6)

8-30.3(1)C Wetland Mitigation High-Draining Soil Delineation

(*****)

Section 8-30.3(1)C is a new section as follows:

This section applies to the southwest portion of the wetland mitigation area identified as High-Draining Soil Delineation Area. After clearing, grubbing, and stripping of topsoil have been completed, Contractor shall overexcavate from final grade by 1 ft to accommodate placement of Topsoil Type A-1. Once excavation is complete, the exposed subgrade in the High-Draining Soil Assessment Area shall be evaluated by an independent third-party geologist, hydrogeologist, or geotechnical engineer licensed in the State of Washington provided by the Contractor. The geologist or hydrogeologist shall initially determine the silt content of the underlying soils visually via classification by the Unified Soil Classification System (USCS). Samples of all subgrade soils visually identified as coarser than a "silt or clay with sand" (i.e. more than 30% sand) will be submitted to a laboratory for grainsize analysis by ASTM D6913 to determine grain size above a #200 sieve, and ASTM D1140 (i.e. a #200 wash) to determine the percent fines (silts and clays).

Based on these observations and test results, the extent of soils containing less than 50 percent silt shall be marked in the field and on a figure that, along with the laboratory sieve data, will be submitted to the City inspector for review and approval prior to additional excavation. Delineation of the transition between soils containing less than 50 percent silt and soils containing 50 percent or greater silt content shall be accurate to within ±2 feet horizontally.

8-30.3(3) Streambed Aggregates

(*****)

For the wetland mitigation areas, Section 8-30.3(3) is supplemented with the following:

This section also applies to Wetland Silt/Clay material.

8-30.3(3)C3 Placing Wetland Silt/Clay

(*****)

Section 8-30.3(3)C3 is a new section as follows:

Wetland Silt/Clay material shall be placed in areas of high-draining soil as delineated per 8-30.3(1)C. No Wetland Silt/Clay material shall be placed outside of the High-Draining Soil Assessment Area. In areas where the underlying soil contains less than 50 percent silt, the Contractor shall overexcavate the subgrade by an additional 6 inches to a total depth of 1.5 ft below the final grade elevation. Excavation shall extend to the limits shown by the field delineation and approved by the City inspector.

Following excavation, the Contractor shall place a 6-inch-thick layer of approved wetland silt/clay material within the overexcavated area (see Special Provisions 9-03.11(6)). The wetland silt/clay material shall extend a minimum of 3 feet horizontally beyond the

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boundary of soils containing less than 50 percent silt and shall overlap adjacent soils containing 50 percent or greater silt content.

The wetland silt/clay material shall be keyed into the underlying silty soil by constructing a trench along the outside edge of the overlap zone. The trench shall be a minimum of 6 inches deep and 6 inches wide and shall be completely filled with the wetland silt/clay material.

The wetland silt/clay material shall be placed in a manner that produces continuous contact with the underlying soil and prevents the formation of voids or discontinuities. The material shall be at a moisture content near optimum that allows it to be compacted to a dense/stiff and non-yielding condition, as approved by the City inspector. Excessive static or vibratory compaction that could adversely affect wetland hydrology or vegetation establishment shall be avoided.

The geologist/geotechnical engineer may require additional excavation, placement, or reworking of materials where boundaries have not been accurately delineated, overlap requirements have not been achieved, or the completed surface does not exhibit a dense/stiff and non-yielding condition.

Following completion and approval of the placement of wetland silt/clay material, 1 ft of Topsoil Type A-1 shall be placed across the entire mitigation area in all areas where topsoil was previously excavated (see Special Provision 9-14.2(1)). Topsoil Type A-1 will be placed in such a manner that the underlying wetland silt/clay fill, where present, is not disturbed by heavy equipment. Topsoil Type A-1 shall be placed within 2 weeks prior to planting. Following topsoil placement, no heavy equipment shall be allowed on the surface of the topsoil in order to avoid over compaction

8-30.3(4) Habitat Piles

(*****)

Section 8-30.3(4) is a new section as follows:

Habitat Piles for the wetland mitigation areas shall consist of logs and branches salvaged from the project site. Approximately forty-six (46) trees shall be felled and retained on site for use in Habitat Piles. Final number of trees to be felled and used in the Habitat Piles to be field verified. All retained trees shall be cut into logs between 8 and 12 ft long. A minimum of 9 logs > 12”dbh shall be used to construct each habitat pile. Habitat piles shall be constructed in the following manner:

1. For the base layer, lay three to four of the largest diameter logs parallel to each other and 8 to 12 inches apart.
2. Install the base layer logs parallel to the direction of the slope.
3. Lay an equal number of similarly sized or slightly smaller logs, 8 to 12 inches apart, on and perpendicular to the base layer logs.
4. Build up the pile by crossing several layers progressively smaller diameter logs and limbs with loose branches and twigs on top to a minimum height of 5 feet.

8-30.4 Measurement

(*****)

Section 8-30.4 is supplemented with the following:

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Wetland Silt/Clay will be measured per cubic yard.
Habitat piles will be measured per each.
Wetland Mitigation High-Draining Soil Delineation will be measured per lump sum.

8-30.5 Payment
(*****)
Section 8-30.5 is supplemented with the following:
"Wetland Silt/Clay", per cubic yard.
"Habitat Piles", per each.
"Wetland Mitigation High-Draining Soil Delineation", lump sum.
The lump sum contract price for "Wetland Mitigation High-Draining Soil Delineation" shall be full payment for all labor, equipment, materials and supervision utilized to perform the work as specified in Section 8-30.3(1)C

TREE REMOVAL, AND DISPOSAL OF BRANCHES, TRUNK SECTIONS AND OTHER MATERIALS FROM SALVAGED TREES THAT ARE NOT BEING REUSED ON SITE AS HABITAT PILES AND LOGS WITH ROOTWAD, SHALL BE PAID UNDER "CLEARING AND GRUBBING"

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8-33 POTHOLING AND RESOLUTION OF UTILITY CONFLICTS

(September 20, 2024 CFW GSP)
Section 8-33 and it's subsections are new sections as follows:

8-33.1 Description

(April 17, 2026 CFW GSP)
Section 8-33.1 is a new section:

This work involves the identification and resolution of utility conflicts not identified in the plans between proposed improvements and existing utilities. The City will pay these costs by force account if the work proves to be acceptable and the Contractor performed the work with the authority of and due notice to the Engineer.

8-33.3 Construction Requirements

8-33.3(1) Potholing

(April 17, 2026 CFW GSP)
Section 8-33.3(1) is a new section:

The City may direct the Contractor to pothole existing utilities to verify the field location and depth.

Potholing will only be paid for utility crossings / conflicts / locations not shown on the plans. If conflicts are shown on the plans, potholing shall be considered included as part of other bid items.

Vactor excavation is not considered potholing.

Potholing shall include excavation and backfilling of the existing utility, identification of the pipe or line size, material type and condition and the survey work to locate the facility horizontally and vertically. Survey information to be obtained shall include station and offset to center of utility and elevation at top of utility. Stations, offsets and elevations shall be to the nearest 0.1 foot unless greater accuracy is required. Potholes shall be backfilled with CSTC compacted to 95%, or with CDF, as directed by the Engineer. In areas subject to public traffic, the HMA patch shall match the depth of the surrounding pavement.

8-33.3(2) Resolution of Utility Conflicts

(April 17, 2026 CFW GSP)
Section 8-33.3(2) is a new section:

In the event that a conflict arises between the proposed improvements and an existing utility, the Resolution of Utility Conflicts item will compensate the Contractor for standby time and additional work in the following manner:

1. Standby time resulting from existing utility conflicts. Standby time is defined as time the Contractor is unable to proceed with progression of a specific work item (i.e. storm drainage, underground utility installation etc.) due to unforeseen conflicts with existing facilities. However, payment for standby time shall be limited to:
    a. For each agreed upon conflict, a maximum of four (4) hours of standby time will be paid for actual delay of labor and equipment due to a utility conflict. The Contractor shall be responsible to adjust his work schedule and/or reassign his work forces and equipment to other areas of work to minimize standby time.

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b. If the conflict is resolved within one (1) hour of notification to the Engineer, no standby time will be paid.

2. Additional work required to resolve utility conflicts will be paid for at the bid unit prices for the associated work. Work that cannot be measured and paid for at the unit contract prices shall be identified as force account work.

8-33.4 Measurement

(September 20, 2024 CFW GSP)

Section 8-33.4 is a new section:

"Potholing", will be measured for force account per Section 1-09.6.

"Resolution of Utility Conflicts" will be measured for force account per Section 1-09.6.

8-33.5 Payment

(September 20, 2024 CFW GSP)

Section 8-33.5 is a new section:

"Potholing", will be paid by force account.

"Resolution of Utility Conflicts", will be paid by force account.

To provide a common proposal for all bidders, the City has estimated the amount for "Resolution of Utility Conflicts" and "Potholing" and entered the amounts in the proposal to become a part of the total bid by the Contractor.

Utility conflicts due to the Contractor's actions or operations shall be resolved by the Contractor at no expense to the Contracting Agency.

END OF DIVISION 8

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DIVISION 9
MATERIALS

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9-01 CONCRETE

9-01.2 Specifications

9-01.2(1)B Blended Hydraulic Cement

(December 16, 2022 CFW GSP)

Section 9-01.2(1)B is modified with the following:

Type IL cement is only allowed for use within the City of Federal Way subject to the conditions listed below:

	Class 3000 Type 1L	Class 4000 Type 1L	Class 4000 Type 1L with crystalline waterproofing and corrosion protection admixture[1]	Class 5000 Type 1L
Pre-cast Foundations *(light standards, signals, RRFBs, etc.)*	X	X	X	X
Cast-in-Place Foundations *(light standards, signals, RRFBs, etc.)*		X	X	X
Pre-cast or cast-in-place catch basins and manholes		X	X	X
Roads, curbs, curb & gutters, roundabouts & aprons, sidewalks, ADA ramps, driveway approaches			X	X
Other exposed surfaces *(retaining walls, junction box aprons, cabinet bases, barriers, etc.)*			X	X

[1] *Crystalline Waterproofing admixtures (Penetron or approved equal) shall meet the following specification: ASTM C494, Type S, hydrophilic, crystalline permeability-reducing admixture for hydrostatic conditions (PRAH) shall form insoluble crystals throughout the concrete matrix, self-healing and sealing all pores, capillaries and cracks up to 0.5mm (1/51 inch). The crystalline waterproofing admixture shall include a colored tracer material so that it is visible when included in the concrete mix.*

For all Type 1L concrete mixes, the City will not accept any maleated rosin (i.e. MasterAir AE90) as a supplied air entrainment and waterproofing admixture or any wax-based curing compounds.

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9-03 AGGREGATES

9-03.11 Streambed Aggregates

9-03.11(6) Wetland Silt/Clay
(*****)

Section 9-03.11(6) Wetland Silt/Clay is a new section as follows:

Wetland silt/clay for wetland mitigation areas shall consist of a blended material incorporating silt and/or clay. The material must be at least 75% by weight passing a No. 200 sieve and 100% by weight passing a No. 8 sieve. It is the Contractors responsibility to ensure that material is free of vegetated debris, wood pieces, plastic, and other foreign matter, including chemical release. Contractor shall submit proof of soil quality to the Engineer for review and approval prior to brining material onsite.

9-03.12 Gravel Backfill

9-03.12(6) Pit Run Sand
(April 12, 2018 CFW GSP)

Section 9-03.12(6) is a new section:

Sieve Size	Percent Passing
3/8” square	100
U.S. No. 4	90
Sand Equivalent	30 minimum

9-03.12(7) Sand for Sand Filter
(*****)

Section 9-03.12(7) is a new section as follows:

Sand for the sand filter shall consist of a medium sand with few fines meeting the size gradation (by weight) provided in the table below. The Contractor shall obtain a grain size analysis from the supplier to certify the gradation requirements are met.

U.S. Sieve Size	Percent Passing
U.S. No. 4	95 to 100 percent
U.S. No. 8	70 to 100 percent
U.S. No. 16	40 to 90 percent
U.S. No. 30	25 to 75 percent
U.S. No. 50	2 to 25 percent
U.S. No. 100	Less than 4 percent
U.S. No. 200	Less than 2 percent

9-03.12(8) Bioretention Sand
(*****)

Section 9-03.12(8) is a new section as follows:

Sand for the Bioretention Soil Mix must be natural sand (manufactured sand is not allowed). Volcanic sand is also not allowed. The sand shall be material obtained from ICON Materials Auburn Quarry. Substitutes must be approved by the Engineer. The sand shall be thoroughly cleaned and free of foreign dirt, clay, silt, asphalt, organic material, and any other foreign matter and all aggregate passing the No. 200 sieve size shall be non-plastic. The filter sand shall meet the following requirements for quality:

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Parameter	Preparation and Analytical Method	Maximum Value	Testing Responsibility
Nitrate+Nitrite	SPLP (EPA Method 1312 – use Extraction Fluid #2 per KCSWDM Section 5.4.2) and EPA Method 353.2	0.15 mg N/L	Proponent
Total Phosphorous	SPLP (EPA Method 1312 – use Extraction Fluid #2 per KCSWDM Section 5.4.2) and NEMI Method SM 4500-P E-99	0.50 mg P/L	Proponent
Orthophosphate		0.50 mg P/L	Proponent
Copper (dissolved)	SPLP (EPA Method 1312 – use Extraction Fluid #2 per KCSWDM Section 5.4.2) and EPA Method 200.8 UCT-KED	3.5 µg/L	Proponent
Arsenic	SPLP (EPA Method 1312 – use Extraction Fluid #2 per KCSWDM Section 5.4.2) and EPA Method 200.8 UCT-KED	0.1 µg/L	Proponent

SPLP = Synthetic Precipitation Leaching Protocol

The aggregate sand shall be sand meeting the gradation below and WSDOT Standard Specification 9-03.1(2)B (Class 1), and shall have a Coefficient of Uniformity of four (minimum):

Sieve Size	Percent Passing	
	Min.	Max.
3/8”	99	100
#4	95	100
#8	68	86
#16	47	65
#30	27	42
#50	9	20
#100	0	7
#200	0	2.5

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

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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, 100 percent passing 1¼-inch square sieve and 90 to 100 percent passing the 1-inch square sieve.

Common Borrow shall contain sufficient fines for compaction and to bind the compacted soil mass together to form a stable surface when heavy construction equipment is operated on its surface.

9-03.22 Clay Liner

(*****)

Section 9-03.22 is a new section as follows:

Clay liner shall be a minimum dry (un-swollen) thickness of 12 inches and compacted to 95% minimum dry density, standard proctor method ASTM D-698. Clay particles passing (ASTM D-422) shall be not less than 30 percent. Plasticity index of clay (ASTM D4318) shall be not less than 15 percent.

The slope of clay liners must be restricted to 3H:1V for all areas requiring soil cover; otherwise, the soil layer must be stabilized by another method so that soil slippage into the facility does not occur. Any alternative soil stabilization must take maintenance access into consideration. Where clay liners form the sides of the ponds, the interior side slope should not be steeper than 3H:1V, irrespective of fencing.

9-03.23 Treatment Liner

(*****)

Section 9-03.23 is a new section as follows:

Treatment liner shall be a two-foot thick layer of soil with a minimum organic matter (OM) content of 1.0 and a minimum cation exchange capacity (CEC) of 8 milliequivalents per 100 grams (meq/100g). If the soil is amended or imported, the top 8 inches must have a minimum CEC of 10 meq/100g and the remainder of the depth no less than 8 meq/100g.

If using in-place soils to meet the above criteria, the Contractor shall provide one sample per 1,000 square feet of facility area, and no fewer than three samples shall be tested. Each sample shall be a composited of equally spaced subsamples taken throughout the full extent of the treatment layer depth (usually two to six feet below the expected facility invert for facilities), except stratified composite sampling is required where the top 8 inches are required to meet a higher CEC level (composite of top eight inches and separate composite of the remainder below).

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Organic content shall be measured on a dry weight basis using ASTM D2974.

Cation exchange capacity (CEC) shall be tested using EPA laboratory method 9081.

If using imported soils, certification by a soils-testing laboratory shall be provided to the local approval authority indicating that the soil meets the OM and CEC criteria above.

Soil amendment may only be compost meeting the requirements of Reference 11-C of the most current version of the King County Surface Water Design Manual (KCSWDM).

If a treatment liner will be below the seasonal high water level, the pollutant removal performance of the liner must be evaluated by a geotechnical or groundwater specialist and found to be as protective as if the liner were above the level of the groundwater.

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9-05 DRAINAGE STRUCTURES AND CULVERTS

9-05.2(6) Perforated PVC Underdrain Pipe

(*****)

Section 9-05.2(6) is supplemented as follows:

Perforated PVC underdrain pipe shall be a minimum 4-inch diameter perforated PVC, SDR 35. Perforations shall be as follows: 2 rows of holes (1/2-inch diameter) spaced 6 inches apart longitudinally (max.), with rows 120 degrees apart (laid with holes downward). Other drain pipe may be used with approval by the Engineer.

9-05.13 Ductile Iron Sewer Pipe

(September 20, 2024 CFW GSP)

Section 9-05.13 is supplemented as follows:

All ductile iron pipe shall be epoxy lined.

9-05.23(1) Dual Wall HDPE Storm Sewer Pipe

(October 11, 2024 CFW GSP)

Section 9-05.23(1) is a new section as follows:

Dual wall HDPE storm sewer pipe shall meet the requirements of ASTM F2648.

9-13 RIPRAP, QUARRY SPALLS, SLOPE PROTECTION AND ROCK FOR EROSION AND SCOUR PROTECTION AND ROCK WALLS

9-13.1(6) Riprap for Sand Filter

(*****)

Section 9-13.1(6) is a new section as follows:

Riprap for the sand filter shall be reasonably graded with gradation as follows:

Maximum stone size: 24 inches (nominal diameter)
Median stone size: 16 inches
Minimum stone size 4 inches

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9-14 EROSION CONTROL AND ROADSIDE PLANTING

9-14.2 Topsoil

9-14.2(1) Topsoil Type A

(June 12, 2020 CFW GSP)

Section 9-14.2(1) is supplemented with the following:

Topsoil Type A mix shall be 50% pure organic compost and 50% sand or sandy loam. The soil shall be high in organic content and compromised of fully composted and mature organic materials.

No fresh sawdust or other fresh wood by-products shall be added to extend the volume after the composting process.

Chemical and physical characteristics of Topsoil Type A shall comply with the following:

Screen Size	7/16” Maximum
Total Nitrogen	0.25% Minimum
Organic Matter	10% Minimum
pH Range	5.5 to 7.5
Conductivity	5 mmhos/cm Maximum

(*****)

Section 9-14.2(1) is supplemented with the following:

Topsoil Type A-1 is to be installed in the wetland mitigation areas. Topsoil Type A-1 shall consist of a blended material incorporating silt loam, sand, and compost. The material must be at least 75% silt loam and 10% compost. Mixed soil shall have an organic content of between 1.5% and 5%, a soluble salt content of at least 3.0 mmhos/cm, and a pH range of 6.0 to 7.5 with dolomite limestone added as necessary to attain this range. Topsoil Type A-1 shall be loose and easily broken into small pieces, well mixed, and homogenous. It is the Contractors responsibility to ensure that All Topsoil Type A-1 shall be free of vegetated debris, wood pieces, plastic, and other foreign matter including chemical release. Contractor shall submit proof of soil quality to the Engineer for review and approval prior to brining material onsite. Topsoil Type A-1 shall not be spread or manipulated when saturated.

9-14.3 Seed

(*****)

Section 9-14.3 is supplemented with the following:

Temporary Erosion Control Seed Mix

The grass seed dealer shall mix the grass seed only. The Contractor shall furnish the Engineer with a dealer’s guaranteed statement of the composition, mixture, and the percentage of purity and germination of each variety. Seed shall be applied at 120 lbs / acre. Hydroseed shall be composed of the following varieties mixed in the proportions indicated, or approved equal:

TEMPORARY EROSION CONTROL SEED MIX			
NAME	**BY WEIGHT**	**% PURITY**	**% GERMINATION**

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Chewings or Red Fescue / Festuca rubra var. commutate or Festuca rubra	40%	98%	90%
Annual or Perennial Rye / Lolium Multiflorum or Lolium Perenne	40%	98%	90%
Redtop or Colonial Bentgrass / Agrostis alba or Agrostis tenuis	10%	92%	85%
White Dutch Clover / Trifolium repens	10%	98%	90%

Source: KCSWDM

Bioretention Seed Mix

The grass seed dealer shall mix the grass seed only. The Contractor shall furnish the Engineer with a dealer's guaranteed statement of the composition, mixture, and the percentage of purity and germination of each variety. Seed shall be applied at 120 lbs / acre. Hydroseed shall be composed of the following varieties mixed in the proportions indicated, or approved equal:

BIORETENTION SEED MIX			
NAME	**BY WEIGHT**	**% PURITY**	**% GERMINATION**
Dwarf Tall Fescue / Festuca arundinacea	45%	98%	90%
Dwarf Perennial Rye / (Barclay) Lolium Perenne var Barclay	30%	98%	90%
Red Fescue / Festuca rubra	20%	98%	90%
Colonial Bentgrass / Agrostis tenuis	5%	98%	90%

Source: KCSWDM

Wet Area Seed Mix

The grass seed dealer shall mix the grass seed only. The Contractor shall furnish the Engineer with a dealer's guaranteed statement of the composition, mixture, and the percentage of purity and germination of each variety. Seed shall be applied at 60 lbs / acre. Hydroseed shall be composed of the following varieties mixed in the proportions indicated, or approved equal:

WET AREA SEED MIX			
NAME	**BY WEIGHT**	**% PURITY**	**% GERMINATION**
Tall or Meadow Fescue / Festuca arundinacea	60-70%	98%	90%

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Seaside – Creeping Bentgrass / Agrostis palustris	10-15%	98%	85%
Meadow Foxtail / Alepocurus pratensis	10-15%	90%	80%
Alsike clover / Trifolium hybridum	1-6%	98%	90%
Redtop Bentgrass / Agrostis alba	1-6%	92%	85%

Source: KCSWDM

9-14.4 Fertilizer

(June 12, 2020 CFW GSP)

Section 9-14.4 is supplemented with the following:

Fertilizer for trees shall be biodegradable fertilizer packets, 20-10-5. Apply per manufacturer's recommendations.

(*****)

For the wetland mitigation areas, Section 9-14.4 is supplemented with the following:

Fertilizer will be applied during hydroseeding and shall be in liquid, fully water-soluble formulation, or specified by the manufacturer to be used in hydroseeded applications. The fertilizer shall have a ratio of Nitrogen (N), Phosphorus (P) and Potassium (K) where the second highest content is N, the highest content is P, and the lowest content is K. Examples include: 16-32-8, 15-20-10, or 18-24-12. Fertilizer rates shall follow manufacturers' recommendations for seed establishment.

9-14.5 Mulch and Amendments

9-14.5(2) Hydraulically Applied Erosion Control Products (HECPs)

(*****)

For the wetland mitigation areas, Section 9-14.5(2) is supplemented with the following:

Hydromulch shall be added to the hydroseed mixture at a rate of 1,500lbs/ acre. Hydromulch shall consist of a cellulose and wood blend. Hydromulch material that includes a tackifier can be utilized in lieu of separate mulch and tackifier subject to the specifications in 9-14.5(7). Hydromulch that contains Polyacrylamide (PAM) shall meet the standard specification detailed in Section 9-14.6(1).

9-14.5(3) Bark or Wood Chips

(June 12, 2020 CFW GSP)

Section 9-14.5(3) is supplemented with the following:

Bark or Wood Chip Mulch shall be medium grade composted ground fir or hemlock bark. The bark shall be uniform in color, free from weed seeds, sawdust and splinters. The moisture content of bagged mulch shall not exceed 22%. The acceptable size range of bark mulch material is ½" to 1" with maximum of 20% passing the ½" screen.

9-14.5(8)A Bioretention Compost

(*****)

Section 9-14.5(8)A is a new section as follows:

Bioretention compost shall be a compost material meeting the "Specification 1 Compost" requirements outlined in Reference 11-C of the KCSWDM, summarized below.

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Compost must be produced at a facility that is permitted by the jurisdictional health authority. Permitted compost facilities in Washington are included on a list under Find a compost facility in Washington (https://ecology.wa.gov/waste-toxics/reducing-recycling-waste/waste-reduction-programs/organic-materials/managing-organics-compost).

Compost must meet the definition of "composted material" in WAC 173-350-100, and must comply with testing parameters and other standards including not exceeding contaminant limits identified in Table 220-B. Testing Parameters, in WAC 173-350-220; and "Physical contaminants" (as defined in WAC 173-350-100) content less than 1% by weight (TMECC 03.08-A) total, not to exceed 0.25 percent film plastic by dry weight.

The compost product must originate a minimum of 65 percent by volume from recycled plant waste comprised of "yard debris," "crop residues," and "bulking agents" as those terms are defined in WAC 173-350-100. A maximum of 35 percent by volume of "post-consumer food waste" as defined in WAC 173-350-100 may be substituted for recycled plant waste. Biosolids, manure, and/or bedding straw or wood chips or shavings containing animal excreta are not allowed.

Wood waste from chemically treated lumber and manufactured wood products containing adhesives or any other chemical is not allowed; painted and stained wood are not allowed; and only sawdust from virgin lumber allowed. No other toxic or otherwise harmful materials are allowed.

The Manufacturer or Vendor shall provide to the end buyer a list of feedstock sources by percentage by volume in the final compost product.

Compost shall have a moisture content that has no visible free water or dust produced when handling the material.

Compost shall have an organic matter content of 40 percent to 65 percent by dry weight as determined by loss of ignition test method ASTM D 2974, or by U.S. Composting Council TMECC 05.07A "Loss-On-Ignition Organic Matter Method (LOI)".

Compost shall have a carbon to nitrogen ratio below 25:1, although the carbon to nitrogen ratio may be as high as 35:1 for plantings composed entirely of plants native to the Puget Sound Lowlands region. The carbon to nitrogen ratio shall be calculated on a dry weight basis using TMECC 5.02A ("Carbon to Nitrogen Ratio"), which uses TMECC 04.01A, "Organic Carbon" divided by the dry weight of "Total N" (TMECC 04.02D).

Compost pH shall be between 6.0 and 8.5 when tested in accordance with U.S. Composting Council TMECC 04.11-A, "1:5 Slurry pH"

Soluble salt content shall be less than 4.0 dS/m (mmhos/cm) when tested in accordance with U.S. Composting Council TMECC 04.10 "Electrical Conductivity, 1:5 Slurry Method, Mass Basis".

Compost maturity indicators from a cucumber bioassay (TMECC 05.05-A "Germination Seedling Emergence and Relative Growth) must be greater than 80%for both mergence and vigor").

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Stability shall be 7-mg CO2 – C/g OM/day or below in as determined by U.S. Composting Council TMECC 05.08-B "Carbon Dioxide Evolution Rate", to establish low oxygen use and low CO2 generation rates.

Compost shall be screened to the Fine Compost size gradation provided in the table below. Maximum particle length shall be 4 inches.

Sieve Size	Percent Passing	
	Min.	Max.
1”	100	
5/8”	90	100
1/4"	75	100

9-14.5(10) Coconut Coir Fiber

(*****)

Section 9-14.5(10) is a new section as follows:

Bioretention coconut coir fiber shall be material obtained from Botanicare (CocoGro coir; https://www.botanicare.com/products/cocogro/). Substitutes must be approved by the Engineer. The coconut coir fiber shall consist of fibers 1 to 2 inches long that are loose and easy to separate and shall be “buffered” with calcium salts and double-rinsed with fresh water. The material shall be aged at the country of origin (Sri Lanka or India) from 30 to 120 days, outdoors, uncovered, and in piles managed to a degree to assist and accelerate the removal of the Tannins.

If a substitute is proposed, the alternative coir must meet the following requirements:

- Meet relevant TAPE pollutant percent removal specifications.
- Have the same characteristics described in the paragraph above, with the exception of the country or origin (i.e., may be sourced from other countries)
- Coir must be certified as not having ever been treated with any kind of pesticide in the growth, manufacturing, transportation, or storage of the product.
- Meet the testing specifications noted in the tables below:

Parameter	Preparation and Analytical Method	Maximum Value	Testing Responsibility
Physical contaminants	Only limited accidental film plastic debris from packaging is allowed. No other contaminants are allowed.	≤ 0.1 percent by dry weight	Manufacturer
Sharps	Visual observation	0	Manufacturer, vendor and installer observation
Pathogens	Either: Fecal coliform Most Probable Number (MPN)	< 1,000 MPN per gram of total solids (dry weight)	Manufacturer, vendor, or proponent
	Or: Salmonella Most Probable Number (MPN)	< 3 MPN per 4 grams of total solids (dry weight)	

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Nitrate+Nitrite	SPLP (EPA Method 1312) and analysis by EPA Method 353.2, rev. 2.0	0.15 mg N/L	Proponent
Total Phosphorous	SPLP (EPA Method 1312) and analysis by NEMI Method SM4500-P E-99	0.50 mg P/L	Proponent
Orthophosphate		0.50 mg P/L	
Copper (dissolved)	SPLP (EPA Method 1312) and EPA Method 200.8 UCT-KED	3.5 µg/L	Proponent
Arsenic (total)	SPLP (EPA Method 1312 – use extraction Fluid #2 per KCSWDM Section 5.4.2) and EPA Method 200.8 UCT-KED	0.1 µg/L	Proponent
Electrical Conductivity	TMECC Method 04.10-A	1.0 mmhos/cm	Manufacturer or vendor

SPLP = Synthetic Precipitation Leaching Protocol
TMECC = Test Methods for the Examination of Compost and Composting

Parameter (Total Metals)	Preparation and Analytical Method	Maximum Value (Dry Weight)	Testing Responsibility
Arsenic	EPA 6020	0.5 mg/kg	Manufacturer, vendor or proponent
Cadmium	EPA 6020	0.05 mg/kg	
Chromium	EPA 6010	12 mg/kg	
Cobalt	EPA 6010	2 mg/kg	
Copper	EPA 6010	10.5 mg/kg	
Mercury	EPA 7471	0.01 mg/kg	
Molybdenum	EPA 6010	3.82 mg/kg	
Nickel	EPA 6010	6.1 mg/kg	
Lead	EPA 6020	1.2 mg/kg	
Selenium	EPA 6020	0.6 mg/kg	
Zinc	EPA 6020	26 mg/kg	

9-14.5(11) High Carbon Wood Ash

(*****)

Section 9-14.5(11) is a new section as follows:

High carbon wood ash (HCWA) shall be Biological Carbon HPG (High Performance Grade) Stormwater Char. Substitutes must be approved by the Engineer.

If a substitute is proposed, the alternative HCWA must meet the following requirements:

- The HCWA producer must have at least 5 years of experience with producing HCWA for oil amendments and/or water filtration.
- Shall be classified as a “Class 1” biochar following the International Biochar Initiative (IBI) guidelines.
- HCWA feedstocks shall be limited to clean cellulosic material from:
  - The woody by-products of pacific northwest forestry operations (including cut residues left after a timber harvest, cut trees that are not marketable as lumber), and/or
  - Chipped trees and brush from biomass reduction operations (i.e., commercial tree trimming; except for orchard prunings which are not allowed)

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- The biomass feedstocks shall not include any post-consumer or post-industrial sourced woody biomass (e.g., but not limited to construction or demolition waste, wood contaminated with paints, stains, sealers, or preservatives or any other deleterious substances, and shall not include any non-wood materials, e.g., but not limited to metal, plastic, rubber, glass, concrete, or asphalt).
- The biomass feedstocks shall not include any manure, animal bedding, or biosolids, and shall not contain any orchard wood or trimmings.
- The HCWA shall consist of screened and processed organic and inorganic residue remaining after the thermal processing of biomass in an oxygen-controlled environments.
- Meet the specifications noted in the tables below:

Parameter	Preparation and Analytical Method	Maximum Value	Testing Responsibility
Nitrate+Nitrite	SPLP (EPA Method 1312 – use extraction Fluid #2 per KCSWDM Section 5.4.2) and EPA Method 353.2	0.15 mg N/L	Proponent
Total Phosphorous	SPLP (EPA Method 1312 – use extraction Fluid #2 per KCSWDM Section 5.4.2) and NEMI Method SM4500-P E-99	0.50 mg P/L	Proponent
Orthophosphate		0.50 mg P/L	
Copper	SPLP (EPA Method 1312 – use extraction Fluid #2 per KCSWDM Section 5.4.2) and EPA Method 200.8 UCT-KED	3.5 µg/L	Proponent
Arsenic (total)	SPLP (EPA Method 1312 – use extraction Fluid #2 per KCSWDM Section 5.4.2) and EPA Method 200.8 UCT-KED	0.1 µg/L	Proponent
Organic Carbon (C_{org})	Total C and H analysis by dry combustion-elemental analyzer (EPA Method 440.0). Inorganic C analysis by determination of CO 2-C content with 1N HCl, as outlined in ASTM D4373 Standard Test Method for Rapid Determination of Carbonate Content of Soils. Organic C calculated as Total C – Inorganic C.	60% (Min)	Manufacturer
H:(C_{org})		0.7 (Max)	
Volatile Matter	Proximate Analysis (ASTM D1762)	20%	Manufacturer
Ash		40%	
Electrical Conductivity	TMECC Method 04.10-A	1.0 mmhos/cm	Proponent

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Cation Exchange Capacity (CEC)	USEPA Method 9081	Report only	Manufacturer

SPLP = Synthetic Precipitation Leaching Protocol
TMECC = Test Methods for the Examination of Compost and Composting

Parameter (Total Metals)	Preparation and Analytical Method	Maximum Value (Dry Weight)	Testing Responsibility
Arsenic	EPA 6020	0.5 mg/kg	Manufacturer, vendor or proponent
Cadmium	EPA 6020	0.05 mg/kg	
Chromium	EPA 6010	12 mg/kg	
Cobalt	EPA 6010	2 mg/kg	
Copper	EPA 6010	10.5 mg/kg	
Mercury	EPA 7471	0.01 mg/kg	
Molybdenum	EPA 6010	3.82 mg/kg	
Nickel	EPA 6010	6.1 mg/kg	
Lead	EPA 6020	1.2 mg/kg	
Selenium	EPA 6020	0.6 mg/kg	
Zinc	EPA 6020	26 mg/kg	

9-14.7 Plant Materials

9-14.7(2) Quality

(June 12, 2020 CFW GSP)

Section 9-14.7(2) is supplemented with the following:

Plant material shall be free from disfiguring knots, swollen grafts, sunscald injuries, bark abrasions, evidence of improper pruning or other objectionable disfigurement.

Potted and container stock shall be well rooted and vigorous enough to ensure survival and healthy growth. Shrubs shall have full foliage (not leggy). Container stock shall be grown in its delivery container for not less than six (6) months, but not for more than two (2) years. Root bound or broken containers will not be accepted. Bare root, liner and root stock with dried or shriveled roots from exposure will not be accepted.

Measurements, caliper, branching, grading, quality, balling and burlapping shall follow the Code of Standards of the American Associate of Nurserymen in the American Standard for Nursery Stock, ANSI 260.1, latest edition. Measurements shall be taken with all branches in their normal growing position. Plants shall not be pruned prior to delivery to site.

9-14.7(3) Handling and Shipping

(June 12, 2020 CFW GSP)

Section 9-14.7(3) is supplemented with the following:

Tie back branches as necessary, and protect bark from chafing with burlap bags. Do not drag Plant materials along ground without proper protection of roots and branches. Protect rootballs from environmental or mechanical damage and water as necessary to keep roots moist. Do not store Plants for more than one week.

9-14.7(4) Sod

(June 12, 2020 CFW GSP)

Section 9-14.7(4) is supplemented with the following:

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Sod Lawn shall be three-way Tall Fescue Blend Sod, 33.33% Firecracker LS Tall Fescue, 33.33% Spyder LS Tall Fescue, 33.33% Raptor II Tall Fescue with degradable netting, or approved equal.

9-14.7(5) Tagging
(June 12, 2020 CFW GSP)
Section 9-14.7(5) is a new section:

All Plant material shall be legibly tagged. Tagging may be by species or variety with minimum of one tag per ten trees, shrubs, or vines. Remove all tagging prior to final acceptance.

9-14.7(6) Inspection
(June 12, 2020 CFW GSP)
Section 9-14.7(6) is a new section:

The Contracting Agency shall reserve the option of selecting and inspecting Plant material at the nursery. The contractor shall provide the Contracting Agency with at least one week notice prior to preparing Plants for shipping and delivery. The Contractor shall neither deliver to site nor install Plant materials until authorized by the Contracting Agency.

9-14.7(7) Temporary Storage
(June 12, 2020 CFW GSP)
Section 9-14.7(7) is a new section:

Cold storage of Plants shall not be permitted.

If Planting is delayed more than 24 hours after delivery, set balled and burlapped Plants on the ground, well protected with soil or wet peat. Adequately cover all roots of bare root material with soil or wet peat. Protect rootballs from freezing, sun, drying winds or mechanical damage. Water Plant material as necessary until Planted.

Plants shall not be stored for more than one week. Longer storage period at project site will result in rejection of Plant materials by the Contracting Agency.

9-14.8 Stakes, Guys, and Wrapping
(June 12, 2020 CFW GSP)
Section 9-14.8 is supplemented with the following:

Stakes shall be BVC round tree stakes with Chainlock guying or Engineer accepted product. No wrapping required.

9-14.9 Root Barrier
(June 12, 2020 CFW GSP)
Add the following new section:

Root Barrier shall be 18-inch high, minimum thickness 0.090-inch, interlocking root barrier panels constructed of high-impact polypropylene with 1/2-inch reinforcing ribs.

9-14.10 Bioretention Soil Mix
(*****)
Section 9-14.10 is a new section as follows:

Bioretention soil mix shall be a well-blended homogeneous mixture of sand, coconut coir fiber and high carbon wood ash measured on a volume basis composed of:

70% Sand (Section 9-03.12(8))

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20% Coconut Coir Fiber (Section 9-14.5(10))
10% High Carbon Wood Ash (Section 9-14.5(11))

The Contractor shall provide submittals for all components of the bioretention soil mix. The homogenized bioretention soil mix shall be tested in accordance with Section 4, Reference 11-C of the KCSWDM.

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9-15 IRRIGATION SYSTEM

9-15.1 Pipe, Tubing And Fittings

(June 12, 2020 CFW GSP)

Section 9-15.1 is replaced with the following:

All pipe and tubing shall be PVC or approved equal. All fittings shall be Sch 80 PVC. All pipe for the main, laterals, and sleeving shall be Sch 40 PVC.

9-15.5 Valve Boxes

(June 12, 2020 CFW GSP)

Section 9-15.5 is supplemented with the following:

Valve boxes for control valves shall be grey flared box, HDPE construction with UV inhibitors, heavy duty seat collar, drop in locking, 17'L x 24" D x 12" W with green HDPE drop in locking lid.

Valve boxes for Double Check Valve Assembly shall be grey heavy duty polymer concrete, top dimensions 25"L x 15-16"W and 24" D designed to withstand H-10 and H-20 loading in incidental and non-deliberate traffic areas. Valve box must be compliant with AASHTO H-10 Design Load; ASTM C 857-95 Design Load of A-8, 8,000lbs. Box shall be alkaline, acid and weather resistant, with flush locking polymer concrete cover. Verify size to fit Double Check Valve Assembly.

Valve boxes for quick coupler shall be light duty HDPE with UV inhibitors, 10" diameter flared box with bolt down cover.

9-15.6 Gate Valves

(April 12, 2018 CFW GSP)

Section 9-15.6 is supplemented with the following:

Gate valves shall be heavy duty cast brass body and heavy cast iron handwheel, suitable for residential or commercial potable water applications, with screwed bonnet, non-rising stern, solid wedge disc and integral seats.

9-15.7 Control Valves

9-15.7(1) Manual Control Valves

(April 12, 2018 CFW GSP)

Section 9-15.7(1) is supplemented with the following:

Shut off valves upstream of automatic control valves shall be a heavy duty cast brass body gate valve with heavy cast iron handwheel, suitable for residential or commercial potable water applications, with screwed bonnet, non-rising stem, solid wedge disc and integral seats, size to fit line.

9-15.13 Pressure Regulating Valves

(April 12, 2018 CFW GSP)

Section 9-15.13 is supplemented with the following:

Pressure regulating valve shall be designed to reduce incoming water pressure from up to 400psi to a range of 25-75psi. Valve shall be all bronze body construction, with thermal expansion bypass, serviceable in line, with internal stainless steel strainer.

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9-19 DETECTABLE WARNING SURFACE

9-19.2 Cast-in-Place Detectable Warning Surface

9-19.2(1) General Requirements

(October 3, 2022 WSDOT GSP, OPTION 1)

The first paragraph of Section 9-19.2(1) is revised to read:

The color of detectable warning surfaces shall be yellow and shall match SAE AMS Standard 595, color number 33538 unless otherwise shown on the plans. When used in areas between ramps to differentiate between travel paths, detectable warning surfaces shall be black.

Units shall provide the required contrast (light-on-dark or dark-on-light) with the adjacent curb ramp or other applicable walkway.

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9-28 SIGNING MATERIALS AND FABRICATION

9-28.1 General

(January 5, 2026 WSDOT GSP, OPTION 1.2027)

The last paragraph of Section 9-28.1 is revised to read:

All STOP, YIELD, DO NOT ENTER, WRONG WAY, FREEWAY ENTRANCE, HIGHWAY ENTRANCE signs shall be constructed entirely of Type XI reflective sheeting. All S series signs shall be constructed entirely of Type XI reflective sheeting unless otherwise specified. Overhead mounted signs shall use Type XI background reflective sheeting. Background reflective sheeting for all other signs shall be Type IV reflective sheeting or as noted in the Plans. Sign legends for all overhead signs shall be Type XI reflective sheeting, while legends on all other signs shall be constructed of Type IV reflective sheeting unless otherwise specified. Sign legends include: borders, letters, numerals, symbols, shields, and arrows. Reflective legend sheeting types shall not be mixed on individual signs.

(April 17, 2026 CFW GSP)

Section 9-28.1 is supplemented with the following:

All pedestrian / non-motorized-related warning signs (W-series) and all school warning signs (S-series) shall be of fluorescent yellow-green color.

9-28.2 Manufacturer's Identification and Date

(October 23, 2014 CFW GSP)

Section 9-28.2 is deleted and replaced with the following:

All signs shall show the manufacturer's name and date of manufacture on the back.

9-28.8 Sheet Aluminum Signs

(September 20, 2024 CFW GSP)

Section 9-28.8 table is deleted and replaced with the following:

Sign sheet thickness and material shall be in accordance with City of Federal Way Standard Details.

9-28.9 Fiberglass Reinforced Plastic Signs

(December 18, 2009 CFW GSP)

Section 9-28.9 is deleted in its entirety.

9-28.12 Reflective Sheeting

(January 5, 2026 WSDPT GSP OPT 1.2027)

Section 9-28.12 is revised to read:

Reflective sheeting material shall conform to ASTM D4956 – *Standard Specification for Retroreflective Sheeting for Traffic Control.* The following standard reflective sheeting types have been modified to reflect Contracting Agency requirements:

Device Type	Use	Sheeting Color	Sheeting Types
Permanent Signing			
Ground Mounted	All	All	IV[1]
Overhead	All	All	XI[5]
Object Markers	All	All	IV
Temporary Construction Signing			

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Warning Signs	All	Fluorescent Orange	VIII, IX, X[2], XI
Regulatory Signs	All	White	IV
Regulatory Signs	Rural	White	II[3], IV
Regulatory Signs	Urban/Rural	White	II[3], IV
Regulatory Signs	All	Red	III, IV
Regulatory Signs	All	Green	II, IV
Regulatory Letters, Border or Symbols	-	Green	III[3], IV
Temporary Construction Signs	All	All Other Background Colors	III[3], IV
Other Devices			
Barricades	All	White or Orange	III[3], IV
Barrier Delineators	All	White or Yellow	III, IV, V, XI
Bollards	All	All	IV
Flexible Guidepost	All	All	III, IV, V
Pedestrian Channelization Devices	All	White or Orange	III[3], IV
Signal Backplates	Portable Signals		IV
Signal Backplates	Permanent Signals		See Section 9-29.16
Tall Channelization Devices - 42-inch	All	Fluorescent Orange/White	III[3], IV[4]
Traffic Cones 28-inch and 36-inch	All	White or Higher White	VI
Traffic Safety Drums	All	Fluorescent Orange/White	III[3], IV[4]
Transportable Attenuators	All	Yellow and Black Chevron	III[3], IV
Transportable Attenuators	All	White and Red Chevron	IV
Tubular Markers (portable or pavement mounted)	All	White or Yellow	III[3], IV
Utilities Attached to Bridges			I, See Section 6-01.10

1. Except S Series, STOP, YIELD, DO NOT ENTER, FREEWAY ENTRANCE, and HIGHWAY ENTRANCE signs shall use Type XI.
2. Former Type X, not shown in ASTM 04956, however meets requirements of Types VII, IX, and XI.
3. Only devices in inventory may be used through December 31, 2026.
4. Type IV or higher fluorescent orange and white sheeting.
5. Type IV sheeting shall be used for overhead street name signs if specified in the Plans.

9-28.14 Sign Support Structures

(September 20, 2024 CFW GSP)

Section 9-28.14 is supplemented with the following:

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UNLESS OTHERWISE NOTED IN THE PLANS OR APPROVED BY THE ENGINEER, ALL SIGN POSTS SHALL BE STEEL SIGN POSTS. SIGN POST SIZES WILL BE SHOWN ON PLANS OR SHALL BE SIZED IN ACCORDANCE WITH THE WSDOT DESIGN MANUAL. SIGN SUPPORTS (FOUNDATIONS) SHALL BE IN ACCORDANCE WITH CITY OF FEDERAL WAY STANDARD DETAILS.9-29 ILLUMINATION, SIGNAL, ELECTRICAL

9-29.1 Conduit, Innerduct, and Outerduct

(October 23, 2014 CFW GSP)

Fiber optic cable conduit shall be supplied as a system from a single manufacturer providing all of the conduit, all required fittings, termination and other installation accessories; all in accordance with the Contract Documents.

9-29.1(11) Foam Conduit Sealant

(January 7, 2019 WSDOT Option 1)

Section 9-29.1(11) is supplemented with the following:

The following products are accepted for use as foam conduit sealant:

- CRC Minimal Expansion Foam (No. 14077)
- Polywater FST Foam Duct Sealant
- Superior Industries Foam Seal
- Todol Duo Fill 400

9-29.2 Junction Boxes, Cable Vaults, and Pull Boxes

(September 20, 2024 CFW GSP)

Section 9-29.2 is supplemented with the following:

Slip-Resistant Surfacing for Junction Boxes, Cable Vaults, Fiber Vaults, and Pull Boxes

All lids located within sidewalk areas, along a pedestrian access route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, must meet accessibility requirements and be slip-resistant. Acceptable slip-resistant products shall be slip-resistant MMA coating and SlipNot Grade 3-Coarse. Placement of the slip-resistant MMA coating shall be in accordance with the manufacturer's recommendations. Vertical edges of the utility shall be flush with the adjoining surface to the extent possible after installation.

9-29.2(1) Junction Boxes

9-29.2(1)A Standard Duty Junction Boxes

(September 20, 2024 CFW GSP)

Section 9-29.2(1)A is supplemented with the following:

Bonding straps shall be provided and installed by the Contractor on all junction boxes between the junction box lid and frame. All Type 1 and Type 2 junction boxes shall be locking lid and shall be in accordance with Standard Plans. All Type 8 junction boxes shall be double hinged, double door, locking lids, with a concrete footing, and shall be in accordance with Standard Plans.

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All junction boxes containing fiber optic cable or installed for future fiber optic cable shall be cable vaults or Type 8 junction boxes, as determined by the Engineer.

All junction box lids and frames shall have slip-resistant surfaces and the slip-resistant treatment shall be in accordance with Section 9-29.2.

9-29.2(1)A2 Non-Concrete Junction Boxes
(September 20, 2024 CFW GSP)
Section 9-29.2(1)A2 is replaced with the following:

Non-concrete junction boxes are not allowed for use within the City of Federal Way.

9-29.2(2) Cable Vaults and Pull Boxes
(September 20, 2024 CFW GSP)
Section 9-29.2(2)E is supplemented as follows:

Where fiber vaults are called for in the Plans, the Contractor shall provide pre-cast utility vaults meeting ASTM C 478 with 28-day 5500 psi minimum compressive strength concrete and designed for H-20 loading unless otherwise indicated in the Plans.

The communications/fiber vault, shall be a WSDOT pull box or cable vault in accordance with Standard Plans or, if approved by the Engineer, a Type 8 junction box in accordance with Standard Plans. The fiber vaults are to be provided with a racking hardware package for cable storage and mounting of the splice case. The vault cover shall have a bolt-down, slip-resistant surface and a ground strap.

Where required or as indicated in the Plans, fiber vaults shall contain a splice enclosure in accordance Section 9-29.3(1)C.

9-29.2(4) Cover Markings
(September 20, 2024 CFW GSP)
Section 9-29.2(4) is supplemented with the following:

Cover markings for cable vaults containing fiber optic cable or installed for future fiber optic cable shall be “TS”, unless otherwise noted in the Plans.

9-29.3(2) Electrical Conductors and Cable

9-29.3(2)A Single Conductor
(September 20, 2024 CFW GSP)
Section 9-29.3(2)A is supplemented as follows:

Conductors serving the luminaires shall be aluminum of the size shown in the Plans (minimum #8 AWG) and shall run to the service pole in separate conduit from the signal conductors. Top conductors from the pole base to the luminaire shall be pole and bracket cable, in accordance with Section 9-29.3(2)D. The grounding conductor shall be connected to the ground stud on the light standard.

9-29.3(2)A3 Equipment Grounding and Bonding Conductors
(September 20, 2024 CFW GSP)
Section 9-29.3(2)A3 is supplemented with the following:

All Ufer grounds shall be bare stranded copper.

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9-29.3(2)B Multi-Conductor Cable

(September 11, 2026 CFW GSP)

Section 9-29.3(2)B is supplemented with the following:

Two-conductor through 20-conductor unshielded signal control cable shall have stranded copper conductors.

Multi-conductor cables for vehicle signal heads, pedestrian signal heads, and pedestrian push buttons shall meet IMSA Spec No. 20-1 (P.E. jacket and P.E. insulation) and shall be #14 AWG stranded cable. Multi-conductor cables used to connect the pedestrian signal heads to the pedestrian push buttons shall be 4-conductor, #18 AWG, 600V tray cable, with PVC jacket.

9-29.6(1) Steel Light and Signal Standards

(September 20, 2024 CFW GSP)

Section 9-29.6(1) is supplement with the following:

Traffic signal standards and illumination standards shall be furnished and installed in accordance with the methods and materials noted in the applicable Standard Plans, pre-approved plans, or special design plans. All welds shall comply with the latest AASHTO LRFD Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. Welding inspection shall comply with Section 6-03.3(25)A, Welding Inspection.

After delivering the poles or arms to the job site and before they are installed, they shall be stored in a place outside of the clear zone and that will not inconvenience the public. All poles and arms shall be installed in compliance with Washington State Utility and Electrical Codes.

Galvanized steel light and signal standards shall not be painted.

FW RRFB

The Contractor shall provide and install FW RRFB standards where shown in the Plans. The FW RRFB standards to be provided shall have a square 15-inch high aluminum Pelco-style break-away base with aluminum door and grounding lug (grounding lug may be field-installed), with a pole threaded into the base. The pole shall be steel, 4.50-inch outside diameter x 0.237-inch wall thickness, Schedule 40, with 10 pounds per foot, galvanized in accordance with ASTM A123. An aluminum dome type pole cap with set screws shall be provided and installed on the pole top. An aluminum pole and base collar for a square base shall be provided and installed by the Contractor. The bolt circle for the base shall be adjustable from a minimum of 12 inches to a maximum of 14.5 inches. See City of Federal Way Standard Details for more information and equipment mounting details.

Foundations shall conform to City of Federal Way Standard Details. Anchor bolts shall be in accordance with Section 9-29.6(5).

PPB Posts

The Contractor shall provide and install PPB posts where shown in the Plans. The PPB posts to be provided shall be in accordance with Standard Plans.

Anchor bolts shall be in accordance with Section 9-29.6(5).

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9-29.6(1)B Aluminum Light Standards

(September 20, 2024 CFW GSP)

The following is a new Section:

Light standards shall be tapered round aluminum tube C-wall alloy 6063 satin ground finish with Davit arm, as shown in City of Federal Way Standard Details.

Each light standard shall contain an internal grounding lug with a 0.375-inch diameter hole for the purpose of attaching a grounding connection.

All standards and accompanying bracket arms shall be delivered to the job site and installed clean and free of dents and scratches.

A hand hole cover with stainless steel attachment screws and an aluminum alloy pole cap with stainless steel attachment screws shall be provided for each standard supplied. All standards shall have a satin finish accomplished by mechanical rotary grinding techniques. All Davit arms shall have a satin-etched finish to match the light standard shaft.

All raceway entrances within either the standard or mast arm shall be de-burred for wire protection prior to pulling any conductors.

All welds shall comply with the AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals 2015 (LRFDLTS-1) with current interims. Welding inspection shall comply with Section 6-03.3(25)A, Welding Inspection.

Foundations shall be in accordance with City of Federal Way Standard Details. For maintenance and asset management reasons, foundations differing from these requirements will not be allowed. Anchor bolts and bolt covers shall be in accordance with Section 9-29.6(5).

9-29.6(2) Slip Base Hardware

(September 20, 2024 CFW GSP)

Section 9-29.6(2) is supplemented with the following:

Slip base standards will not be allowed, unless specifically called for in the Plans.

9-29.6(5) Foundation Hardware

(January 13, 2021, WSDOT GSP, OPTION 1)

Section 9-29.6(5) is supplemented with the following:

Anchor bolt assemblies for light standards installed on top of barrier (median barrier mount) shall consist of the following:

- (4) 1-inch diameter threaded rods (bolts), minimum 36 inches in length
- (24) heavy hex nuts, six per anchor rod
- (24) flat washers, six per anchor rod
- Two anchor plates

Each anchor plate shall be constructed from 1/2” ASTM A36 plate and hot-dip galvanized in accordance with AASHTO M111. Each anchor plate shall be ring shaped, with an outside diameter of 16 inches and an inside diameter of 12 inches. Each anchor plate shall have four 1 1/8” diameter holes on a 13.89” bolt circle, with the holes positioned to match the anchor rod layout shown in the Standard Plans.

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Anchor rods shall extend a minimum of five inches and a maximum of six inches above the top of the traffic barrier. The lower anchor plate shall be embedded 29 inches below the top of the traffic barrier. Each anchor plate shall be clamped with a heavy hex nut and washer above and below the anchor plate. The lower heavy hex nut for the pole base plate shall be no more than one inch from the top of the traffic barrier.

(September 20, 2024 CFW GSP)

Section 9-29.6(5) is supplemented as follows:

For PPB posts: Anchor bolts for PPB posts shall be in accordance with Standard Plans.

For Type FW RRFB standards: Anchor bolts for Type FW RRFB shall be as recommended by the base manufacturer and shall include square washers and both leveling and top nuts with washers.

For aluminum light standards: Anchor bolts for aluminum light standards shall be in accordance with City of Federal Way Standard Details. For maintenance and asset management reasons, anchor bolts differing from these requirements will not be allowed.

For cabinet foundations: Anchor bolts shall be in accordance with the applicable City of Federal Way Standard Detail for the cabinet type called for in the Plans. If epoxy bolts are requested and allowed, anchor bolts for pad-mounted cabinets shall be a minimum 5/8-inch diameter and a minimum of 7 inches long, all-thread. Anchor bolts shall be hot dip galvanized or stainless steel and shall meet ASTM F1554 Grade 36 specifications. Supplied with each anchor bolt shall be one hex nut, meeting the requirements of ASTM A563-15, Grade C and one flat washer, meeting the requirements of ASTM F436. Adhesive used to set the anchor bolts shall be Hilti, part number HIT-HY 200-R, HIT-HY 200-A, or approved equal.

9-29.7 Luminaire Fusing and Electrical Connections at Light Standard Bases, Cantilever Bases, and Sign Bridge Bases

9-29.7(2) Fused Quick-Disconnect Kits

(September 20, 2024 CFW GSP)

Section 9-29.7(2) is supplemented as follows:

Fused quick disconnect kits shall be installed at the hand hole inside the base of each standard supporting a luminaire. Fused quick-disconnect kits shall be of the SEC type or equivalent product meeting all of the following requirements:

- Shall hold a single fuse.
- Shall be rated for 600 volts.
- Shall be UL listed.
- Shall be compatible with both copper and aluminum stranded conductors.
- Shall be for wet, outdoor conditions.
- Conductors shall attach with a screw lug and be removable.

All fuses shall be rated for 600 volts.

9-29.10 Luminaires

(September 20, 2024 CFW GSP)

Section 9-29.10 paragraph 3 and 4 are deleted and replaced with the following:

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All cobra-head style roadway luminaires shall be provided with markers for positive identification of light source type and wattage in accordance with ANSI C136.15-2011 with whole number wattage value and “LED” text. Legends shall be sealed with transparent film resistant to dust, weather, and ultraviolet exposure.

9-29.10(1) Conventional Roadway Luminaires

9-29.10(1)B Light Emitting Diode (LED) Conventional Roadway Luminaires
(September 20, 2024 CFW GSP)

Section 9-29.10(1)B is supplemented as follows:

New roadway luminaire installations shall be cobra-head style LED, wattage in accordance with the Plans, with 7-pin photocell receptacle. The terminal board shall have lugs of a 240-volt 3-wire power source. Terminals shall be labeled line-neutral-line. The neutral terminal shall be grounded to the metal housing of the luminaire. The LED luminaire shall be factory set to produce IES pattern Type II or Type III as listed below.

All new roadway luminaire installations shall be Eaton Archeon LED luminaires. Part numbers differ depending on the designed wattage specified as follows:

40/60 W: ARCH-S-PA1-50-740-U-T2R-AP-10MSP-PR7
80/90 W: ARCH-M-PA2-80-740-U-T2R-AP-10MSP-PR7
120 W: ARCH-L-PA3-120-740-U-T3-AP-10MSP-PR7

LED luminaires shall be furnished and installed by the Contractor. The units shall be in accordance with City of Federal Way Standard Details for wattage, average maintained footcandles, uniformity ratio, mounting height, and distribution pattern, spacing, and model. LED luminaires shall have a correlated color temperature (CCT) of 4000K and minimum color rendering index (CRI) of 70. Any variations from this standard must be approved by the City Traffic Engineer and shall require a lighting design performed by a licensed Professional Engineer. The Contractor shall provide a photometric plot of the proposed illumination system and line loss calculations for these variation requests.

Units shall incorporate the following features:

1. A housing with 2.5-degree leveling steps capable of being mounted on a standard 2-inch roadway pole pipe tenon.
2. A housing and door manufactured from a die-cast low copper alloy aluminum designed to minimize corrosion.
3. Electrical components accessible through a swing-down entry door secured by a trigger latch or similar tool-less entry mechanism.
4. Resistance to vibration and impact, 3G vibration rated.
5. Provisions for installing a 7-pin photoelectric cell.
6. An LED light engine protected from the elements by a prismatic glass lens.
7. A thermal management system that promotes maximum air flow through the luminaire to ensure a minimum of 60,000 hours of operation at 25 degree centigrade with 90% lumen maintenance.
8. Protection against solar heating when not in operation.
9. Dark sky optics.
10. Glass tertiary optics that will not discolor or become brittle over time.

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11. Sealed optics system rated for IP66 against water and dirt infiltration.
12. Surge protection module to protect the LED drivers, photo controls, transfer switches, and relays from electrical disturbances as defined by ANSI/IEEEC62.41, Category C. The unit shall be replaceable through the use of modular plug and wiring.
13. Solid state multi-volt electrical drivers with a rated life of 50,000 hours.
14. Electrical drivers mounted in a heat sink and located such that they are isolated from heating by the sun when not in use.
15. 7-Pin Photo control receptacle that is adjustable without tools and is designed to meet UI1598 specifications for wet operation.

Other Requirements

All luminaires shall have an illumination node installed. Illumination nodes shall be in accordance with Section 9-29.11(2).

The WSDOT list of pre-approved LED luminaires does not apply to this Contract.

9-29.11 Control Equipment

9-29.11(2) Photoelectric Controls

(September 20, 2024 CFW GSP)

Section 9-29.11(2) is supplemented with the following:

Cobra Head Luminaires

One CIMCON control node, model #iSLC-3100-7P-277-A-G-IO-CATB-05-T shall be installed on the top of each cobra head roadway luminaire in place of the photocell or shorting cap.

9-29.12 Electrical Splice Materials

9-29.12(1) Illumination Circuit Splices

(September 20, 2024 CFW GSP)

Section 9-29.12(1) is supplemented as follows:

Underground illumination splices shall be rigid epoxy splice kits. Installation shall conform to City of Federal Way Standard Details.

Contractor shall use a rigid molded splice enclosure in accordance with Section 9-29.12(3)B. Heat shrink splice enclosures will not be allowed. Flexible, clear mylar sheet-type enclosures will not be allowed. Re-enterable splice enclosures will not be allowed. Only one conductor per wire entrance shall be allowed in any rigid mold splice. Only wye-type splices will be allowed, unless specifically requested by the Contractor and approved by the Engineer. No butt splices are allowed.

9-29.12(3) Splice Enclosures

9-29.12(3)A Heat Shrink Splice Enclosure

(September 20, 2024 CFW GSP)

Section 9-29.12(3)A is supplemented with the following:

Heat shrink splice enclosures are not allowed on this project.

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9-29.12(3)B Molded Splice Enclosure

(September 20, 2024 CFW GSP)

Section 9-29.12(3)B is supplemented with the following:

Molded splice enclosures provided shall be 3M Power Cable Tap Splice Kit 82-B1 or approved equal meeting all of the following requirements:

- Shall be wye-splice type only.
- Shall be for use in weather-exposed and direct burial conditions.
- Shall use a two-part epoxy encapsulating and insulating resin.
- Shall have a gel time of 16 minutes or less at 73 degrees F.
- Shall have an adhesion to XLPE jacketing of 218 lb/in^2 or greater.

9-29.12(4) Re-Enterable Splice Enclosure

(September 20, 2024 CFW GSP)

Section 9-29.12(4) is supplemented with the following:

Re-enterable splice enclosures are not allowed on this project.

9-29.19 Pedestrian Push Buttons

(September 20, 2024 CFW GSP)

Section 9-29.19 is deleted and replaced with the following:

The Contractor shall provide and install accessible pedestrian push buttons and signs, as shown in the Plans. The position of the pedestrian push buttons shall be located in a manner such that the tactile arrow is aligned parallel to the direction of travel for the crosswalk which the push button is intended to serve; however final positioning for the optimum effectiveness shall be approved by the Engineer.

Accessible pedestrian push button units shall consist of:

- Polara iNS3 Navigator 3-wire accessible pedestrian station, black body, with tactile arrow (part # iNS35TN0-B or approved equal;
- Polara Pedestrian Head Control Unit (part # iPHCU3S) or approved equal;
- Conductor to connect the pedestrian push button and pedestrian signal head, which shall be 4-conductor, #18 AWG, 600V, PVC jacket; and
- Any other labor, materials, or equipment to have a fully-functioning accessible pedestrian push button system at the locations indicated in the Plans.

The station shall meet the following requirements:

Push buttons shall be mounted to the poles by means of stainless steel bolts. All mountings shall be securely fastened as approved by the Engineer.

The sign legend to be used shall be sign designation R10-3e and shall be 9 inches by 15 inches. Sign sheeting shall be engineer grade. All mounting bolts shall be non-corrosive stainless steel.

The pedestrian pushbutton housing shall be aluminum and shall be painted black. Units shall operate at a temperature range of -35C to 85C. Power requirements shall be 120 VAC, 60 Hz (100 ma, typical +/- 20%).

Pedestrian indicators shall include an audible speaker, call confirmation LED, and vibrotactile arrow. The audible speaker shall be programmable to have a button locator tone, acknowledgement tone/message, walk cycle tone/message and clearance tone/message. The units shall have automatic volume controls for

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message strength over ambient noise levels. The walk tone/message shall be programmable to stop with the walk signal or other user settable time. The units shall be user settable for Accessible Pedestrian Signal (APS) message initiation with an extended press or on call.

The call confirmation LED shall be red with 160 degree view ability and once activated shall remain illuminated until the corresponding walk indication is given. An audible acknowledgement message of "WAIT" shall accompany each activation of the call confirmation LED.

The locator tone shall be active for a time of 0.15 seconds or less and shall repeat at 1 second intervals. The locator tone shall be intensity responsive to ambient sound and be audible from 6 feet to 12 feet from the pushbutton with a maximum of 5 dBA louder than ambient sound.

A walk cycle audible message shall be set for each pushbutton unit indicated in the Plans and shall be patterned after the model: "Broadway. Walk sign is on to cross Broadway." The walk cycle message shall be intensity responsive to ambient sound with a volume 5 dBA above ambient sound up to a maximum volume of 100 dBA. The walk cycle message shall be audible from the beginning of the associated crosswalk during the walk interval only.

The vibrotactile arrow shall be located on the pushbutton and shall have high visibility contrast of either light on dark or dark on light. The push button units shall be installed in a manner such that the vibrotactile arrow is aligned parallel to the direction of travel for the crosswalk which the push button is intended to serve. The vibrotactile arrow shall activate with the walk cycle.

For RRFB Systems, the accessible pedestrian push button units shall consist of:

- Polara iNX Mid-Block Crossing Push Button Station; green body, with tactile arrow (part # iNX9WN0-G) or approved equal;
- Any other labor, materials, or equipment to have a fully-functioning accessible pedestrian mid-block crossing push button system at the locations indicated in the Plans.

9-29.24 Service Cabinets

(September 20, 2024 CFW GSP)

Section 9-29.24 is supplemented with the following:

The service cabinet shall be aluminum, and shall conform to City of Federal Way Standard Details. The unit shall be modified as necessary to meet all current requirements of the Department of Labor and Industries and Puget Sound Energy or Tacoma Power, as applicable. The service cabinet shall be equipped with a lockable stainless steel handle and a three-point locking system. The service cabinet shall contain one ground fault receptacle. Main breaker, branch breakers, and contactors shall be rated in accordance with City of Federal Way Standard Details, unless otherwise indicated in the Plans.

The service cabinet shall be equipped with a door-in-door, dead-front assembly, which shall prevent the exposure of circuit breakers and wiring. Wiring shall be arranged so that any piece of apparatus may be removed without disconnecting any wiring, except the lead to that piece of apparatus. All wiring shall be appropriately marked with a permanent, indelibly marked, clip-sleeve wire marker. All wiring shall conform to NEMA Class II C.

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The service cabinet shall be aluminum, and shall be a Skyline Electric Type ES-2EU or approved equal with Underwriters Laboratory label on the panel boards.

A copy of the wiring diagram shall be provided in a plastic holder mounted conveniently inside the service cabinet. Nameplates shall be provided for each control component and shall be embossed phenolic with white letters on black background. Nameplates shall be screw-fastened.

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9-34 PAVEMENT MARKING MATERIAL

9-34.2 Paint

9-34.2(5) Low VOC Waterborne Paint
(December 16, 2022 CFW GSP)

Section 9-34.2(5) is replaced with the following:

The City of Federal Way does not allow Low VOC Waterborne Paint.

9-34.3 Plastic

9-34.3(4) Type D – Liquid Cold Applied Methyl Methacrylate
(March 13, 2012 CFW GSP)

Section 9-34.3(4) is supplemented with the following:

The methyl methacrylate (MMA) material shall be formulated as a long-life durable pavement marking system capable of providing a minimum of two years of continuous performance. The material shall be a catalyzed methyl methacrylate (MMA), wet-continuous reflective product and placed shall have a dry time (cure) to the touch of no more than 30 minutes. The material shall be capable of retaining reflective glass beads and ceramic micro-crystalline elements of the drop-on or spray-on type as specified by the manufacturer. The binder shall be lead free and suitable for bituminous and concrete pavements.

9-34.4 Glass Beads for Pavement Marking Materials
(September 20, 2024 CFW GSP)

Section 9-34.4 is supplemented with the following:

Methyl Methacrylate Pavement Markings Optics

Both glass beads and reflective elements are required for MMA application, unless otherwise noted.

Glass Beads

Surface-drop glass beads shall be the Swarco SwarcoFlex bead that has a Methacrylate compatible coupling agent approved by the material manufacturer.

Glass beads shall be applied at a rate of 8 to 10 pounds per one hundred square feet.

Reflective Elements

Surface-drop ceramic elements shall be 3M Series 50M or 70M with a methacrylate-compatible coupling agent approved by the material manufacturer. Elements shall meet or exceed a minimum initial coefficients of retroreflected luminance value of 200 mcd/m^2/lx for white and 150 mcd/m^2/lx for yellow in accordance with ASTM E2832.

The reflective elements shall contain either clear or yellow tinted microcrystalline ceramic beads bonded to the opacified core. These elements shall not be manufactured using lead, chromate or arsenic. All “dry-performing” microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 1.89 when tested using the liquid oil immersion method. All “wet performing” microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 2.40 when tested using the liquid oil immersion method. The test method is described in ASTM E1967-98.

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The gradation for the reflective elements shall be as follows:

US Mesh	Micron	Standard Elements
10	2000	95-100
14	1410	0-40
20	850	0-7

A sample of reflective elements supplied by the manufacturer shall show resistance to corrosion of their surface after exposure to a 1% solution (by weight) of sulfuric acid for 24 hours. After testing, no more than 15% of beads shall show a distinct opaque surface upon microscopic examination after the test.

The reflective elements are surface treated to optimize embedment and adhesion to the MMA binder. Elements treated for use with MMA shall have identification on packaging or label to indicate use with the MMA binder.

Reflectance

Typical initial retroreflectivity values are shown in the table below. Typical retroreflectivity is averaged over many readings. Minimum retroreflectivity results represent average performance for smooth pavement surfaces. Results may vary due to differences in pavement type and surface roughness. Increased element drop rate may be necessary to compensate for increased surface area characteristic of rough pavement surfaces.

Minimum Initial Retroreflectivity Values		
	White	Yellow
Dry (ASTM E1710)	700	525
Wet recovery (ASTM E2177)	275	225
Wet continuous (ASTM E2176)	200	150

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9-35 TEMPORARY TRAFFIC CONTROL MATERIALS

Section 9-35 is supplemented with the following:

9-35.2 Construction Signs

(January 5, 2026 WSDOT GSP, OPT1.2027)

Section 9-35.2 is revised to read:

Construction signs shall conform to the requirements of the MUTCD and shall meet the requirements of NCHRP Report 350 for Category 2 devices or MASH. Except as noted below, any sign/sign stand combination that satisfies these requirements will be acceptable. Post mounted Class A construction signs shall conform to the requirements of this section and additionally shall conform to the requirements stated in Section 9-28.

Aluminum sheeting shall be used to fabricate all construction signs. The signs shall have a minimum thickness of 0.080 inches and a maximum thickness of 0.125 inches.

All construction signs shall be fabricated with reflective sheeting in accordance with Section 9-28.12. All post mounted signs shall use a nylon washer between the twist fasteners (screw heads, bolts or nuts) and the reflective sheeting.

The use of plywood, fiberglass reinforced plastic, fabric rollup signs, and any other previously approved sign materials except aluminum or aluminum composite is prohibited.

All Class A and Class B signs shall utilize materials and be fabricated in accordance with Section 9-28 and the Washington State Sign Fabrication Manual M 55-05. A fabrication decal as stated in Section 9-28.1 is not required for construction signs.

9-35.6 Barricades

(January 5, 2026 WSDOT GSP, OPT1.2027)

Section 9-35.6 is revised to read:

Barricades shall conform to the requirements of the MUTCD. The alternating orange and white reflective bands shall be fabricated with reflective sheeting in accordance with Section 9-28.12.

9-35.7 Traffic Safety Drums

(January 5, 2026 WSDOT GSP, OPT1.2027)

The third and fourth paragraphs of Section 9-35.7 are revised to read:

Until December 31, 2026, traffic safety drums may have 4-inch or 6-inch reflective bands fabricated from Type III or Type IV or higher sheeting type as described in Section 9-28.12.

Beginning January 1, 2027, traffic safety drums shall have 6-inch reflective bands. A minimum of 4 reflective horizontal bands, alternating fluorescent orange and white starting with the top stripe being fluorescent orange, shall be used. Reflective bands shall be fabricated from Type IV or higher (reflective sheeting as described in Section 9-28.12. Drums of different reflective band types shall not be intermixed within the same closure. When recommended by the manufacturer, drums shall be treated to ensure proper adhesion of the reflective sheeting.

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9-35.9 Traffic Cones

(January 5, 2026 WSDOT GSP, OPT1.2027)

The last paragraph of Section 9-35.9 is revised to read:

White reflective bands shall be fabricated with reflective sheeting in accordance with Section 9-28.12.

9-35.10 Tubular Markers

(January 5, 2026 WSDOT GSP, OPT1.2027)

The last paragraph of Section 9-35.12 is revised to read:

White reflective bands shall be fabricated with reflective sheeting in accordance with Section 9-28.12. When recommended by the manufacturer, tubular markers shall be treated to ensure proper adhesion of the reflective sheeting.

9-35.12 Transportable Attenuator

(January 5, 2026 WSDOT GSP, OPT1.2027)

The last paragraph of Section 9-35.9 is revised to read:

The transportable attenuator shall have a chevron pattern on the rear of the unit. The pattern shall consist of 4-inch to 8-inch alternating nonreflective black and reflective yellow or alternating reflective red and white sheeting, slanted at 45 degrees in an inverted "V" with the "V" at the center of the unit. Reflective sheeting shall be in accordance with Section 9-28.12.

9-35.13 42-Inch Tall Channelizing Devices

(January 5, 2026 WSDOT GSP, OPT1.2027)

The third and fourth paragraphs of Section 9-35.13 are revised to read:

Until December 31, 2026, 42-inch tall channelization devices may have 4-inch or 6-inch reflective bands fabricated from Type III or Type IV or higher sheeting type as described in Section 9-28.12.

Beginning January 1, 2027, 42-inch tall channelization devices shall have 6-inch reflective bands. A minimum of 4 reflective horizontal bands, alternating fluorescent orange and white starting with the top stripe being fluorescent orange, shall be used. Reflective bands shall be fabricated from Type IV or higher IV (reflective sheeting as described in Section 9-28.12. 42-inch tall channelization devices of different reflective band types shall not be intermixed within the same closure. When recommended by the manufacturer, 42-inch tall channelization devices shall be treated to ensure proper adhesion of the reflective sheeting.

9-35.16 Pedestrian Channelizing Devices

(January 5, 2026 WSDOT GSP, OPT1.2027)

Section 9-35.16 is revised to read:

When exposed to vehicular traffic, pedestrian channelizing devices shall meet the crashworthiness requirements of NCHRP 350 or MASH as described in Section 2- 04.3(3). The bottom and top surfaces of the pedestrian channelizing device shall have 6-inch reflective bands matching the body color of the device fabricated from reflective sheeting as described in Section 9-28.12.

Standard Plans

(January 5, 2026 WSDOT)

The Washington State Department of Transportation Standard Plans M21-01, published September 2024, is made a part of this Contact with the following revisions:

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A-10.30
RISER RING detail (Including SECTION view and RISER RING DIMENSIONS table): The RISER RING detail is deleted from the plan.

INSTALLATION detail, SECTION A: The “1/4”” callout is revised to read “+/- 1/4" (SEE CONTRACT ~ Note: The + 1/4" installation is shown in the Section A view)”

A-40.20
Sheet 1, NOTES 1, 2, 3, and 4 are replaced with the following:

1. Use the ½ inch joint details for bridges with expansion length less than 100 feet and for bridges with L type abutments. Use the 1 inch joint details for other applications.

2. Use detail 5, 6, 7 on steel trusses and timber bridges with concrete bridge deck panels.

3. For details 1, 2, 3, and 4, the item “HMA Joint Seal at Bridge End” shall be used for payment. For details 5 and 6, the item “HMA Joint Seal at Bridge Deck Panel Joint” shall be used for payment. For detail 7, the item “Clean and Seal Bridge Deck Panel Joint” shall be used for payment.

Sheet 2, Detail 8 reference to “6-09.3(6)” is revised to read “6-21.3(7)”.

A-50.40
Sheet 1, Plan View: The callout “BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21 OR TYPE 24 (SEE STANDARD PLAN C-25.20 OR C-25.30)” is revised to read “BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21, 24, OR 25 (SEE STANDARD PLAN C-25.20, C-25.30, OR C-25.32)”

A-60.40
Note 2 reference to “6-09.3(6)” is revised to read “6-21.3(7)”.

B-55.20
General Note 3 reference to “2-09.4” is revised to read “3-07.4”.

B-90.40
Valve Detail – DELETED

C-20.41
Note 4, First Sentence, “Box Culvert guardrail steel posts are not needed for fill depths greater than 40 inches.” is revised to read; “Box culvert guardrail steel posts are not needed for fill depths greater than 46 inches. Provide 6-inches or greater of separation between the bottom of the guardrail post and top of the culvert”
BOX CULVERT POST ASSEMBLY, ELEVATION VIEW, post assembly length dimension “41” MIN. 72” MAX.” is revised to read; “41” MIN. 78” MAX.”
SECTION A, base material depth dimension - “9” MIN. 40” MAX. (SEE NOTE 4)” is revised to read: “9” MIN. 46” MAX. (SEE NOTE 4)”

C20-43

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Note 4, First Sentence: “Box culvert guardrail steel posts are not needed for fill depths greater than 40 inches.” is revised to read: “Box culvert guardrail steel posts are not needed for fill depths greater than 46 inches. Provide 6-inches or greater separation between the bottom of guardrail post and top of culvert.”
Add a new KEY NOTE 4 - “IT IS PERMISSIBLE TO USE A 1” DIAM. ANCHOR ROD WITH TWO NUTS AND TWO – 1” DIAM. WASHERS PER STD. SPEC. SECTION 9-06.5(4) IN LIEU OF A HEX HEAD BOLT.”
BOX CULVERT POST & BASE PLATE ASSEMBLY, ELEVATION VIEW, post assembly length dimension – “41” MIN. 72” MAX.” is revised to read: “41” MIN. 78” MAX.”
SECTION A, base material depth dimension - “9” MIN. 40” MAX. (SEE NOTE 4)” is revised to read: “9” MIN. 46” MAX. (SEE NOTE 4)”
Section A, callout – “1” (IN) DIAM. HEX HEAD BOLT (ASTM A 307, GR. A) W/NUT & 2 – 1” DIAM. WASHERS PER STD. SPEC. SECTION 9-06.5(1) ~ SEE NOTE 1”, is revised to read: “1” (IN) DIAM. HEX HEAD BOLT (ASTM A 307, GR. A) W/NUT & TWO – 1” DIAM. WASHERS PER STD. SPEC. SECTION 9-06.5(1) ~ SEE KEY NOTES 1 AND 4”
Elevation View, Weld symbol – callout, See (key Note Symbol) “4” is revised to read: See (key Note Symbol) “3”

C-23.70
Sheet 2, ANCHOR BRACKET ASSEMBLY DETAIL, dimension, “R. 5/16” is revised to read; R. 15/16”
ANCHOR PLATE DETAIL, weld callout (fillet), 1/4" is revised to read; 3/16”

C-60.20
Sheet 1, Plan view, callout – “1/2” (IN) DIAMETER X 6 1/2" (IN) LONG ANCHOR BOLT ~ PER STD. SPEC. SECT. 9-06.5(4) (TYPICAL) (SEE NOTE 7)” is revised to read: “5/8” DIAMETER x 6 1/2" (IN) LONG ANCHOR BOLT ~ PER STD. SPEC. SECT. 9-06.5(4) (TYPICAL) (SEE NOTE 7)”

C-70.15
BARRIER CONNECTION DETAIL, callout – “CENTER GRID IN CONNECTION BLOCKOUT AND FILL VOID WITH TYPE 3 GROUT (STD. SPECIFICATION SECTION 9-20.3(3) PLACED IN ACCORDANCE WITH STD. SPECIFICATION SECTION 6-20.3(20)” is revised to read “CENTER GRID IN CONNECTION BLOCKOUT AND FILL VOID WITH GROUT TYPE 3 (STD. SPECIFICATION SECTION 9-20.3(3) PLACED IN ACCORDANCE WITH STD. SPECIFICATION SECTION 6-02.3(20)”

C81.10
Sheet 1, TYPICAL SECTION – TRAFFIC BARRIER the R4 #6 bar on the traffic face may be placed 4” down from the top of the barrier to allow additional room to install BP railing or other attachments. The R4 bar shall be kept tight to the front R2 bar.
Sheet 4, the existing table “IMPACT SHEAR AND IMPACT MOMENT TABLE” is renamed to “IMPACT SHEAR AND MOMENT TABLE DECK OVERHANG AND CONNECTIONS” keynote 25 is still applicable.
Sheet 4, NOTES, the following Note is added: “3. Deck overhangs for this use constitute plain reinforced concrete typically around 8" in thickness, non-prestressed moment slabs or approach slabs, or plain reinforced and longitudinally prestressed box girders which employ a topping slab. Other Supporting Structure Systems inclusive of post-tensioned decks, walls, and or Structure segments tied together without a topping slab, with the ties in the barrier resistance load path, shall use the impact shear and moments for other supporting structures.”

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Sheet 4, the following table is added with a keynote 25.

IMPACT SHEAR AND MOMENT TABLE OTHER SUPPORTING STRUCTURES										
	Interior Segment					End Segment				
Roadway and Fill Height at Curb Line (in)	0	6	12	18	24	0	6	12	18	24
End Segment Length (ft)	-	-	-	-	-	10.00	10.50	11.25	11.75	12.50
Impact Moment (kip*ft/ft)	19.86	24.12	28.55	33.16	37.97	20.80	25.17	29.65	34.27	39.04
Impact Shear (kip/ft)	7.89	8.04	8.23	8.44	8.68	8.27	8.39	8.54	8.72	8.92

C-81.15

Sheet 1, General Notes, Add Note 7, to read;"7. The concrete class for the moment slab shall be class 4000 typically and class 4000A when the top of the slab is used as the roadway, or sidewalk, surface. The concrete class for the barrier is defined in Standard Specification Section 6-10.3."

C-85.11

On Section B, the callout "3" EXPANDED POLYSTYRENE AROUND COLUMN (TYP.)" is revised to read "3" EXPANDED POLYSTYRENE OR POLYETHYLENE FOAM AROUND COLUMN (TYP.)"

D-3.09

Sheet 1, GEOSYNTHETIC WALL WITH 2 FT TRAFFIC SURCHARGE detail, callout – "BARRIER ON WALL ~ SEE Standard Plan D-3.15 or D-3.16" is revised to read: "BARRIER ON WALL ~ SEE CONTRACT PLANS"

D-3.10

Sheet 1, Typical Section, callout – "FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.15" is revised to read; "FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER, SEE CONTRACT PLANS"
Sheet 1, Typical Section, callout – "FOR WALLS WITH F-SHAPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.16" is revised to read; "FOR WALLS WITH F-SHAPE TRAFFIC BARRIER, SEE CONTRACT PLANS"

D-3.11

Sheet 1, Typical Section, callout – ""B" BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16" is revised to read; "B" BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)
Sheet 1, Typical Section, callout – "TYPICAL BARRIER ON BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16" is revised to read; "TYPICAL BARRIER ON BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)

D-10.10

Note 7, "If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30" is revised to read "Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 1 and 1SW".

D-10.15

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Note 7, “If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30” is revised to read “Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 2 and 2SW”.

D-10.30
Wall Type 5 may be used in all cases.

D-10.35
Wall Type 6 may be used in all cases.

D-10.40
Note 5, “If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30” is revised to read “Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 7”.

D-10.45
Note 5, “If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30” is revised to read “Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 8”.

E-20.10
On Sheet 2, the reference to “2-09.4” is revised to read “3-07.4”.

F-10.18
Note 1; “Construct curb joints at cement concrete pavement transverse joint locations. If all adjacent pavement is HMA, see Standard Plan F-30.10 for Curb Expansion and Contraction Joint Spacing.” is revised to read – “See Standard Plan F-30.10 and Standard Specification Section 8-04.3 for Curb Expansion and Contraction Joint details and spacing.”
CURB 3 Detail, the diamond note 1 callout on the 6” dimension at the bottom left side of the detail, is revised to be a diamond note 2 callout.

F-30.10
All five instances of the “2.0% MAX.” are replaced with “2.1% MAX.”

F-40.12
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 7 is replaced with the following:
7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement. When a ramp is constructed on a radius, the Curb Ramp length is measured on the inside radius along the back of the walkway.
Section B is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”
Section C is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-40.14
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 7 is replaced with the following:

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7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement. When a ramp is constructed on a radius, the Curb Ramp length is measured on the inside radius along the back of the walkway.
Section A is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”
Section C is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-40.15
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 7 is replaced with the following:
7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement.
Section A is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-40.16
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 8 is replaced with the following:
7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement.
Section A is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”
Section B is amended as follows:
Delete: “15’ – 0” MAX. (TYP.)”

F-80.10
The one instance of “2.0% MAX.” is replaced with “2.1% MAX.”
Note 6 is replaced with the following:
The running slope of the Pedestrian Ramp shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk.
Section A is amended as follows:
Delete: “15” Max.”

J-5.50
General Note 4 reference to “2-09.3(1)E” is revised to read “3-07.3(1)E”
General Note 5 reference to “2-09.3(1)E” is revised to read “3-07.3(1)E”

J-10.10
Sheet 4 of 6, “Foundation Size Reference Table”, PAD WIDTH column, Type 33xD=6’ – 3” is revised to read: 7’ – 3”. Type 342LX / NEMA P44=5’ – 10” is revised to read: 6’ – 10”

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Sheet 5 of 6, Plan View, “FOR EXAMPLE PAD SHOWN HERE:, “first bullet” item, “-SPACE BETWEEN TYPE B MOD. CABINET AND 33x CABINET IS 6” (IN)” IS REVISED TO READ: “SPACE BETWEEN TYPE B MOD. CABINET (BACK OF ALL CHANNEL STEEL) AND 33x CABINET IS 6” (IN) (CHANNEL STEEL ADDS ABOUT 5” (IN)”

J-10.16
Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.17
Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.18
Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-15.15
The reference to “2-09.3(1)E” is revised to read “3-07.3(1)E”

J-20.01
STANDARD DIMENSIONS AND REFERENCES table, TYPE FB, Standard Height column – “15’-0” ”is revised to read; “14’-0” ”

J-20.10
DELETED

J-20.11
DELETED

J-20.26
Add Note 1, “1. One accessible pedestrian pushbutton station per pedestrian pushbutton post.”
Add General Note 2, to read: “Signs shown are for locations with pedestrian signal displays (Accessible Pedestrian Signals/APS). Accessible information device (AID) pushbuttons signs not shown.”
Revise View Titles (Both Sheets) to read: “ACCESSIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY”

J-20.16
View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

J-21.10
Sheet 1, Anchor Bolt Template, callout; “9” (IN) BOLT CIRCLE” is revised to read: “9” (IN) DIA.BOLT CIRCLE”
Base Plate Detail, callout; “3/4” (IN) STEEL PLATE WITH HOLE = POLE BASE + 1/6” (IN)” IS REVISED TO READ; “3/4” (IN) STEEL PLATE WITH HOLE = POLE BASE + 1/16” (IN)”
Flat Foundation Detail – Elevation, callout; “ANCHOR BOLTS ~ ¾” (IN) x 30” (IN) FULL THREAD ~ THREE REQ’D. PER ASSEMBLY” is revised to read; “ANCHOR BOLTS ~ ¾” (IN) x 30” (IN) FULL THREAD ~ FOUR REQ’D. PER ASSEMBLY”
Flat Foundation Detail – Elevation, dimension; 4’ – 0” is revised to read; “4’ – 0” ROUND OR 3’ – 0” SQUARE”

J-21.15

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Partial View, callout, was – LOCK NIPPLE ~ 1 ½" DIAM., is revised to read; CHASE NIPPLE ~ 1 ½" (IN) DIAM.

J-21.16
On both elevation views, the overall standard height dimension "15'-0" " is revised to read; "14'-0" "

J-26.10
The reference to "2-09.3(1)E" is revised to read "3-07.3(1)E"

J-27.10
The reference to "2-09.3(1)E" is revised to read "3-07.3(1)E"

J-28.30
General Note 13 – "See Standard Plans C-8b and C-85.14 for steel light standards on traffic barrier" is revised to read; "See Standard Plan C-85.15 for steel light standards on traffic barrier."

J-29.10
The reference to "2-09.3(1)E" is revised to read "3-07.3(1)E"

J-40.10
Sheet 2 of 2, Detail F, callout, "12 – 13 x 1 ½" S.S. PENTA HEAD BOLT AND 12" S. S. FLAT WASHER" is revised to read; "12 – 13 x 1 ½" S.S. PENTA HEAD BOLT AND 1/2" (IN) S. S. FLAT WASHER"

J-40.36
Note 1, second sentence; "Finish shall be # 2B for backbox and # 4 for the cover." Is revised to read; "Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-40.37
Note 1, second sentence; "Finish shall be # 2B for backbox and # 4 for the cover." Is revised to read; "Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-50.15
Sheet 1, SECTION A, the call out "LOOP LEAD-IN WIRES, TWISTED PAIRS ~ MAX. 3 PAIRS" is revised to read "LOOP LEAD-IN WIRES, TWISTED PAIRS ~ MAX. 6 PAIRS"
General Note 1 reference to "2-09.3(1)E" is revised to read "3-07.3(1)E"

J-75.20
Key Notes, note 16, second bullet point, was: "1/2" (IN) x 0.45" (IN) Stainless Steel Bands", add the following to the end of the note: "Alternate: Stainless steel cable with stainless steel ends, nuts, bolts, and washers may be used in place of stainless steel bands and associated hardware."

J-75.55
Notes, Note A1, Revise reference, was – G-90.29, should be – G-90.20.

K-80.32

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Sheet 1, END VIEW, the callout located at the base of barrier – "SEE NOTE 2" is revised to read: "SEE NOTE 3"
Sheet 2, WIRE ROPE LOOP DETAIL, dimension (overall length) – "SEE NOTE 1" is revised to read: "SEE NOTE 2"
Sheet 2, Side View (Right), callout – "WIRE ROPE LOOPS – SEE NOTE 1" is revised to read: "WIRE ROPE LOOPS – SEE NOTE 2"

L-5.10
Add new general Note 9 on sheet 1 – "9. The top of wall in Section A on Sheet 1 shall be located as follows: 1) flush with the finished grade when placed within the deflection distance of the long span guardrail system (Std. Plan C-20.40), 2) Two inches maximum above finished grade when placed behind a box culvert guardrail steel post system (Std. Plan C-20.41 or C-20.43), 3) Six inches minimum for all other applications. The bottom rail shall be located at mid height between the top rail and the top of structure."

M-20.30
Wide Dotted Lane Line Detail, reference below title, (SEE NOTE 6) is revised to read: (SEE NOTE 5)

M-40.10
Guide Post Type ~ Reflective Sheeting Applications Table, remove reference - "(SEE NOTE 5)"

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00 ..... 8/7/07
A-10.20-00 ..... 10/5/07
A-10.30-00 ..... 10/5/07
A-20.10-00 ..... 8/31/07
A-30.10-00 ..... 11/8/07
A-30.30-01 ..... 6/16/11
A-30.35-00 ..... 10/12/07
A-40.00-01 ..... 7/6/22
A-40.10-04 ..... 7/31/19
A-40.15-00 ..... 8/11/09
A-40.20-04 ..... 1/18/17
A-40.50-03 ..... 9/12/23
A-50.10-02 ..... 7/18/24
A-50.40-01 ..... 8/17/21
A-60.10-03 ..... 12/23/14
A-60.20-03 ..... 12/23/14
A-60.30-01 ..... 6/28/18
A-60.40-00 ..... 8/31/07

B-5.20-03 ..... 9/9/20
B-5.40-02 ..... 1/26/17
B-5.60-02 ..... 1/26/17
B-10.20-03 ..... 8/23/23
B-10.40-02 ..... 8/17/21
B-10.70-03 ..... 8/23/23
B-15.20-01 ..... 2/7/12
B-15.40-01 ..... 2/7/12
B-15.60-02 ..... 1/26/17
B-20.20-02 ..... 3/16/12
B-20.40-04 ..... 2/27/18
B-20.60-03 ..... 3/15/12
B-25.20-02 ..... 2/27/18
B-25.60-03 ..... 8/23/23
B-30.05-00 ..... 9/9/20
B-30.10-03 ..... 2/27/18
B-30.50-03 ..... 2/27/18
B-30.60-00 ..... 9/9/20
B-30.40-03 ..... 2/27/18
B-30.70-04 ..... 2/27/18
B-30.80-01 ..... 2/27/18
B-30.90-02 ..... 1/26/17
B-35.20-00 ..... 6/8/06
B-35.40-01 ..... 8/23/23
B-40.20-00 ..... 6/1/06
B-40.40-02 ..... 1/26/17
B-45.20-01 ..... 7/11/17
B-45.40-01 ..... 7/21/17
B-50.20-00 ..... 6/1/06
B-55.20-03 ..... 8/17/21
B-60.20-02 ..... 9/9/20
B-60.40-01 ..... 2/27/18
B-75.20-03 ..... 8/17/21
B-75.50-02 ..... 3/15/22
B-70.60-01 ..... 1/26/17
B-75.60-00 ..... 6/8/06
B-80.20-00 ..... 6/8/06
B-80.40-00 ..... 6/1/06
B-85.10-01 ..... 6/10/08
B-85.20-00 ..... 6/1/06
B-85.30-00 ..... 6/1/06
B-85.40-00 ..... 6/8/06
B-85.50-01 ..... 6/10/08
B-90.10-00 ..... 6/8/06
B-90.20-00 ..... 6/8/06
B-90.30-00 ..... 6/8/06
B-90.40-01 ..... 1/26/17
B-90.50-00 ..... 6/8/06

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B-30.15-00 ..... 2/27/18
B-30.20-04 ..... 2/27/18
B-30.30-03 ..... 2/27/18

B-65.20-01 ..... 4/26/12
B-65.40-00 ..... 6/1/06
B-70.20-01 ..... 3/15/22

B-95.20-02 ..... 8/17/21
B-95.40-01 ..... 6/28/18

C-1 ..... 9/8/22
C-1b 10/12/23
C-1d 10/31/03
C-6a 9/8/22
C-7 ..... 9/8/22
C-7a 9/8/22
C-20.10-09 ..... 10/12/23
C-20.14-05 ..... 9/8/22
C-20.15-03 ..... 10/12/23
C-20.18-04 ..... 9/8/22
C-20.40-10 ..... 10/12/23
C-20.41-05 ..... 7/18/24
C-20.43-01 ..... 7/18/24
C-20.44-00 ..... 8/13/24
C-20.45-03 ..... 9/8/22
C-20.55-00 ..... 7/30/24
C-22.16-08 ..... 10/17/23
C-22.40-11 ..... 7/21/24
C-22.45-07 ..... 7/21/24

C-23.70-01 ..... 10/16/23
C.24.10-05 ..... 7/21/24
C-24.15-00 ..... 3/15/22
C-25.20-07 ..... 8/20/21
C-25.22-06 ..... 8/20/21
C-25.26-05 ..... 8/20/21
C-25.30-01 ..... 8/20/21
C-25.32-00 ..... 7/29/24
C-25.80-05 ..... 8/12/19
C-60.10-04 ..... 7/21/24
C-60.15-01 ..... 7/21/24
C-60.20-01 ..... 9/8/22
C-60.30-02 ..... 7/21/24
C-60.40-01 ..... 7/21/24
C-60.45-01 ..... 7/21/24
C-60.50-01 ..... 7/21/24
C-60.60-01 ..... 7/21/24
C-60.70-01 ..... 9/8/22
C-60.80-02 ..... 7/21/24

C-70.10-04 ..... 10/16/23
C-70.15-01 ..... 7/21/24
C-75.10-02 ..... 9/16/20
C-75.20-03 ..... 8/20/21
C-75.30-03 ..... 8/20/21
C-80.10-03 ..... 10/16/23
C-80.20-01 ..... 6/11/14
C-80.30-02 ..... 8/20/21
C-80.40-01 ..... 6/11/14
C-85.10-00 ..... 4/8/12
C-85.11-01 ..... 9/16/20
C-85.15-03 ..... 10/17/23
C-85-18-03 ..... 9/8/22
C-81.10-00 ..... 9/12/23
C-81.15-00 ..... 9/12/23

D-2.36-03 ..... 6/11/14
D-2.46-02 ..... 8/13/21
D-2.84-00 ..... 11/10/05
D-2.92-01 ..... 4/26/22
D-3.09-00 ..... 5/17/12
D-3.10-01 ..... 5/29/13

D-3.11-03 ..... 6/11/14
D-4 ..... 12/11/98
D-6 ..... 6/19/98
D-10.10-01 ..... 12/2/08
D-10.15-01 ..... 12/2/08
D-10.20-01 ..... 8/7/19

D-10.25-01 ..... 8/7/19
D-10.30-00 ..... 7/8/08
D-10.35-00 ..... 7/8/08
D-10.40-01 ..... 12/2/08
D-10.45-01 ..... 12/2/08
D-20.10-00 ..... 10/9/23

E-1 ..... 2/21/07
E-2 ..... 5/29/98

E-4 ..... 8/27/03
E-4a 8/27/03

E-20.10-00 ..... 9/12/23
E-20.20-00 ..... 10/4/23

F-10.12-04 ..... 9/24/20
F-10.16-00 ..... 12/20/06
F-10.18-04 ..... 6/28/24
F-10.40-04 ..... 9/24/20
F-10.42-00 ..... 1/23/07

F-10.62-02 ..... 4/22/14
F-10.64-03 ..... 4/22/14
F-30.10-04 ..... 9/25/20
F-40.12-03 ..... 6/29/16
F-40.14-03 ..... 6/29/16

F-40.15-04 ..... 9/25/20
F-40.16-03 ..... 6/29/16
F-45.10-05 ..... 6/4/24
F-80.10-04 ..... 7/15/16

G-10.10-00 ..... 9/20/07
G-20.10-03 ..... 8/20/21
G-22.10-04 ..... 6/28/18
G-24.10-00 ..... 11/8/07
G-24.20-01 ..... 2/7/12
G-24.30-02 ..... 6/28/18
G-24.40-07 ..... 6/28/18

G-24.50-05 ..... 8/7/19
G-24.60-05 ..... 6/28/18
G-25.10-05 ..... 9/16/20
G-26.10-00 ..... 7/31/19
G-30.10-04 ..... 6/23/15
G-50.10-03 ..... 6/28/18

G-90.10-03 ..... 7/11/17
G-90.20-05 ..... 7/11/17
G-90.30-04 ..... 7/11/17
G-95.10-02 ..... 6/28/18
G-95.20-03 ..... 6/28/18
G-95.30-03 ..... 6/28/18

H-10.10-01 ..... 6/2/24
H-10.11-00 ..... 6/2/24
H-10.15-01 ..... 6/2/24

H-30.10-00 ..... 10/12/07
H-32.10-00 ..... 9/20/07
H-60.10-01 ..... 7/3/08

H-70.10-02 ..... 8/17/21
H-70.20-02 ..... 8/17/21

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H-10.16-00 ..... 6/2/24
H-60.20-01 ..... 7/3/08

I-10.10-01 ..... 8/11/09
I-30.10-02 ..... 3/22/13
I-30.15-02 ..... 3/22/13
I-30.16-01 ..... 7/11/19
I-30.17-01 ..... 6/12/19
I-30.20-00 ..... 9/20/07
I-30.30-02 ..... 6/12/19
I-30.40-02 ..... 6/12/19
I-30.60-02 ..... 6/12/19
I-40.10-00 ..... 9/20/07
I-40.20-00 ..... 9/20/07
I-50.20-02 ..... 7/6/22
I-60.10-01 ..... 6/10/13
I-60.20-01 ..... 6/10/13
I-80.10-02 ..... 7/15/16

J-05.50-00 ..... 8/30/22
J-10 ..... 7/18/97
J-10.10-04 ..... 9/16/20
J-10.12-00 ..... 9/16/20
J-10.14-00 ..... 9/16/20
J-10.15-01 ..... 6/11/14
J-10.16-02 ..... 8/18/21
J-10.17-02 ..... 8/18/21
J-10.18-02 ..... 8/18/21
J-10.20-04 ..... 8/18/21
J-10.21-02 ..... 8/18/21
J-10.22-03 ..... 10/4/23
J-10.25-01 ..... 6/21/24
J-10.26-00 ..... 8/30/22
J-12.15-00 ..... 6/28/18
J-12.16-00 ..... 6/28/18
J-15.10-01 ..... 6/11/14
J-15.15-02 ..... 7/10/15
J-20.01-01 ..... 6/21/24
J-20.05-00 ..... 6/21/24
J-20.10-05 ..... 10/4/23
J-20.11-03 ..... 7/31/19
J-20.15-04 ..... 6/21/24
J-20.16-02 ..... 6/30/14
J-20.20-02 ..... 5/20/13
J-20.26-01 ..... 7/12/12
J-21.10-05 ..... 6/21/24
J-21.15-01 ..... 6/10/13
J-21.16-02 ..... 6/21/24
J-21.17-01 ..... 6/10/13
J-21.20-01 ..... 6/10/13
J-22.15-03 ..... 6/21/24
J-22.16-03 ..... 7/10/15
J-22.17-00 ..... 6/21/24
J-26.10-03 ..... 7/21/16
J-26.15-01 ..... 5/17/12
J-26.20-01 ..... 6/28/18
J-27.10-01 ..... 7/21/16
J-27.15-00 ..... 3/15/12
J-28.01-00 ..... 8/30/22
J-28.10-02 ..... 8/7/19
J-28.22-00 ..... 8/07/07
J-28.24-02 ..... 9/16/20
J-28.26-01 ..... 12/02/08
J-28.30-04 ..... 6/18/24
J-28.40-02 ..... 6/11/14
J-28.42-01 ..... 6/11/14
J-28.43-01 ..... 6/28/18
J-28.45-03 ..... 7/21/16
J-28.50-03 ..... 7/21/16
J-28.60-03 ..... 8/27/21
J-28.70-04 ..... 8/30/22
J-29.10-02 ..... 8/26/22
J-29.15-01 ..... 7/21/16
J-29.16-02 ..... 7/21/16
J-30.10-01 ..... 8/26/22
J-40.01-00 ..... 8/30/22
J-40.05-00 ..... 7/21/16
J-40.10-04 ..... 4/28/16
J-40.20-03 ..... 4/28/16
J-40.30-04 ..... 4/28/16
J-40.35-01 ..... 5/29/13
J-40.36-02 ..... 7/21/17
J-40.37-02 ..... 7/21/17
J-40.38-01 ..... 5/20/13
J-40.39-00 ..... 5/20/13
J-40.40-02 ..... 7/31/19
J-45.36-00 ..... 7/21/17
J-50.05-00 ..... 7/21/17
J-50.10-01 ..... .7/31/19
J-50.11-02 ..... 7/31/19
J-50.12-02 ..... 8/7/19
J-50.13-01 ..... 8/30/22
J-50.15-01 ..... 7/21/17
J-50.16-01 ..... 3/22/13
J-50.18-00 ..... 8/7/19
J-50.19-00 ..... 8/7/19
J-50.20-00 ..... 6/3/11
J-50.25-00 ..... 6/3/11
J-50.30-00 ..... 6/3/11
J-60.05-01 ..... 7/21/16
J-60.11-00 ..... 5/20/13
J-60.12-00 ..... 5/20/13
J-60.13-00 ..... 6/16/10
J-60.14-01 ..... 7/31/19
J-75.10-02 ..... 7/10/15
J-75.20-01 ..... 7/10/15
J-75.30-02 ..... 7/10/15
J-75.50-00 ..... 8/30/22
J-75.55-00 ..... 8/30/22
J-80.05-00 ..... 8/30/22
J-80.10-01 ..... 8/18/21
J-80.12-00 ..... 8/18/21
J-80.15-00 ..... 6/28/18
J-81.10-02 ..... 8/18/21
J-81.12-00 ..... 9/3/21
J-84.05-00 ..... 8/30/22
J-86.10-00 ..... 6/28/18
J-90.10-03 ..... 6/28/18
J-90.20-03 ..... 6/28/18
J-90.21-02 ..... 6/28/18
J-90.50-00 ..... 6/28/18

K-70.20-01 ..... 6/1/16
K-80.10-02 ..... 9/25/20
K-80.32-00 ..... 8/17/21
K-80.34-00 ..... 8/17/21
K-80.35-01 ..... 9/16/20
K-80.37-01 ..... 9/16/20

L-5.10-02 ..... 6/5/24
L-5.15-00 ..... 9/19/22
L-10.10-02 ..... 6/21/12
L-20.10-03 ..... 7/14/15
L-30.10-02 ..... 6/11/14
L-40.15-01 ..... 6/16/11
L-40.20-02 ..... 6/21/12
L-70.10-01 ..... 5/21/08
L-70.20-01 ..... 5/21/08

M-1.20-04 ..... 9/25/20
M-9.60-00 ..... 2/10/09
M-24.66-00 ..... 7/11/17

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M-1.40-03 ..... 9/25/20
M-1.60-03 ..... 9/25/20
M-1.80-03 ..... 6/3/11
M-2.20-03 ..... 7/10/15
M-2.21-00 ..... 7/10/15
M-3.10-04 ..... 9/25/20
M-3.20-04 ..... 8/2/22
M-3.30-04 ..... 9/25/20
M-3.40-04 ..... 9/25/20
M-3.50-03 ..... 9/25/20
M-5.10-03 ..... 9/25/20
M-7.50-01 ..... 1/30/07
M-9.50-02 ..... 6/24/14
M-11.10-04 ..... 8/2/22
M-12.10-04 ..... 6/28/24
M-15.10-02 ..... 7/17/23
M-17.10-02 ..... 7/3/08
M-20.10-04 ..... 8/2/22
M-20.20-02 ..... 4/20/15
M-20.30-05 ..... 6/28/24
M-20.40-03 ..... 6/24/14
M-20.50-02 ..... 6/3/11
M-24.20-02 ..... 4/20/15
M-24.40-02 ..... 4/20/15
M-24.60-04 ..... 6/24/14
M-24.65-00 ..... 7/11/17
M-40.10-04 .... 10/17/23
M-40.20-00 .... 10/12/07
M-40.30-01 ..... 7/11/17
M-40.40-00 ..... 9/20/07
M-40.50-00 ..... 9/20/07
M-40.60-00 ..... 9/20/07
M-60.10-01 ..... 6/3/11
M-60.20-03 ..... 8/17/21
M-65.10-03 ..... 8/17/21
M-80.10-01 ..... 6/3/11
M-80.20-00 ..... 6/10/08
M-80.30-00 ..... 6/10/08

END DIVISION 9

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CONTRACT PROVISIONS

APPENDICES

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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: 10/15/2026

King County

Trade	Job Classification	Wage	Holiday	Overtime	Note
Asbestos Abatement Workers	Journey Level	$71.10	**5D**	**1H**	
Boilermakers	Journey Level	$80.89	**5N**	**1C**	
Brick Mason	Journey Level	$82.00	**7E**	**1N**	
Brick Mason	Pointer-Caulker-Cleaner	$82.00	**7E**	**1N**	
Building Service Employees	Janitor	$32.78	**5S**	**2F**	
Building Service Employees	Traveling Waxer/Shampooer	$32.98	**5S**	**2F**	

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Building Service Employees	Window Cleaner (Non-Scaffold)	$35.58	5S	2F	
Building Service Employees	Window Cleaner (Scaffold)	$36.58	5S	2F	
Cabinet Makers (In Shop)	Journey Level	$22.74		1	
Carpenters	Acoustical Worker	$87.71	15J	11U	
Carpenters	Bridge Dock and Wharf Carpenter	$89.38	15J	11U	9L
Carpenters	Floor Layer & Floor Finisher	$87.71	15J	11U	
Carpenters	General Carpenter	$87.71	15J	11U	
Carpenters	Scaffold Erector	$87.71	15J	11U	
Cement Masons	Application of all Composition Mastic	$86.70	15J	4U	
Cement Masons	Application of all Epoxy Material	$86.18	15J	4U	
Cement Masons	Application of all Plastic Material	$86.70	15J	4U	
Cement Masons	Application of Sealing Compound	$86.18	15J	4U	
Cement Masons	Application of Underlayment	$86.70	15J	4U	
Cement Masons	Building General	$86.18	15J	4U	

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Cement Masons	Composition or Kalman Floors	$86.70	**15J**	**4U**
Cement Masons	Concrete Paving	$86.18	**15J**	**4U**
Cement Masons	Curb & Gutter Machine	$86.70	**15J**	**4U**
Cement Masons	Curb & Gutter, Sidewalks	$86.18	**15J**	**4U**
Cement Masons	Curing Concrete	$86.18	**15J**	**4U**
Cement Masons	Finish Colored Concrete	$86.70	**15J**	**4U**
Cement Masons	Floor Grinding	$86.70	**15J**	**4U**
Cement Masons	Floor Grinding/Polisher	$86.18	**15J**	**4U**
Cement Masons	Green Concrete Saw, self-powered	$86.70	**15J**	**4U**
Cement Masons	Grouting of all Plates	$86.18	**15J**	**4U**
Cement Masons	Grouting of all Tilt-up Panels	$86.18	**15J**	**4U**
Cement Masons	Gunite Nozzleman	$86.70	**15J**	**4U**
Cement Masons	Hand Powered Grinder	$86.70	**15J**	**4U**
Cement Masons	Journey Level	$86.18	**15J**	**4U**
Cement Masons	Patching Concrete	$86.18	**15J**	**4U**
Cement Masons	Pneumatic Power Tools	$86.70	**15J**	**4U**

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Cement Masons	Power Chipping & Brushing	$86.70	15J	4U	
Cement Masons	Sand Blasting Architectural Finish	$86.70	15J	4U	
Cement Masons	Screed & Rodding Machine	$86.70	15J	4U	
Cement Masons	Spackling or Skim Coat Concrete	$86.18	15J	4U	
Cement Masons	Troweling Machine Operator	$86.70	15J	4U	
Cement Masons	Troweling Machine Operator on Colored Slabs	$86.70	15J	4U	
Cement Masons	Tunnel Workers	$86.70	15J	4U	
Divers & Tenders	Bell/Vehicle/Submersible Operator (not under pressure)	$149.22	15J	11T	9I
Divers & Tenders	Dive Supervisor	$150.72	15J	11T	9I
Divers & Tenders	Diver	$149.22	15J	11T	9I
Divers & Tenders	Diver Tender	$95.55	15J	11T	9I
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	$120.22	15J	11U	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker	$130.16	15J	11U	

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	30.01-44.00 PSI				
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	$140.11	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	$150.05	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	$160.00	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	$169.94	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	$179.88	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	$189.83	**15J**	**11U**	
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	$199.77	**15J**	**11U**	
Divers & Tenders	Lead Diver (Dive Master)	$110.01	**15J**	**11T**	**9I**
Divers & Tenders	Manifold Operator (Life Support Technician)	$100.55	**15J**	**11U**	**9I**

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Divers & Tenders	Remote Operated Vehicle Operator/Technician	$95.55	**15J**	**11T**	**9I**
Divers & Tenders	Remote Operated Vehicle Operator/Technician	$95.55	**15J**	**11U**	**9I**
Divers & Tenders	Remote Operated Vehicle Tender	$89.25	**15J**	**11T**	**9I**
Divers & Tenders	Stand-by Diver	$105.01	**15J**	**11T**	**9I**
Dredge Workers	Assistant Engineer	$93.71	**15Q**	**3F**	
Dredge Workers	Assistant Mate (Deckhand)	$92.99	**15Q**	**3F**	
Dredge Workers	Boatmen	$93.71	**15Q**	**3F**	
Dredge Workers	Engineer Welder	$95.52	**15Q**	**3F**	
Dredge Workers	Leverman, Hydraulic	$97.45	**15Q**	**3F**	
Dredge Workers	Mates	$93.71	**15Q**	**3F**	
Dredge Workers	Oiler	$92.99	**15Q**	**3F**	
Drywall Applicator	Journey Level	$84.77	**15O**	**11S**	
Drywall Tapers	Journey Level	$84.77	**15O**	**11S**	
Electrical Fixture Maintenance Workers	Journey Level	$42.69	**5L**	**1E**	
Electricians - Inside	Cable Splicer	$122.23	**7C**	**4E**	

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Electricians - Inside	Cable Splicer (tunnel)	$131.06	**7C**	**4E**	
Electricians - Inside	Certified Welder	$118.22	**7C**	**4E**	
Electricians - Inside	Certified Welder (tunnel)	$126.65	**7C**	**4E**	
Electricians - Inside	Construction Stock Person	$56.78	**7C**	**4E**	
Electricians - Inside	Journey Level	$114.21	**7C**	**4E**	
Electricians - Inside	Journey Level (tunnel)	$122.23	**7C**	**4E**	
Electricians - Motor Shop	Journey Level	$48.68	**5A**	**1B**	
Electricians - Powerline Construction	Cable Splicer	$107.31	**5A**	**4D**	
Electricians - Powerline Construction	Certified Line Welder	$98.45	**5A**	**4D**	
Electricians - Powerline Construction	Groundperson	$61.75	**5A**	**4D**	
Electricians - Powerline Construction	Heavy Line Equipment Operator	$98.45	**5A**	**4D**	
Electricians - Powerline Construction	Journey Level Lineperson	$98.45	**5A**	**4D**	
Electricians - Powerline Construction	Line Equipment Operator	$84.94	**5A**	**4D**	
Electricians - Powerline Construction	Meter Installer	$61.75	**5A**	**4D**	**8W**

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Electricians - Powerline Construction	Pole Sprayer	$98.45	5A	4D	
Electricians - Powerline Construction	Powderperson	$72.81	5A	4D	
Electronic Technicians	Journey Level	$75.47	7E	1E	
Elevator Constructors	Mechanic	$119.17	7D	4A	
Elevator Constructors	Mechanic In Charge	$128.95	7D	4A	
Fabricated Precast Concrete Products	All Classifications - In-Factory Work Only	$21.34	5B	1R	
Fence Erectors	Fence Erector	$60.82	15J	11X	9N
Fence Erectors	Fence Laborer	$60.82	15J	11X	9N
Flaggers	Journey Level	$60.82	15J	11X	9N
Glaziers	Journey Level	$88.41	7L	1Y	
Heat & Frost Insulators And Asbestos Workers	Journey Level	$100.83	15H	11C	
Heating Equipment Mechanics	Journey Level	$107.92	7F	1E	
Hod Carriers & Mason Tenders	Journey Level	$75.00	15J	11X	9N
Industrial Power Vacuum Cleaner	Journey Level	$17.13		1	
Inland Boatmen	Boat Operator	$71.28	5B	1K	

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Inland Boatmen	Cook	$69.70	**5B**	**1K**
Inland Boatmen	Deckhand	$70.00	**5B**	**1K**
Inland Boatmen	Deckhand Engineer	$69.55	**5B**	**1K**
Inland Boatmen	Launch Operator	$71.23	**5B**	**1K**
Inland Boatmen	Mate	$89.12	**5B**	**1K**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator	$58.17	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Foamer Operator	$58.17	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	$58.17	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	$56.10	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	$49.90	**15M**	**11O**
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	TV Truck Operator	$53.00	**15M**	**11O**
Insulation Applicators	Journey Level	$87.71	**15J**	**11U**

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Ironworkers	Journeyman	$94.82	**15K**	**11N**	
Laborers	Air, Gas Or Electric Vibrating Screed	$71.10	**15J**	**11X**	**9N**
Laborers	Airtrac Drill Operator	$73.18	**15J**	**11X**	**9N**
Laborers	Ballast Regular Machine	$71.10	**15J**	**11X**	**9N**
Laborers	Batch Weighman	$60.82	**15J**	**11X**	**9N**
Laborers	Brick Pavers	$71.10	**15J**	**11X**	**9N**
Laborers	Brush Cutter	$71.10	**15J**	**11X**	**9N**
Laborers	Brush Hog Feeder	$71.10	**15J**	**11X**	**9N**
Laborers	Burner	$71.10	**15J**	**11X**	**9N**
Laborers	Caisson Worker	$73.18	**15J**	**11X**	**9N**
Laborers	Carpenter Tender	$71.10	**15J**	**11X**	**9N**
Laborers	Cement Dumper-paving	$73.18	**15J**	**11X**	**9N**
Laborers	Cement Finisher Tender	$71.10	**15J**	**11X**	**9N**
Laborers	Change House Or Dry Shack	$71.10	**15J**	**11X**	**9N**
Laborers	Chipping Gun (30 Lbs. And Over)	$72.33	**15J**	**11X**	**9N**
Laborers	Chipping Gun (Under 30 Lbs.)	$71.10	**15J**	**11X**	**9N**

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Laborers	Choker Setter	$71.10	**15J**	**11X**	**9N**
Laborers	Chuck Tender	$71.10	**15J**	**11X**	**9N**
Laborers	Clary Power Spreader	$72.33	**15J**	**11X**	**9N**
Laborers	Clean-up Laborer	$71.10	**15J**	**11X**	**9N**
Laborers	Concrete Dumper/Chute Operator	$73.18	**15J**	**11X**	**9N**
Laborers	Concrete Form Stripper	$71.10	**15J**	**11X**	**9N**
Laborers	Concrete Placement Crew	$73.18	**15J**	**11X**	**9N**
Laborers	Concrete Saw Operator/Core Driller	$72.33	**15J**	**11X**	**9N**
Laborers	Crusher Feeder	$60.82	**15J**	**11X**	**9N**
Laborers	Curing Laborer	$71.10	**15J**	**11X**	**9N**
Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	$71.10	**15J**	**11X**	**9N**
Laborers	Ditch Digger	$71.10	**15J**	**11X**	**9N**
Laborers	Diver	$73.18	**15J**	**11X**	**9N**
Laborers	Drill Operator (Hydraulic, Diamond)	$72.33	**15J**	**11X**	**9N**
Laborers	Dry Stack Walls	$71.10	**15J**	**11X**	**9N**

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Laborers	Dump Person	$71.10	**15J**	**11X**	**9N**
Laborers	Epoxy Technician	$71.10	**15J**	**11X**	**9N**
Laborers	Erosion Control Worker	$71.10	**15J**	**11X**	**9N**
Laborers	Faller & Bucker Chain Saw	$72.33	**15J**	**11X**	**9N**
Laborers	Fine Graders	$71.10	**15J**	**11X**	**9N**
Laborers	Firewatch	$60.82	**15J**	**11X**	**9N**
Laborers	Form Setter	$73.18	**15J**	**11X**	**9N**
Laborers	Gabian Basket Builders	$71.10	**15J**	**11X**	**9N**
Laborers	General Laborer	$71.10	**15J**	**11X**	**9N**
Laborers	Grade Checker & Transit Person	$75.00	**15J**	**11X**	**9N**
Laborers	Grinders	$71.10	**15J**	**11X**	**9N**
Laborers	Grout Machine Tender	$71.10	**15J**	**11X**	**9N**
Laborers	Groutmen (Pressure) Including Post Tension Beams	$72.33	**15J**	**11X**	**9N**
Laborers	Guardrail Erector	$71.10	**15J**	**11X**	**9N**
Laborers	Hazardous Waste Worker (Level A)	$73.18	**15J**	**11X**	**9N**

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Laborers	Hazardous Waste Worker (Level B)	$72.33	**15J**	**11X**	**9N**
Laborers	Hazardous Waste Worker (Level C)	$71.10	**15J**	**11X**	**9N**
Laborers	High Scaler	$73.18	**15J**	**11X**	**9N**
Laborers	Jackhammer	$72.33	**15J**	**11X**	**9N**
Laborers	Laserbeam Operator	$72.33	**15J**	**11X**	**9N**
Laborers	Maintenance Person	$71.10	**15J**	**11X**	**9N**
Laborers	Manhole Builder-Mudman	$72.33	**15J**	**11X**	**9N**
Laborers	Material Yard Person	$71.10	**15J**	**11X**	**9N**
Laborers	Mold Abatement Worker	$71.10	**15J**	**11X**	**9N**
Laborers	Motorman-Dinky Locomotive	$75.05	**15J**	**11X**	**9N**
Laborers	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	$75.00	**15J**	**11X**	**9N**
Laborers	Pavement Breaker	$72.33	**15J**	**11X**	**9N**

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Laborers	Pilot Car	$60.82	**15J**	**11X**	**9N**
Laborers	Pipe Layer (Lead)	$75.00	**15J**	**11X**	**9N**
Laborers	Pipe Layer/Tailor	$72.33	**15J**	**11X**	**9N**
Laborers	Pipe Pot Tender	$72.33	**15J**	**11X**	**9N**
Laborers	Pipe Reliner	$72.33	**15J**	**11X**	**9N**
Laborers	Pipe Wrapper	$72.33	**15J**	**11X**	**9N**
Laborers	Pot Tender	$71.10	**15J**	**11X**	**9N**
Laborers	Powderman	$73.18	**15J**	**11X**	**9N**
Laborers	Powderman's Helper	$71.10	**15J**	**11X**	**9N**
Laborers	Power Jacks	$72.33	**15J**	**11X**	**9N**
Laborers	Power Washer	$71.10	**15J**	**11X**	**9N**
Laborers	Railroad Spike Puller - Power	$72.33	**15J**	**11X**	**9N**
Laborers	Raker - Asphalt	$75.00	**15J**	**11X**	**9N**
Laborers	Re-timberman	$73.18	**15J**	**11X**	**9N**
Laborers	Remote Equipment Operator	$72.33	**15J**	**11X**	**9N**
Laborers	Rigger/Signal Person	$72.33	**15J**	**11X**	**9N**

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Laborers	Rip Rap Person	$71.10	**15J**	**11X**	**9N**
Laborers	Rivet Buster	$72.33	**15J**	**11X**	**9N**
Laborers	Rodder	$73.18	**15J**	**11X**	**9N**
Laborers	Scaffold Erector	$71.10	**15J**	**11X**	**9N**
Laborers	Scale Person	$71.10	**15J**	**11X**	**9N**
Laborers	Sloper (Over 20")	$72.33	**15J**	**11X**	**9N**
Laborers	Sloper Sprayer	$71.10	**15J**	**11X**	**9N**
Laborers	Spreader (Concrete)	$73.18	**15J**	**11X**	**9N**
Laborers	Stake Hopper	$71.10	**15J**	**11X**	**9N**
Laborers	Stock Piler	$71.10	**15J**	**11X**	**9N**
Laborers	Swinging Stage/Boatswain Chair	$60.82	**15J**	**11X**	**9N**
Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	$72.33	**15J**	**11X**	**9N**
Laborers	Tamper (Multiple & Self-propelled)	$72.33	**15J**	**11X**	**9N**
Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	$72.33	**15J**	**11X**	**9N**
Laborers	Toolroom Person (at Jobsite)	$71.10	**15J**	**11X**	**9N**

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Laborers	Topper	$71.10	**15J**	**11X**	**9N**
Laborers	Track Laborer	$71.10	**15J**	**11X**	**9N**
Laborers	Track Liner (Power)	$72.33	**15J**	**11X**	**9N**
Laborers	Traffic Control Laborer	$64.78	**15J**	**11X**	**9P**
Laborers	Traffic Control Supervisor	$68.42	**15J**	**11P**	**9C**
Laborers	Traffic Control Supervisor	$68.42	**15J**	**11X**	**9P**
Laborers	Truck Mounted Attenuator	$64.78	**15J**	**11X**	**9P**
Laborers	Truck Spotter	$71.10	**15J**	**11X**	**9N**
Laborers	Tugger Operator	$72.33	**15J**	**11X**	**9N**
Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	$254.08	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	$259.24	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	$263.01	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	$268.85	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00	$271.02	**15J**	**11X**	**9Q**

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	psi				
Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	$276.25	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	$278.20	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	$280.25	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	$282.30	**15J**	**11X**	**9Q**
Laborers	Tunnel Work-Guage and Lock Tender	$75.05	**15J**	**11X**	**9N**
Laborers	Tunnel Work-Miner	$75.05	**15J**	**11X**	**9N**
Laborers	Vibrator	$73.18	**15J**	**11X**	**9N**
Laborers	Vinyl Seamer	$71.10	**15J**	**11X**	**9N**
Laborers	Watchman	$55.62	**15J**	**11X**	**9N**
Laborers	Welder	$72.33	**15J**	**11X**	**9N**
Laborers	Well Point Laborer	$72.33	**15J**	**11X**	**9N**
Laborers	Window Washer/Cleaner	$55.62	**15J**	**11X**	**9N**

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Laborers - Underground Sewer & Water	General Laborer & Topman	$71.10	**15J**	**11X**	**9N**
Laborers - Underground Sewer & Water	Pipe Layer	$72.33	**15J**	**11X**	**9N**
Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	$55.62	**15J**	**11X**	**9N**
Landscape Construction	Landscape Operator	$96.28	**15J**	**11G**	**8X**
Landscape Maintenance	Groundskeeper	$17.87		**1**	
Lathers	Journey Level	$84.77	**15O**	**11S**	
Marble Setters	Journey Level	$82.00	**7E**	**1N**	
Metal Fabrication (In Shop)	Fitter/Certified Welder	$42.17	**15I**	**11E**	
Metal Fabrication (In Shop)	General Laborer	$30.07	**15I**	**11E**	
Metal Fabrication (In Shop)	Mechanic	$43.63	**15I**	**11E**	
Metal Fabrication (In Shop)	Welder/Burner	$39.28	**15I**	**11E**	
Millwright	Journey Level	$88.94	**5A**	**1B**	
Modular Buildings	Cabinet Assembly	$17.13		**1**	
Modular Buildings	Electrician	$17.13		**1**	
Modular Buildings	Equipment Maintenance	$17.13		**1**	

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Modular Buildings	Plumber	$17.13		1	
Modular Buildings	Production Worker	$17.13		1	
Modular Buildings	Tool Maintenance	$17.13		1	
Modular Buildings	Utility Person	$17.13		1	
Modular Buildings	Welder	$17.13		1	
Painters	Journey Level	$58.84	6Z	11J	
Pile Driver	Crew Tender	$80.50	15J	11U	9L
Pile Driver	Journey Level	$89.43	15J	11U	
Plasterers	Journey Level	$81.34	7Q	1R	
Plasterers	Nozzleman	$85.44	7Q	1R	
Playground & Park Equipment Installers	Journey Level	$17.13		1	
Plumbers & Pipefitters	Journey Level	$113.59	6Z	1G	
Power Equipment Operators	Asphalt Plant Operators	$97.88	15J	11G	8X
Power Equipment Operators	Assistant Engineer	$92.02	15J	11G	8X
Power Equipment Operators	Barrier Machine (zipper)	$96.99	15J	11G	8X

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Power Equipment Operators	Batch Plant Operator: concrete	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Boat Operator	$96.51	**7A**	**11H**	**8X**
Power Equipment Operators	Bobcat	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Brokk - Remote Demolition Equipment	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Brooms	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Bump Cutter	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Cableways	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Chipper	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Compressor	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Concrete Finish Machine - Laser Screed	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Concrete Pump: Truck Mount With Boom	$97.88	**15J**	**11G**	**8X**

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	Attachment Over 42 M				
Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Conveyors	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Cranes Friction: 200 tons and over	$99.42	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes, A-frame: 10 tons and under	$90.77	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	$97.46	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 20 tons through 44 tons with attachments	$95.64	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	$98.47	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 300 tons and over or 300' of boom including jib with attachments	$99.42	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	$96.51	**7A**	**11H**	**8X**

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Power Equipment Operators	Cranes: Friction cranes through 199 tons	$98.47	**7A**	**11H**	**8X**
Power Equipment Operators	Cranes: through 19 tons with attachments, a-frame over 10 tons	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators	Crusher	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Deck Engineer/Deck Winches (power)	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Derricks, On Building Work	$96.51	**7A**	**11H**	**8X**
Power Equipment Operators	Dozers D-9 & Under	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Drilling Machine	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators	Elevator and man-lift: permanent and shaft type	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Forklift: 3000 lbs and over with attachments	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Forklifts: under 3000 lbs. with attachments	$92.02	**15J**	**11G**	**8X**

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Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Gradechecker/Stakeman	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Guardrail Punch	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Horizontal/Directional Drill Locator	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Horizontal/Directional Drill Operator	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators	Hydralifts/boom trucks: 10 tons and under	$90.77	**7A**	**11H**	**8X**
Power Equipment Operators	Leverman	$99.88	**15J**	**11G**	**8X**

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Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Loader: Overhead 8 yards and over	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators	Loaders, Overhead Under 6 Yards	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Loaders, Plant Feed	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Loaders: Elevating Type Belt	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Locomotives, All	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Material Transfer Device	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Mechanics: All (Leadmen - $0.50 per hour over mechanic)	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators	Motor Patrol Graders	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$92.02	**15J**	**11G**	**8X**

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Power Equipment Operators	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Overhead, bridge type Crane: 20 tons through 44 tons	$95.64	**7A**	**11H**	**8X**
Power Equipment Operators	Overhead, bridge type: 100 tons and over	$97.46	**7A**	**11H**	**8X**
Power Equipment Operators	Overhead, bridge type: 45 tons through 99 tons	$96.51	**7A**	**11H**	**8X**
Power Equipment Operators	Pavement Breaker	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Pile Driver (other Than Crane Mount)	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Plant Oiler - Asphalt, Crusher	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Posthole Digger, Mechanical	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Power Plant	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Pumps - Water	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Quad 9, Hd 41, D10 And Over	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Quick tower: no cab, under 100 feet in height base to	$94.93	**7A**	**11H**	**8X**

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	boom				
Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Rigger and Bellman	$90.77	**7A**	**11H**	**8X**
Power Equipment Operators	Rigger/Signal Person, Bellman(Certified)	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators	Rollagon	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Roller, Other Than Plant Mix	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Roto-mill, Roto-grinder	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Saws - Concrete	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Scrapers - Concrete & Carry All	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Service Engineers: Equipment	$96.28	**15J**	**11G**	**8X**

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Power Equipment Operators	Shotcrete/Gunite Equipment	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$99.88	**15J**	**11G**	**8X**
Power Equipment Operators	Slipform Pavers	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Spreader, Topsider & Screedman	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Subgrader Trimmer	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Tower Bucket Elevators	$96.28	**15J**	**11G**	**8X**

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Power Equipment Operators	Tower Crane: over 175' through 250' in height, base to boom	$98.47	**7A**	**11H**	**8X**
Power Equipment Operators	Tower crane: up to 175' in height base to boom	$97.46	**7A**	**11H**	**8X**
Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	$99.42	**7A**	**11H**	**8X**
Power Equipment Operators	Transporters, All Track Or Truck Type	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Trenching Machines	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators	Truck Crane Oiler/Driver: 100 tons and over	$95.64	**7A**	**11H**	**8X**
Power Equipment Operators	Truck crane oiler/driver: under 100 tons	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators	Truck Mount Portable Conveyor	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Vac Truck (Vactor Guzzler, Hydro Excavator)	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators	Welder	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators	Wheel Tractors, Farmall Type	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators	Yo Yo Pay Dozer	$96.99	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Asphalt Plant Operators	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Assistant Engineer	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Barrier Machine (zipper)	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Batch Plant Operator, Concrete	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Boat Operator	$96.51	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Bobcat	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Brokk - Remote Demolition Equipment	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Brooms	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Bump Cutter	$96.99	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Cableways	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Chipper	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Compressor	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Concrete Finish Machine - Laser Screed	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Conveyors	$96.28	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Cranes Friction: 200 tons and over	$99.42	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes, A-frame: 10 tons and under	$90.77	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	$97.46	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 20 tons through 44 tons with attachments	$95.64	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	$98.47	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 300 tons and over or 300' of boom including jib with attachments	$99.42	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	$96.51	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Cranes: Friction cranes through 199 tons	$98.47	**7A**	**11H**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Cranes: through 19 tons with attachments, a-frame over 10 tons	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Crusher	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Deck Engineer/Deck Winches (power)	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Derricks, On Building Work	$96.51	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Dozers D-9 & Under	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Drilling Machine	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Elevator and man-lift: permanent and shaft type	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$96.99	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Forklift: 3000 lbs and over with attachments	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Forklifts: under 3000 lbs. with attachments	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Gradechecker/Stakeman	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Guardrail Punch	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Locator	$96.28	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Operator	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom trucks: 10 tons and under	$90.77	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom trucks: over 10 tons	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Leverman	$99.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loader: Overhead 8 yards and over	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loaders, Overhead Under 6 Yards	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loaders, Plant Feed	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Loaders: Elevating Type Belt	$96.28	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Locomotives, All	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Material Transfer Device	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Mechanics: All (Leadmen - $0.50 per hour over mechanic)	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Motor Patrol Graders	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type Crane: 20 tons through 44 tons	$95.64	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type: 100 tons and over	$97.46	**7A**	**11H**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type: 45 tons through 99 tons	$96.51	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Pavement Breaker	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Pile Driver (other Than Crane Mount)	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Posthole Digger, Mechanical	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Power Plant	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Pumps - Water	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Quick tower: no cab, under 100 feet in height base to boom	$94.93	**7A**	**11H**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Rigger and Bellman	$90.77	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Rigger/Signal Person, Bellman(Certified)	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Rollagon	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Roller, Other Than Plant Mix	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Roto-mill, Roto-grinder	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Saws - Concrete	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	$96.99	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Scrapers - Concrete & Carry All	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Service Engineers: Equipment	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shotcrete/Gunite Equipment	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$98.87	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$99.88	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Slipform Pavers	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Spreader, Topsider & Screedman	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Subgrader Trimmer	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower Bucket Elevators	$96.28	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower Crane: over 175' through 250' in height, base to boom	$98.47	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower crane: up to 175' in height base to boom	$97.46	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	$99.42	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Transporters, All Track Or Truck Type	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Trenching Machines	$96.28	**15J**	**11G**	**8X**

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Power Equipment Operators- Underground Sewer & Water	Truck Crane Oiler/Driver: 100 tons and over	$95.64	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Truck crane oiler/driver: under 100 tons	$94.93	**7A**	**11H**	**8X**
Power Equipment Operators- Underground Sewer & Water	Truck Mount Portable Conveyor	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Vac Truck (Vactor Guzzler, Hydro Excavator)	$96.99	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Welder	$97.88	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Wheel Tractors, Farmall Type	$92.02	**15J**	**11G**	**8X**
Power Equipment Operators- Underground Sewer & Water	Yo Yo Pay Dozer	$96.99	**15J**	**11G**	**8X**
Power Line Clearance Tree Trimmers	Journey Level In Charge	$69.62	**5A**	**4A**	
Power Line Clearance Tree Trimmers	Spray Person	$65.89	**5A**	**4A**	
Power Line Clearance Tree Trimmers	Tree Equipment Operator	$69.62	**5A**	**4A**	

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Power Line Clearance Tree Trimmers	Tree Trimmer	$62.19	**5A**	**4A**
Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	$45.73	**5A**	**4A**
Refrigeration & Air Conditioning Mechanics	Journey Level	$107.19	**6Z**	**1G**
Residential Brick Mason	Journey Level	$82.00	**7E**	**1N**
Residential Carpenters	Journey Level	$65.88		**1**
Residential Cement Masons	Journey Level	$46.64		**1**
Residential Drywall Applicators	Journey Level	$78.76	**15J**	**4C**
Residential Drywall Tapers	Journey Level	$84.77	**15O**	**11S**
Residential Electricians	Journey Level	$48.80		**1**
Residential Glaziers	Journey Level	$38.70		**1**
Residential Insulation Applicators	Journey Level	$70.54		**1**
Residential Laborers	Journey Level	$29.73		**1**
Residential Marble Setters	Journey Level	$27.38		**1**
Residential Painters	Journey Level	$33.77		**1**
Residential Plumbers & Pipefitters	Journey Level	$61.87		**1**

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Residential Refrigeration & Air Conditioning Mechanics	Journey Level	$107.92	**7F**	**1E**
Residential Sheet Metal Workers	Journey Level	$107.92	**7F**	**1E**
Residential Soft Floor Layers	Journey Level	$49.91	**15J**	**4C**
Residential Sprinkler Fitters (Fire Protection)	Journey Level	$63.61		**1**
Residential Stone Masons	Journey Level	$82.00	**7E**	**1N**
Residential Terrazzo Workers	Journey Level	$73.71	**7E**	**1N**
Residential Terrazzo/Tile Finishers	Journey Level	$24.39		**1**
Residential Tile Setters	Journey Level	$21.04		**1**
Roofers	Journey Level	$70.70	**5A**	**3H**
Roofers	Using Irritable Bituminous Materials	$74.15	**5A**	**3H**
Sheet Metal Workers	Journey Level (Field or Shop)	$107.92	**7F**	**1E**
Shipbuilding & Ship Repair	New Construction Boilermaker	$63.08	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Carpenter	$51.85	**7X**	**4J**

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Shipbuilding & Ship Repair	New Construction Crane Operator	$44.29	**7V**	**1**
Shipbuilding & Ship Repair	New Construction Electrician	$63.26	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	$100.83	**15H**	**11C**
Shipbuilding & Ship Repair	New Construction Laborer	$62.85	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Machinist	$63.08	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Operating Engineer	$44.29	**7V**	**1**
Shipbuilding & Ship Repair	New Construction Painter	$62.94	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Pipefitter	$64.14	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Rigger	$63.08	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Sheet Metal	$63.02	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Shipwright	$51.85	**7X**	**4J**
Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	$44.29	**7V**	**1**
Shipbuilding & Ship Repair	New Construction Welder / Burner	$63.08	**7X**	**4J**

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Shipbuilding & Ship Repair	Ship Repair Boilermaker	$63.08	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Carpenter	$51.85	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Crane Operator	$45.06	**7Y**	**4K**
Shipbuilding & Ship Repair	Ship Repair Electrician	$63.26	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	$100.83	**15H**	**11C**
Shipbuilding & Ship Repair	Ship Repair Laborer	$62.85	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Machinist	$63.08	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Operating Engineer	$45.06	**7Y**	**4K**
Shipbuilding & Ship Repair	Ship Repair Painter	$62.94	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Pipefitter	$64.14	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Rigger	$63.08	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Sheet Metal	$63.02	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Shipwright	$51.85	**7X**	**4J**
Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	$45.06	**7Y**	**4K**
Sign Makers & Installers (Electrical)	Journey Level	$66.86	**0**	**1**

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Sign Makers & Installers (Non-Electrical)	Journey Level	$42.58	**0**	**1**	
Soft Floor Layers	Journey Level	$70.17	**15J**	**4C**	
Solar Controls For Windows	Journey Level	$17.13		**1**	
Sprinkler Fitters (Fire Protection)	Journey Level	$107.94	**5C**	**1X**	
Stage Rigging Mechanics (Non Structural)	Journey Level	$17.13		**1**	
Stone Masons	Journey Level	$82.00	**7E**	**1N**	
Street And Parking Lot Sweeper Workers	Journey Level	$19.09		**1**	
Surveyors	Assistant Construction Site Surveyor	$94.93	**7A**	**11H**	**8X**
Surveyors	Chainman	$90.77	**7A**	**11H**	**8X**
Surveyors	Construction Site Surveyor	$96.51	**7A**	**11H**	**8X**
Surveyors	Drone Operator (when used in conjunction with survey work only)	$90.77	**7A**	**11H**	**8X**
Surveyors	Ground Penetrating Radar Operator	$90.77	**7A**	**11H**	**8X**
Telecommunication Technicians	Journey Level	$75.47	**7E**	**1E**	

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Telephone Line Construction - Outside	Cable Splicer	$42.62	**5A**	**2B**
Telephone Line Construction - Outside	Hole Digger/Ground Person	$27.97	**5A**	**2B**
Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	$35.60	**5A**	**2B**
Telephone Line Construction - Outside	Telephone Lineperson	$40.28	**5A**	**2B**
Terrazzo Workers	Journey Level	$73.71	**7E**	**1N**
Tile Setters	Journey Level	$71.71	**7E**	**1N**
Tile, Marble & Terrazzo Finishers	Finisher	$62.54	**7E**	**1N**
Traffic Control Stripers	All cleanup required in connection with traffic control stripers work (Group 1)	$98.49	**15L**	**1K**
Traffic Control Stripers	Handling, painting and installing of all car stops, stop signs and any other type sign (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Installation of guard rail and posts and similar protective devices (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Installation of parking gates, ticket spitters and	$62.69	**15L**	**1K**

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	other mechanical and automatic control devices (Group 2)			
Traffic Control Stripers	Installation of plastic metal or composition button, or lines used instead of paint (Group 1)	$98.49	**15L**	**1K**
Traffic Control Stripers	Line removal; chemical sand and hydro-blast, paint and button (Group 1)	$98.49	**15L**	**1K**
Traffic Control Stripers	Manufacturing and installation of all car stops and control devices and similar traffic regulators (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Manufacturing, painting, stenciling, servicing, repairing, placing and removal of traffic safety and control devices/barricades (Group 2)	$62.69	**15L**	**1K**
Traffic Control Stripers	Painting and installing lines, arrows, bumpers, curbs, etc., on parking lots, air fields, highways, game courts (Group 1)	$98.49	**15L**	**1K**
Traffic Control Stripers	Preparation and maintenance of all	$98.49	**15L**	**1K**

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	surfaces (Group 1)				
Traffic Control Stripers	Seal coating, slurry coating and other surface protection (Group 2)	$62.69	**15L**	**1K**	
Truck Drivers	Asphalt Mix Over 16 Yards	$86.95	**15J**	**11M**	**8L**
Truck Drivers	Asphalt Mix To 16 Yards	$86.11	**15J**	**11M**	**8L**
Truck Drivers	Dump Truck	$86.11	**15J**	**11M**	**8L**
Truck Drivers	Dump Truck & Trailer	$86.95	**15J**	**11M**	**8L**
Truck Drivers	Other Trucks	$86.95	**15J**	**11M**	**8L**
Truck Drivers - Ready Mix	Transit Mix	$86.95	**15J**	**11M**	**8L**
Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	$17.71		**1**	
Well Drillers & Irrigation Pump Installers	Oiler	$17.13		**1**	
Well Drillers & Irrigation Pump Installers	Well Driller	$18.00		**1**	

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Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.

J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.

K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

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Overtime Codes Continued

1. N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.

X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.

Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.

Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

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Overtime Codes Continued

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

   F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

   M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

   R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

   U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

   H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.

   J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

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Overtime Codes Continued

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage

C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:
On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours

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worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.

S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus $2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).

U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

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Overtime Codes Continued

4. X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

11. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

D. All hours worked on Saturdays and holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

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Overtime Codes Continued

11. F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.

H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.

J. All hours worked on holidays shall be paid at double the hourly rate of wage.

K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.

L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar ($2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

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Overtime Codes Continued

11. M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.

Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars ($2.00) per hour.

N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.

Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.

O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

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Overtime Codes Continued

11. P. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Q. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 35% over the hourly rate of wage. Work performed on Sundays shall be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.

R On Monday through Saturday hours worked outside 6:00 am and 7:00 pm, and all hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

When a holiday falls on a Saturday, the Friday before shall be the observed holiday. When a holiday falls on a Sunday, the following Monday shall be the observed holiday.

S. The first ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions, or other conditions beyond the control of the Employer, then Saturday may be worked at the straight time rate, for the first eight (8) hours, or the first ten (10) hours when a four day ten hour workweek has been established.

All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

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Overtime Codes Continued

11. T. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

U. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.

All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

If, due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a Special Shift may be worked, Monday through Friday, at the straight-time rate. The starting time of work for the Special Shift will be arranged to fit such conditions of work. Such Special Shift shall consist of eight (8) hours of work for eight (8) hours of pay or ten (10) hours of work for ten(10) hours of pay on a four-ten workday schedule.

V. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

W. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 6 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and Holidays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

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X. 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.

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.

Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Special Shifts: 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 a special shift may be worked at the straight time rate. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten- hour shifts.

Y. **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.

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.

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 due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a special shift may be worked at the straight time rate. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay.

Special Shift Premium for Prevailed work in Washington is basic hourly rate plus $2.00 per hour. When conditions

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beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that more than four (4) hours of the special shift can only be performed outside the normal 6 a.m. – 6 p.m. shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an Employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. Shift premium will only apply on the second shift of a two-shift operation when the language above is met.

Z. **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.

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.

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.

SPECIAL SHIFT: A special shift may be established at any time, at the option of the Employer, on any job or project.

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).

C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).

H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).

I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).

L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).

N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).

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P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.

Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).

S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

Holiday Codes Continued

6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).

H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).

T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

Holiday Codes Continued

7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

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D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

7. G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

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Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.

Holiday Codes Continued

7. X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.

Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be

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observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

Holiday Codes Continued

15. N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

O. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, the day before Christmas day, and Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

P. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Note Codes

8. D. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: $1.00, Levels C & D: $0.50.

N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

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S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: $2.00, Class B Suit: $1.50, And Class C Suit: $1.00. Workers performing underground work receive an additional $0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional $0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional $0.50 per hour.

Note Codes Continued

8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.

X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50. Special Shift Premium: Basic hourly rate plus $2.00 per hour.

When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay

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Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate..

Z. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Note Codes Continued

9. A. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130’ to 199’ – $0.50 per hour over their classification rate.
(B) – 200’ to 299’ – $0.80 per hour over their classification rate.
(C) – 300’ and over – $1.00 per hour over their classification rate.

B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control

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Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

Note Codes Continued

9. F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

I. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

Employees may be required to perform any combination of work within the Diving team/crew, (with the exception of dive Supervisor) provided they are paid at the highest rate at which he/she has worked for the shift.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

M. Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $1.50 per hour above their classification rate.

Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50.

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Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

N. 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.

When Laborers are required to work in or with live sanitary sewage, they will receive a premium payoff forty ($40.00) dollars per day above their regular daily classification pay. Further, the employer will pay all necessary inoculations to prevent disease if requested by the employee and as recommended by the Department of Labor and Industries (Industrial Safety and Health Division).

O. 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.

Any laborer working in Live Sewers shall receive forty dollars ($40.00) per day in addition to regular pay.

P. 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.

When Laborers are required to work in or with live sanitary sewage, they will receive a premium payoff forty ($40.00) dollars per day above their regular daily classification pay. Further, the employer will pay all necessary inoculations to prevent disease if requested by the employee and as recommended by the Department of Labor and Industries (Industrial Safety and Health Division)

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.

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.

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When Laborers are required to work in or with live sanitary sewage, they will receive a premium payoff forty ($40.00) dollars per day above their regular daily classification pay. Further, the employer will pay all necessary inoculations to prevent disease if requested by the employee and as recommended by the Department of Labor and Industries (Industrial Safety and Health Division).

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APPENDIX B

PREAPPROVED PLANS

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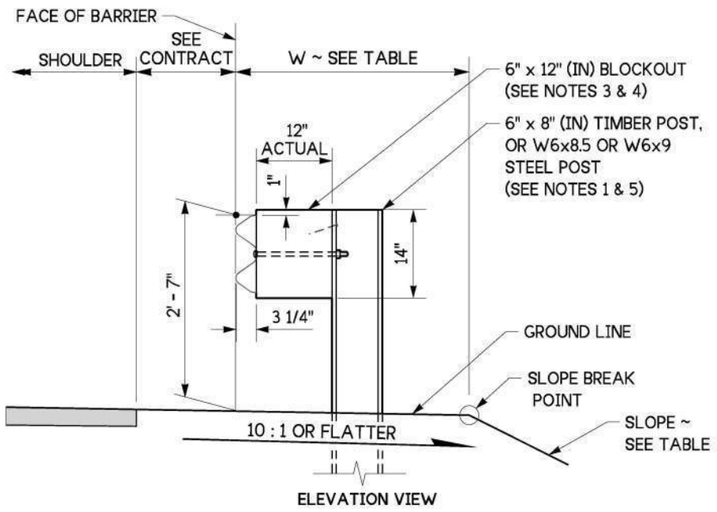
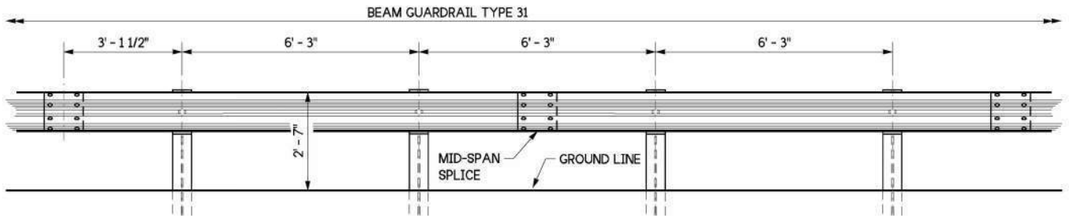
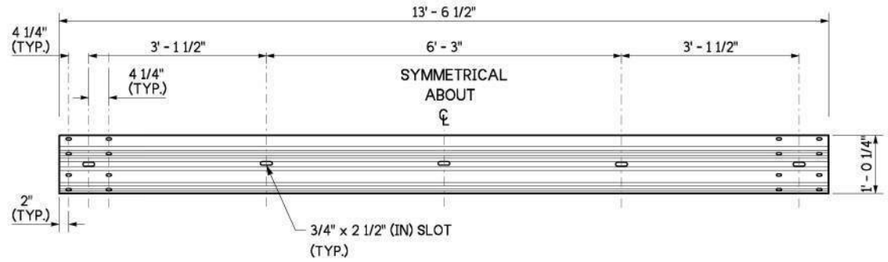


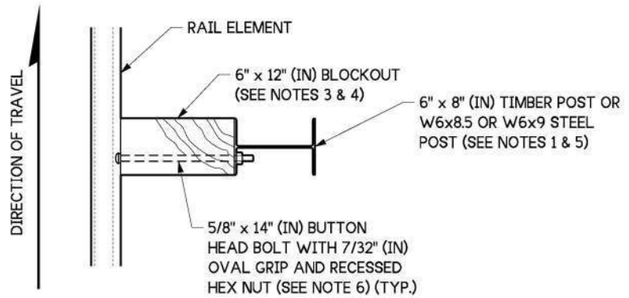
TYPICAL ELEVATION ~ WITHOUT CURB



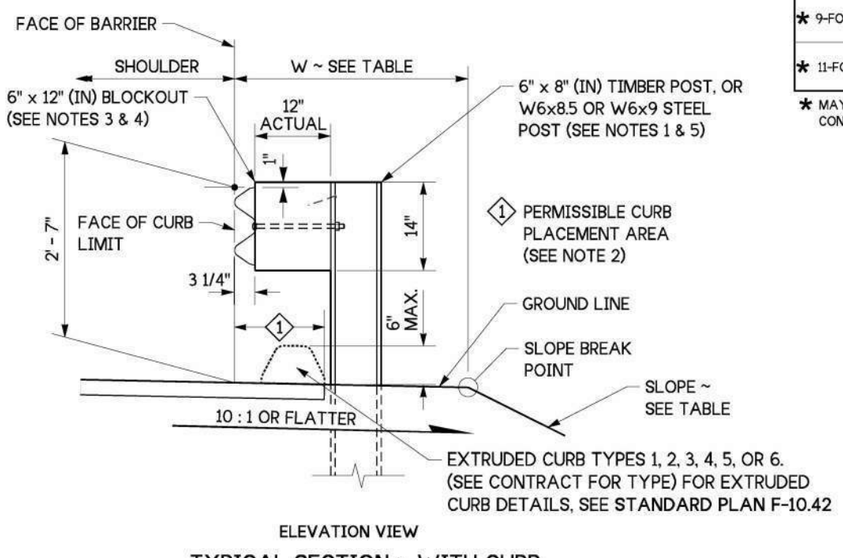
TYPICAL ELEVATION



TYPICAL RAIL ELEMENT



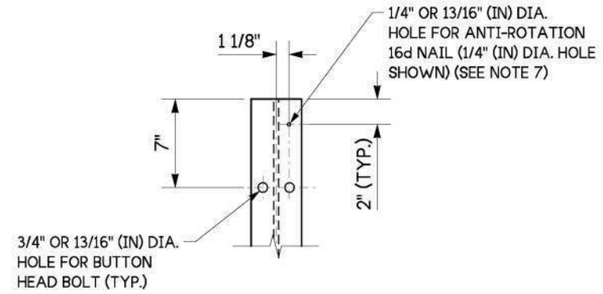
PLAN VIEW



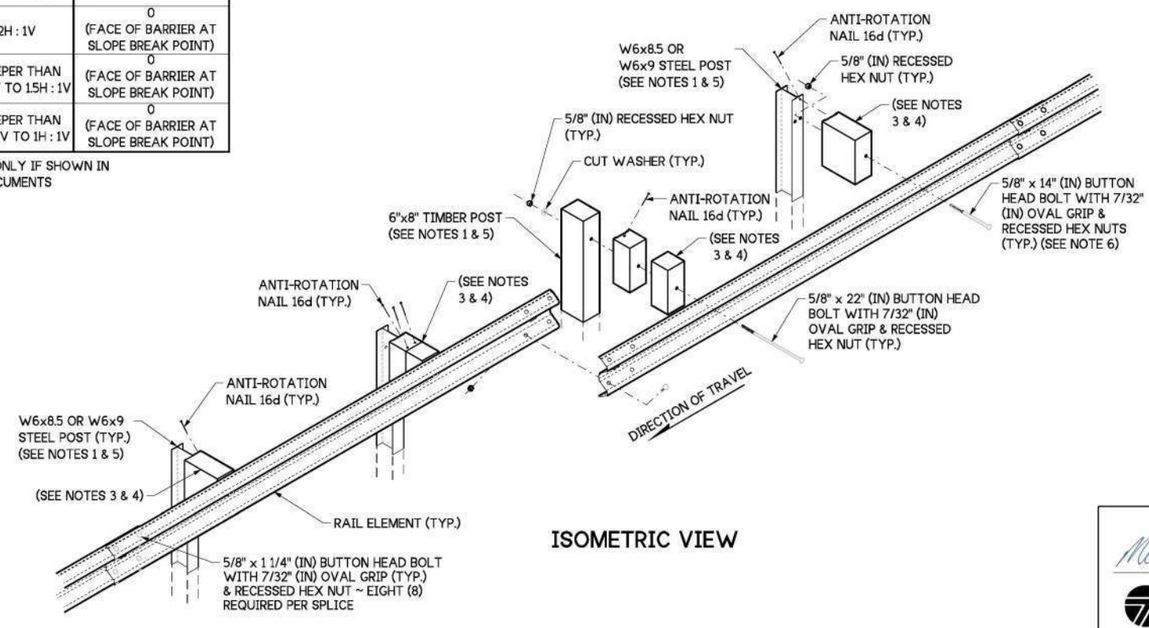
TYPICAL SECTION ~ WITH CURB

SLOPE/EMBANKMENT TABLE FOR 6', 8', 9', AND 11' LONG POSTS		
POST LENGTH	SLOPE	W (FT)
6-FOOT	2H : 1V OR FLATTER	2.5 MIN.
6-FOOT	1H : 1V OR FLATTER	4.0 MIN.
8-FOOT	STEEPER THAN 2H : 1V TO 1H : 1V	2.5 MIN.
8-FOOT	2H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)
* 9-FOOT	STEEPER THAN 2H : 1V TO 1.5H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)
* 11-FOOT	STEEPER THAN 1.5H : 1V TO 1H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)

* MAY BE USED ONLY IF SHOWN IN CONTRACT DOCUMENTS



STEEL POST



ISOMETRIC VIEW

NOTES

1. Refer to **Standard Plan C-1b** for additional details not shown on this plan.
2. Extend shoulder pavement to provide a base for the extruded curb. See Contract Plans for exceptions to distances shown.
3. Use a single block or combination of blocks (no more than two (2) to achieve the actual 12" (in) offset. See **Standard Specification Section 9-16.3(2)**. Wood blocks shall be secured to the posts with anti-rotation nails. If combination blocks are used, the adjacent blocks shall be toenailed with two 16d galvanized nails to prevent block rotation.
4. Wood blocks are shown. Blocks of an approved alternative material may be used. See **Standard Specification Section 9-16.3(2)**.
5. All posts for any standard barrier run shall be of the same type; timber or steel.
6. Attach blockouts to steel posts using bolt holes on approaching traffic side of post web.
7. Anti-rotation holes in steel posts are not required when using blocks with anti-rotation features (e.g., routered blocks).

Oct 12, 2023

BEAM GUARDRAIL TYPE 31

STANDARD PLAN C-20.10-09

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark A Dawes Oct 12, 2023

STATE DESIGN ENGINEER

Washington State Department of Transportation

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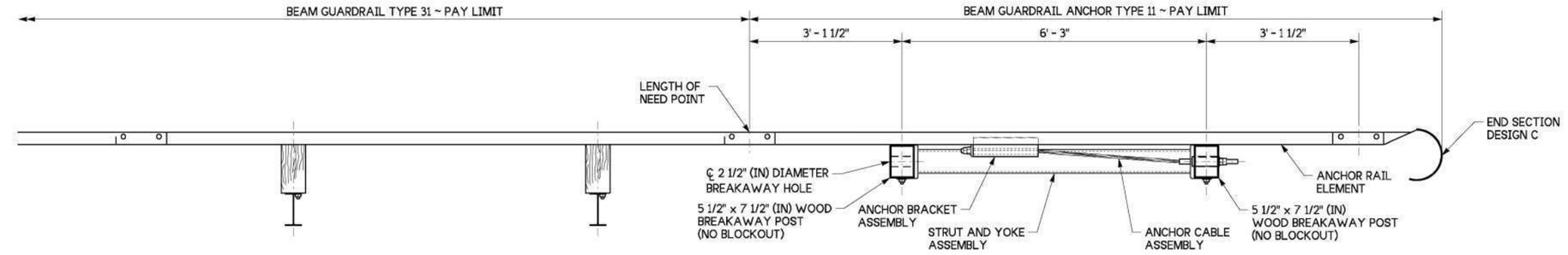
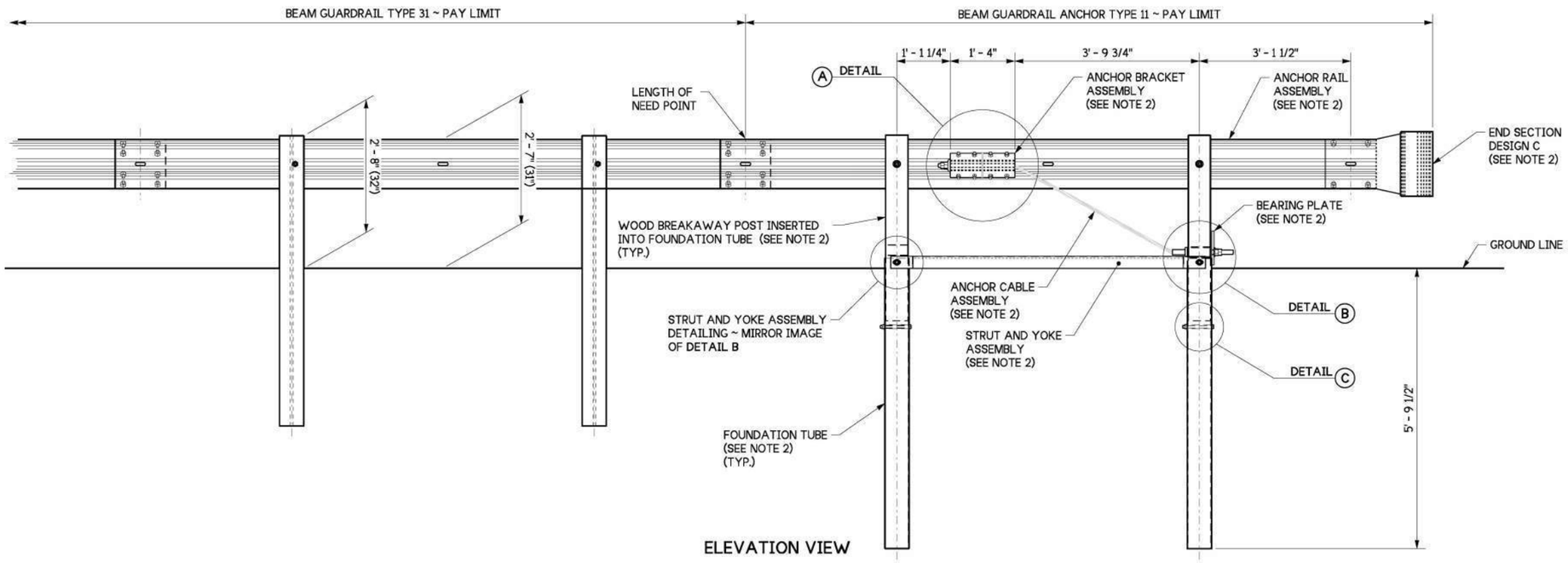
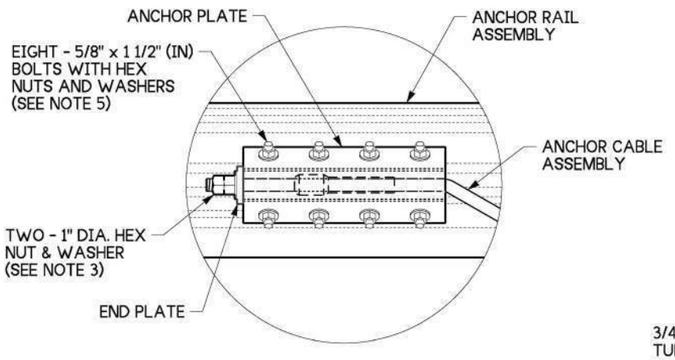


PLAN VIEW

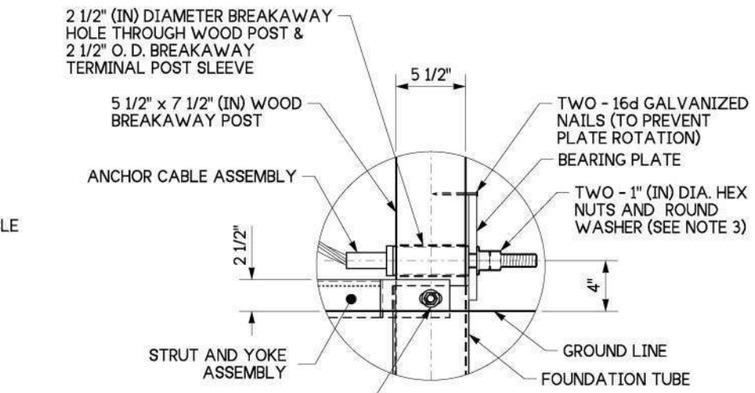


ELEVATION VIEW



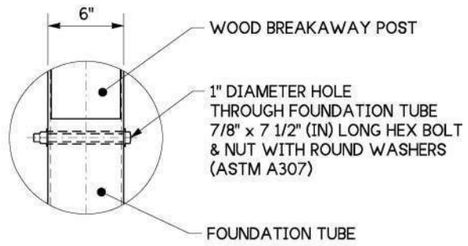
DETAIL A

ASSEMBLED ANCHOR BRACKET ASSEMBLY



DETAIL B

ANCHOR END POST ASSEMBLY



DETAIL C

NOTES

1. For typical rail element and post details not shown on this plan refer to **Standard Plans C-20.10** and **C-1b**.
2. For additional details not shown, see Sheet 2 of this Plan.
3. Fasten the Anchor Cable using two 1" (in) nuts and washer, at both ends of cable. Outside nut shall be torqued against inside nut a minimum of 100 ft.-lbs.
4. It is permissable to fabricate the anchor plate from 1/4" (in) thick plates welded to equal strength and dimensions as shown.
5. Eight 5/8" x 1 1/2" (in) machine bolts with hex nut and washer. Place washer on face side of rail.
6. Galvanizing of Anchor metal components shall be in accordance with **Standard Specification Section 9-16.3(5)**.
7. See **Standard Plans C-20.14** or **C-20.18** for proper placement of Type 11 Anchors in front of fixed features.

TIMOTHY J MOECKEL
STATE OF WASHINGTON
56294
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PROFESSIONAL ENGINEER

Oct 13, 2023

BEAM GUARDRAIL TYPE 31 ~ ANCHOR TYPE 11

STANDARD PLAN C-23.70-01

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

Mark A Dawes Oct 16, 2023

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Washington State Department of Transportation

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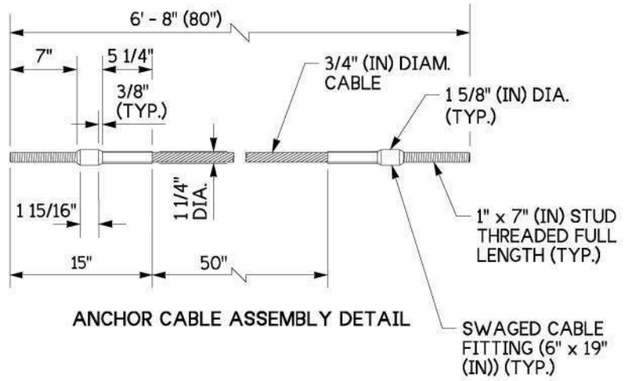
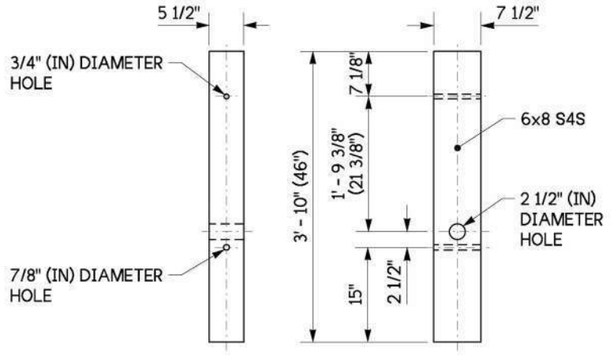
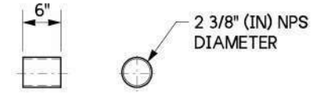


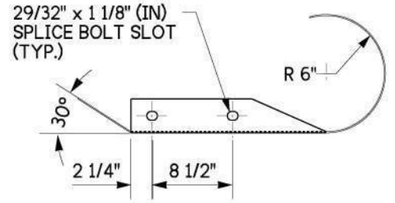
ANCHOR CABLE ASSEMBLY DETAIL

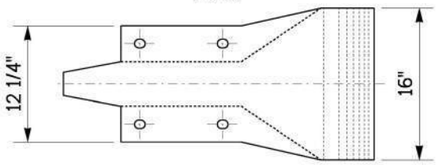


WOOD BREAKAWAY POST DETAIL

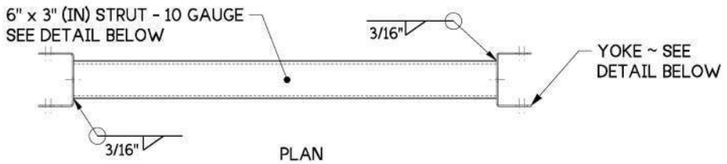


BREAKAWAY TERMINAL POST SLEEVE DETAIL
(ASTM A53 GRADE B, SCHEDULE 40)

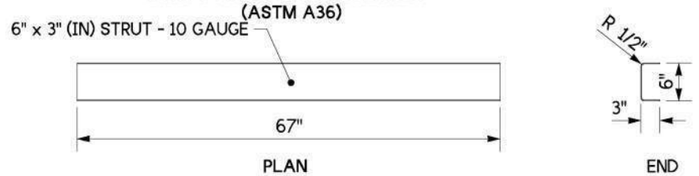




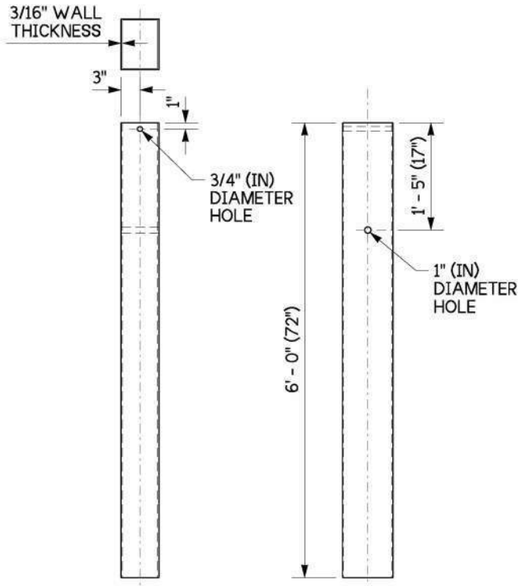
DESIGN C END SECTION



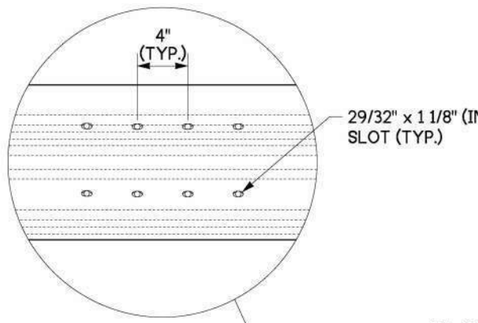
STRUT AND YOKE ASSEMBLY
(ASTM A36)

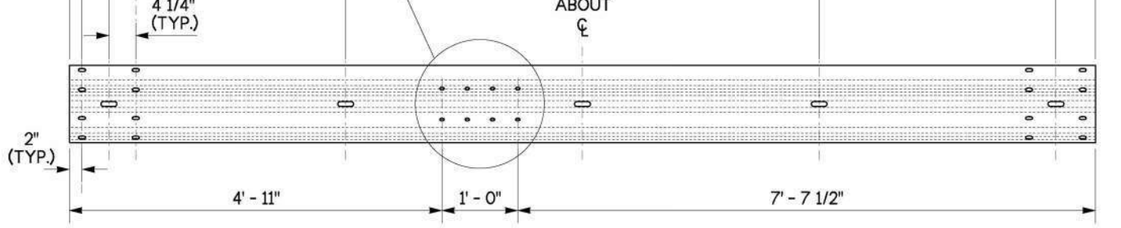


STRUT DETAIL

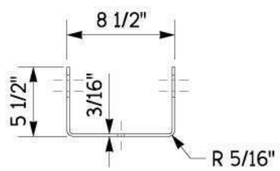


FOUNDATION TUBE DETAIL
(ASTM A500 GRADE B, STEEL)

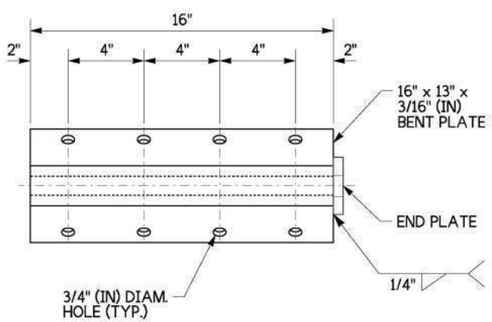




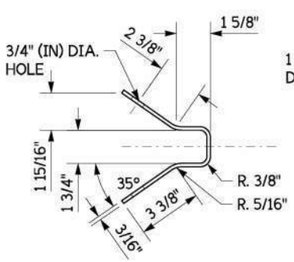
ANCHOR RAIL ELEMENT DETAIL



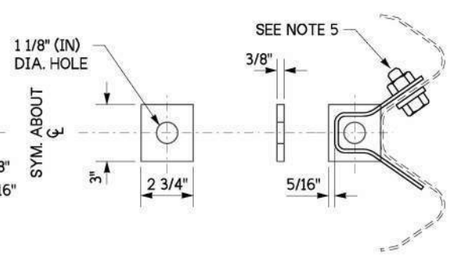
YOKE DETAIL



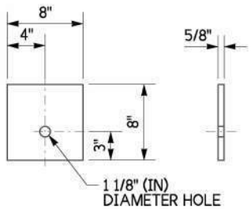
ANCHOR PLATE DETAIL
(SEE NOTE 4)
(ASTM A36)



ANCHOR BRACKET ASSEMBLY DETAIL



END PLATE DETAIL
(ASTM A36)



BEARING PLATE DETAIL
(ASTM A36)

Oct 13, 2023

BEAM GUARDRAIL TYPE 31 ~ ANCHOR TYPE 11

STANDARD PLAN C-23.70-01

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Mark A Dawes Oct 16, 2023

STATE DESIGN ENGINEER

Washington State Department of Transportation

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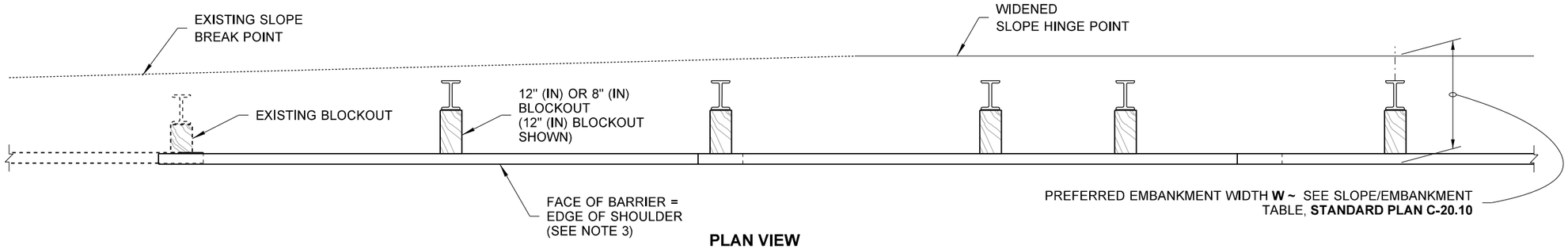
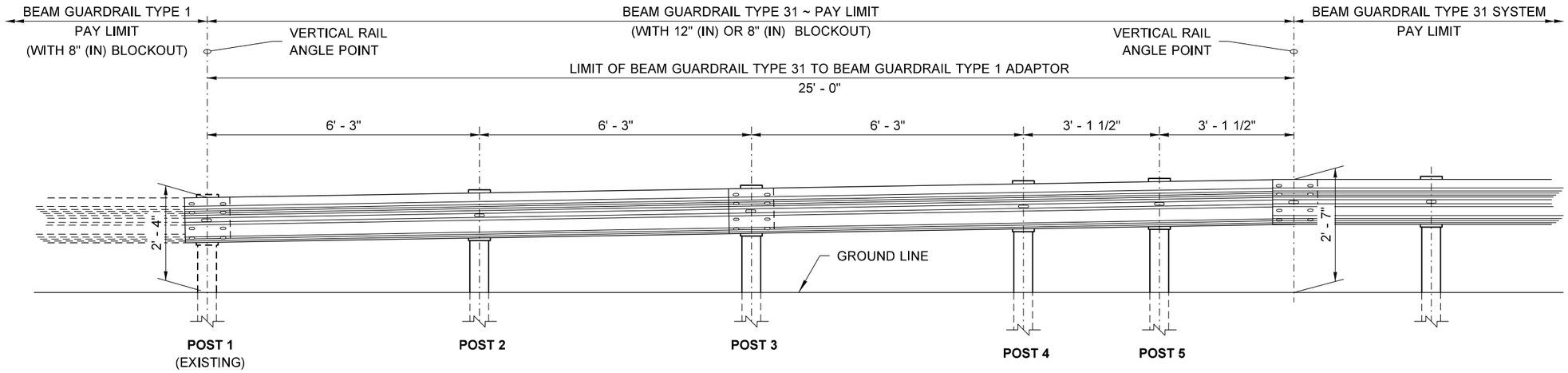
NOTES

1. Refer to **Standard Plan C-20.10** for component details for Beam Guardrail Type 31 (not shown on this plan).
2. Accommodating the wider blockout (12" (in) width) used with Type 31 guardrail will require widening the embankment.
3. Wood blockouts shown. Blockouts of alternate material may be used. See **Standard Specification, Section 9-16.3(2).**
4. All posts for any standard barrier run shall be of the same type: timber or steel.
5. **Post 1** is an existing Type 1 post. **Post 2** through **5** are new posts with 12" (in) or 8" (in) blockouts. All blockouts shall be uniform in size. The blockout size shall match the size used on the Type 31 Guardrail run or non-flared terminal.



PLAN VIEW



ELEVATION VIEW ~ PROFILE TAPER

JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED
PROFESSIONAL ENGINEER

Donahue, John
Aug 10 2019 2:11 PM

BEAM GUARDRAIL TYPE 31 TO BEAM GUARDRAIL TYPE 1 ADAPTOR
STANDARD PLAN C-25.80-05

SHEET 1 OF 1 SHEET

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Roark, Steve
Aug 12 2019 11:54 AM
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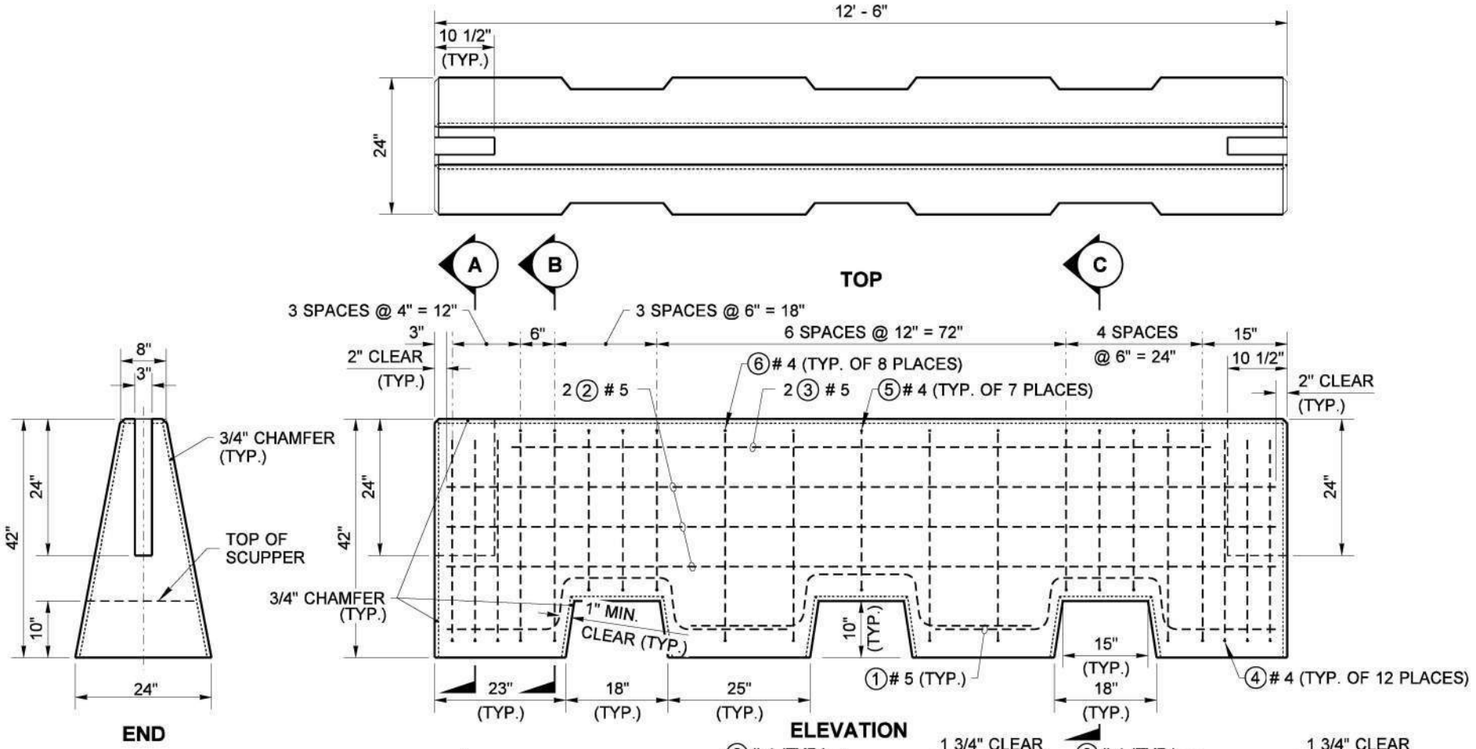
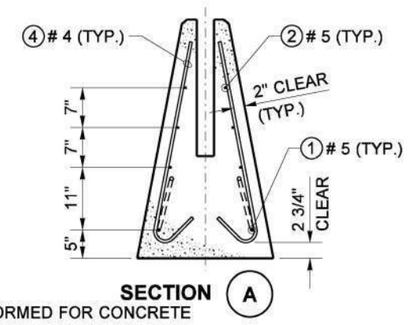
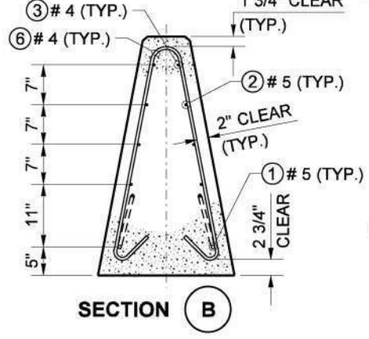
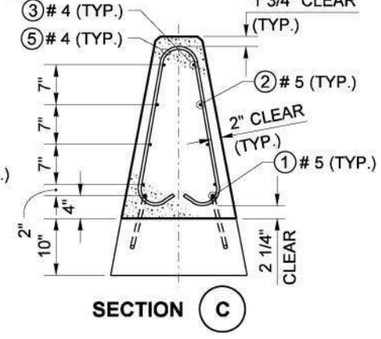
DRAWN BY: BILL BERENS



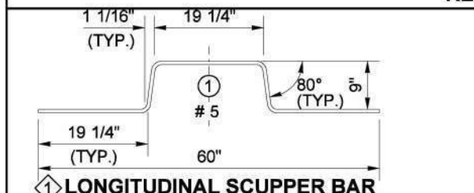




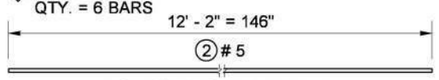


NOTE:
STEEL WELDED WIRE REINFORCEMENT DEFORMED FOR CONCRETE MAY BE SUBSTITUTED FOR REINFORCING STEEL IN ACCORDANCE WITH **STANDARD SPECIFICATION, SECTION 6-10.3**

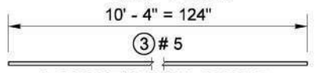
REINFORCING STEEL BENDING DIAGRAM



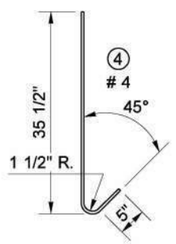
① LONGITUDINAL SCUPPER BAR
QTY. = 6 BARS



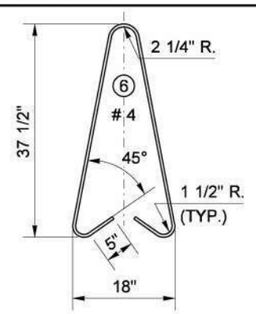
LONGITUDINAL BAR A
QTY. = 8 BARS



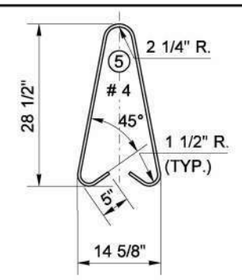
LONGITUDINAL BAR B
QTY. = 2 BARS



HOOK BAR
QTY. = 12 BARS

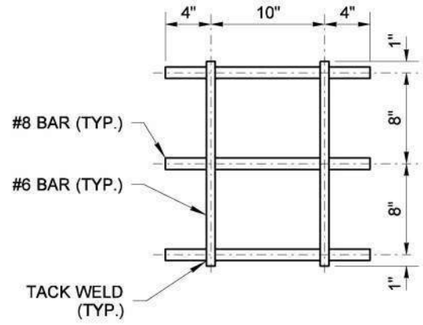


STIRRUP BAR A
QTY. = 8 BARS

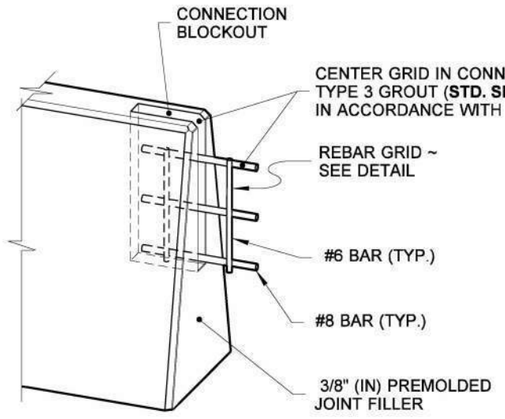


SHORT STIRRUP BAR B
QTY. = 7 BARS

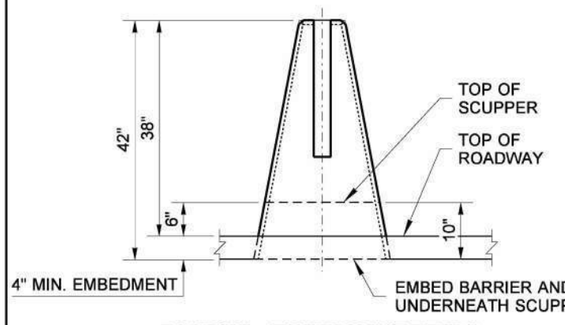
① HOT DIP GALVANIZE AFTER FABRICATION (**ASTM A767**)



REBAR GRID DETAIL



BARRIER CONNECTION DETAIL



BARRIER - EMBEDMENT DETAIL

NOTES

1. Concrete shall be class 4000.
2. Installation requirements: Embed barrier 4" (in) minimum in asphalt or concrete to form 6" (in) tall scuppers. Barrier may be embedded deeper and form shorter scuppers. Areas underneath scuppers must be filled, compacted, and graded to match adjacent asphalt or concrete pavement elevations (See contract for details). Install 3/8" (in) Premolded Joint Filler between segments. Fill the connection Blockout with grout, centering the Rebar Grid in the blockout before adding grout.

Jul 19, 2024

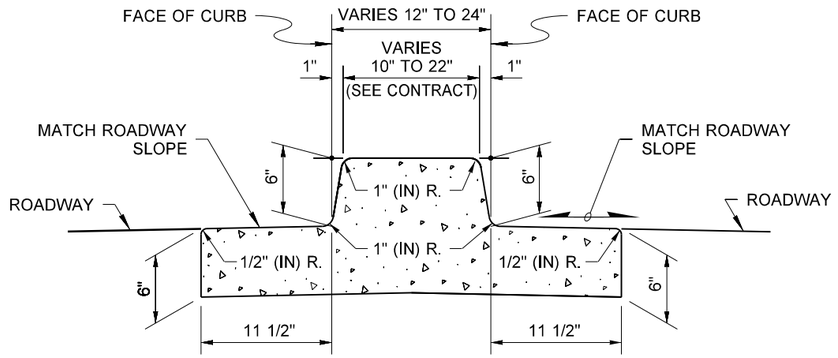
SINGLE-SLOPE CONCRETE BARRIER WITH SCUPPERS (PRECAST)

STANDARD PLAN C-70.15-01

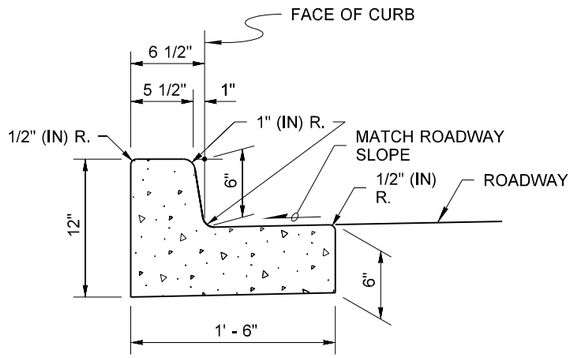
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Mark A Gaines Jul 21, 2024
STATE DESIGN ENGINEER
Washington State Department of Transportation

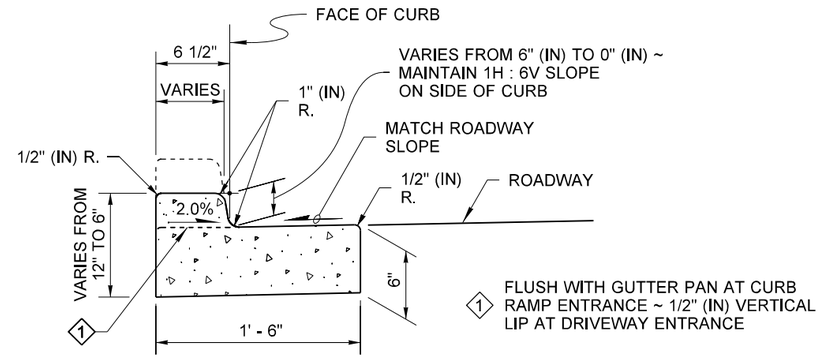
UNOFFICIAL COPY Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com



DUAL-FACED CEMENT CONCRETE TRAFFIC CURB AND GUTTER



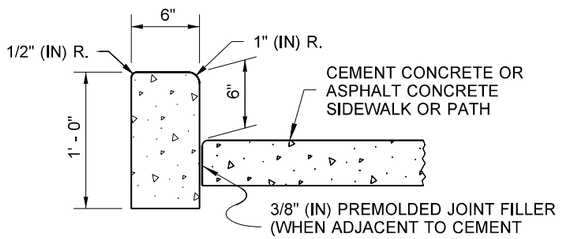
CEMENT CONCRETE TRAFFIC CURB AND GUTTER



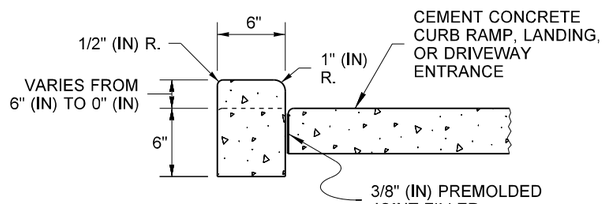
DEPRESSED CURB AND GUTTER SECTION

AT CURB RAMPS AND DRIVEWAY ENTRANCES

DRAWN BY: FERN LIDDELL



CEMENT CONCRETE PEDESTRIAN CURB

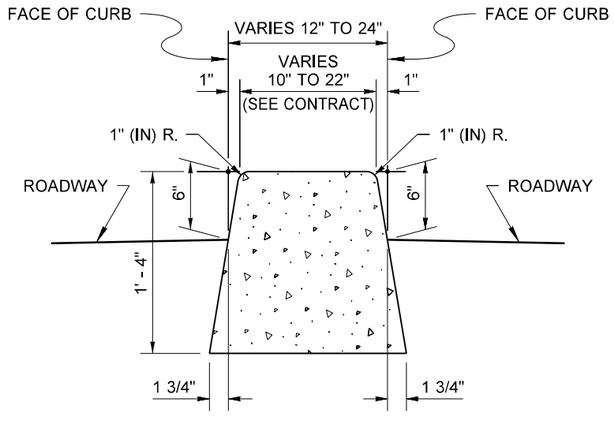


CEMENT CONCRETE PEDESTRIAN CURB

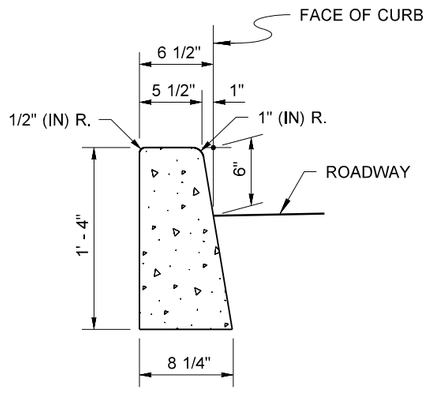
AT CURB RAMPS, LANDINGS, AND DRIVEWAY ENTRANCES

NOTE

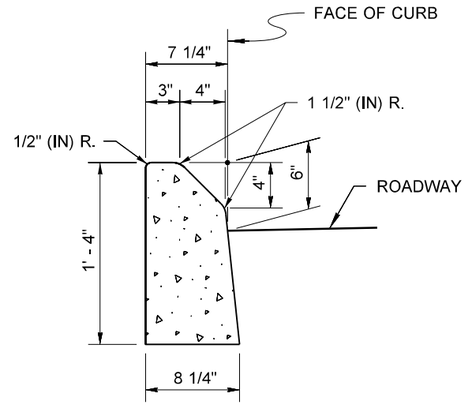
1. See **Standard Plan F-30.10** for Curb Expansion and Contraction Joint spacing. See **Standard Specification, Sections 8-04 and 9-04** for additional requirements.



DUAL-FACED CEMENT CONCRETE TRAFFIC CURB



CEMENT CONCRETE TRAFFIC CURB



MOUNTABLE CEMENT CONCRETE TRAFFIC CURB

Michael S Fleming

Digitally signed by Michael S Fleming
Date: 2020.09.24 07:39:38 -07'00'

CEMENT CONCRETE CURBS

STANDARD PLAN F-10.12-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Date: 2020.09.24 07:57:43 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

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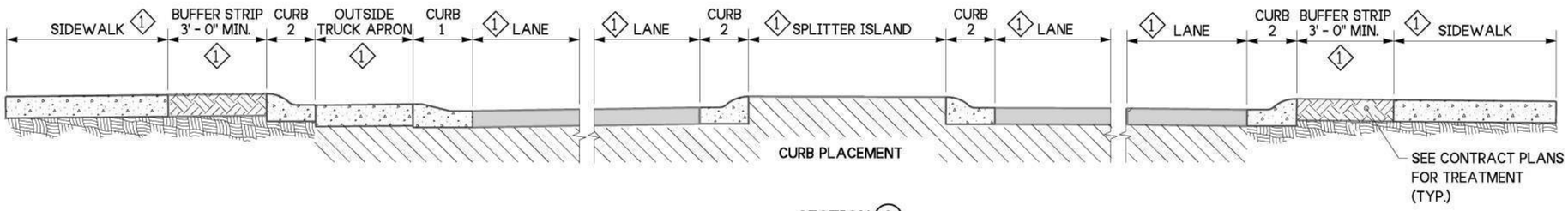
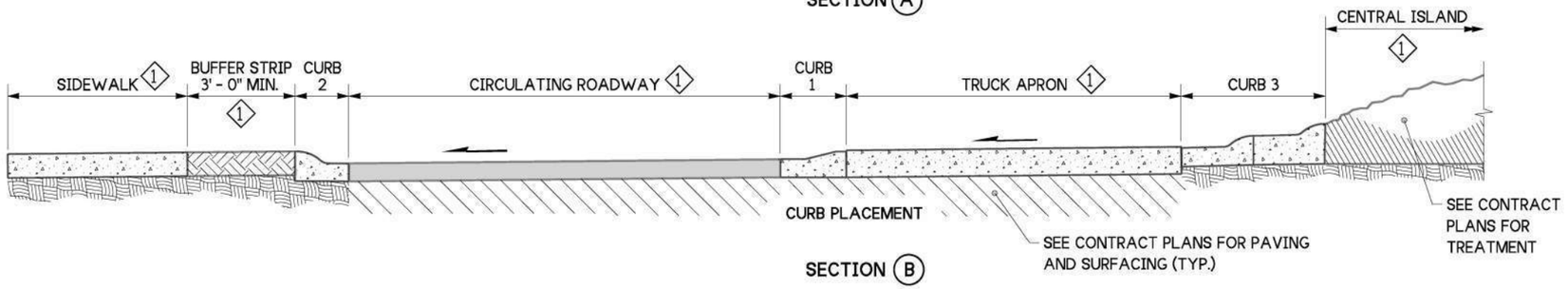
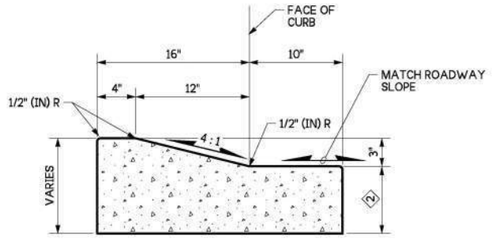


SECTION (A)



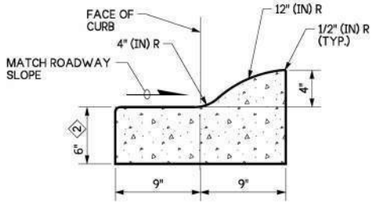
SECTION (B)

ROUNDABOUT CONFIGURATION WILL VARY DEPENDING ON CONTRACT PLANS



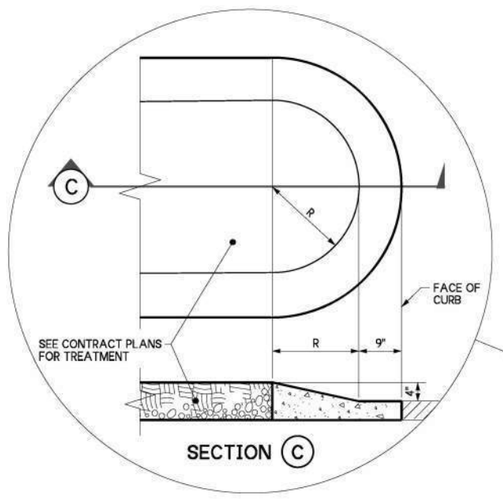
CURB 1

ROUNDABOUT TRUCK APRON
CEMENT CONCRETE CURB AND GUTTER
(SINGLE SLOPE CURB)



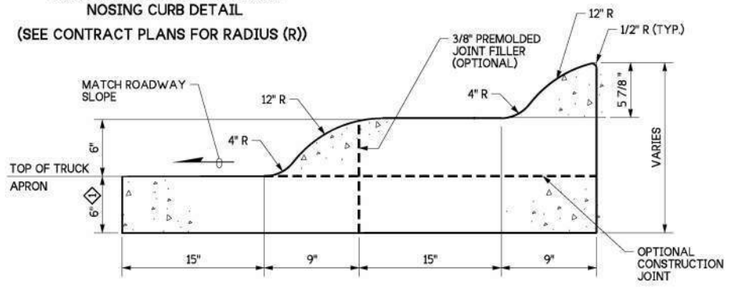
CURB 2

(OUTSIDE, RIGHT SIDE OR SPLITTER ISLAND)
ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER
(SINGLE SLOPE CURB)



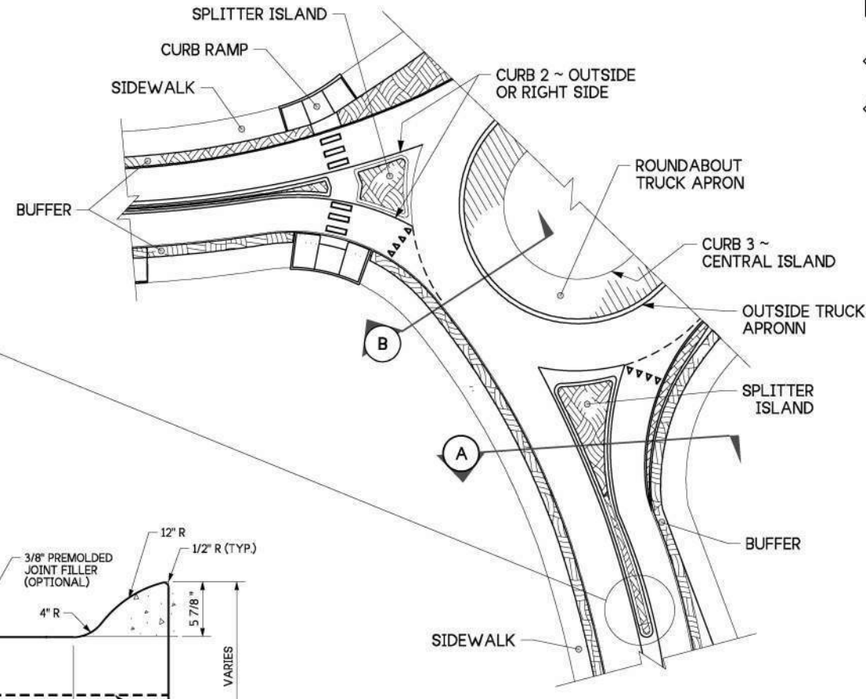
SECTION (C)

ROUNDABOUT SPLITTER ISLAND
NOSING CURB DETAIL
(SEE CONTRACT PLANS FOR RADIUS (R))



CURB 3

ROUNDABOUT CENTRAL ISLAND
CEMENT CONCRETE CURB
(SINGLE SLOPE CURB)



PARTIAL VIEW

NOTES:

1. Construct curb joints at cement concrete pavement transverse joint locations. If all adjacent pavement is HMA, see **Standard Plan F-30.10** for Curb Expansion and Contraction Joint Spacing.
2. See Standard Plan F-45.10 for placement of Detectable Warning Surfaces (DWS).
3. See **Contract Plans** and **Standard Plan M-15.10** for locations and layout of crosswalks,

LEGEND

1 Width varies ~ See Contract Plans.

2 Match adjacent pavement thickness but not less than 6 inches.

SCOTT ANDREW DAVIS
STATE OF WASHINGTON
Scott A. Davis (Jun 28, 2024 08:18 PDT)
37361
REGISTERED
PROFESSIONAL ENGINEER

Jun 28, 2024

ROUNDABOUT CEMENT CONCRETE CURBS

STANDARD PLAN F-10.18-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark A Dawes Jun 28, 2024

STATE DESIGN ENGINEER

Washington State Department of Transportation

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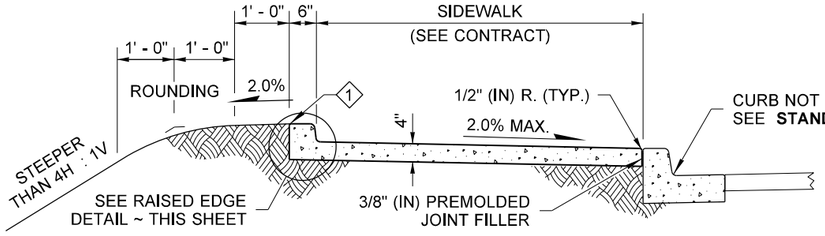
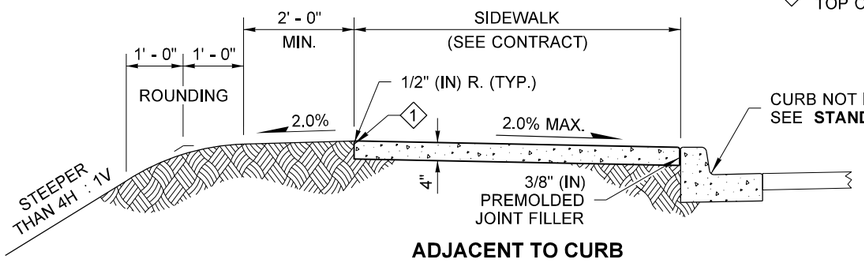
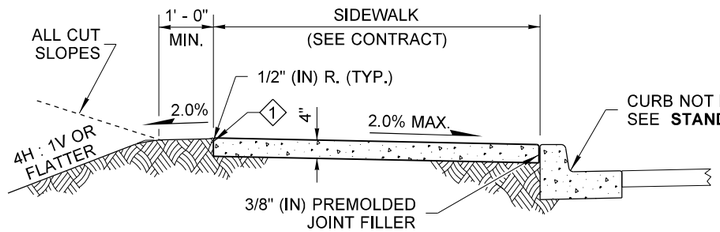


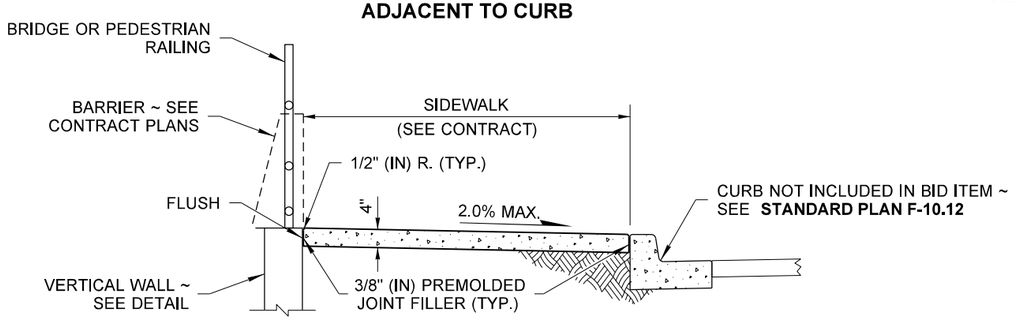
WITH RAISED EDGE



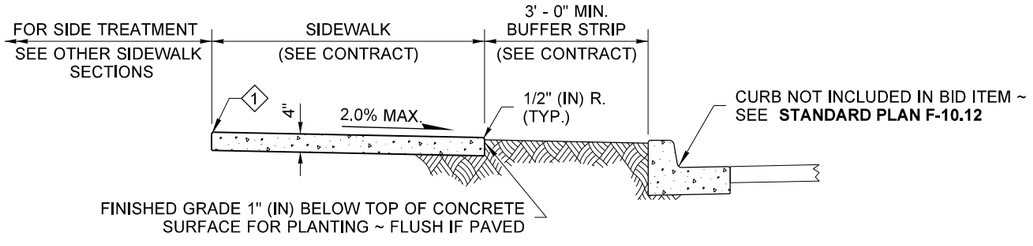
ADJACENT TO CURB
(STEEP FILL SLOPES)



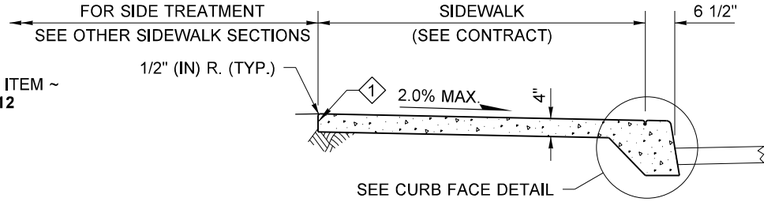
ADJACENT TO CURB



ADJACENT TO CURB AND RAILING OR WALL



ADJACENT TO BUFFER STRIP

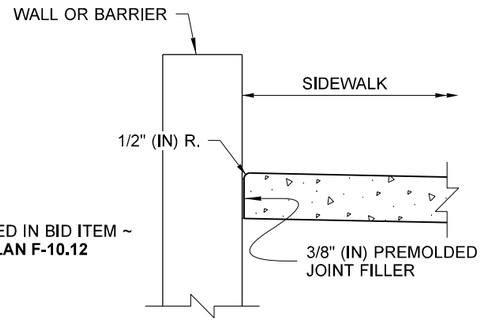


MONOLITHIC CEMENT CONCRETE CURB AND SIDEWALK

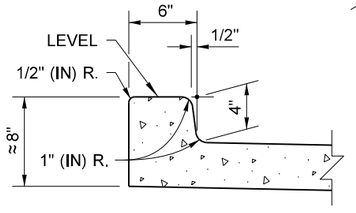
1 FINISHED GRADE 1" (IN) BELOW TOP OF CONCRETE SURFACE

NOTE

1. Gratings, Access Covers, Junction Boxes, Cable Vaults, Pull Boxes and other appurtenances within the sidewalk must have slip resistant surfaces, be flush with surface, and match grade of the sidewalk.

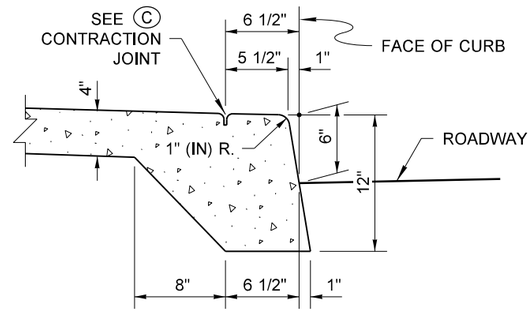


SIDEWALK ADJACENT TO WALL DETAIL



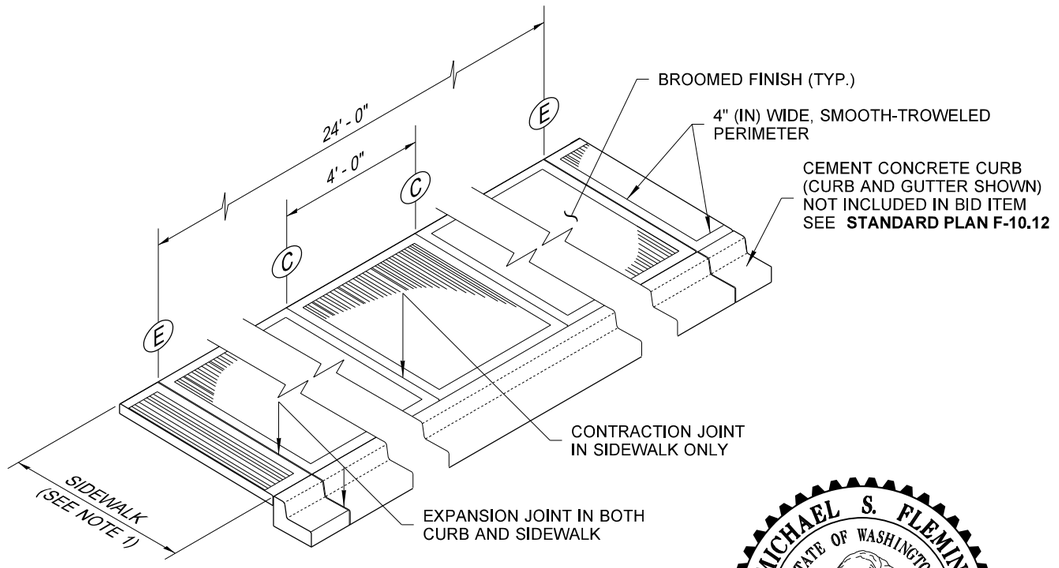
RAISED EDGE DETAIL

EXTEND SIDEWALK TRANSVERSE JOINTS TO INCLUDE RAISED EDGE



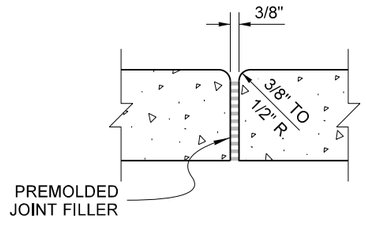
CURB FACE DETAIL

EXTEND SIDEWALK TRANSVERSE EXPANSION JOINTS TO INCLUDE CURB (FULL DEPTH)

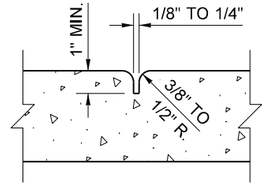


ISOMETRIC VIEW

JOINT AND FINISH DETAIL



E EXPANSION JOINT



C CONTRACTION JOINT

Michael S Fleming
Digitally signed by Michael S Fleming
Date: 2020.09.24 07:40:16 -07'00'

CEMENT CONCRETE SIDEWALK

STANDARD PLAN F-30.10-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Date: 2020.09.25 15:43:50 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: LISA CYFORD

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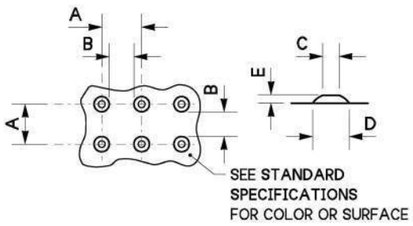
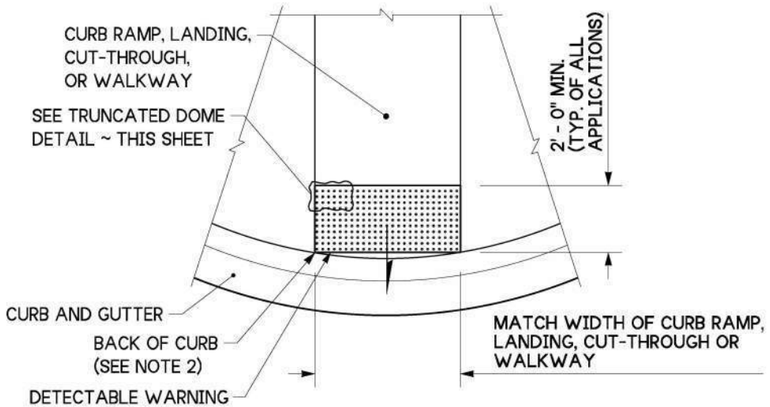
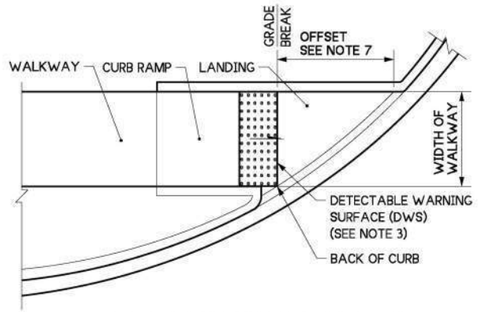


	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"

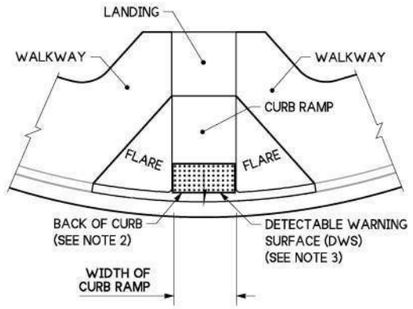
TRUNCATED DOME DETAILS
(SEE NOTE 3)



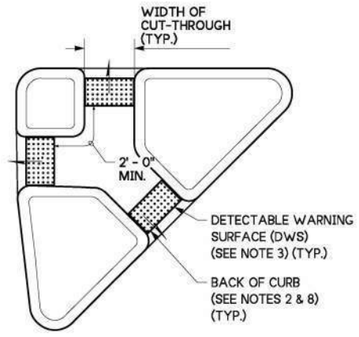
DETECTABLE WARNING SURFACE DETAIL



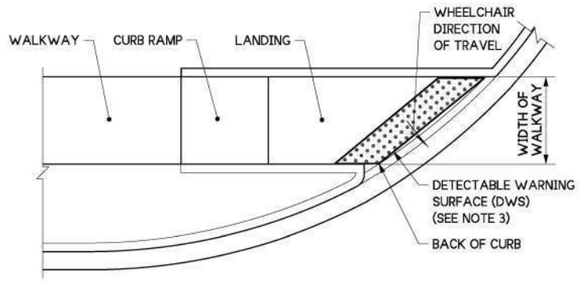
SINGLE DIRECTION CURB RAMP
(GRADE BREAK BETWEEN CURB AND LANDING < 5 FEET FROM BACK OF CURB)
(SEE NOTE 5)



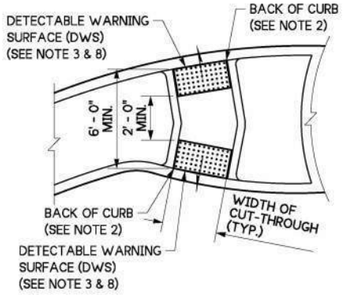
PERPENDICULAR CURB RAMP
(SEE NOTE 6)



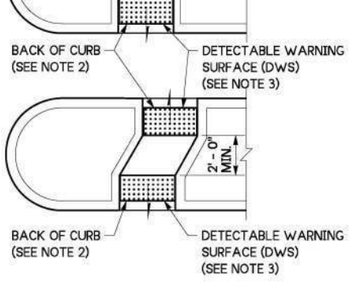
ISLAND CUT-THROUGH



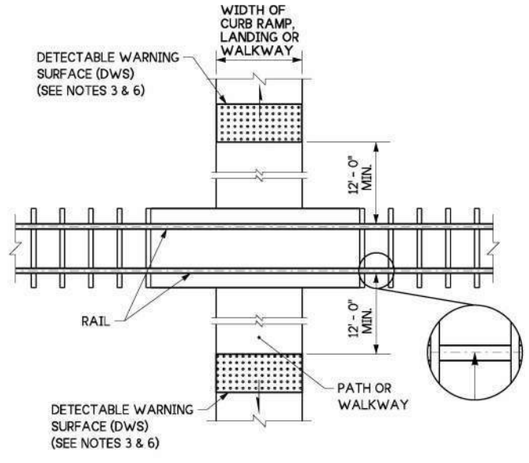
SINGLE DIRECTION CURB RAMP
(GRADE BREAK BETWEEN CURB AND LANDING > 5 FEET FROM BACK OF CURB)
(SEE NOTE 5)



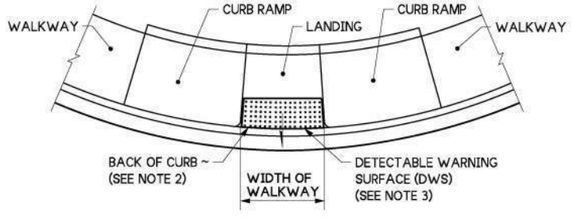
ROUNDABOUT SPLITTER ISLAND



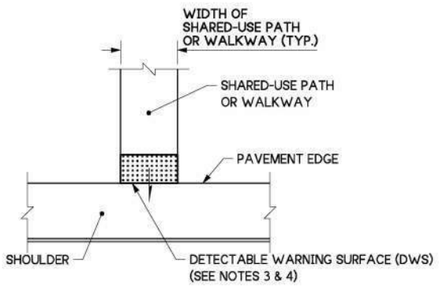
MEDIAN CUT-THROUGH



PEDESTRIAN PAILROAD CROSSING



PARALLEL CURB RAMP
(SEE NOTE 6)



SHARED-USE PATH CONNECTION

NOTES:

1. Permanent Detectable Warning Surfaces (DWS) shall extend the full width of the curb ramp, landing, or other roadway entrance as applicable. Exception: If the manufacturer of the DWS requires a concrete border around the DWS, a variance of up to 2" (in) on each side of the DWS is permitted.

2. Permanent Detectable Warning Surfaces (DWS) shall be placed on a minimum 4" (in) thick concrete pad. The DWS panel shall be placed adjacent to the back of the curb and with no more than a 2" (in) gap between the DWS and the back of the curb measured at the center of the DWS panel. Exception: If the Manufacturer of the selected DWS requires a concrete border around the DWS, a variance of up to 2" (in) from the back of the curb is permitted (measured at the leading corners of the DWS panel).

3. The rows of truncated domes shall be aligned to be parallel to the direction of travel, and perpendicular to the grade break at the back of curb.

4. If curb and gutter are not present, such as a shared-use path connection, the Detectable Warning Surface shall be placed at the pavement edge.

5. See **Standard Plans** for sidewalk and curb ramp details.

6. If a curb ramp is required, the location of the Detectable Warning Surface must be at the bottom of the ramp and within the required distance from the rail crossing.

7. When the grade break between the curb ramp and the landing is less than or equal to 5 feet from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp directly above the grade break.

8. Glued or stick down Detectable Warning Surfaces are allowed only for temporary work zone applications.

Jun 4, 2024

DETECTABLE WARNING SURFACE

STANDARD PLAN F-45.10-05

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark A Deines Jun 4, 2024

STATE DESIGN ENGINEER

Washington State Department of Transportation

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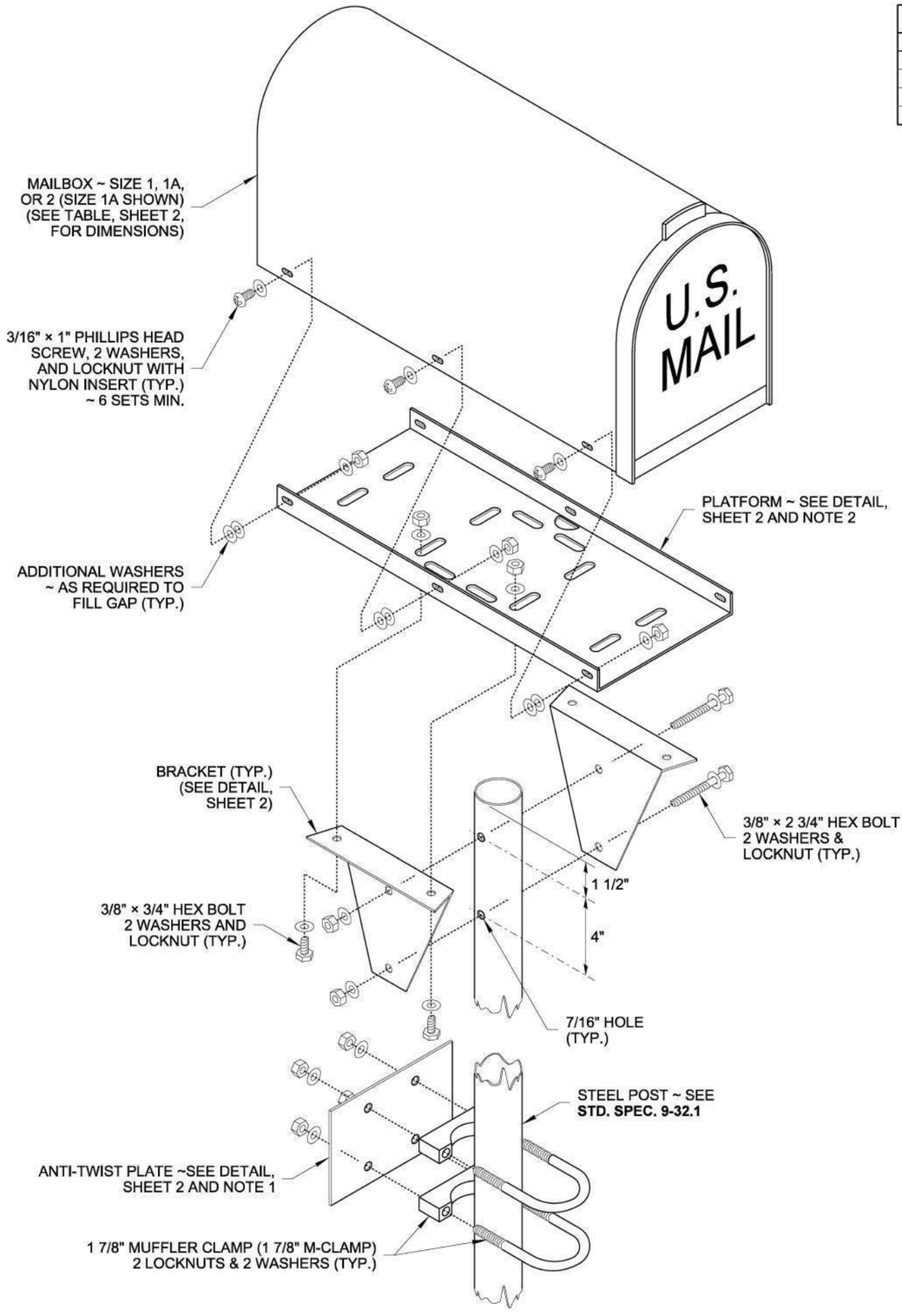
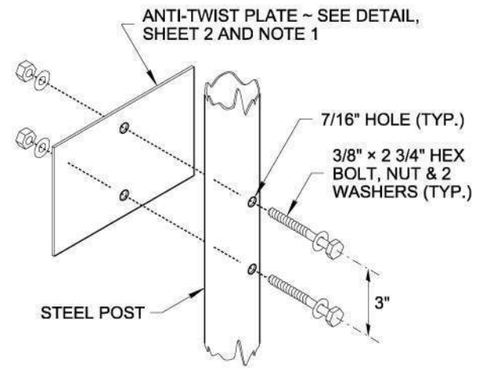
DRAWN BY: MARK SUJKA



STEEL POST ASSEMBLY DETAIL

STEEL POST FASTENERS			
SIZE / TYPE	QUANTITY	WASHERS	LOCKNUTS
3/8" DIAM. × 2 3/4" BOLT	2	4	2
3/8" DIAM. × 3/4" BOLT	4	8	4
3/16" DIAM. × 1" SCREW	6	12	6
1 7/8" M-CLAMP	2	4	4



ALTERNATE ANTI-TWIST PLATE DESIGN

NOTES

1. The anchoring system shall meet MASH crash test criteria. The anti-twist plate anchoring system shown on this plan is deemed MASH compliant by WSDOT.

   The V-Wing socket and wedge assembly in a concrete base shown on **Std. Plan H-70.20** is also deemed MASH compliant by WSDOT and may be substituted in lieu of the anti-twist plate designs shown.

   Other MASH compliant anchoring systems manufactured by or recommended by the Type 1 support manufacturer are allowed to be used in lieu of the anti-twist plate or V-wing socket and wedge assembly.

2. The platform design shown on this plan features slots that accommodate several types of mailbox supports; only those slots necessary for assembling the type being installed are required. An adjustable platform may be used in lieu of this design, but it must fit the bracket design shown on this plan. Brackets are required for all single-post installations. Field drilling may be necessary.

3. Center the mailbox on the platform to ensure space for the mailbox door to open and to allow space for installing the fasteners (see ALIGNMENT DETAIL, Sheet 2). Spacing of mailbox mounting holes varies among manufacturers. Attachment of the mailbox to the platform may require drilling additional holes through the mailbox to fit the platform.

4. Attach a newspaper box to a steel post with two 1 7/8" (in) Muffler Clamps spaced 4" (in) apart. Field drill 7/16" (in) holes in the newspaper box to fit. Newspaper boxes must not extend beyond the front of the mailbox when the mailbox door is closed.

5. A Type 2 Support (**Standard Plan H-70.20**) is required when 2 or more mailboxes are to be installed on one support.

JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED PROFESSIONAL ENGINEER
John Donahue (Aug 17, 2021 12:36 PDT)

Aug 17, 2021

MAILBOX SUPPORT TYPE 1

STANDARD PLAN H-70.10-02

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Aug 17, 2021
STATE DESIGN ENGINEER
Washington State Department of Transportation

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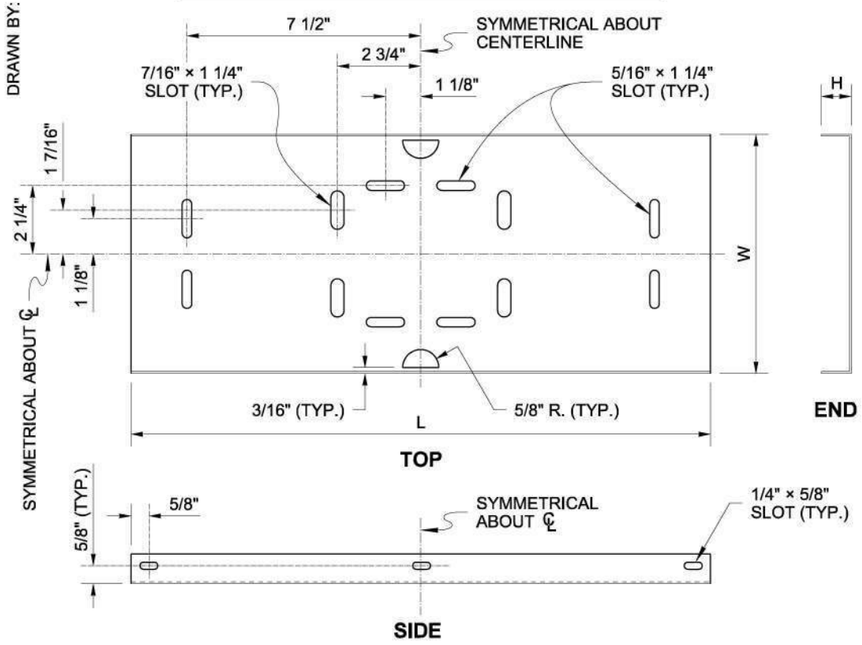
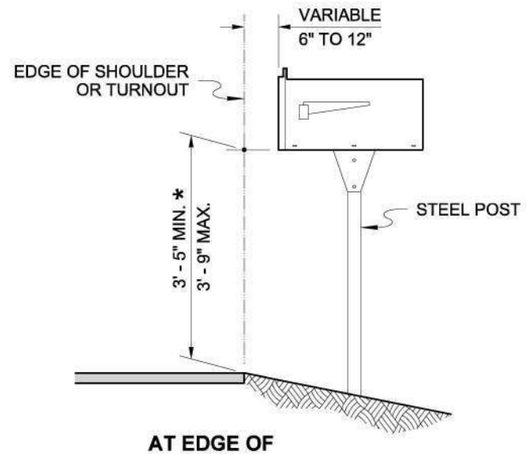
DRAWN BY: MARK SUJKA

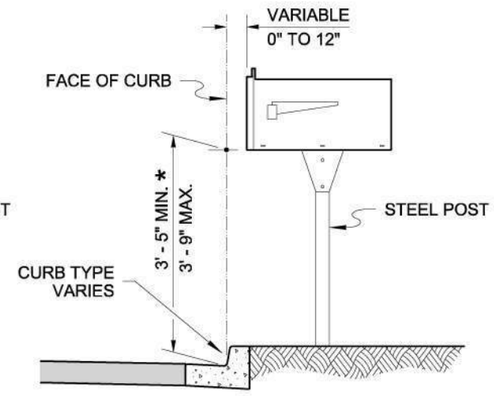
MAILBOX & PLATFORM DIMENSIONS						
SIZE	MAILBOX DIMENSIONS			PLATFORM DIMENSIONS		
	L	W	H	L	W	H
1	19"	6 1/2"	8 1/2"	17"	6"	1"
1A	21"	8"	10 1/2"	19"	7 1/2"	1"
2	24"	11 1/2"	13 1/2"	21"	11"	1"



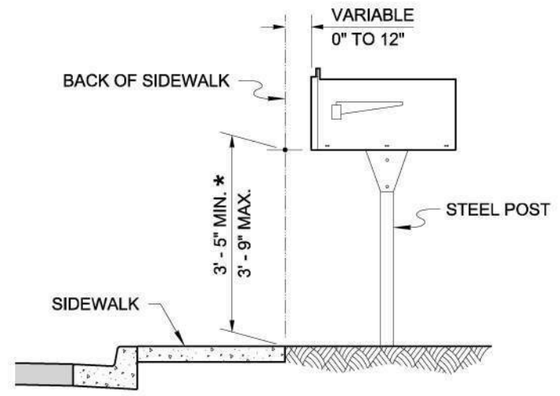
PLATFORM DETAIL



AT EDGE OF SHOULDER



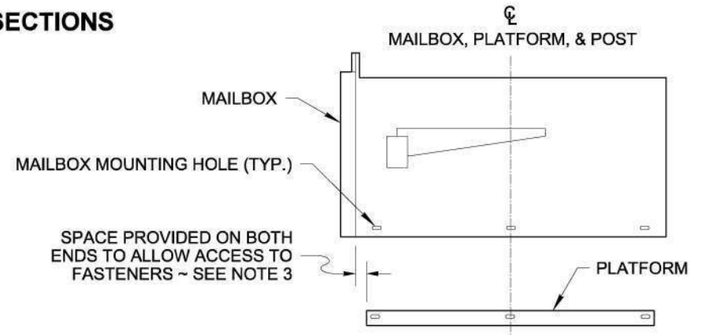
BEHIND CURB



BEHIND SIDEWALK

* UNLESS OTHERWISE SHOWN IN THE PLANS

MAILBOX PLACEMENT SECTIONS



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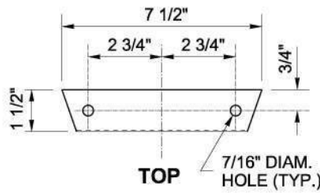
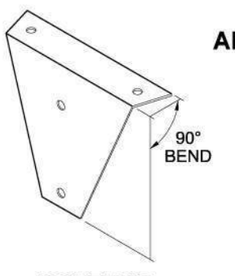
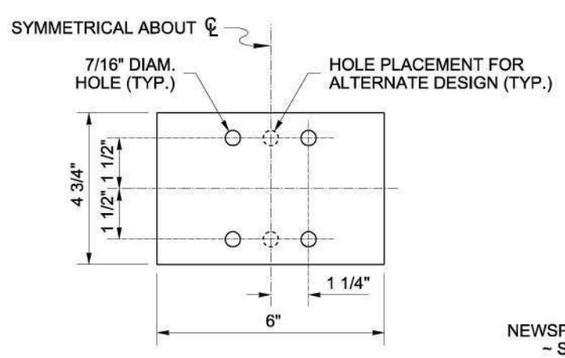
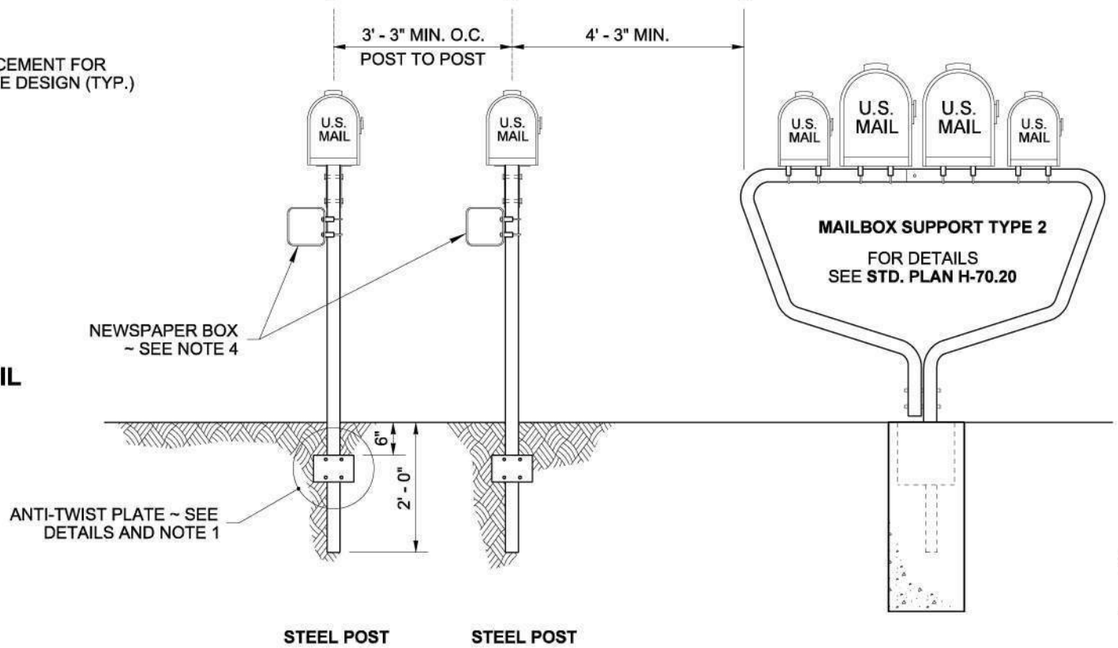






ANTI-TWIST PLATE DETAIL

BRACKET DETAIL



POST PLACEMENT DETAIL

JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED PROFESSIONAL ENGINEER
John Donahue (Aug 17, 2021 PDT)
Aug 17, 2021

MAILBOX SUPPORT TYPE 1

STANDARD PLAN H-70.10-02

SHEET 2 OF 2 SHEETS

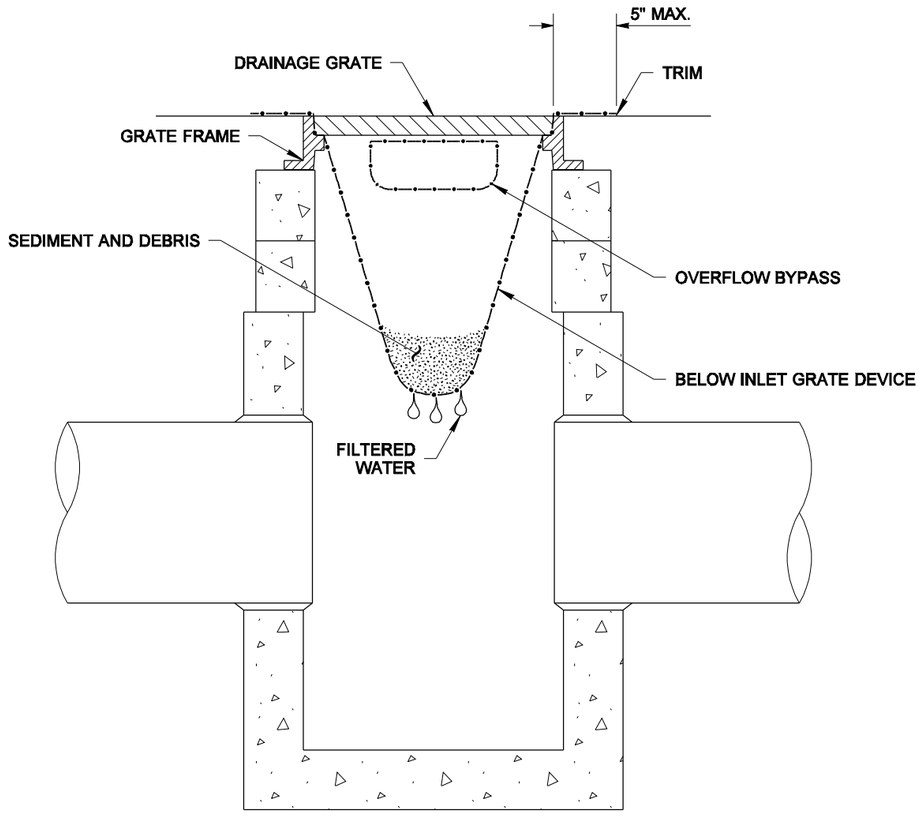
APPROVED FOR PUBLICATION
Aug 17, 2021
STATE DESIGN ENGINEER
Washington State Department of Transportation

UNOFFICIAL COPY Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com

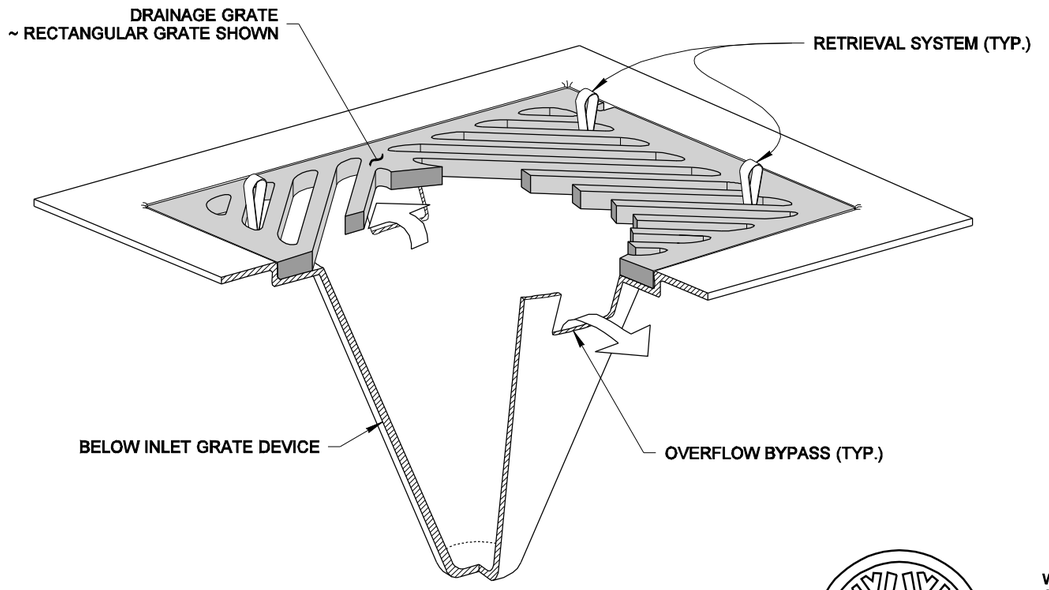
DRAWN BY: LISA CYFORD

NOTES

1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).



SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

MARK W. MAURER
CERTIFICATE NO. 000598

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

STORM DRAIN INLET PROTECTION

STANDARD PLAN I-40.20-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III — STATE DESIGN ENGINEER
09-20-07 — DATE

Washington State Department of Transportation

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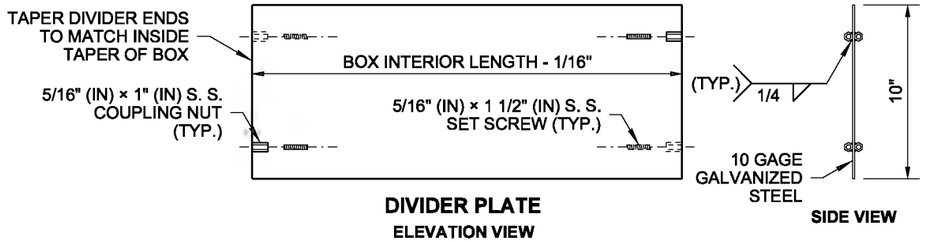
DRAWN BY: LISA CYFORD



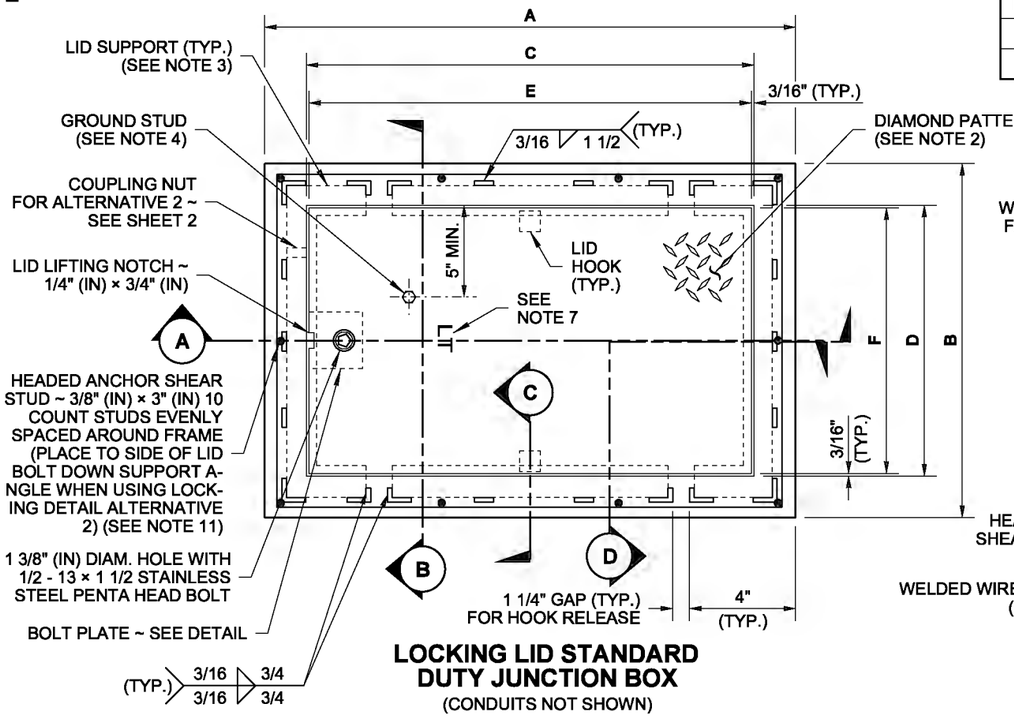
DIVIDER PLATE
ELEVATION VIEW
(FOR TYPE 2 JUNCTION BOX ONLY)

JUNCTION BOX DIMENSION TABLE

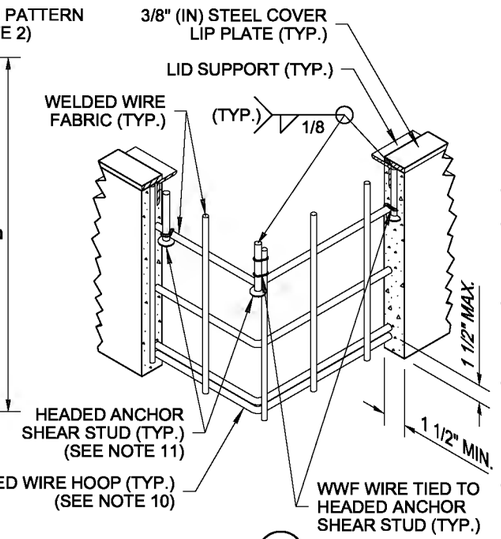
MARK	ITEM	BOX TYPE	
		TYPE 1	TYPE 2
A	OUTSIDE LENGTH OF JUNCTION BOX	22"	33"
B	OUTSIDE WIDTH OF JUNCTION BOX	17"	22 1/2"
C	INSIDE LENGTH OF JUNCTION BOX	18" ~ 19"	28" ~ 29"
D	INSIDE WIDTH OF JUNCTION BOX	13" ~ 14"	17" ~ 18"
E	LID LENGTH	17 5/8"	28 5/8"
F	LID WIDTH	12 5/8"	18 1/8"
	CAPACITY ~ CONDUIT DIAMETER	6"	12"

NOTES

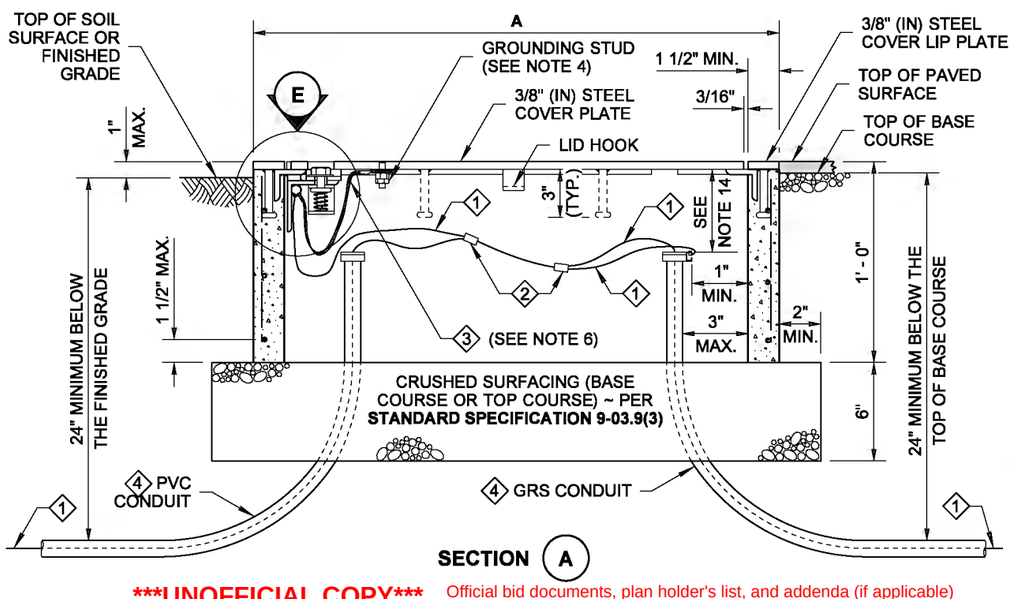
1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. Minimum lid thickness shown. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate, and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" (in) line thickness formed with a mild steel weld bead and shall be placed prior to hot-dip galvanizing.
3. Lid support members shall be 3/16" (in) minimum thick steel C, L, or T shape, welded to the frame.
4. A 1/4-20 NC × 3/4" (in) stainless steel ground stud shall be welded to the bottom of the lid; include (2) stainless steel nuts and (2) stainless steel flat washers.
5. Bolts and nuts shall be liberally coated with anti-seize compound.
6. Equipment Bonding Jumper shall be # 8 AWG min. × 4' (ft) of tinned braided copper.
7. The System Identification letters shall be 1/8" (in) line thickness formed with a mild steel weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. For System Identification details, see **Standard Specification 9-29.2(4)**.
8. When required in the Contract, provide a 10" (in) x 27 1/2" (in), 10 gage divider plate, complete, with fasteners, in each Type 2 Junction Box where specified.
9. When required in Contract, provide a 12" (in) deep extension for each Type 2 Junction Box where specified.
10. See the **Standard Specifications** for alternative reinforcement and class of concrete.
11. Headed Anchor Shear Studs must be welded to the Steel Cover Lip Plate and wire tied in two places to the vertical Welded Wire Fabric when in contact with each other. Wire tie all other Headed Anchor Shear Studs to the horizontal Welded Wire Fabric.
12. Lid Bolt Down Attachment Tab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawings for specifics.
13. Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults, and Pull Boxes shall not be placed within the sidewalks, walkways, shared use paths, traveled ways or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
14. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max. for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" (in) min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.



LOCKING LID STANDARD DUTY JUNCTION BOX
(CONDUITS NOT SHOWN)



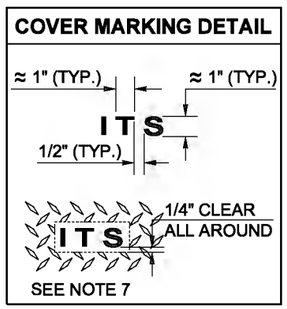
SECTION D
PERSPECTIVE VIEW

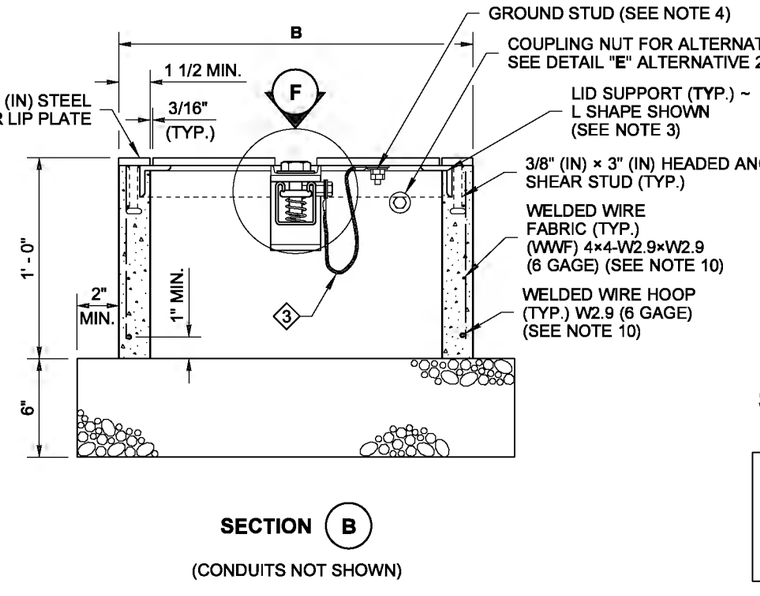


SECTION A

1. Equipment Grounding Conductor
2. Copper Solderless Crimp Connector
3. Equipment Bonding Jumper (See Note 6)
4. See Contract for conduit size and number

COVER MARKING DETAIL





SECTION B
(CONDUITS NOT SHOWN)

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

Bailey, Ted
Apr 25 2016 9:32 AM

LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2
STANDARD PLAN J-40.10-04

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Carpenter, Jeff
Apr 28 2016 3:12 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

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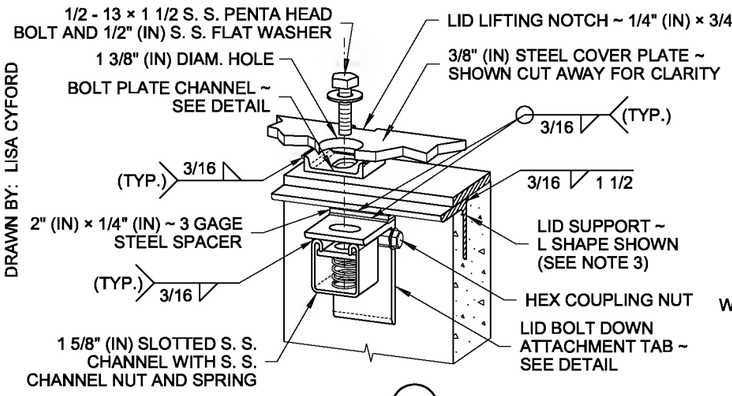
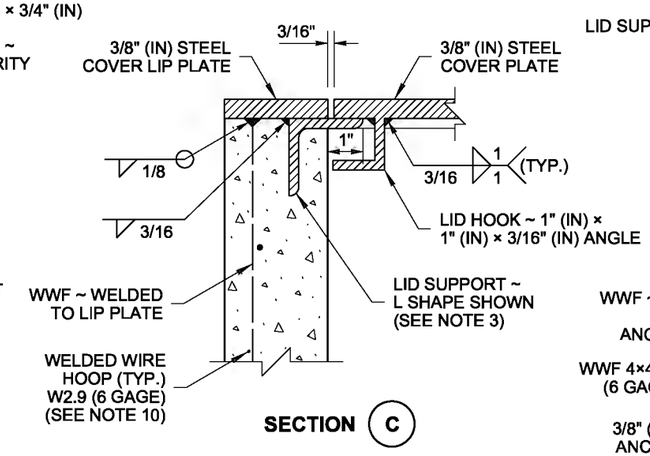
DRAWN BY: LISA CYFORD



DETAIL (F)

ALTERNATIVE 1 SHOWN PERSPECTIVE VIEW



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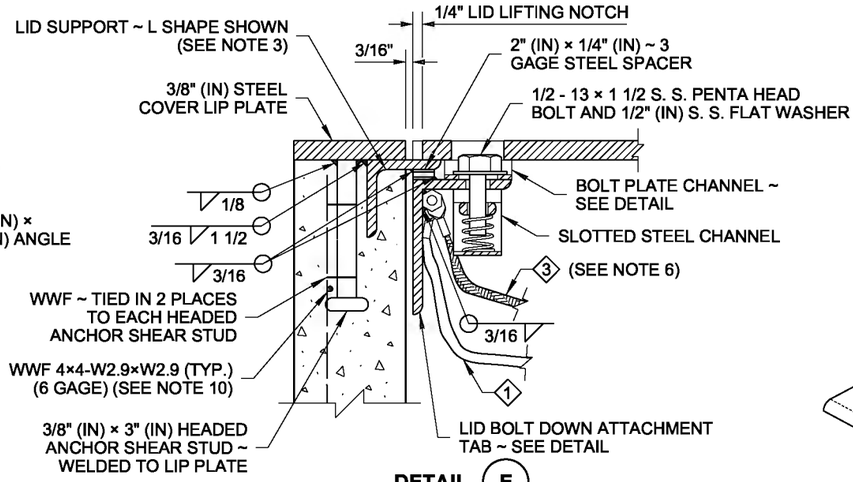

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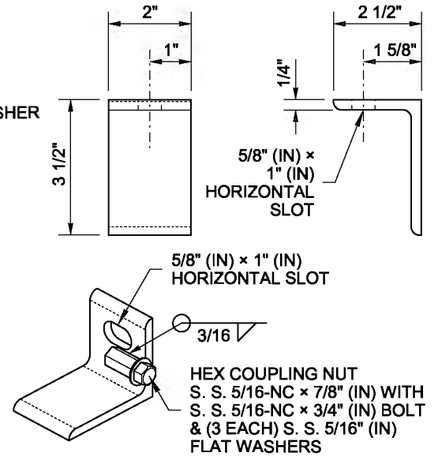
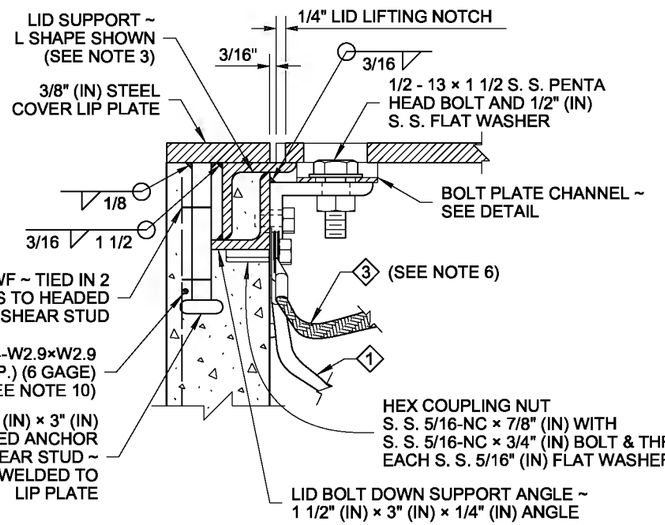


ALTERNATIVE 1
LID BOLT DOWN ATTACHMENT TAB

(SEE NOTE 12)



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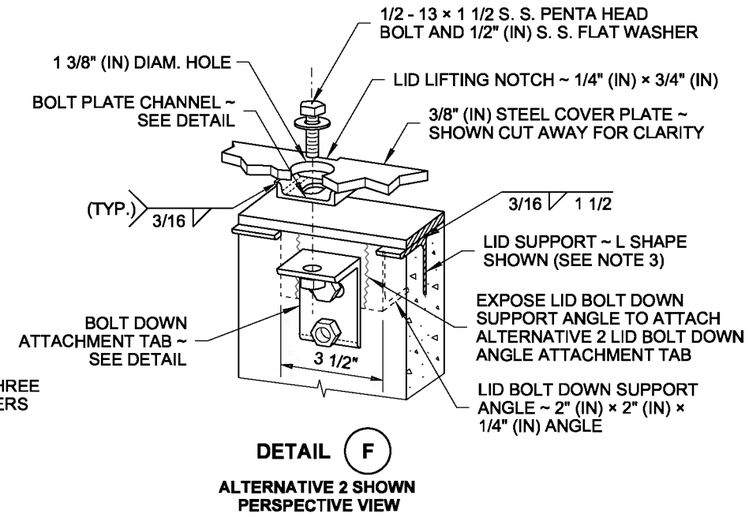

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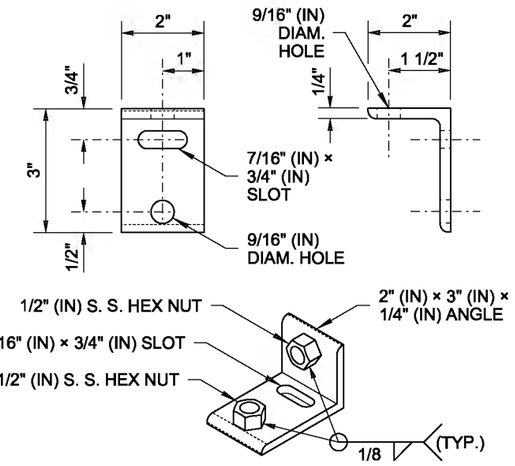
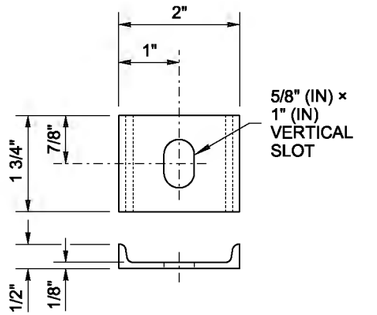
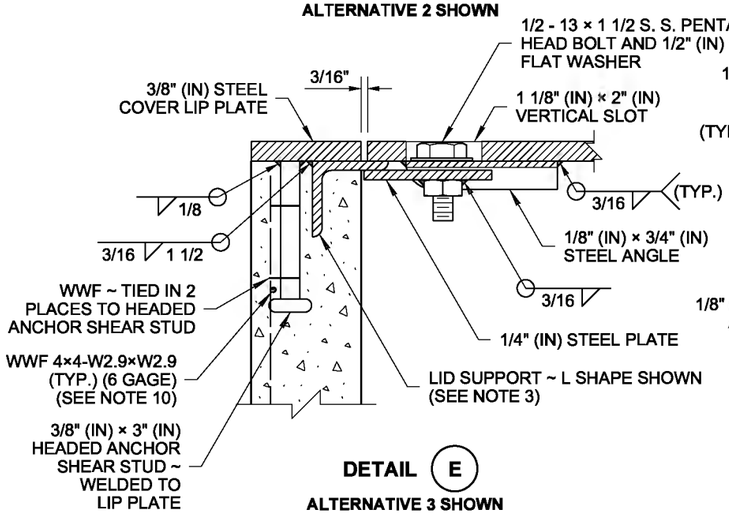


ALTERNATIVE 2
LID BOLT DOWN ATTACHMENT TAB

(SEE NOTE 12)



BOLT PLATE CHANNEL



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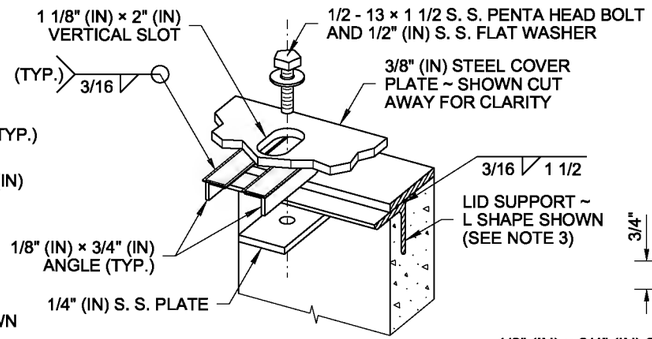
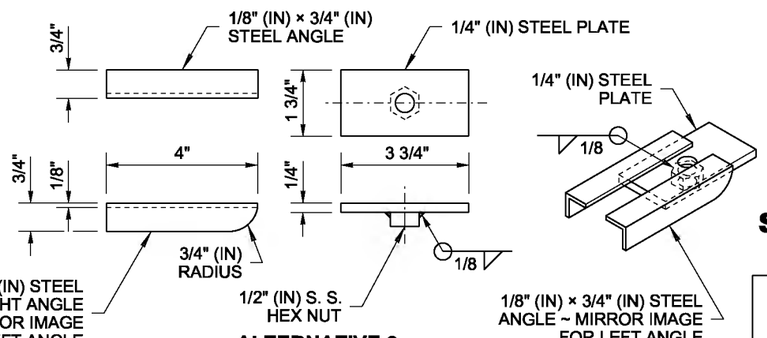


DETAIL (F)

ALTERNATIVE 3 SHOWN PERSPECTIVE VIEW



ALTERNATIVE 3
LID BOLT DOWN ATTACHMENT TAB

(SEE NOTE 12)

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

Bailey, Ted
Apr 25 2016 9:33 AM

LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2 STANDARD PLAN J-40.10-04

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
Carpenter, Jeff
Apr 28 2016 3:12 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

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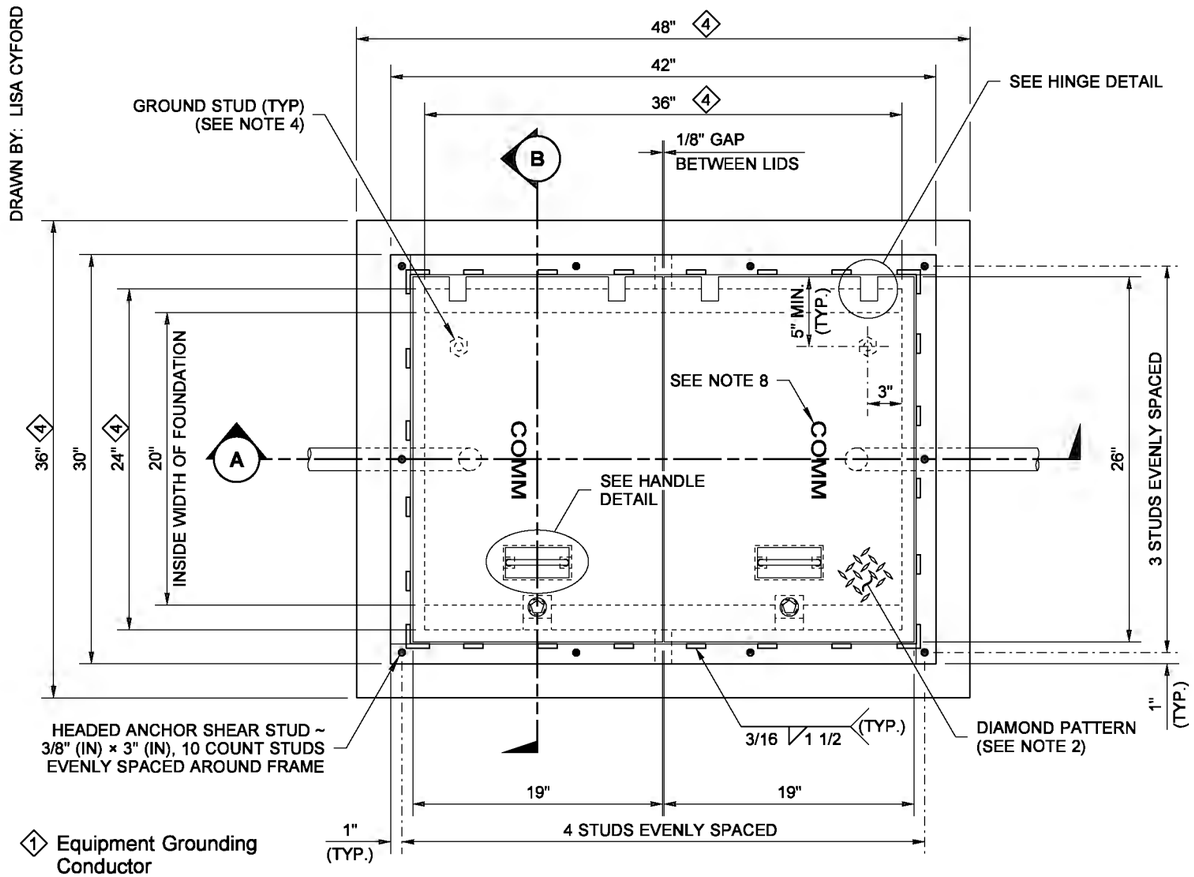
DRAWN BY: LISA CYFORD

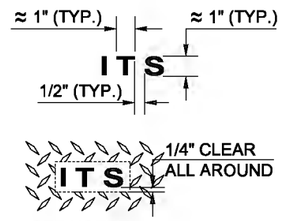


1. Equipment Grounding Conductor
2. Copper Solderless Crimp Connector
3. Equipment Bonding Jumper
4. Foundation
5. See Contract for conduit size and number

PLAN VIEW

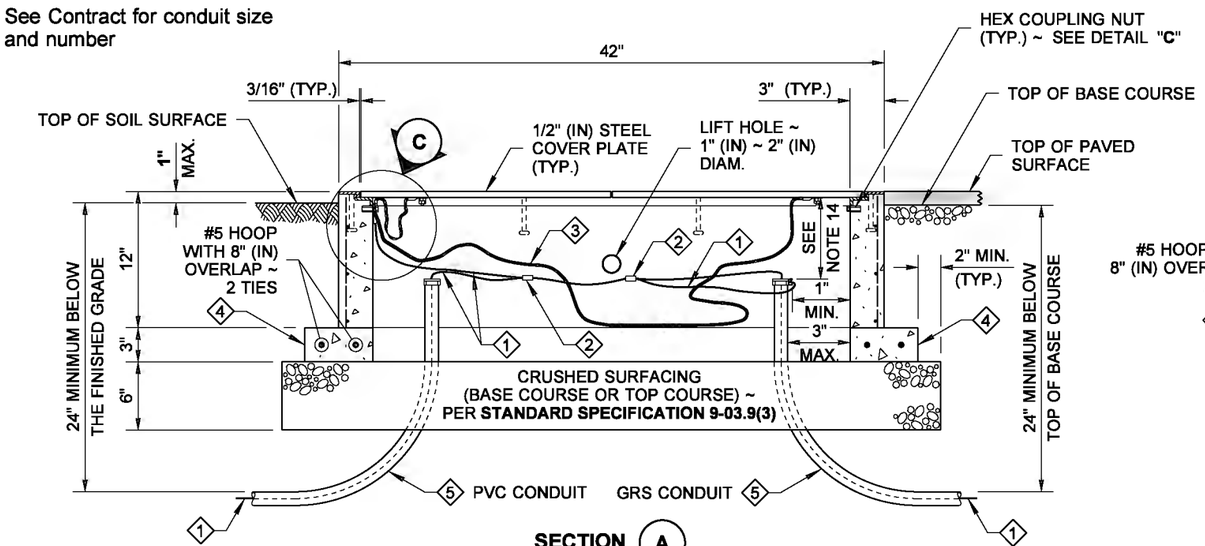
LOCKING LID STANDARD DUTY JUNCTION BOX

COVER MARKING DETAIL

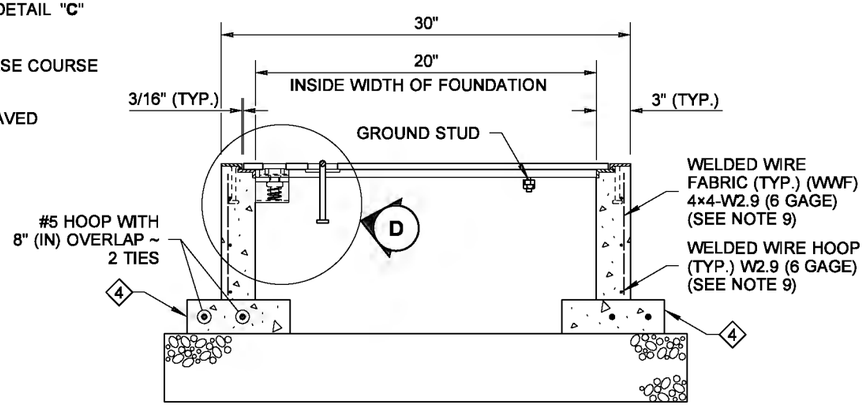


NOTES

1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. Minimum lid thicknesses are shown. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" (in) line thickness formed with a mild steel weld bead and shall be placed prior to hot-dip galvanizing.
3. Lid support members shall be 3/16" (in) min. thick steel C, L, or T shape, welded to the frame. Exact configurations vary among manufacturers.
4. A 1/4-20 NC × 3/4" (in) S. S. ground stud shall be welded to the bottom of each lid; include (2) S. S. nuts and (2) S. S. flat washers.
5. The hinges shall allow the lids to open 180°.
6. Bolts and nuts shall be liberally coated with anti-seize compound.
7. Connect Equipment Bonding Jumper to ground stud on lid. As an alternative to the ground stud connection, the Equipment Bonding Jumper shall be attached to the front face of the hinge pocket with a 5/16-20 NC × 3/4" (in) S. S. bolt, (2) each S. S. nuts, and (2) each S. S. flat washers. Equipment Bonding Jumper shall be #8 AWG min. × 4' (ft) of tinned braided copper.
8. The System Identification letters shall be 1/8" (in) line thickness formed by a mild steel weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. See **Standard Specification 9-29.2(4)** for details.
9. See the **Standard Specifications** for alternative reinforcement and class of concrete.
10. See **Standard Plan J-40.10** for Welded Wire Fabric and Headed Anchor Shear Stud attachment details.
11. Capacity ~ conduit diameter = 24" (in)
12. Lid Bolt Down Attachment Tab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawing for specifics.
13. Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults and Pull Boxes shall not be placed within the sidewalk, walkway, shared use path, traveled way or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
14. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max. for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" (in) min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.



SECTION A



SECTION B

CONDUITS NOT SHOWN

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

Bailey, Ted
Apr 25 2016 5:09 PM

LOCKING LID STANDARD DUTY JUNCTION BOX TYPE 8 STANDARD PLAN J-40.30-04

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Carpenter, Jeff
Apr 28 2016 3:15 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

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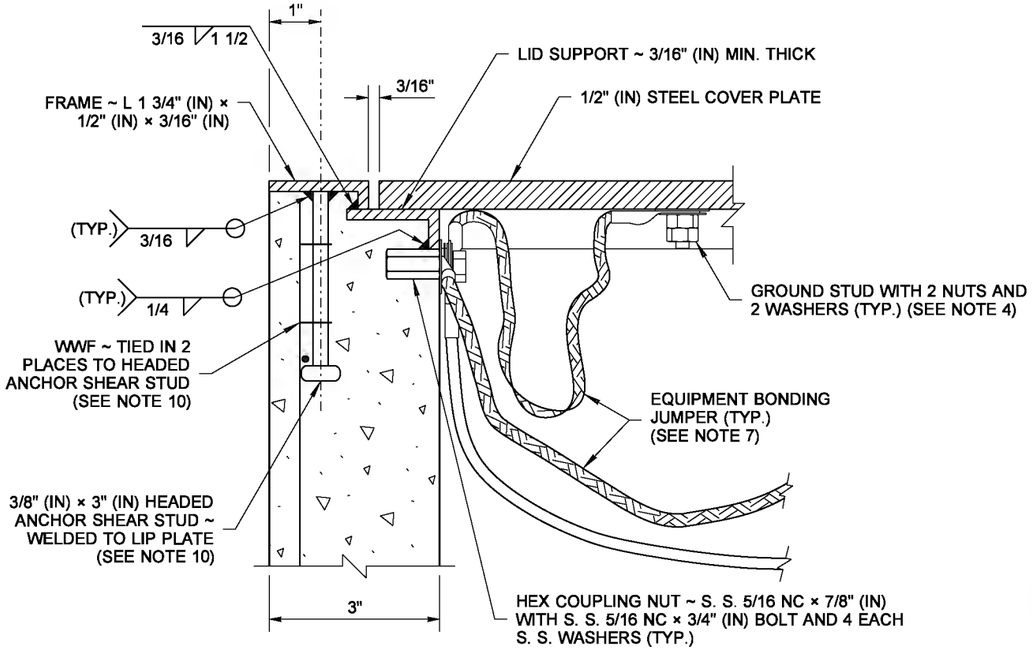
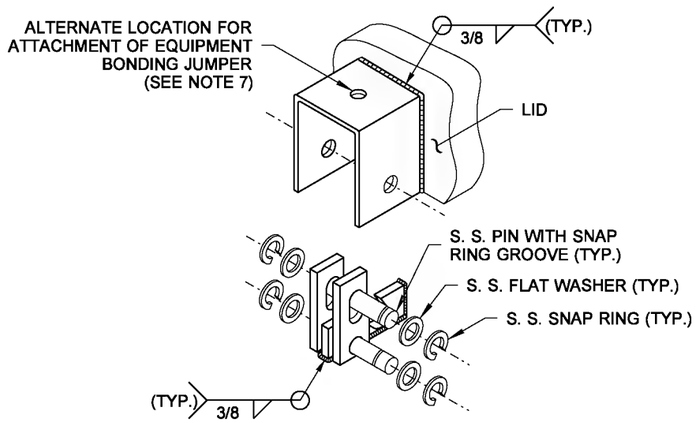
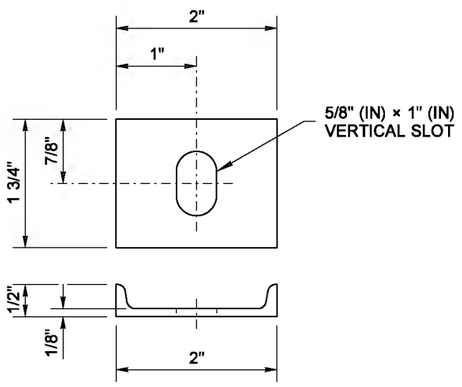
DRAWN BY: LISA CYFORD



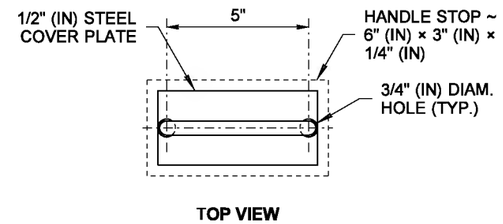
DETAIL (C)



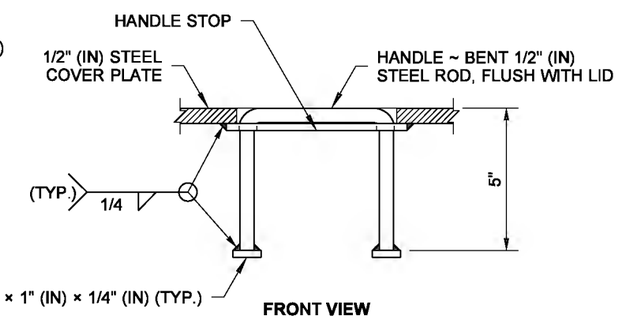
HINGE DETAIL



BOLT PLATE CHANNEL

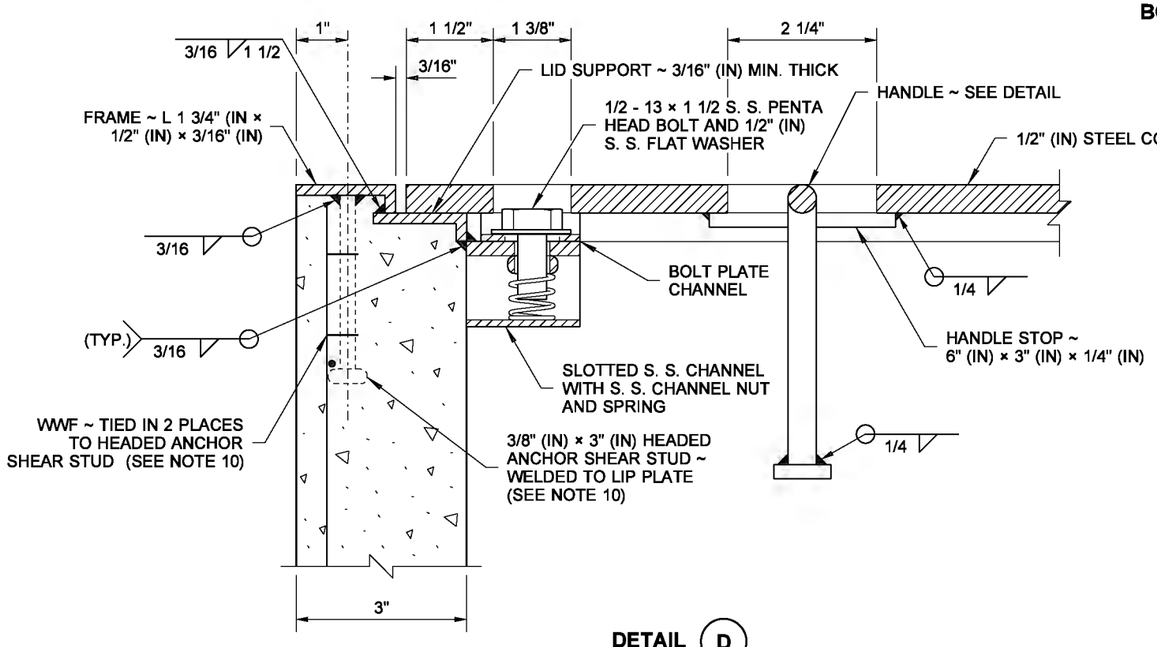


TOP VIEW



FRONT VIEW

HANDLE DETAIL



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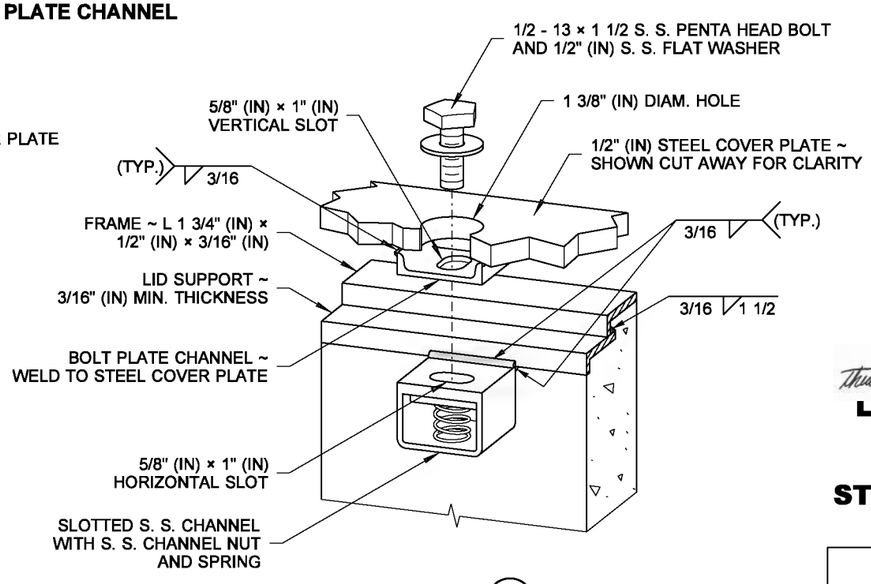

DETAIL (D)

ISOMETRIC VIEW

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

Theodore Joseph Bailey Apr 25 2016 5:10 PM

LOCKING LID STANDARD DUTY JUNCTION BOX TYPE 8 STANDARD PLAN J-40.30-04

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Carpenter, Jeff
Apr 28 2016 3:15 PM

STATE DESIGN ENGINEER

Washington State Department of Transportation

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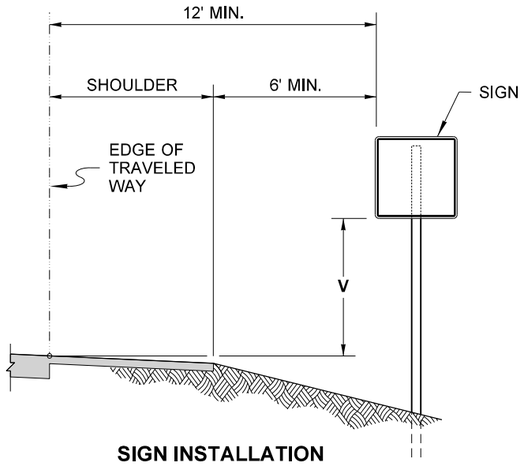
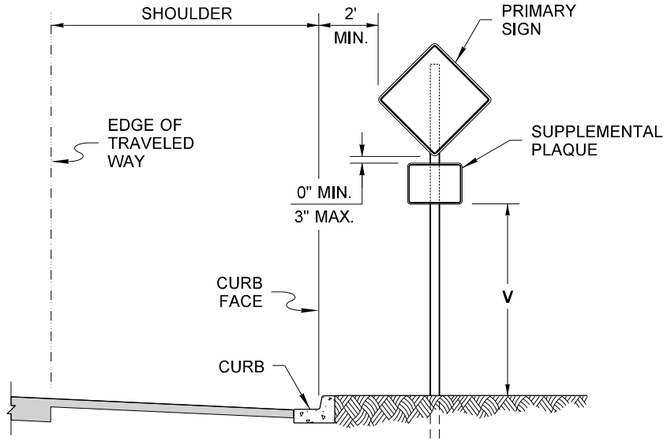
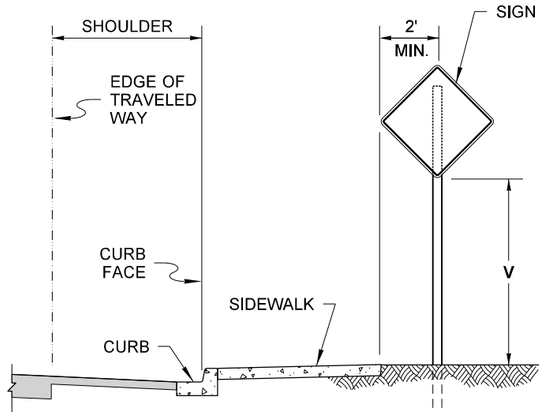
DRAWN BY: FERN LIDDELL



SIGN INSTALLATION (FILL SECTION)



SIGN INSTALLATION (CURB SECTION)

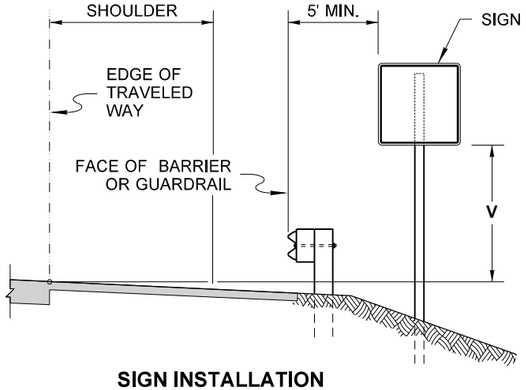


SIGN INSTALLATION (SIDEWALK AND CURB SECTION)

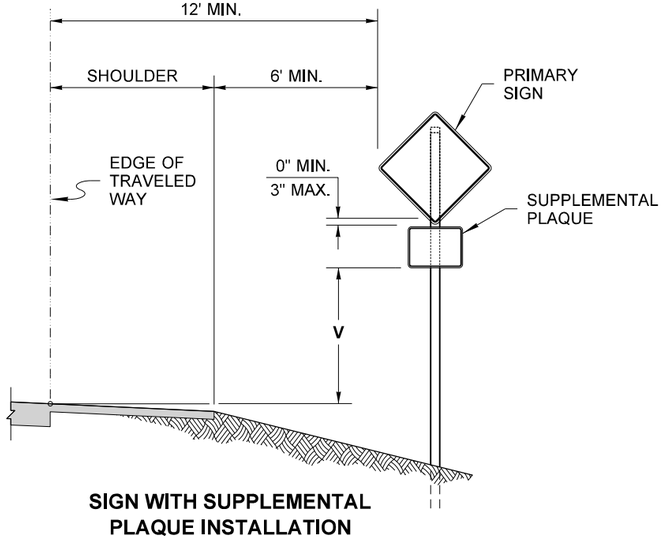
NOTES

1. For sign installation details, see **Standard Plan G - series.**
2. Where it is impractical to locate a sign with the lateral offset, a minimum of 2'(ft) offset may be used. A 1'(ft) lateral offset may be used in business, commercial or residential areas.
3. The "**V**" height for signs, with an area of more than 50 square feet and two or more sign supports, is 7 feet in both rural and urban areas.

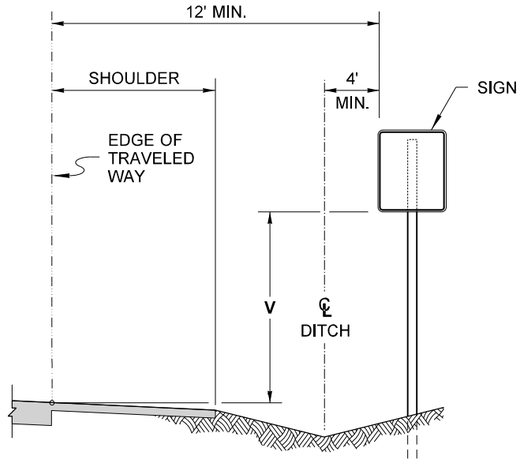
HEIGHT V		
	TO BOTTOM OF SIGN (NO SUPPLEMENTAL PLAQUE)	**TO BOTTOM OF SUPPLEMENTAL PLAQUE** (WHEN REQUIRED)
RURAL	5' MINIMUM	4' MINIMUM
URBAN	7' MINIMUM	6' MINIMUM



SIGN INSTALLATION (BEHIND TRAFFIC BARRIER)



SIGN WITH SUPPLEMENTAL PLAQUE INSTALLATION (FILL SECTION)



SIGN INSTALLATION (DITCH SECTION)

2020.09.23 13:48:58 -07'00'

CLASS A CONSTRUCTION SIGNING INSTALLATION

STANDARD PLAN K-80.10-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Date: 2020.09.25 14:46:01 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

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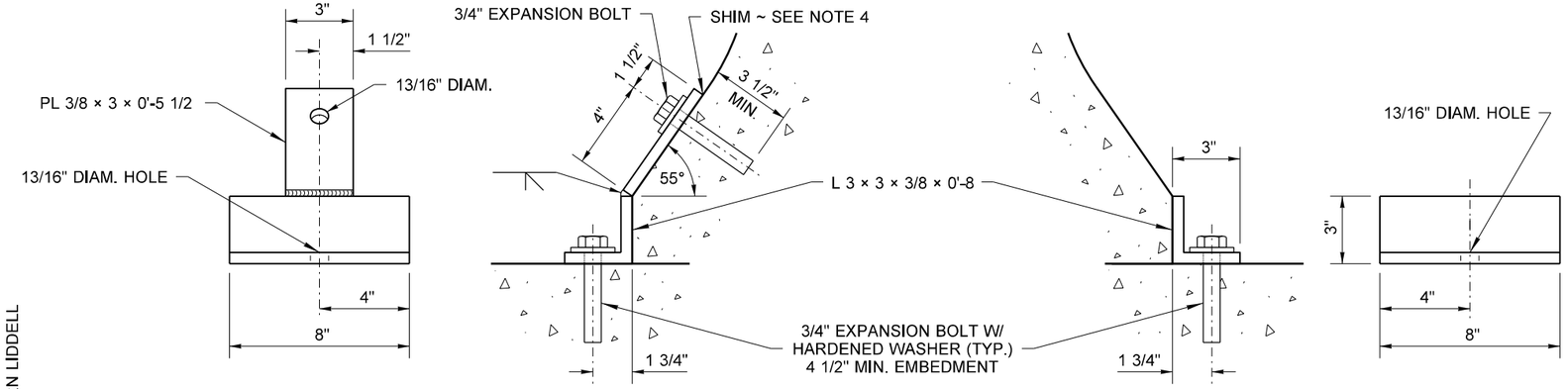
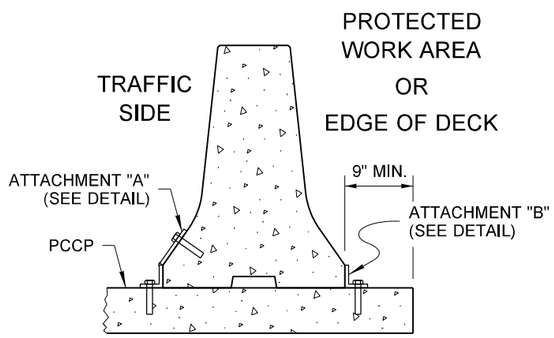
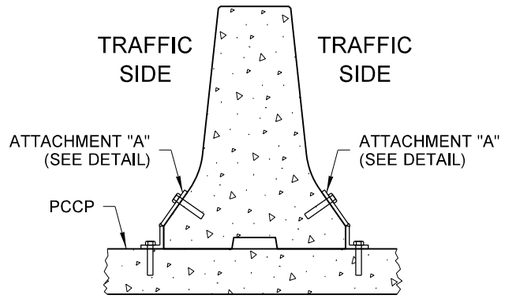


ATTACHMENT "A" DETAIL

ATTACHMENT "B" DETAIL

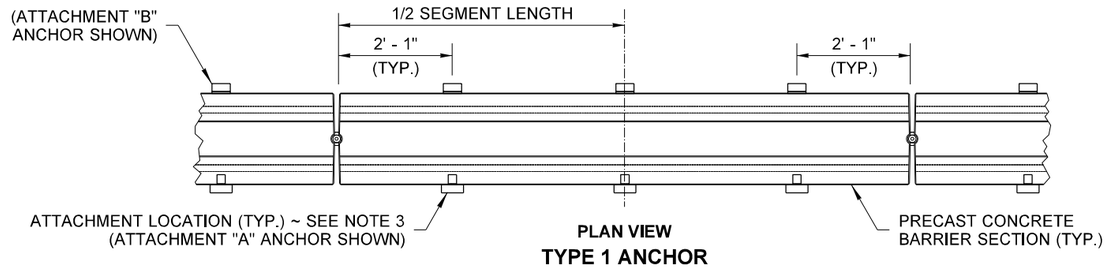
DRAWN BY: FERN LIDDELL





SECTION VIEWS

TYPE 1 ANCHOR
ATTACHMENT LOCATIONS



PLAN VIEW

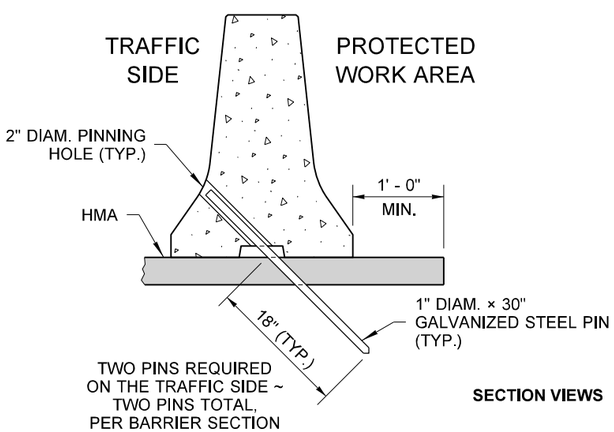
TYPE 1 ANCHOR
ATTACHMENT LOCATIONS

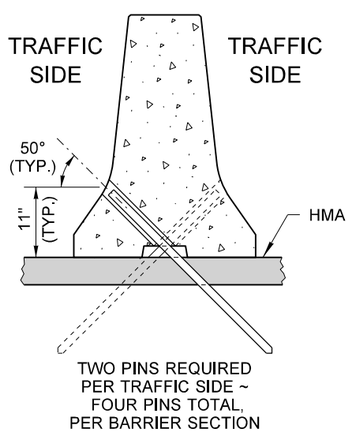
TYPE 1 ANCHOR

TEMPORARY INSTALLATION OF PRECAST CONCRETE BARRIER TYPE 2 ON CEMENT CONCRETE PAVEMENT OR BRIDGE DECK, AND TEMPORARY INSTALLATION OF PRECAST CONCRETE BARRIER TYPE F (**STANDARD PLAN C-60.10**) ON BRIDGE DECK

NOTES

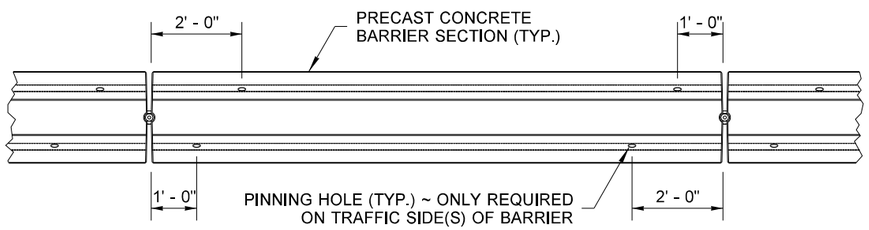
1. The intended use of this plan is for the temporary installation of the Type 2 Concrete Barrier on cement concrete pavement, bridge decks, or hot mix asphalt pavement, and Type F Concrete Barrier on Bridge decks.
2. Use Type 1 Anchors when the concrete pavement or bridge deck is 6" or thicker with 2' wide concrete barrier only. Use Type 2 Anchors (**Standard Plan K-80.37**) with narrow base barrier.
3. Adjust the location of the Type 1 Anchors to avoid the main reinforcing in the deck when drilling holes.
4. Use shims to properly fit the Type 1 Anchors to the barrier and roadway surfaces.
5. Upon removal of the Type 1 Anchors, clean the bolt holes and fill them with grout according to **Standard Specification, Section 6.02.3(20)**.
6. Remove the Type 3 Anchors by first driving the steel pins down through the barrier further into the pavement to allow lifting the barrier without interference, then remove the pins from the pavement.
7. After removing the Type 3 Anchors, clean the pin holes and fill them with sealant according to **Standard Specification, Section 9-04.2.**





SECTION VIEWS

TYPE 3 ANCHOR
PIN LOCATIONS



PLAN VIEW

TYPE 3 ANCHOR
PIN LOCATIONS

TYPE 3 ANCHOR

TEMPORARY INSTALLATION OF PRECAST CONCRETE BARRIER TYPE 2 ON HOT MIX ASPHALT PAVEMENT

JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED PROFESSIONAL ENGINEER

2020.09.10 10:04:22 -07'00'

TEMPORARY CONCRETE BARRIER ANCHORING

STANDARD PLAN K-80.35-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Roark, Steve Digitally signed by Roark, Steve Date: 2020.09.16 10:23:50 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

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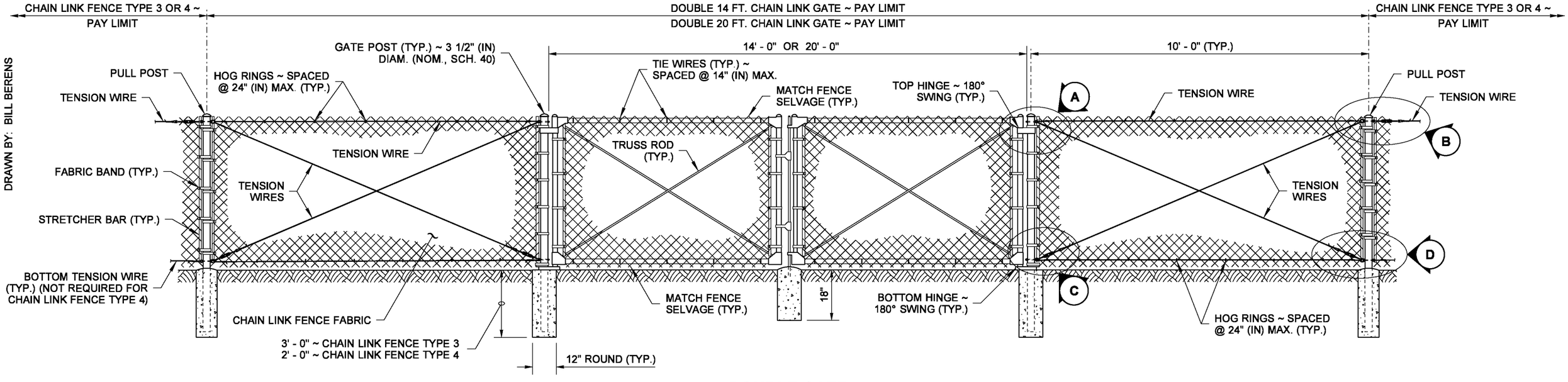
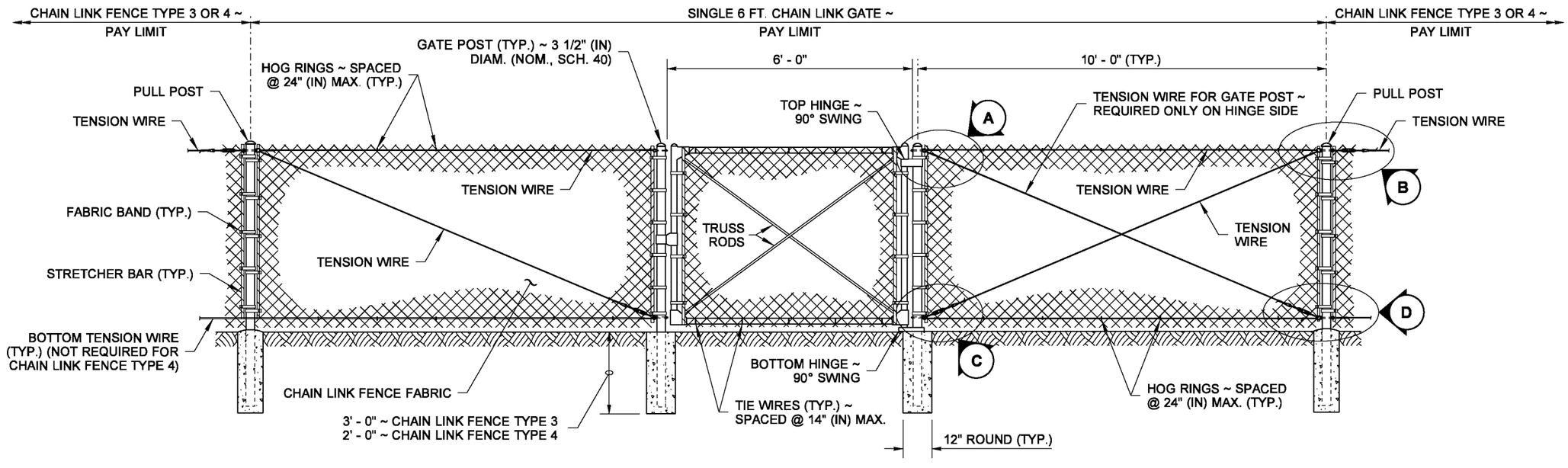
NOTES

1. Materials shall meet the requirements of **Standard Specification 9-16**.



DOUBLE GATE



SINGLE GATE

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EDWARD PATRICK BARRY
STATE OF WASHINGTON
34363
REGISTERED
PROFESSIONAL ENGINEER

Barry, Ed
May 6 2014 3:57 PM

CHAIN LINK GATE

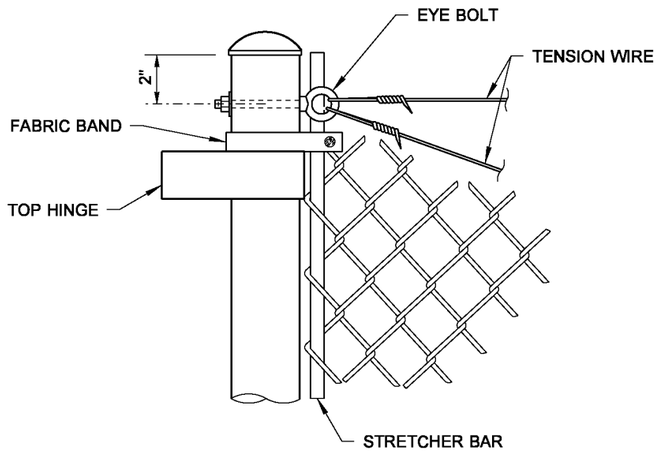
STANDARD PLAN L-30.10-02

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Bakotich, Pasco
Jun 11 2014 1:40 PM
STATE DESIGN ENGINEER

Washington State Department of Transportation

DRAWN BY: BILL BERENS



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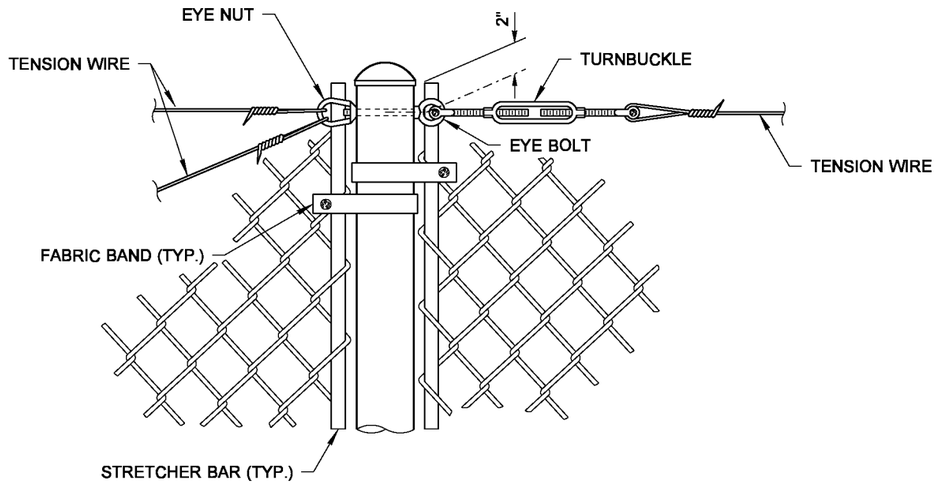

PULL POST

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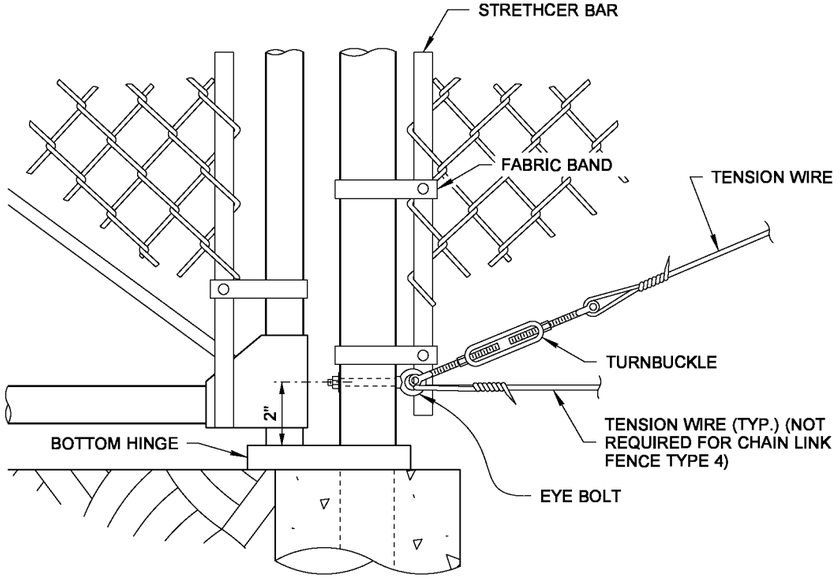

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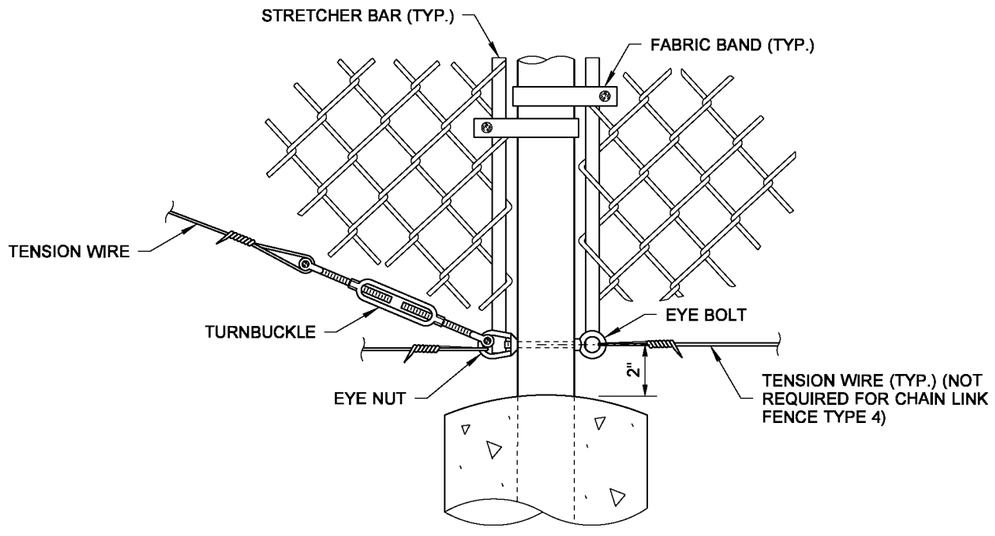

PULL POST

DETAIL (D)

EDWARD PATRICK BARRY
STATE OF WASHINGTON
34363
REGISTERED
PROFESSIONAL ENGINEER

Barry, Ed
May 6 2014 3:58 PM

CHAIN LINK GATE

STANDARD PLAN L-30.10-02

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
Bakotich, Pasco
Jun 11 2014 1:41 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

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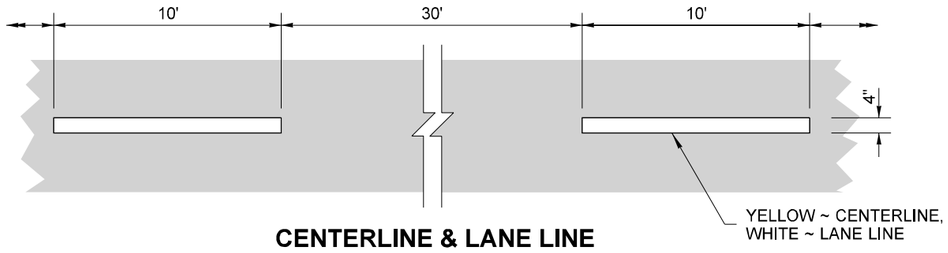
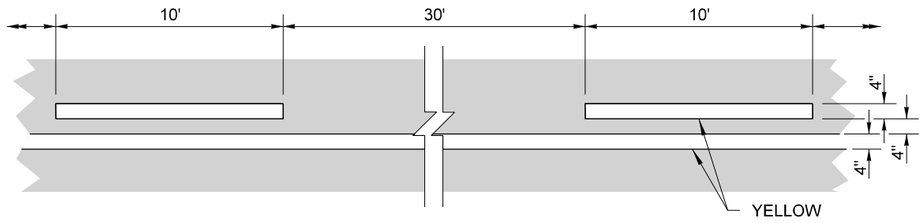
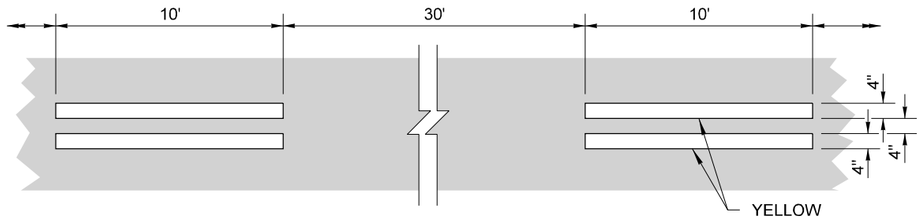


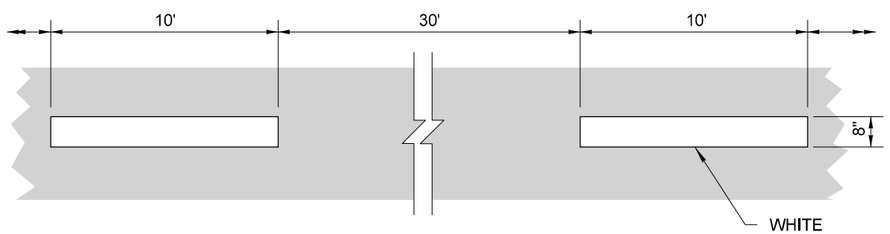
CENTERLINE & LANE LINE



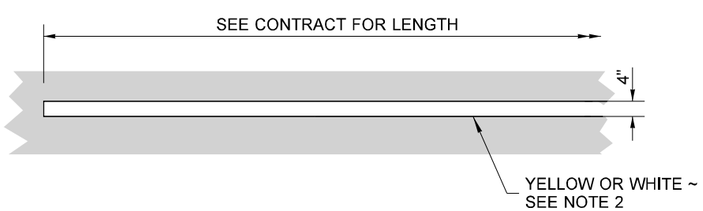
NO-PASS LINE & TWO-WAY LEFT-TURN CENTERLINE



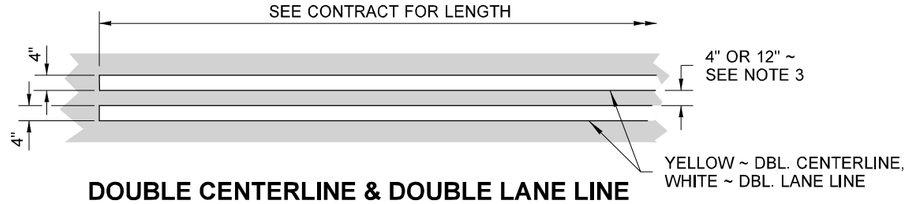
REVERSIBLE LANE LINE



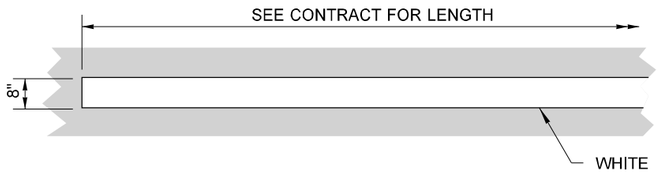
WIDE BROKEN LANE LINE



EDGE LINE & SOLID LANE LINE

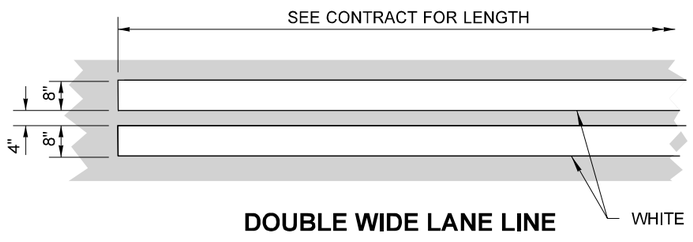


DOUBLE CENTERLINE & DOUBLE LANE LINE

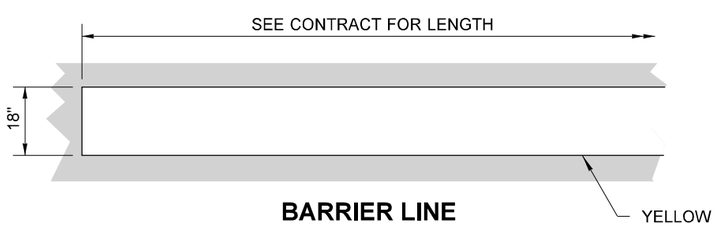


WIDE EDGE LINE & WIDE SOLID LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



DOUBLE WIDE LANE LINE



BARRIER LINE

NOTES

1. Dotted Extension Line shall be the same color as the line it is extending.
2. Edge Line shall be white on the right edge of traveled way, and yellow on the left edge of traveled way (on one-way roadways). Solid Lane Line shall be white.
3. The distance between the lines of the Double Centerline shall be 12" everywhere, except 4" for left-turn channelization and narrow roadways with lane widths of 10 feet or less. Local Agencies (on non-state routes) may specify a 4" distance for all locations.

   The distance between the lines of the Double Lane Line shall be 4".

DRAWN BY: FERN LIDDELL

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BRIAN J. WALSH STATE OF WASHINGTON 36103 REGISTERED PROFESSIONAL ENGINEER

Brian J Walsh

Brian J Walsh (Aug 1, 2022 PDT)

Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 1 OF 4 SHEETS

APPROVED FOR PUBLICATION

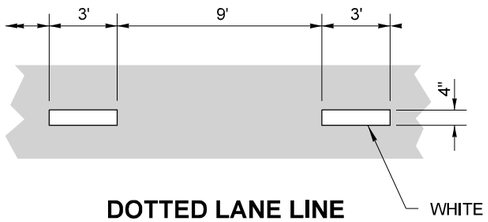
Mark Gaines

Mark Gaines (Aug 2, 2022 10:17 PDT)

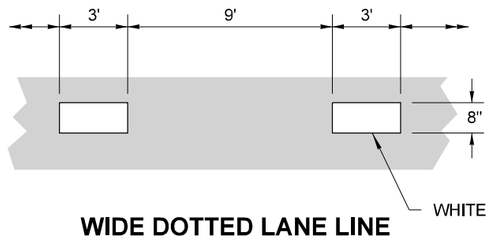
Aug 2, 2022

STATE DESIGN ENGINEER

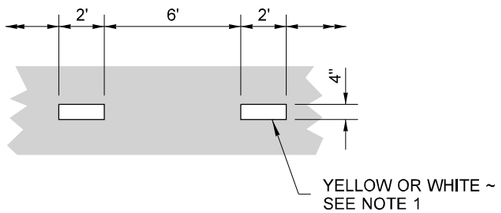
Washington State Department of Transportation



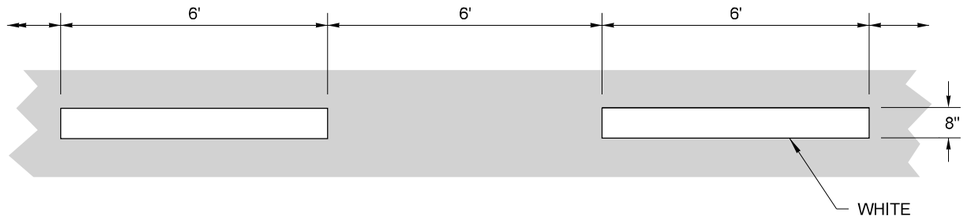
DOTTED LANE LINE



WIDE DOTTED LANE LINE



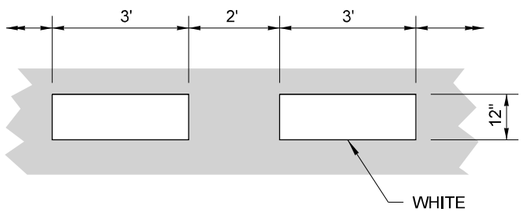
DOTTED EXTENSION LINE



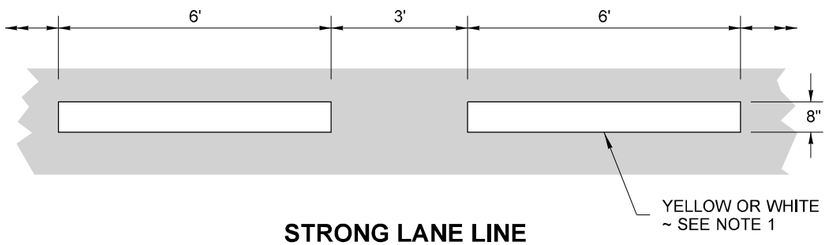
WIDE DOTTED EXTENSION LINE

DRAWN BY : FERN LIDDELL

ROUNDABOUT SPECIFIC LINES

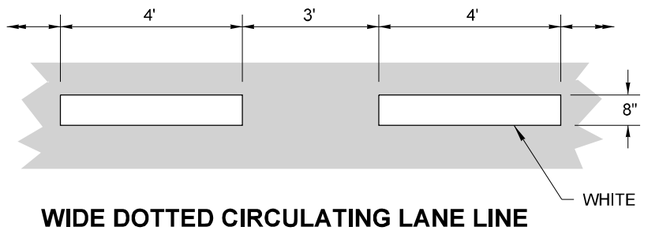


WIDE DOTTED ENTRY LINE



STRONG LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



WIDE DOTTED CIRCULATING LANE LINE

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BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
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Brian J Walsh
Brian J Walsh (Aug 1, 2022 PDT)

Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 2 OF 4 SHEETS

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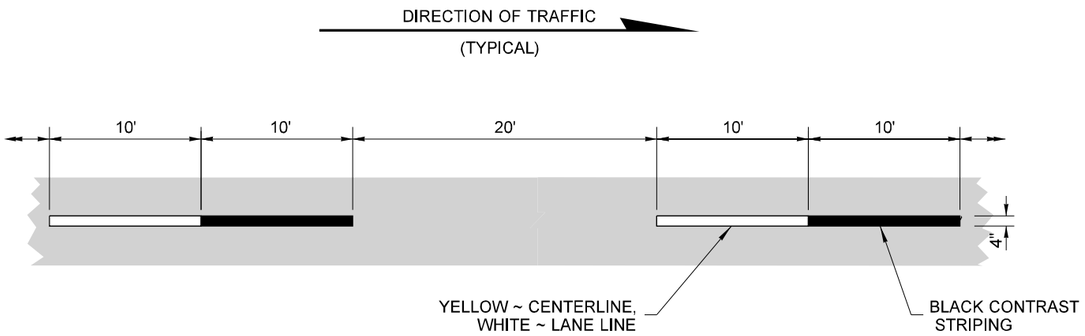
Aug 2, 2022

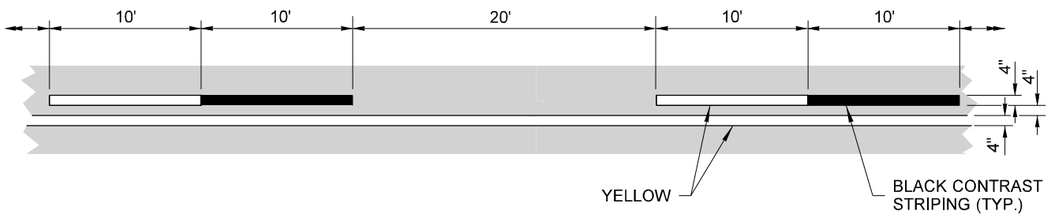
STATE DESIGN ENGINEER

Washington State Department of Transportation

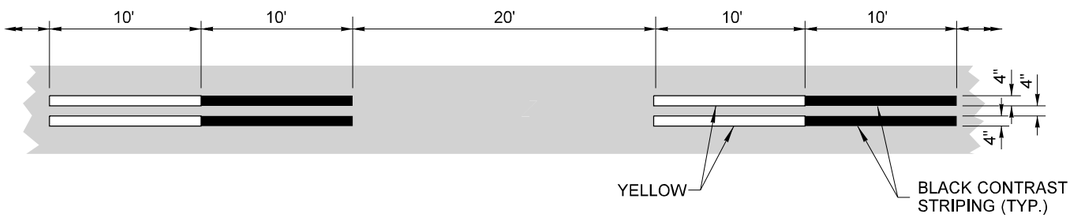
DRAWN BY: FERN LIDDELL



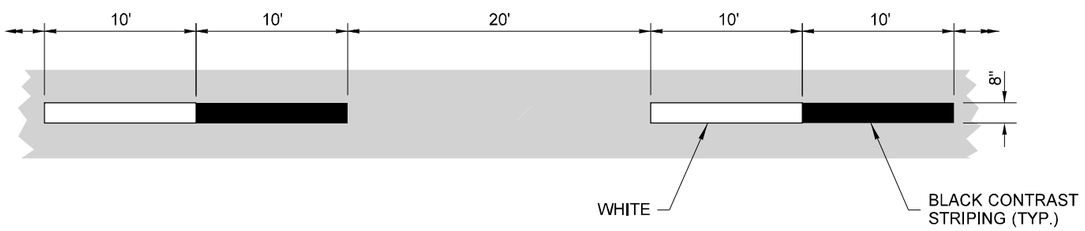
CENTERLINE & LANE LINE



NO-PASS LINE & TWO-WAY LEFT-TURN CENTERLINE



REVERSIBLE LANE LINE



WIDE BROKEN LANE LINE

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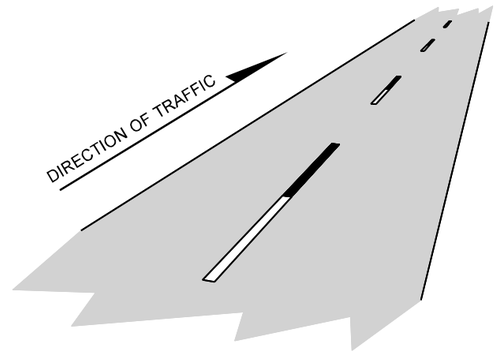
NOTE

1. Dotted Extension Line shall be the same color as the line it is extending.



ISOMETRIC VIEW

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

Brian J Walsh
Brian J Walsh (Aug 1, 2022 15:54 PDT)

Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 3 OF 4 SHEETS

APPROVED FOR PUBLICATION

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Mark Gaines (Aug 2, 2022 10:17 PDT)

Aug 2, 2022

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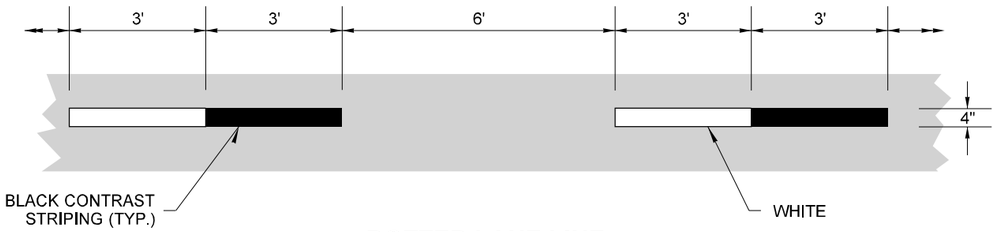
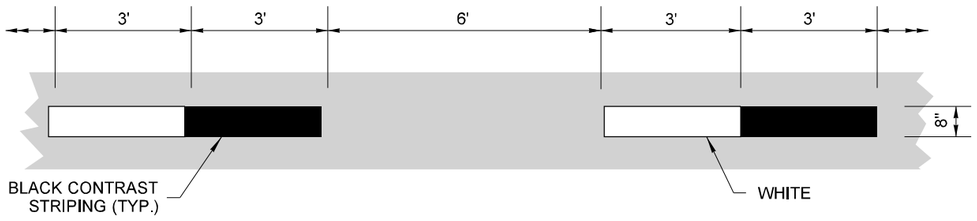
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL

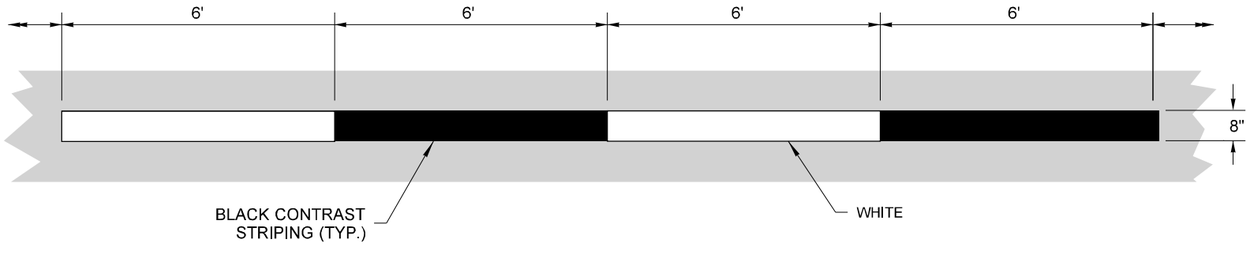
DIRECTION OF TRAFFIC
(TYPICAL)



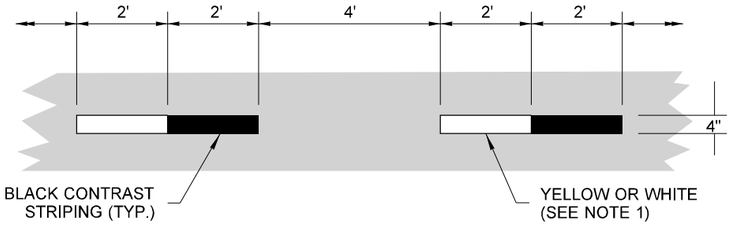
DOTTED LANE LINE



WIDE DOTTED LANE LINE

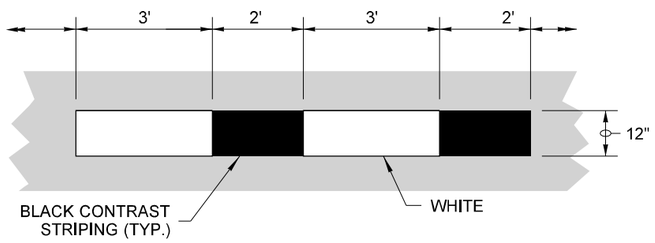


WIDE DOTTED EXTENSION LINE

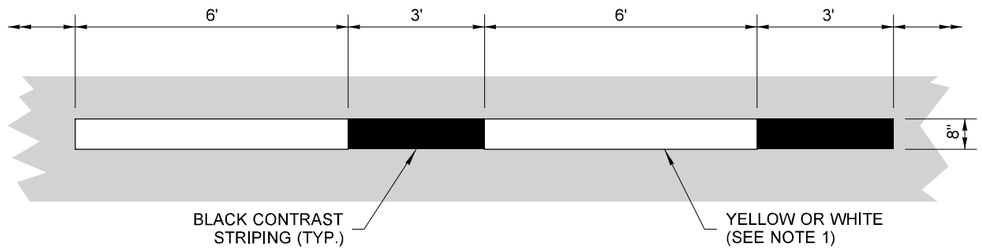


DOTTED EXTENSION LINE

ROUNDABOUT SPECIFIC LINES

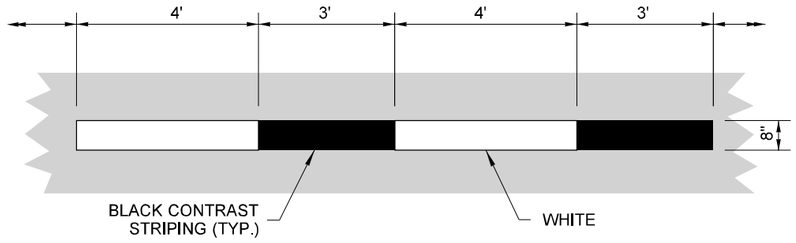


WIDE DOTTED ENTRY LINE



STRONG LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



WIDE DOTTED CIRCULATING LANE LINE

Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 4 OF 4 SHEETS

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Aug 2, 2022

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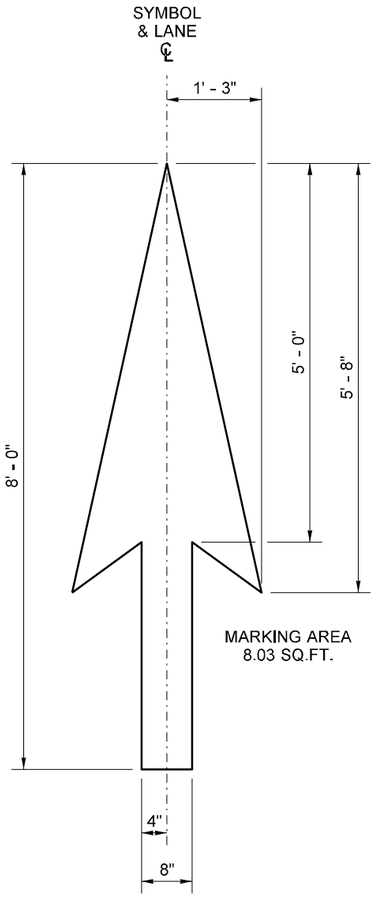
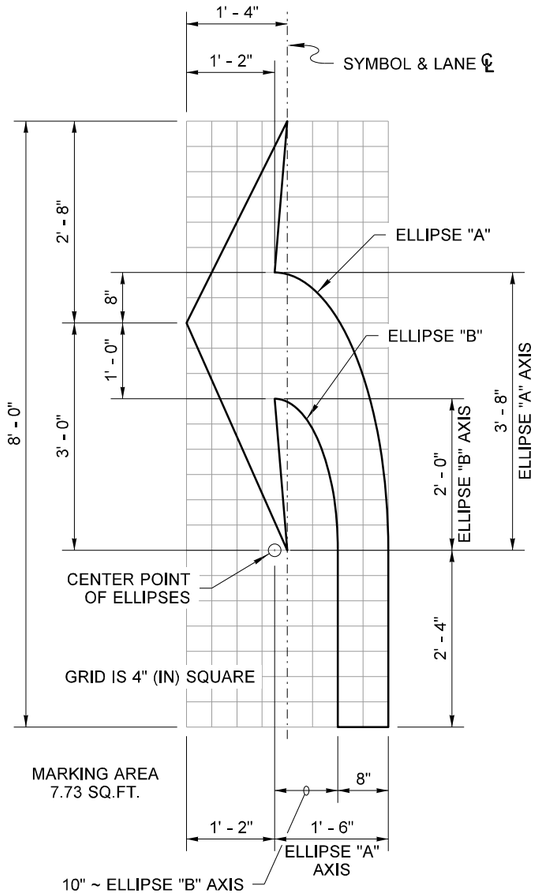


TYPE 1S
TRAFFIC ARROW

TYPE 2SR (RIGHT)
TRAFFIC ARROW

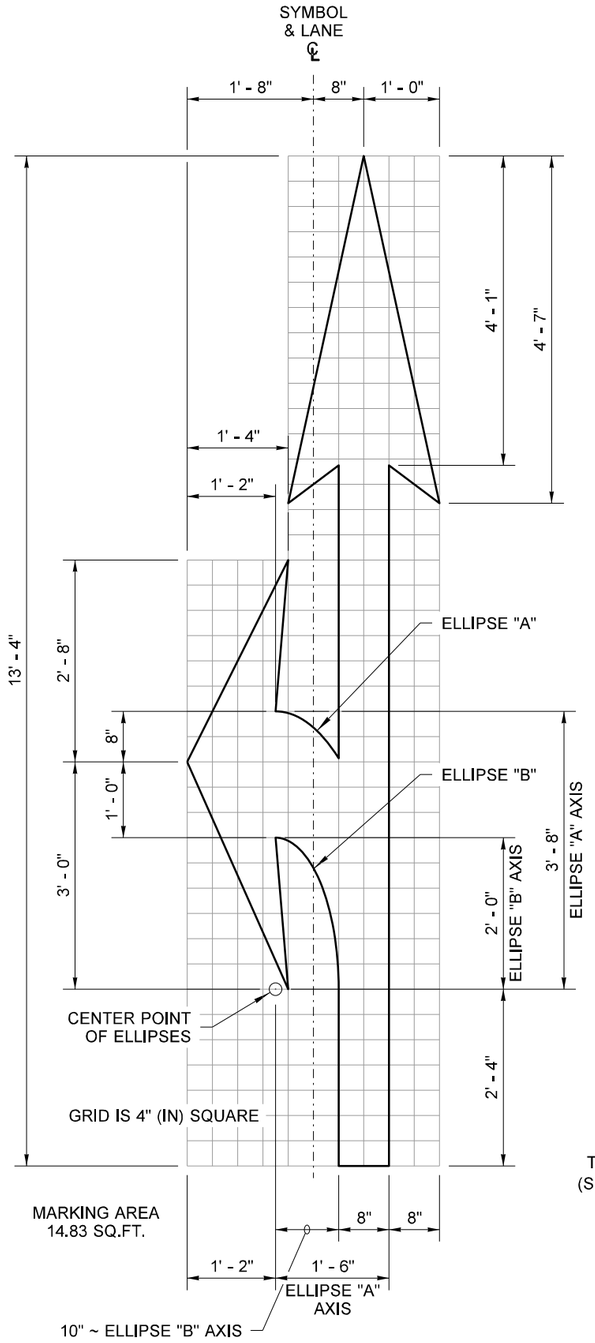
MIRROR IMAGE OF
TYPE 2SL TRAFFIC ARROW
(SHOWN AT REDUCED SCALE)



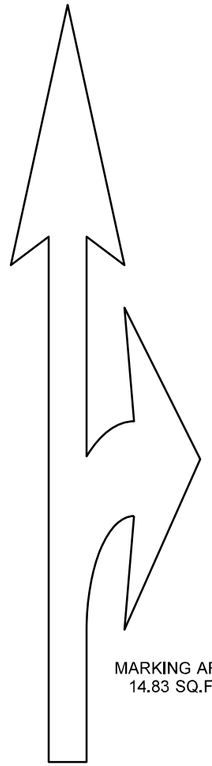
TYPE 2SL (LEFT) TRAFFIC ARROW

NOTE

Use the dimensions shown on this plan for each type of Traffic Arrow being placed on roadways with a posted speed limit of 40 mph or lower.

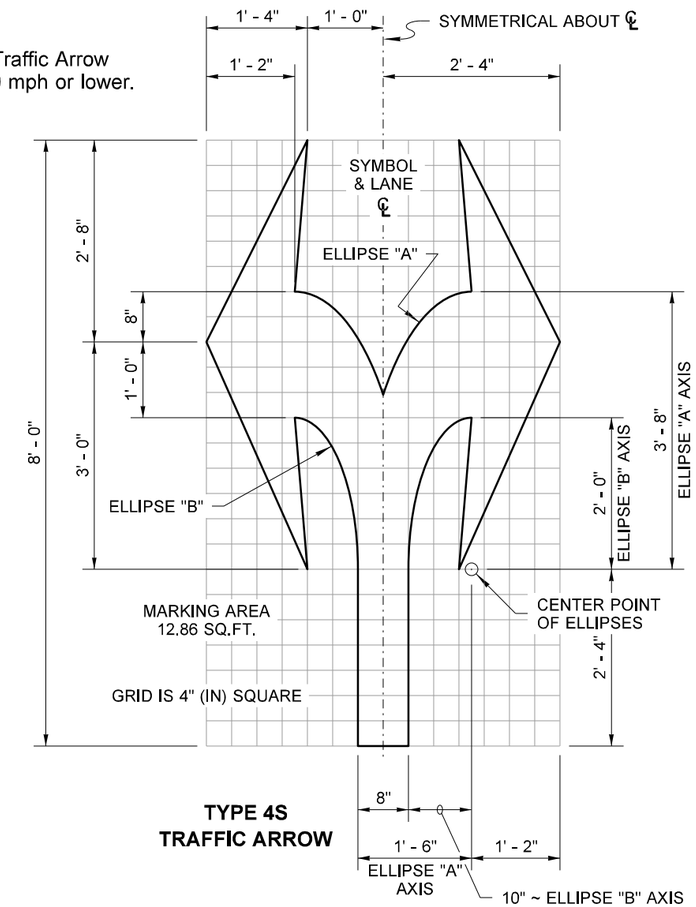


TYPE 3SL (LEFT) TRAFFIC ARROW



TYPE 3SR (RIGHT)
TRAFFIC ARROW

MIRROR IMAGE OF
TYPE 3SL TRAFFIC ARROW
(SHOWN AT REDUCED SCALE)



TYPE 4S
TRAFFIC ARROW

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

Walsh, Brian
Apr 16 2015 2:21 PM

SYMBOL MARKINGS ~ TRAFFIC ARROWS FOR LOW-SPEED ROADWAYS
STANDARD PLAN M-24.40-02

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Bakotich, Pasco
Apr 20 2015 10:11 AM

STATE DESIGN ENGINEER

Washington State Department of Transportation

DRAWN BY: COLBY FLETCHER

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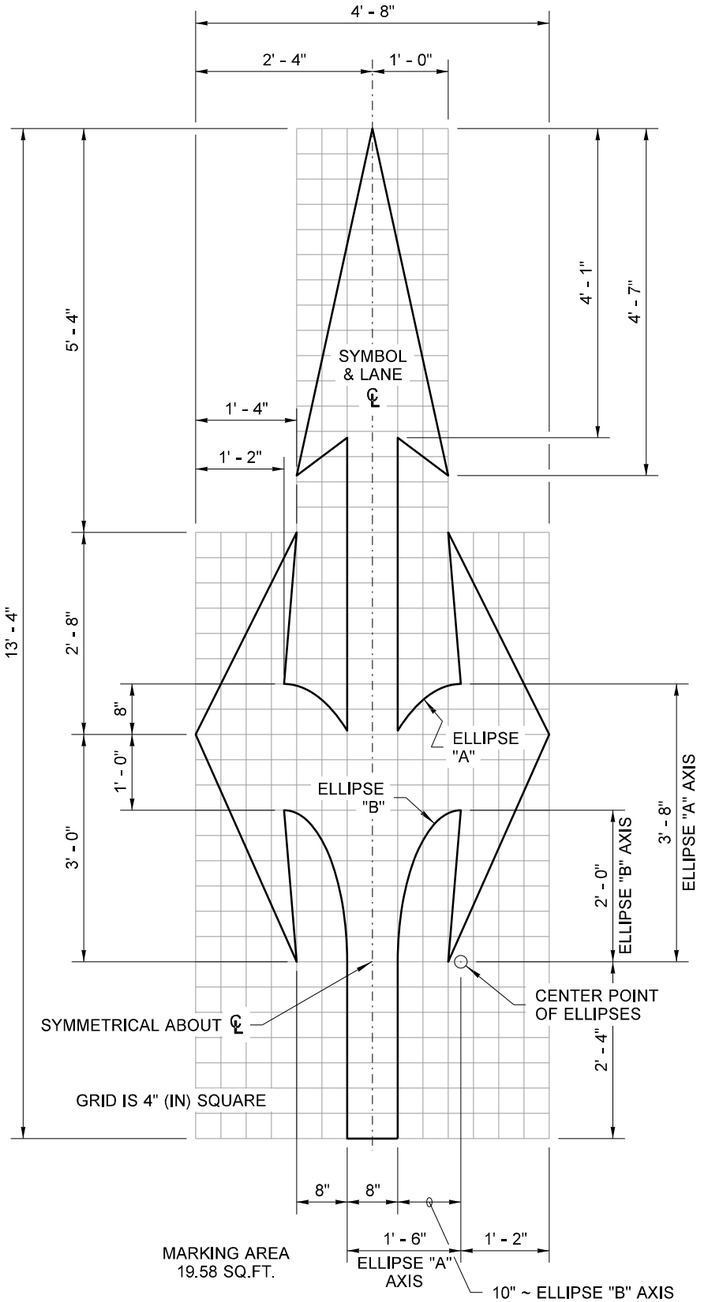
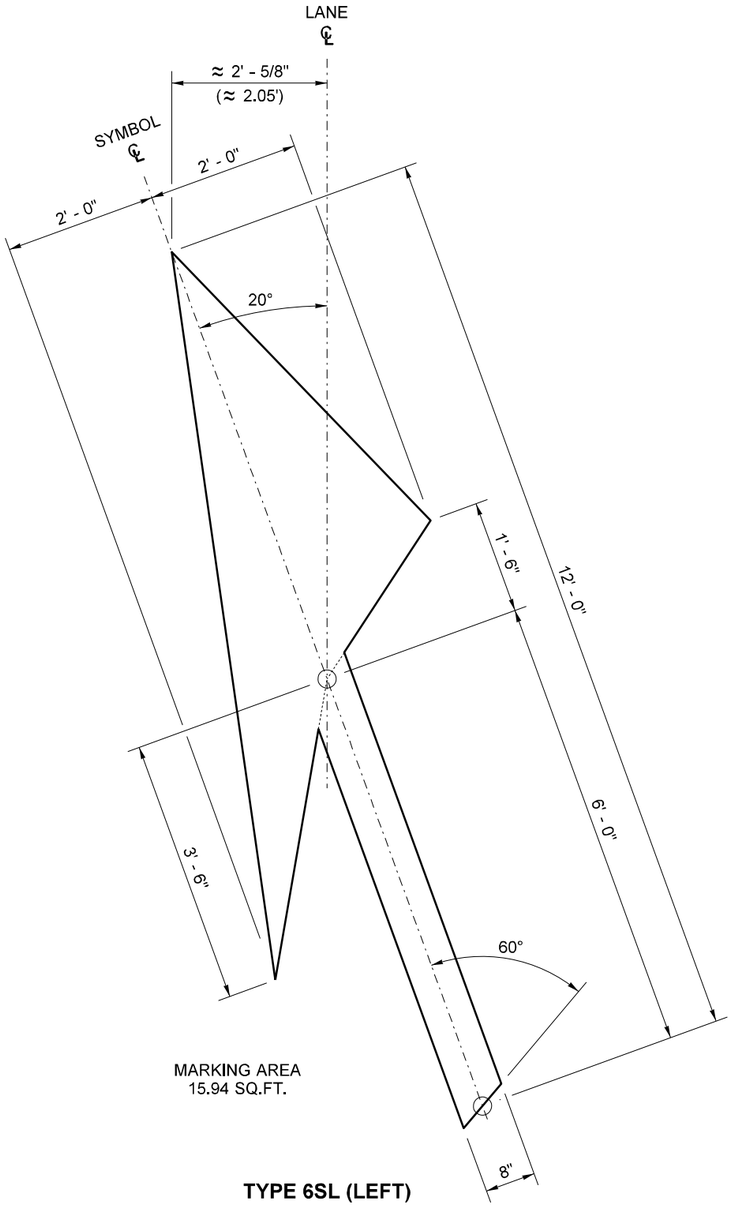
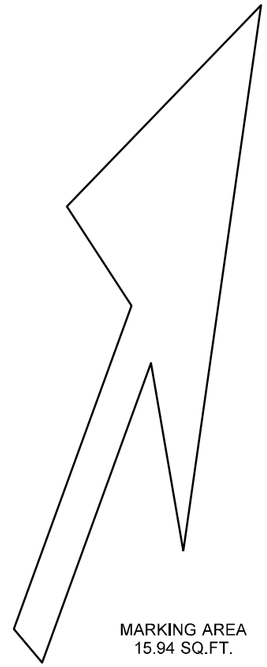


TYPE 7S TRAFFIC ARROW



**TYPE 6SL (LEFT)
TRAFFIC ARROW**



MARKING AREA
15.94 SQ.FT.

**TYPE 6SR (RIGHT)
TRAFFIC ARROW**

MIRROR IMAGE OF TYPE 6SL
(MIRRORED ABOUT LANE CENTERLINE)
(SHOWN AT REDUCED SCALE)

Walsh, Brian
Apr 16 2015 2:21 PM

SYMBOL MARKINGS ~ TRAFFIC ARROWS FOR LOW-SPEED ROADWAYS STANDARD PLAN M-24.40-02

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Bakotich, Pasco
Apr 20 2015 10:11 AM

STATE DESIGN ENGINEER

Washington State Department of Transportation

DRAWN BY: COLBY FLETCHER

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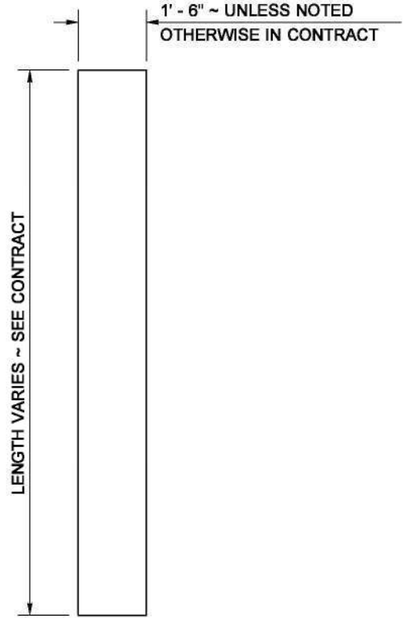
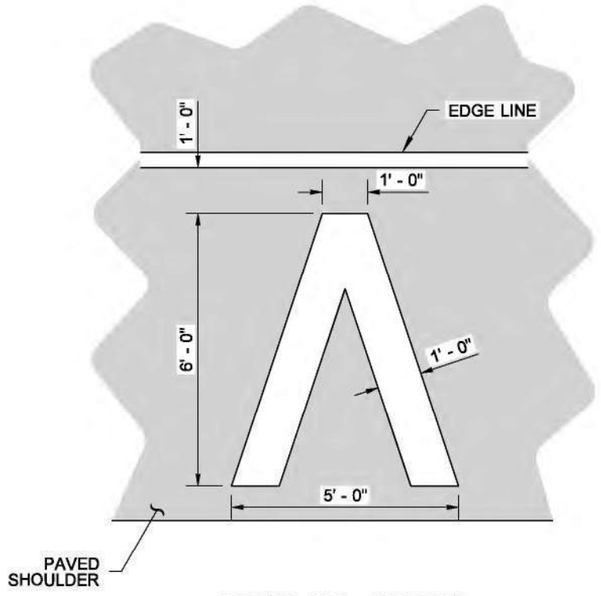
DRAWN BY: LISA CYFORD

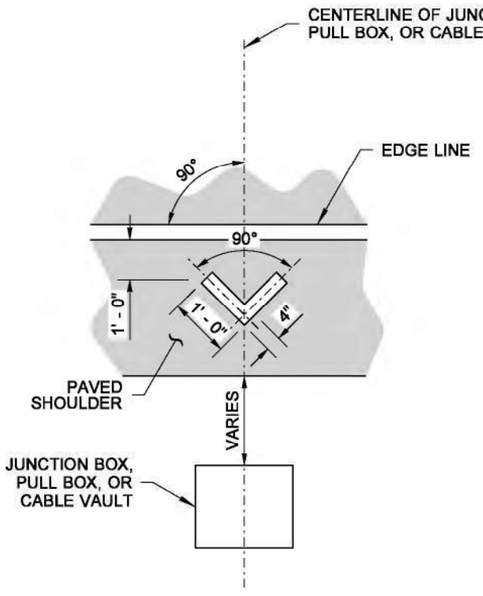


STOP LINE



MARKING AREA = 11.73 SQ.FT.

HALF-MILE MARKER

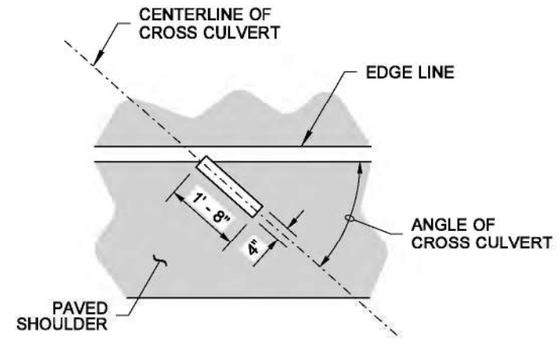


MARKING AREA = 0.56 SQ. FT.

JUNCTION BOX, PULL BOX, OR CABLE VAULT MARKINGS

NOTE

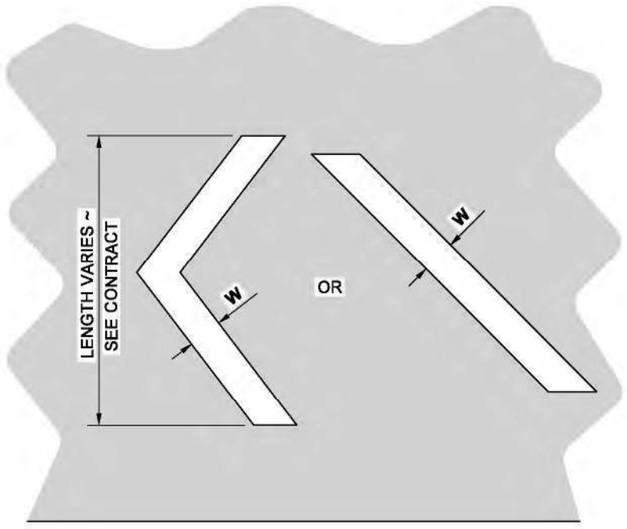
1. If Rumble Strips are present, install marking outside of the Rumble Strip.



MARKING AREA = 0.56 SQ.FT.

CROSS CULVERT

DRAINAGE MARKING

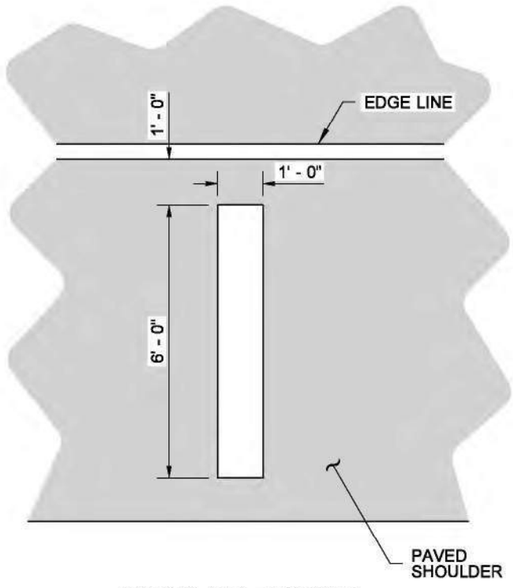


WHITE OR YELLOW ~ SEE CONTRACT

CHEVRON OR DIAGONAL

CROSSHATCH MARKING

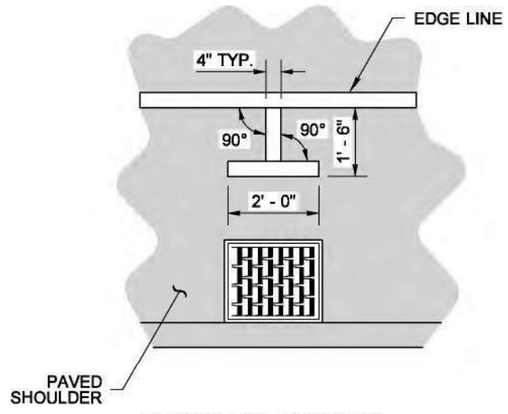
W = 8" (IN) FOR POSTED SPEED LIMIT OF 40 MPH OR LOWER
W = 12" (IN) FOR POSTED SPEED LIMIT OF 45 MPH OR HIGHER



MARKING AREA = 6.00 SQ.FT.

FULL MILE MARKER

AERIAL SURVEILLANCE MARKERS



MARKING AREA = 1.06 SQ.FT.

DRAINAGE STRUCTURE INLET

DRAINAGE MARKING

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

Walsh, Brian
Jun 24 2014 2:35 PM

SYMBOL MARKINGS MISCELLANEOUS

STANDARD PLAN M-24.60-04

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Bakotich, Pasco
Jun 24 2014 4:43 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

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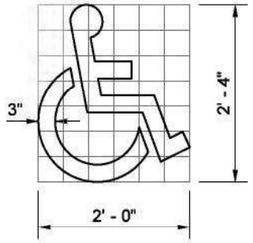
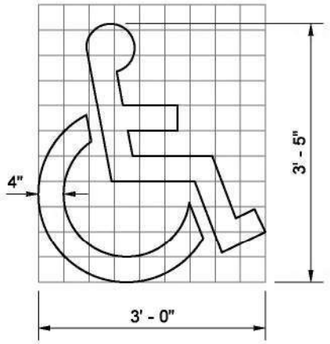
DRAWN BY: LISA CYFORD



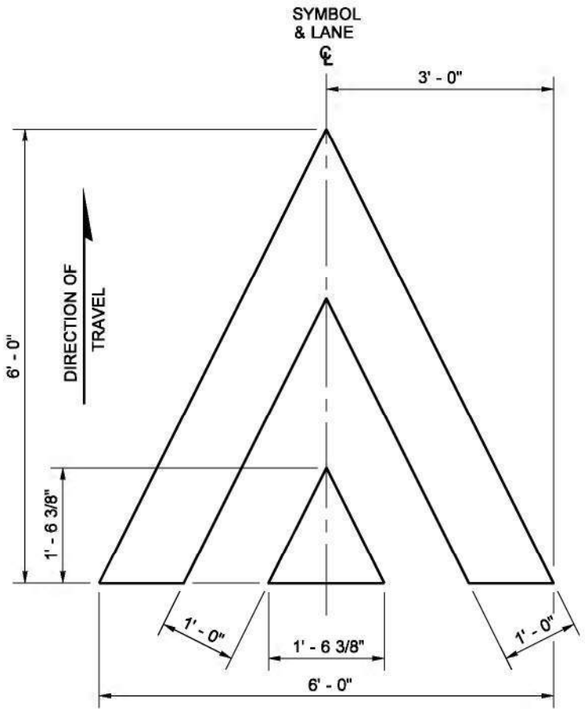
GRID IS 4" (IN) SQUARE MARKING AREA = 1.41 SQ.FT.

ACCESS PARKING SPACE SYMBOL (MINIMUM)



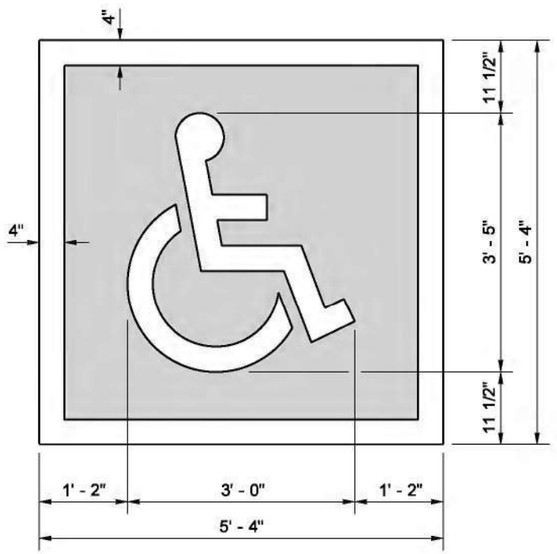
GRID IS 4" (IN) SQUARE MARKING AREA = 3.09 SQ.FT.

ACCESS PARKING SPACE SYMBOL (STANDARD)



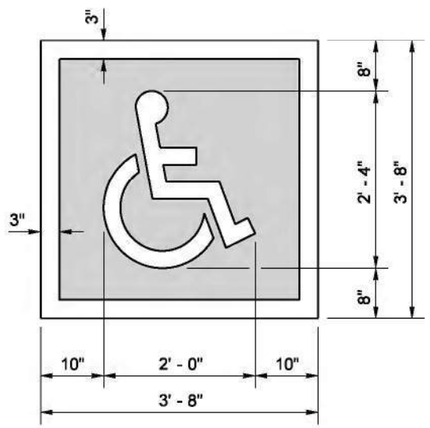
MARKING AREA = 12.08 SQ.FT.

SPEED BUMP SYMBOL



TOTAL MARKING AREA = 28.44 SQ.FT.
WHITE = 9.76 SQ.FT. BLUE = 18.69 SQ.FT.

ACCESS PARKING SPACE SYMBOL (STANDARD)
WITH BLUE BACKGROUND AND WHITE BORDER
(REQUIRED FOR CEMENT CONCRETE SURFACES)



TOTAL MARKING AREA = 13.44 SQ.FT.
WHITE = 4.82 SQ.FT. BLUE = 8.62 SQ.FT.

ACCESS PARKING SPACE SYMBOL (MINIMUM)
WITH BLUE BACKGROUND AND WHITE BORDER
(REQUIRED FOR CEMENT CONCRETE SURFACES)

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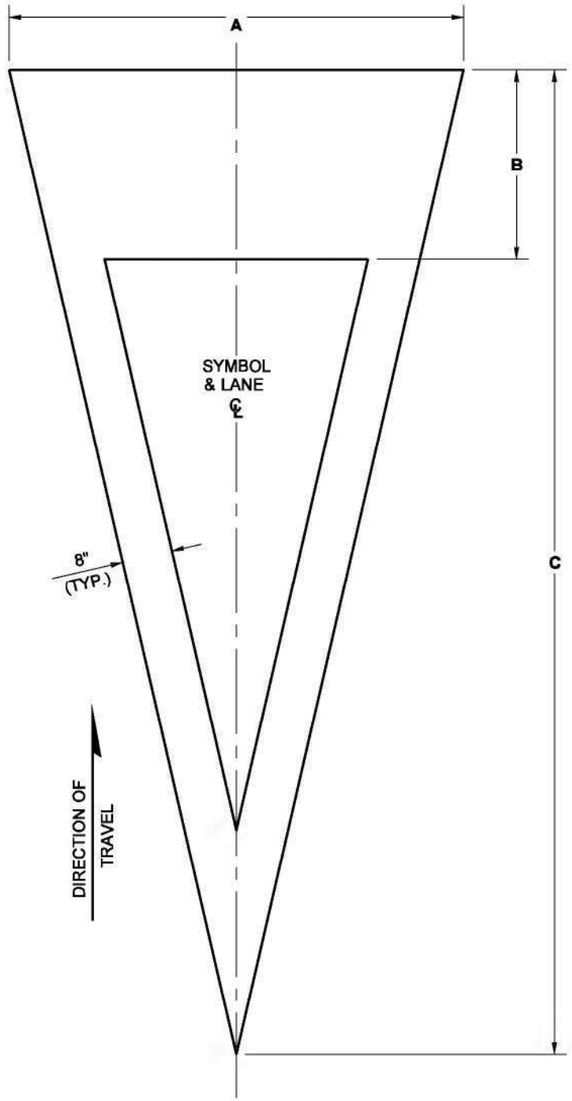
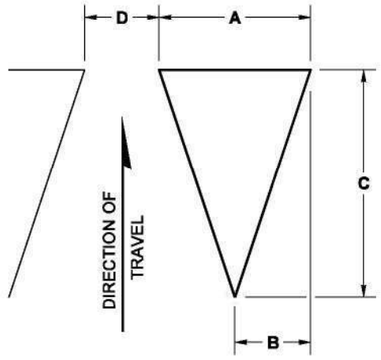
SYMBOL MARKING		A	B	C	D	USE	MARKING AREA
YIELD AHEAD SYMBOL	TYPE 1	6' - 0"	2' - 6"	13' - 0"	N/A	LESS THAN 45 MPH	25.90 SQ.FT.
	TYPE 2	6' - 0"	3' - 0"	20' - 0"	N/A	45 MPH OR GREATER	36.54 SQ.FT.
YIELD LINE SYMBOL	TYPE 1	1' - 0"	6"	1' - 6"	6"	LESS THAN 45 MPH	0.75 SQ.FT.
	TYPE 2	2' - 0"	1' - 0"	3' - 0"	1' - 0"	45 MPH OR GREATER	3.00 SQ.FT.
	TYPE 2	2' - 0"	1' - 0"	3' - 0"	1' - 0"	ROUNDABOUT ENTRY *	3.00 SQ.FT.

* MINIMUM OF 4 IN LANE



YIELD AHEAD SYMBOL



YIELD LINE SYMBOL
(MULTIPLE SYMBOLS REQUIRED FOR TRANSVERSE YIELD LINE ~ SEE CONTRACT)

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

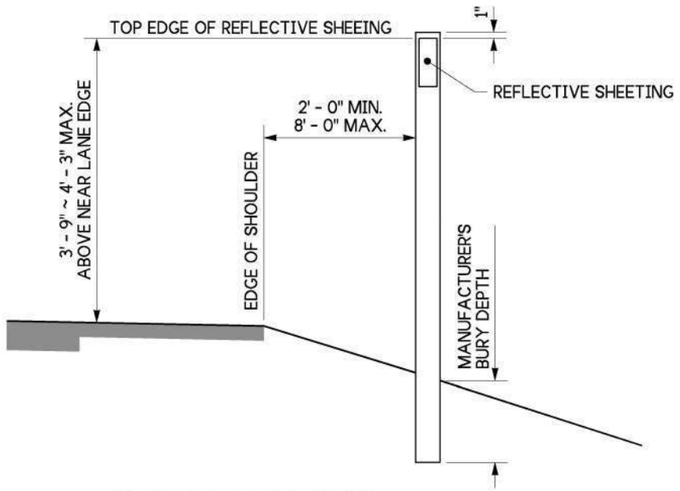
Walsh, Brian
Jun 24 2014 2:37 PM

SYMBOL MARKINGS MISCELLANEOUS

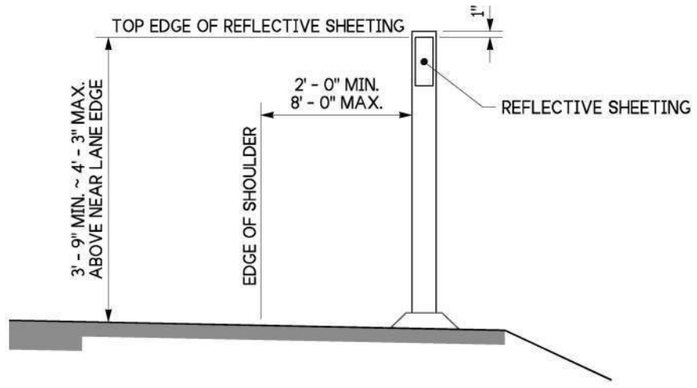
STANDARD PLAN M-24.60-04

SHEET 2 OF 2 SHEETS

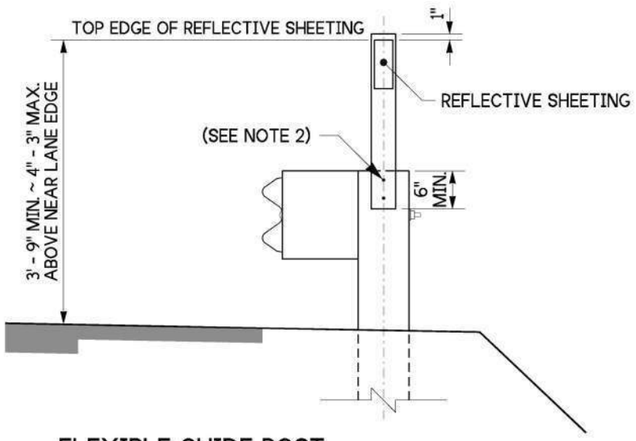
APPROVED FOR PUBLICATION
Bakotich, Pasco
Jun 24 2014 4:43 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation



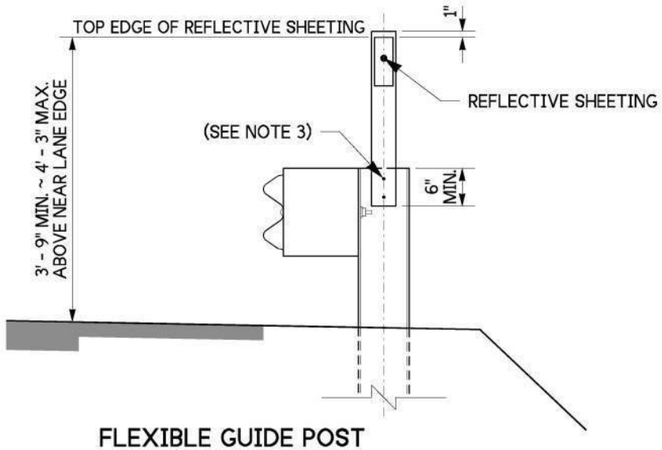
FLEXIBLE GUIDE POST
GROUND MOUNT



FLEXIBLE GUIDE POST
SURFACE MOUNT



FLEXIBLE GUIDE POST
GUARDRAIL MOUNT
(USE FOR WOODEN GUARDRAIL POSTS)



FLEXIBLE GUIDE POST
GUARDRAIL MOUNT
(USE FOR STEEL GUARDRAIL POSTS)

NOTES

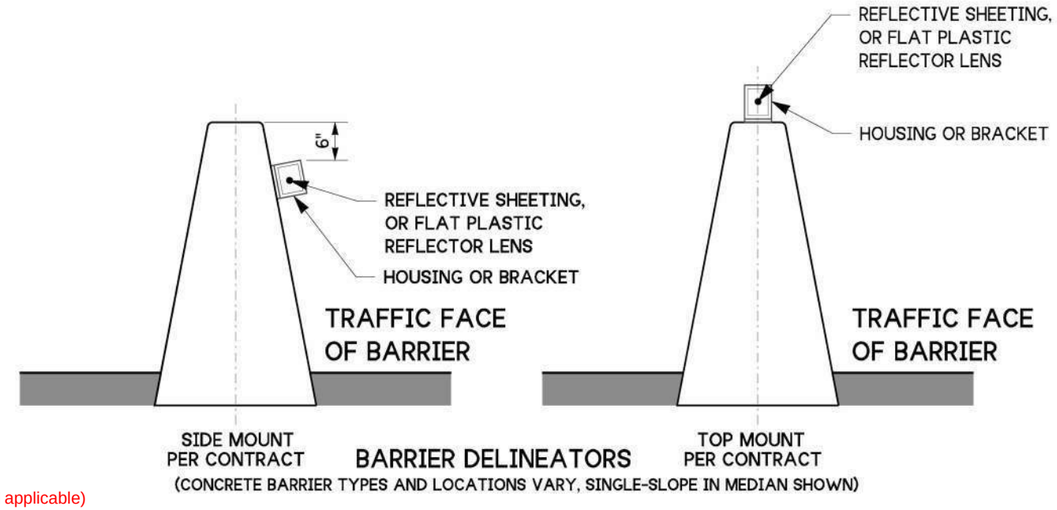
1. Guide Posts and Barrier Delineators per **Standard Specification Sections 8-10**, 9-17 and **9-18**.

2. Guide posts shall be fastened to the wooden guardrail post using two 2" x 3/8" (in) LAG screws with washers, along centerline of post. Also acceptable is any approved attahment method submitted by the guide post manufacturer.

3. Guide posts shall be fastened to the steel guardrail posts using two Hot Dip galvanized 2" x 3/8" (in) bolts with a washer on both sides, a lock washer, and nut. The nut shall be tightened to properly compress the lock washer. The drilled holes in the guardrail post web shall be painted with galvanizing repair paint as described in **Standard Specification Section 8-11.3(1)B**. Also acceptable is any approved attachment method submitted by the guide post manufacturer.

4. Spacing of Barrier Delineators shall be as shown in the Plans.

GUIDE POST TYPE ~ REFLECTIVE SHEETING APPLICATIONS (SEE NOTE 5)			
TYPE W	TYPE WW	TYPE Y	TYPE YY
○	⦶	●	⊕
FACING TRAFFIC: 3" × 8" WHITE	FACING TRAFFIC: 3" × 8" WHITE; BACK SIDE: 3" WHITE, 4", 3" WHITE, 4"	FACING TRAFFIC: 3" × 8" YELLOW	FACING TRAFFIC: 3" × 8" YELLOW; BACK SIDE: 3" × 8" YELLOW



BARRIER DELINEATORS
(CONCRETE BARRIER TYPES AND LOCATIONS VARY, SINGLE-SLOPE IN MEDIAN SHOWN)

BRIAN J. WALSH
STATE OF WASHINGTON
36103
REGISTERED
PROFESSIONAL ENGINEER

Oct 16, 2023

GUIDE POSTS AND BARRIER DELINEATORS

STANDARD PLAN M-40.10-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Oct 17, 2023
STATE DESIGN ENGINEER
Washington State Department of Transportation

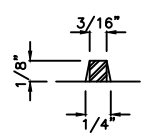
UNOFFICIAL COPY Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com

NOTES:

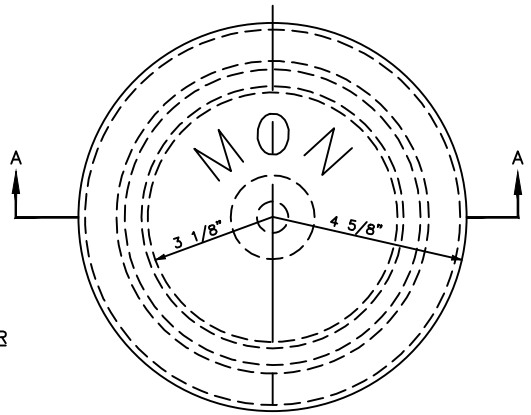
1. CASTINGS SHALL BE GRAY IRON ASTM A48, AASHTO M 105, CLASS 30.
2. COVER AND SEAT SHALL BE MACHINED FOR PERFECT CONTACT AROUND CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
3. APPROXIMATE WEIGHTS, STANDARD.

CASE	60 LBS
COVER	19 LBS
TOTAL	79 LBS

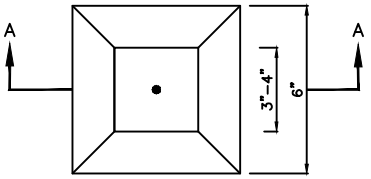
4. PAVEMENT SHALL BE ASPHALT CONCRETE OR APPROVED SUBSTITUTE.
5. CONCRETE SHALL BE CLASS 4000.
6. SEE SECTION 3.8.5.
7. COVER LETTERING MAY READ MONUMENT OR MON



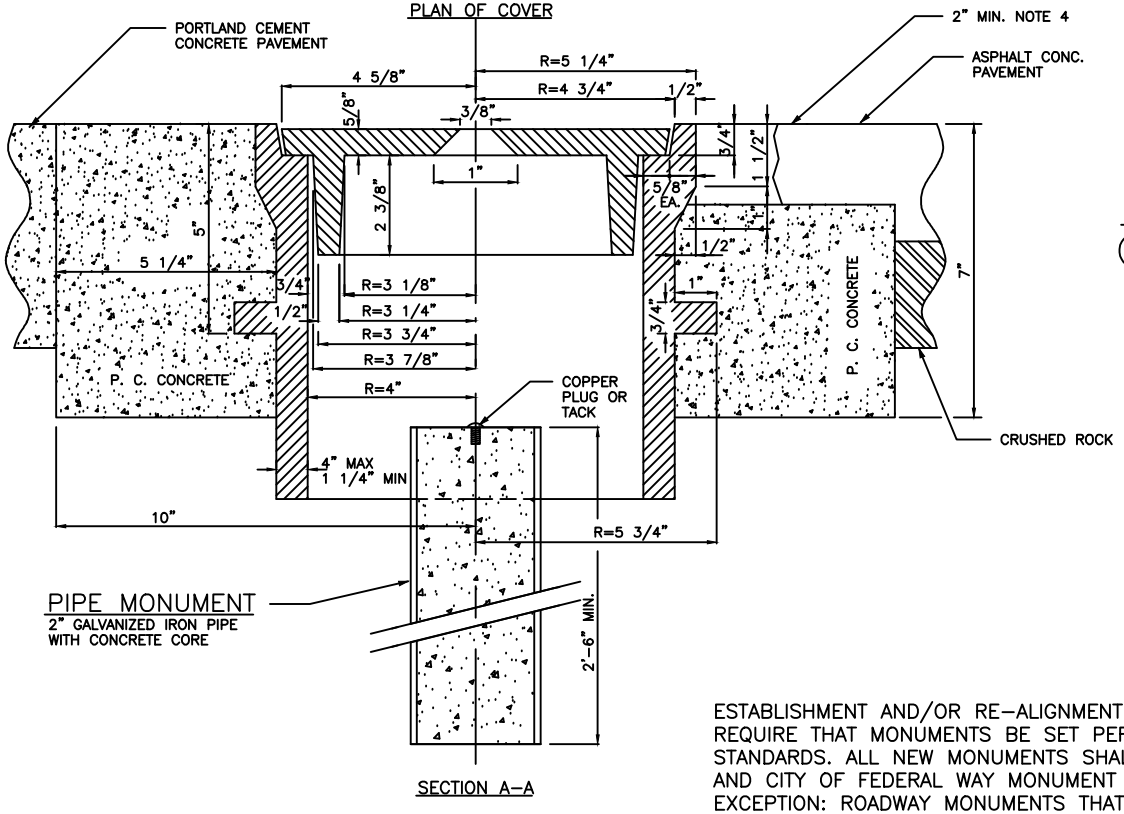
SECTION OF LETTER



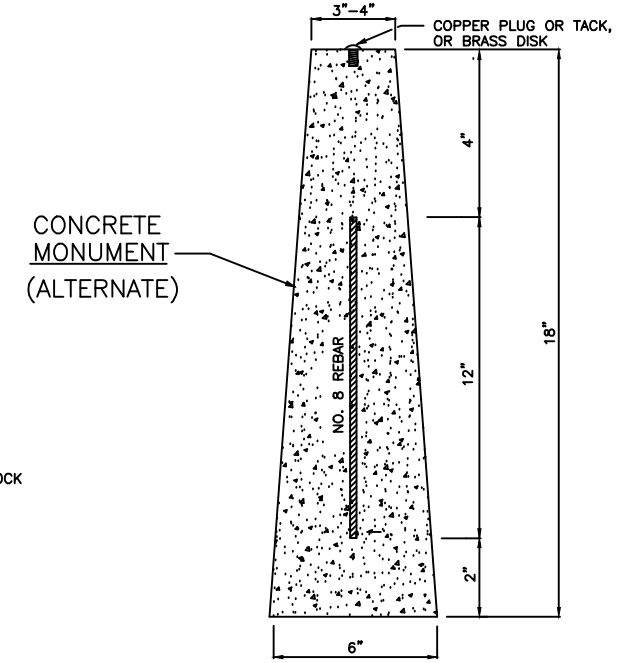
PLAN OF COVER



PLAN OF MONUMENT



SECTION A–A



SECTION B–B

ESTABLISHMENT AND/OR RE–ALIGNMENT OF A ROADWAY/RIGHT–OF–WAY CENTERLINE REQUIRE THAT MONUMENTS BE SET PER SECTION 3.8.5 OF THE PUBLIC WORKS DEVELOPMENT STANDARDS. ALL NEW MONUMENTS SHALL BE DOCUMENTED WITH A RECORD OF SURVEY AND CITY OF FEDERAL WAY MONUMENT RECORD FORM (DETAIL 3–37).
EXCEPTION: ROADWAY MONUMENTS THAT ARE SET/ESTABLISHED AS PART OF A RECORDED SUBDIVISION.

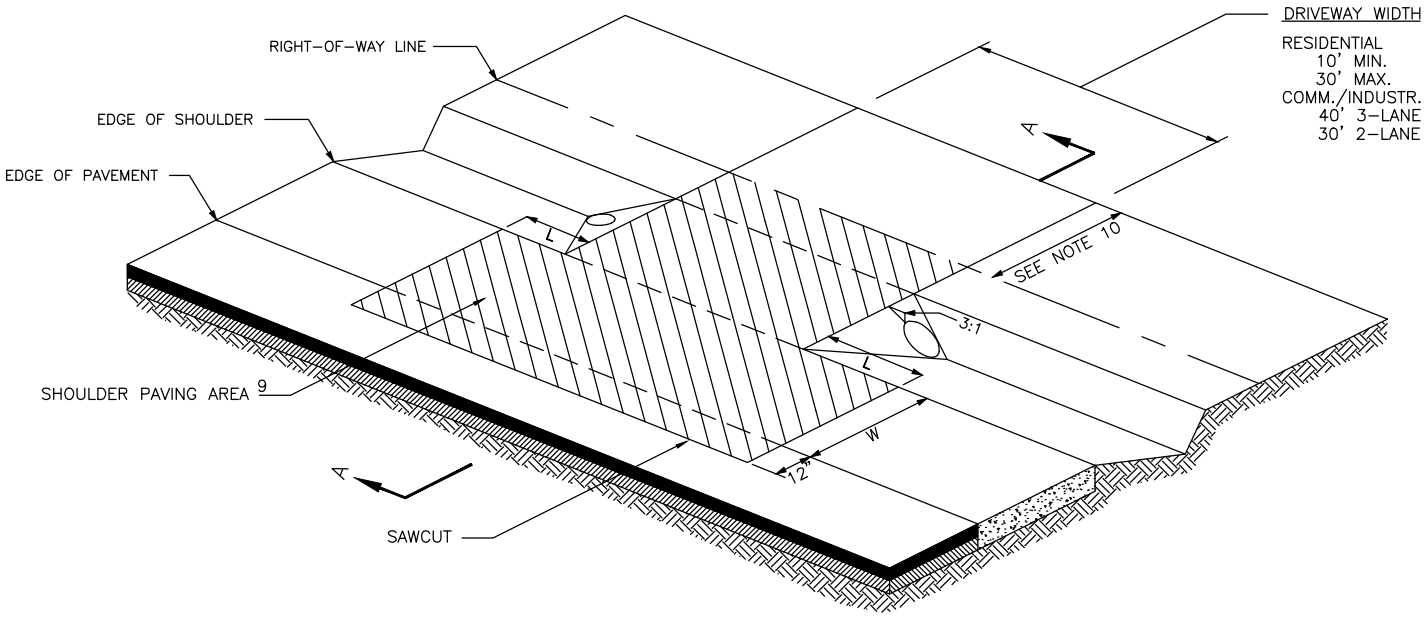
REV: MAR 2025

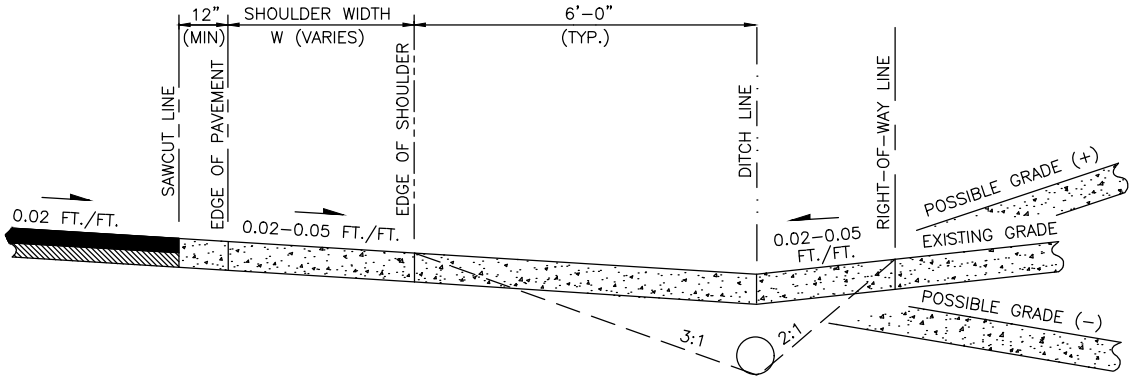
CITY OF Federal Way

PUBLIC WORKS

ROADWAY SURVEY MONUMENT WITH CASE

STD. DETAIL FW.A10.30-A





SECTION A–A

NOTES:

1. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 40' MAY BE APPROVED BY THE ENGINEER CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID–WIDTH. SEE KING COUNTY ROAD STANDARDS, SECTION 3.04.
2. PIPE SHALL BE:
   A. SIZED TO CONVEY COMPUTED STORM WATER RUNOFF, AND
   B. MIN. 12" DIAMETER, AND
   C. EQUAL TO OR LARGER THAN THE EXISTING PIPES WITHIN 500' UPSTREAM, AND
   D. BEDDING SHALL BE 5/8" MINUS CSTC.
3. EXPOSED PIPE ENDS SHALL BE BEVELED TO MATCH THE SLOPE FACE AND PROJECT NO MORE THAN 2" BEYOND SLOPE SURFACE. PROJECTING HEADWALLS ARE NOT ACCEPTABLE.
4. ALL PIPE SHALL BE CLASS IV CONCRETE PIPE, AND SHALL HAVE A MINIMUM OF 12" COVER.
5. PIPE SHALL BE INSTALLED IN A STRAIGHT UNIFORM ALIGNMENT AT A MIN. 0.5% SLOPE (0.5 FT. PER 100 FT.) WITH THE DOWNSTREAM END LOWER THAN THE UPSTREAM END.
6. PIPE MAY BE OMITTED IF ROADSIDE DITCH DOES NOT EXIST AND DRIVEWAY DOES NOT BLOCK NATURAL FLOW.
7. DRIVEWAY SLOPE SHALL MATCH TO BACK EDGE OF SHOULDER, BUT SHOULDER SLOPE AND EDGE OF SHOULDER SHALL NOT BE ALTERED AS A RESULT OF DRIVEWAY CONSTRUCTION.
8. PAVED DRIVEWAYS SHALL BE PAVED THROUGH THE RIGHT–OF–WAY WITH 3" (MIN) A.C., BUT NOT P.C.C.
9. GRAVEL DRIVEWAYS SHALL HAVE A PAVED DRIVEWAY APPROACH BETWEEN THE EDGE OF PAVEMENT AND RIGHT–OF–WAY WITH 3" (MIN) A.C. ONLY WITH DIMENSIONS L=W.
10. SINGLE–FAMILY RESIDENTIAL USES SHALL SURFACE THE FIRST 40 FT OF UNPAVED DRIVEWAYS MEASURED FROM THE BACK OF THE SIDEWALK OR PUBLIC RIGHT–OF–WAY, WHICHEVER IS GREATER.
11. SEE SEC. 4.0

REV: JUN 2024

CITY OF Federal Way

PUBLIC WORKS

SHOULDER & DITCH SECTION DRIVEWAY

STD. DETAIL
FW.F80.40

UNOFFICIAL COPY Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com

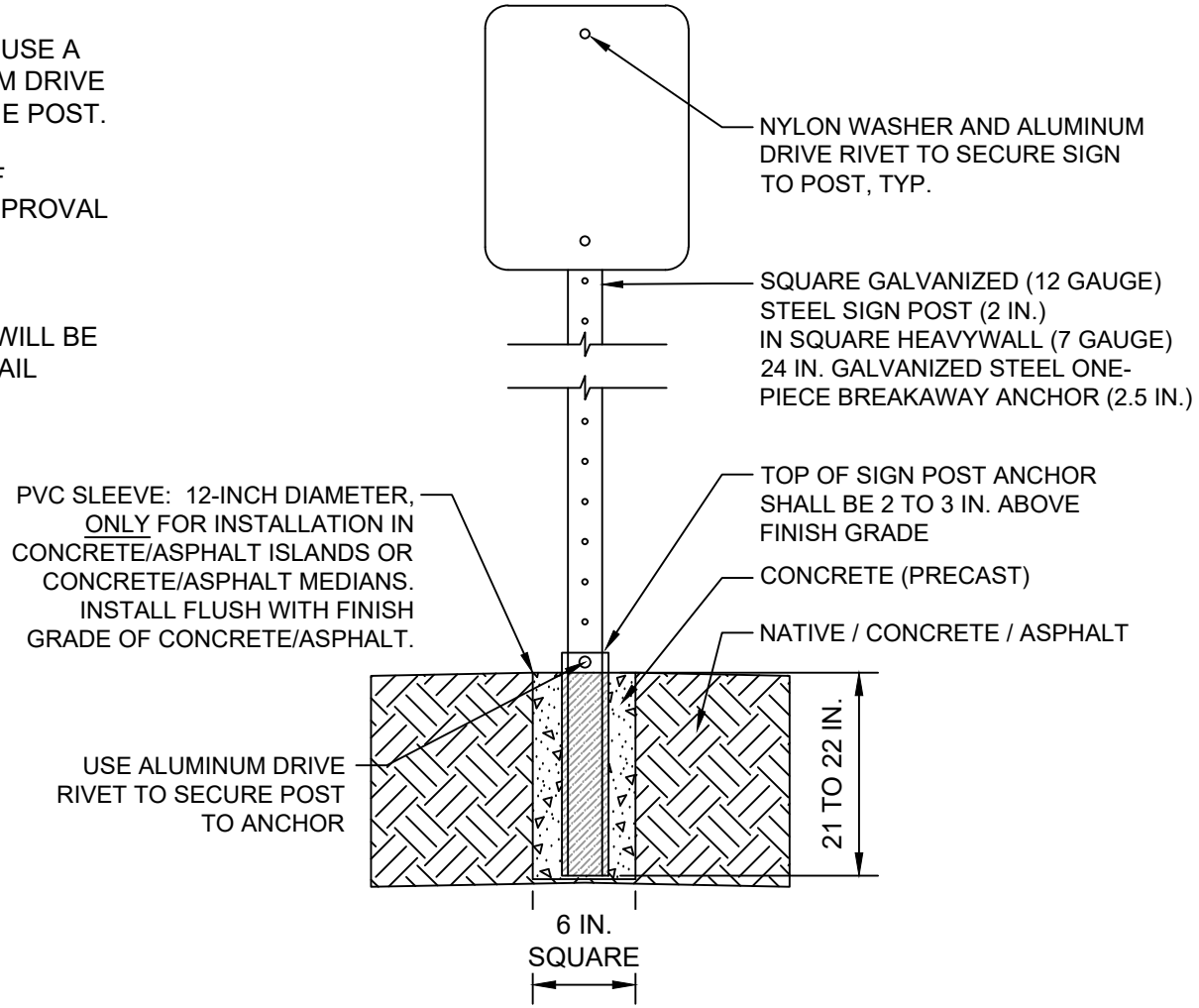
NOTES

1. MOUNTING HEIGHT SHALL BE IN ACCORDANCE WITH THE CURRENT ADOPTED EDITION OF THE MUTCD.

2. FOR STEEL POST INSTALLATIONS, USE A NYLON WASHER AND AN ALUMINUM DRIVE RIVET TO INSTALL THE SIGN TO THE POST.

3. VERIFY AND STAKE LOCATIONS OF TRAFFIC SIGNS FOR ENGINEER APPROVAL AND ADJUSTMENT PRIOR TO INSTALLATION.

4. FOR SIGNS IN CITY CENTER THAT WILL BE IN SIDEWALK, SEE STANDARD DETAIL FW.G24.55.



GALVANIZED SIGN POST DETAIL

REV: JAN 2026

CITY OF Federal Way PUBLIC WORKS	SIGN INSTALLATION DETAIL	STD. DETAIL FW.G24.50

CONTRACTOR TO VERIFY REQUIREMENTS
AND ACCEPTABILITY WITH SERVING UTILITY

COMPONENT SCHEDULE

METERBASE: UP TO 200 AMP, 4 JAW, MANUAL BYPASS, B-LINE U264, 5TH JAW AT 9:00 POSITION

PANELBOARD: 120/240 VAC, 125-AMP, 1-PHASE, 3-WIRE, COPPER BUS, 18 CKT MINIMUM
EATON BAB BOLT-ON BREAKERS (SEE NOTE):

- 1-125/2 MAIN
- 1-15/2 SIGNAL ILLUM BRANCH
- 2-15/2 ILLUMINATION BRANCH 1, 2
- 1-50/1 SIGNAL BRANCH
- 1-20/1 GROUND FAULT RECEPTACLE BRANCH
- 1-15/1 CONTROL CKT BRANCH

CONTACTORS (SEE NOTE): LIGHTING RATED, 2-POLE OR 4-POLE, 120 VAC COIL (6 POLES REQUIRED)

TERMINAL BLOCK: THREE-POINT FOR REMOTE PHOTOCELL

PHOTOCELL BYPASS SWITCH: SPDT, 15 AMP, RATED UP TO 277 VAC, FED THROUGH TERMINAL BLOCK

GROUND FAULT RECEPTACLE: 120 VAC, DUPLEX, 20A

CABINET

NEMA 3R, OUTDOOR PADMOUNT, 1/8TH INCH ALUMINUM CONSTRUCTION, TYPE 5052-H32, OPEN BOTTOM FRAMED WITH 2-INCH ANGLE, 2 SCREENED AND GASKETED VENTS, REMOVABLE EQUIPMENT MOUNTING PAN, GROUND AND BOND CABINET

DOORS: HEAVY DUTY WELDED HINGES (LIFT-OFF TYPE), STAINLESS STEEL VAULT HANDLES WITH ROLLER RODS THAT PROVIDE 3-POINT COMPRESSION ON NEOPRENE DOOR GASKET

METER DOOR IS REMOVABLE, PADLOCKABLE, AND SHALL BE HINGED ON THE RIGHT SIDE POLISHED WIRE GLASS WINDOW IN METER DOOR

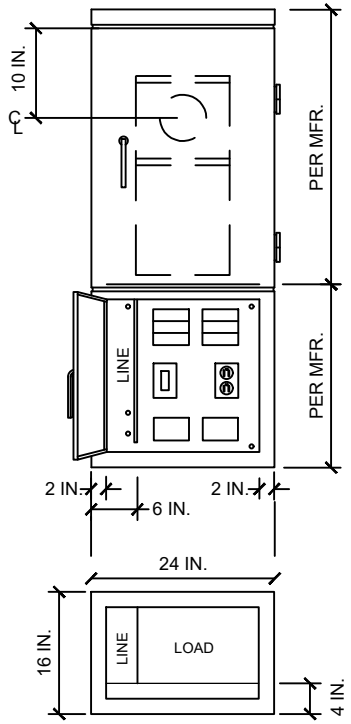
DISTRIBUTION DOOR SHALL BE HINGED ON THE LEFT SIDE, SHALL HAVE A BEST CX LOCK (BLUE CORE), AND CLOSED CELL NEOPRENE GASKET AND CARD HOLDER

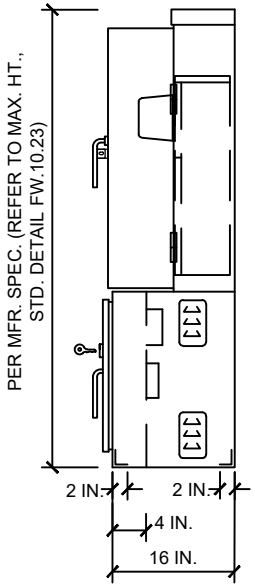
FINISH: BARE ALUMINUM (MILL FINISH) OUTSIDE, WHITE INSIDE

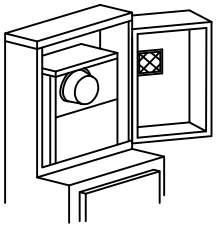
WIRED AND LABELED IN ACCORDANCE WITH UL STANDARD #508A, SUITABLE FOR USE AS A SERVICE ENTRANCE.

SHALL MEET EUSERC SPECIFICATIONS.

NOTE
BREAKERS AND CONTACTORS NOTED ABOVE ARE MINIMUM REQUIREMENTS. SEE ELECTRICAL PLANS FOR DETAILS AND UPDATE AS NECESSARY PRIOR TO FABRICATION.







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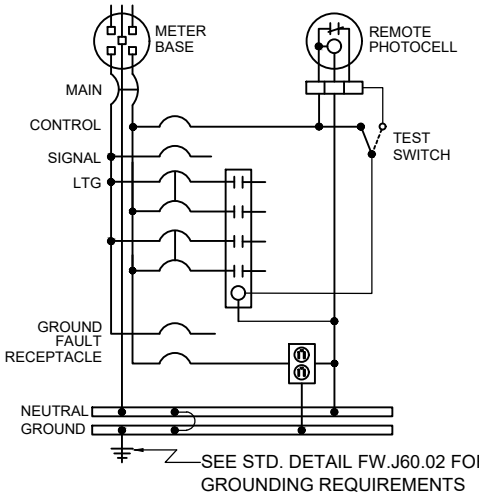
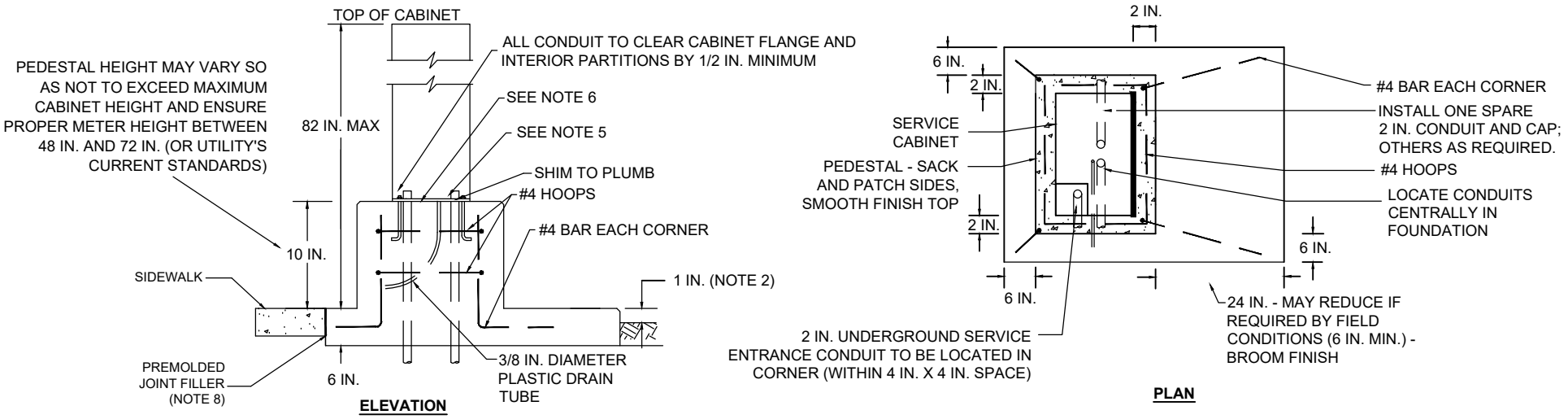


WIRING DIAGRAM
120/240 VAC, SINGLE PHASE, 3 WIRE

REV: JAN 2026



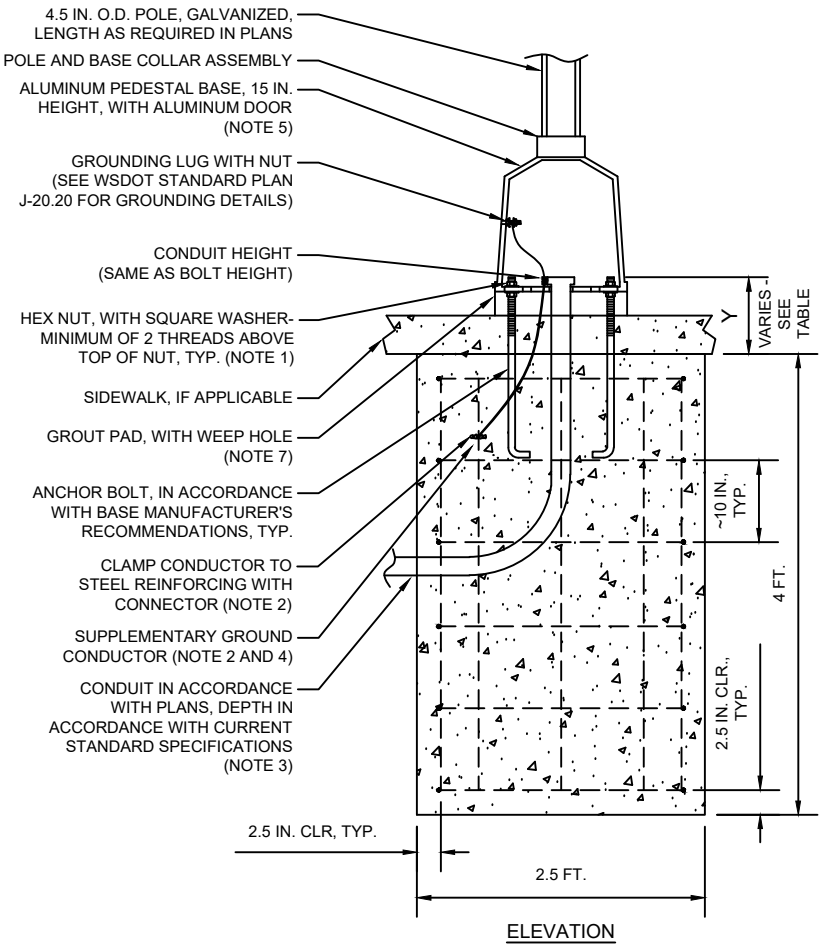
SERVICE CABINET FOUNDATION DETAIL
(NOT TO SCALE)

NOTES

1. FOUNDATION SHALL BE CONSTRUCTED WITH CLASS 4,000 CONCRETE WITH CRYSTALLINE WATERPROOFING AND CORROSION PROTECTION ADMIXTURE (PENETRON OR APPROVED EQUAL) OR CLASS 5,000 CONCRETE, UNLESS OTHERWISE NOTED IN THE PLANS.
2. CONSTRUCT FOUNDATION ADJACENT TO SIDEWALK, FLUSH WITH TOP OF SIDEWALK. OMIT CHAMFER AND ADD FULL-DEPTH JOINT FILLER WHERE PAD AND SIDEWALK MEET. FACE OF PEDESTAL SHALL BE A MINIMUM OF 6 INCHES FROM SIDEWALK.
3. FOUNDATION SHALL BE LOCATED A MINIMUM OF 6 FEET FROM THE NEAREST STREET EDGE LINE, EDGE OF PAVEMENT, OR FACE OF CURB. FOUNDATION AND CABINET SHALL BE LOCATED SUCH THAT THEY WILL NOT INTERFERE WITH SIGHT DISTANCE, SIGN VISIBILITY, OR USPS ACCESS.
4. FOUNDATION, INCLUDING PEDESTAL, IS TYPICAL. CONTRACTOR SHALL USE CABINET MANUFACTURER'S SPECIFICATIONS TO ASSURE PROPER FIT OF CABINET ON FOUNDATION WITH RESPECT TO CONDUIT PLACEMENT. CONTRACTOR SHALL SUBMIT FOR APPROVAL A PROPOSED DESIGN WITH PLAN, ELEVATION, AND RELEVANT SECTION VIEWS.
5. ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD PLAN J-10.10. EPOXY BOLTS ARE ALLOWED ONLY WITH APPROVAL FROM THE CITY TRAFFIC ENGINEER.
6. PLACE SILICONE SEAL BETWEEN THE CABINET AND CABINET FOUNDATION AND A DRESS BEAD OF SEALANT ON THE OUTSIDE.
7. ORIENT FACE OF CABINET DOORS AS SHOWN IN PLANS OR IN ACCORDANCE WITH UTILITY REQUIREMENTS. TYPICALLY, THE METER WILL FACE THE STREET.
8. CONTRACTOR SHALL COORDINATE WITH THE SERVING POWER COMPANY REGARDING SERVICE CONNECTION AND ALL UTILITY COMPANY REQUIREMENTS.
9. CONTRACTOR SHALL OBTAIN AN ELECTRICAL PERMIT FROM THE CITY BUILDING DEPARTMENT.
10. WHEN SIGNAL CABINET, SERVICE CABINET, OR BBU CABINETS ARE INSTALLED NEXT TO EACH OTHER, REFER TO STANDARD DETAIL FW.12.40 FOR FOUNDATION DETAIL. METER DOOR MUST OPEN 180 DEGREES.
11. PUGET SOUND ENERGY OR OTHER FRANCHISE UTILITY POWER PROVIDER'S STANDARDS MAY CHANGE PERIODICALLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE FOUNDATION, CABINET, RISER, ETC. MEET THOSE STANDARDS.

REV: JAN 2026

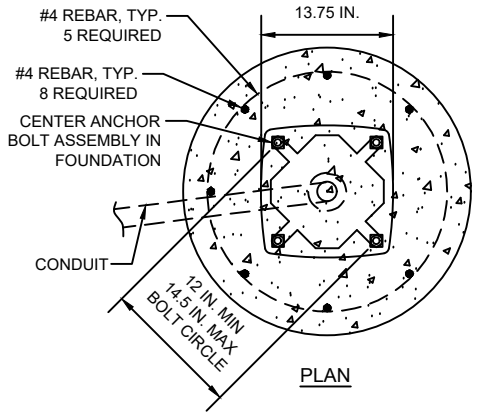
CITY OF Federal Way PUBLIC WORKS	**SERVICE CABINET FOUNDATION**	**STD. DETAIL FW.J10.23**



NOTES

1. CLAMPING BOLTS SHALL BE TIGHTENED TO 50 FT-LBS MAX TORQUE. DO NOT OVER TIGHTEN.
2. SUPPLEMENTAL GROUNDING CONDUCTOR SHALL BE NON-INSULATED #4 AWG STRANDED COPPER, PROVIDE 3 FT. MINIMUM SLACK. CLAMP TO VERTICAL STEEL REINFORCING BAR WITH LISTED CONNECTOR SUITABLE FOR USE EMBEDDED IN CONCRETE.
3. JUNCTION BOX SERVING THE STANDARD SHALL PREFERABLY BE LOCATED 5 FT. FROM THE STANDARD (10 FT. MAXIMUM).
4. EQUIPMENT GROUNDING CONDUCTOR SHALL ATTACH TO GROUNDING LUG WITH A FULL CIRCLE CRIMP-ON CONNECTOR (CRIMPED WITH A MANUFACTURER-RECOMMENDED CRIMPER).
5. HAND HOLE/DOOR LOCATED AT 180 DEGREES FROM MAJOR ROADWAY.
6. FOUNDATION MAY BE CONSTRUCTED USING METHOD 1 OR METHOD 2, UNLESS OTHERWISE SHOWN IN THE PLANS. FULL-DEPTH PAPERBOARD FORM IS NOT ALLOWED. SEE CURRENT WSDOT STANDARD PLAN J-28.30.
7. WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.

* CONTRACTOR IS RESPONSIBLE FOR VERIFYING BELOW DIMENSIONS, AFTER CITY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.



INSTALLED IN SIDEWALK AREA*

ASSUMPTIONS	ANCHOR BOLT Ø 0.75 IN. Ø BOLT
TOP THREADS	0.5 IN.
NUT HEIGHT X 2	1.5 IN.
WASHER X 2	0.5 IN.
BASE	0.5 IN.
LEVELING THREADS	0.5 IN.
SIDEWALK DEPTH	4.0 IN.
Y	7.5 IN.

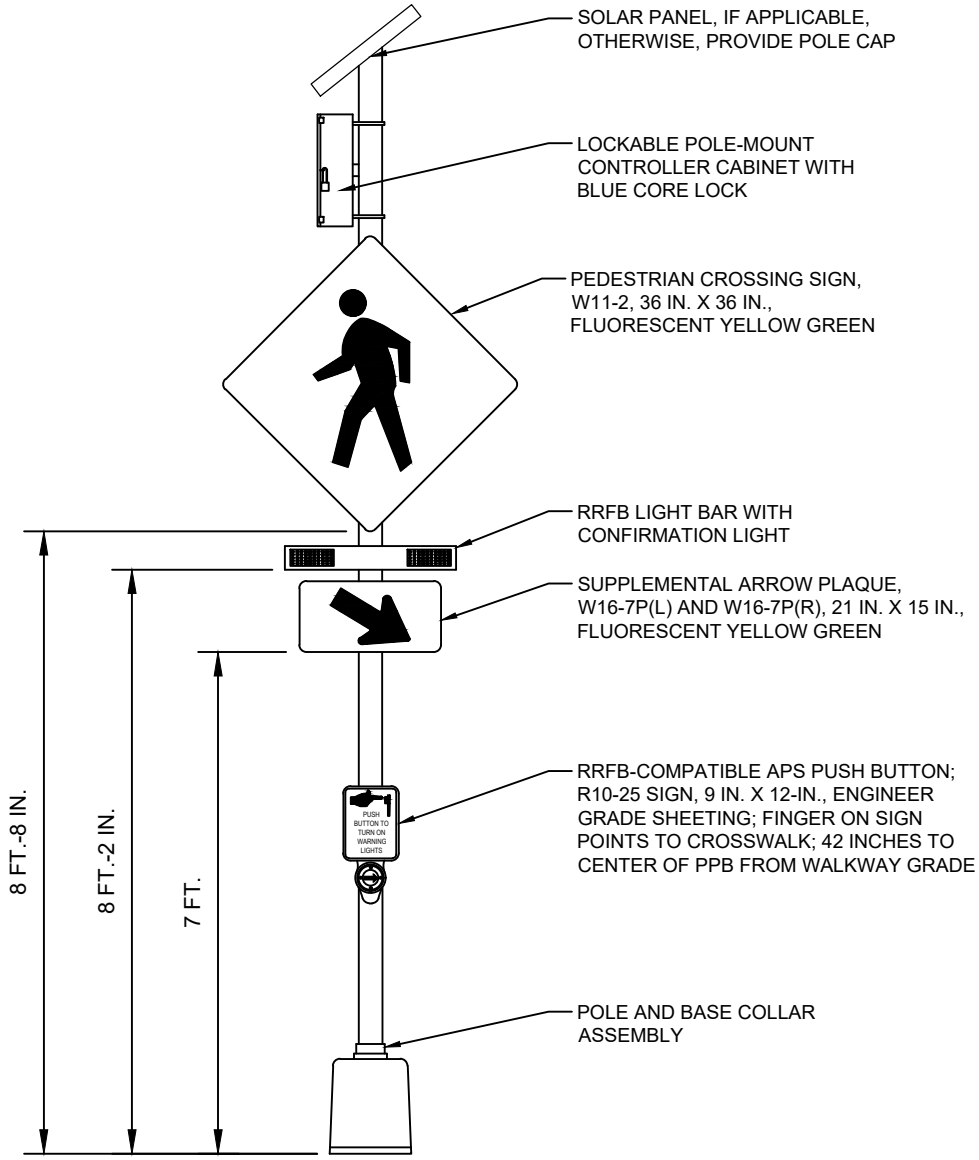
(NOT TO SCALE)

REV: JAN 2026

CITY OF Federal Way PUBLIC WORKS

FW RRFB AND FW TYPE I FOUNDATION

STD. DETAIL FW.J24.10



FW RRFB STANDARD ASSEMBLY

NOTES

1. RRFB SHALL BE POWERED AS SHOWN IN PLANS.
2. SEE STANDARD DETAILS FW.J24.10, FW.J24.30, AND FW.J24.40 FOR ADDITIONAL DETAILS.
3. USE STAINLESS STEEL MOUNTING CLAMPS AND BRACKETS TO MOUNT SIGNS, RRFB, LIGHT BARS, AND CONTROLLER CABINET TO STANDARD.

(NOT TO SCALE)

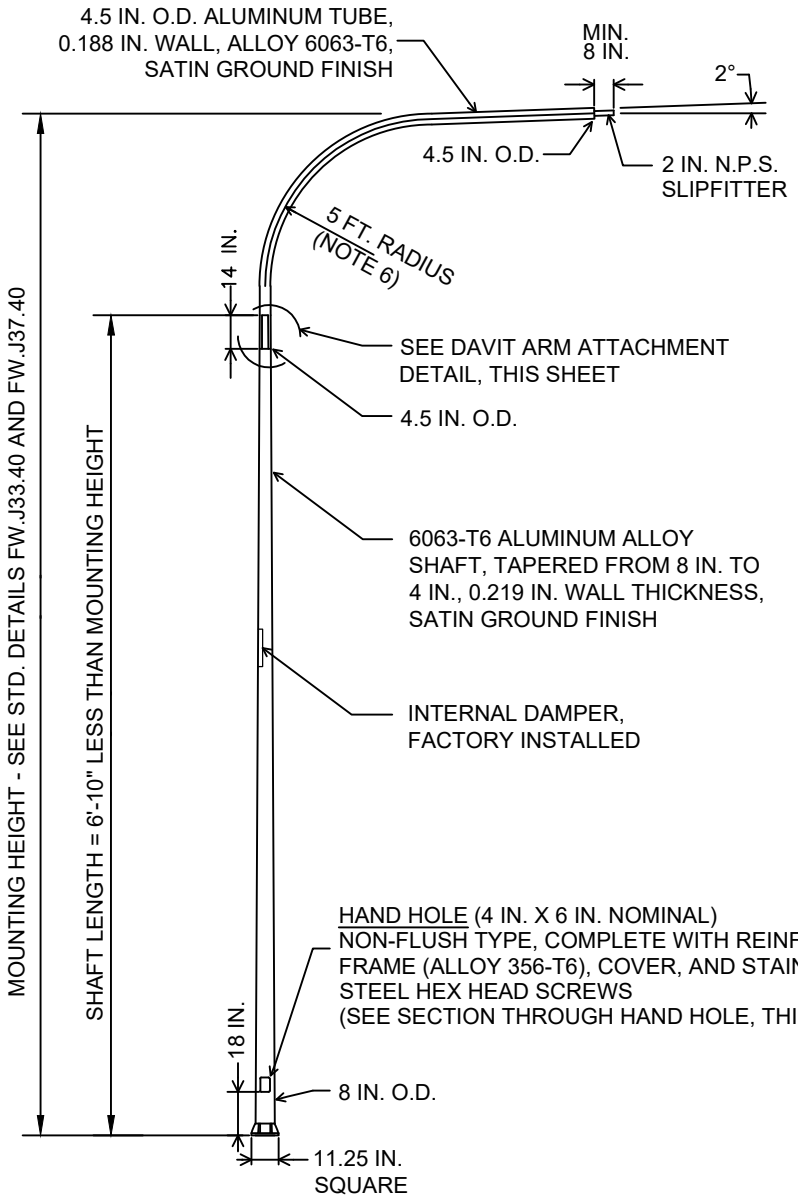
REV: JAN 2026

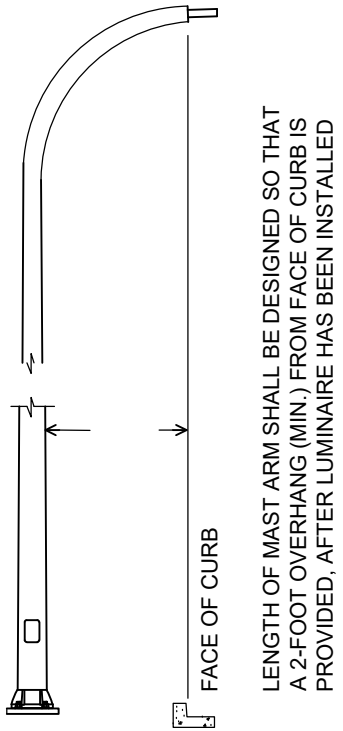
CITY OF Federal Way PUBLIC WORKS

FW RRFB STANDARD

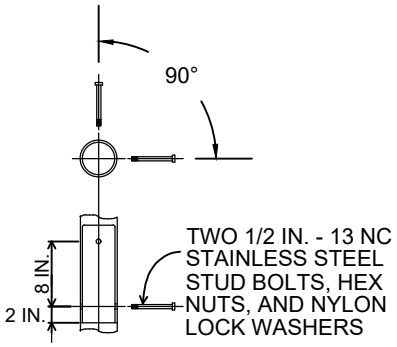
STD. DETAIL FW.J24.20

RTA SERIES POLES TYPICALLY
MEET THIS STANDARD

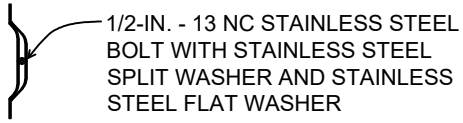




MAST ARM LENGTH



DAVIT ARM ATTACHMENT DETAIL



SECTION THROUGH HAND HOLE

NOTES

1. POLE ASSEMBLIES SHALL MEET ALL STRENGTH REQUIREMENTS OF THE CURRENT EDITION OF AASHTO LRFDLTS-1 FOR 115 MPH ISOTACH WHEN USED WITH A LUMINAIRE WEIGHING 50 POUNDS WITH E.P.A. 1.5 SQUARE FEET.
2. 4043 FILLER WIRE SHALL BE USED FOR WELDING.
3. ONLY THE BASE FLANGE WELDS ARE HEAT-TREATED.
4. BASE FLANGE SHALL ACCOMMODATE AN 11- TO 12-INCH BOLT CIRCLE.
5. SEE STANDARD DETAIL FW.33.11 FOR ANCHOR BOLT INFORMATION.
6. THE CITY MAY ACCEPT OTHER BEND RADII AND DAVIT ARM MOUNTING ANGLES.
7. THE HAND HOLE SHALL BE ROTATED 90 DEGREES FROM THE DAVIT ARM (I.E., ON THE DOWNSTREAM SIDE).

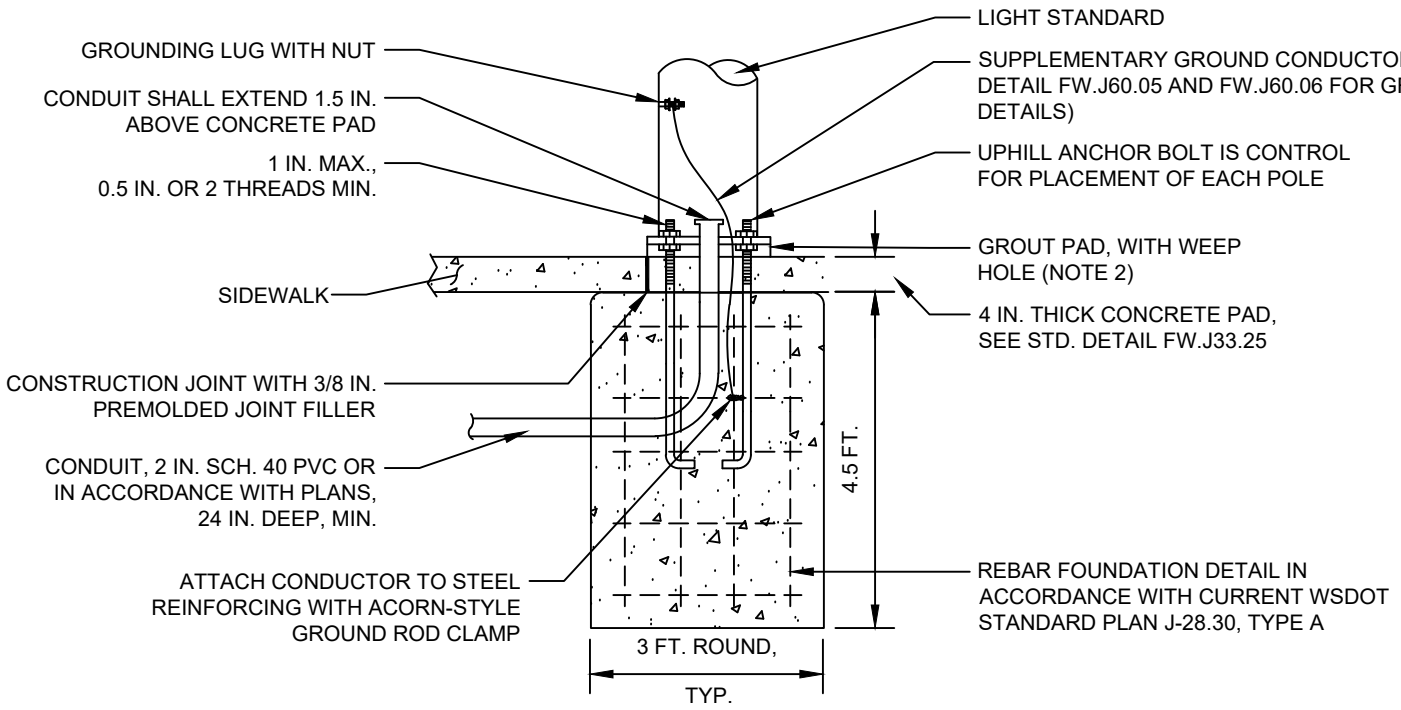
(NOT TO SCALE)

REV: JAN 2026

CITY OF Federal Way PUBLIC WORKS

LIGHT STANDARD

STD. DETAIL
FW.J33.10



ELEVATION

NOTES

1. ANCHOR BOLTS FOR ALUMINUM LIGHT STANDARDS SHALL MEET ASTM F1554 GRADE 55 AND BE HOT-DIP GALVANIZED, SHALL BE 36 IN. IN LENGTH AND INCLUDE A 4-IN. RIGHT HOOK AT THE UNTHREADED END, THREAD SHALL BE 1-IN. 8NC FOR 12 IN. EACH ANCHOR BOLT SHALL INCLUDE: 2 HEAVY HEX NUTS IN ACCORDANCE WITH ASTM A563 GRADE A, 2 FLAT WASHERS IN ACCORDANCE WITH ASTM F436.

2. A GROUT PAD SHALL BE INSTALLED BETWEEN THE TOP OF FOUNDATION AND THE LIGHT STANDARD BASE PLATE. A WEEP HOLE SHALL BE INSTALLED IN THE GROUT PAD ON THE DOWNHILL SIDE OF THE FOUNDATION.

3. ANCHOR BOLTS SHALL NOT BE LOCATED WITHIN THE SIDEWALK. BOLT CIRCLE SHALL BE IN ACCORDANCE WITH STD. DETAIL FW.J33.10.

4. FOR ANY LOCATION WHERE A CONCRETE PAD IS NOT REQUIRED ON TOP OF THE FOUNDATION (SEE STANDARD DETAIL FW.J33.25), THERE SHOULD BE 4.25 IN. OF ANCHOR BOLT EXPOSED AT TOP OF FOUNDATION. LOCATIONS WITH A CONCRETE PAD WILL REQUIRE 8.25 IN. OF ANCHOR BOLT EXPOSED AT TOP OF FOUNDATION. CONTRACTOR TO VERIFY AND ADJUST FOR FIELD CONDITIONS, IF NEEDED.

5. EQUIPMENT GROUNDING CONDUCTOR AND SUPPLEMENTARY GROUND CONDUCTOR (UFER GROUND) SHALL EACH ATTACH TO THE GROUNDING LUG WITH A FULL-CIRCLE CRIMP-ON CONNECTOR (CRIMPED WITH A MANUFACTURER-RECOMMENDED CRIMPER). DO NOT CRIMP THE TWO TOGETHER.

6. CONCRETE FOR FOUNDATION SHALL BE CLASS 4,000, CLASS 4,000 WITH CRYSTALLINE WATERPROOFING AND CORROSION PROTECTION ADMIXTURE, OR CLASS 5,000. SEE SPECS OR CONTACT THE TRAFFIC DIVISION FOR ADDITIONAL DETAILS.

7. FOUNDATION MAY BE CONSTRUCTED USING METHOD 1 OR METHOD 2, UNLESS OTHERWISE SHOWN IN THE PLANS. FULL-DEPTH PAPERBOARD FORM IS NOT ALLOWED. SEE WSDOT STANDARD PLAN J-28.30.

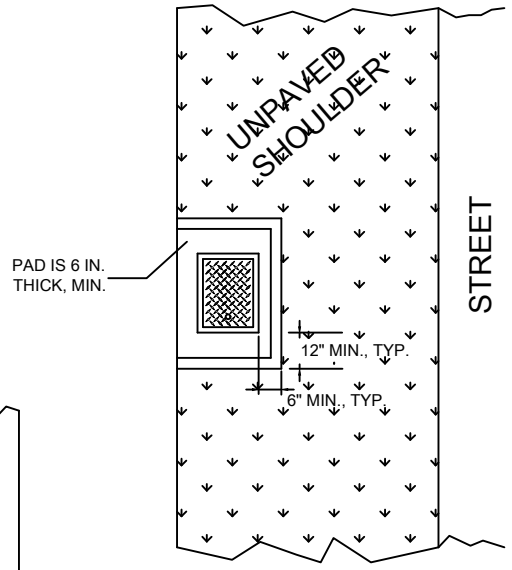
(NOT TO SCALE)

REV: JAN 2026

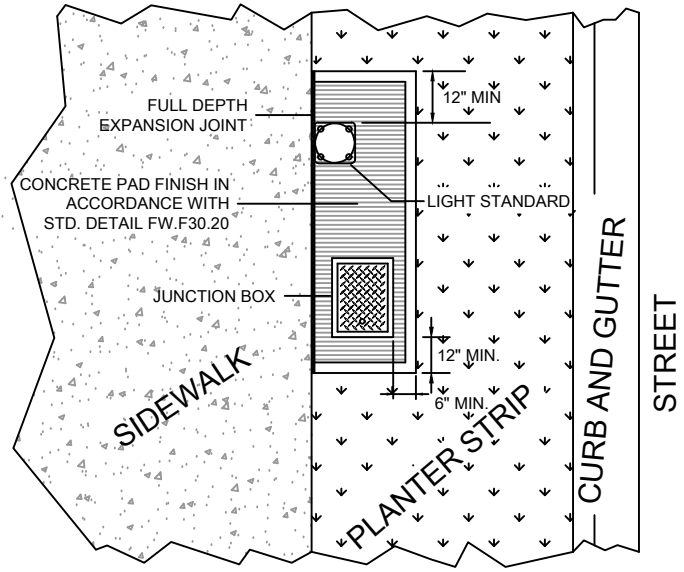
CITY OF Federal Way PUBLIC WORKS

LIGHT STANDARD FOUNDATION

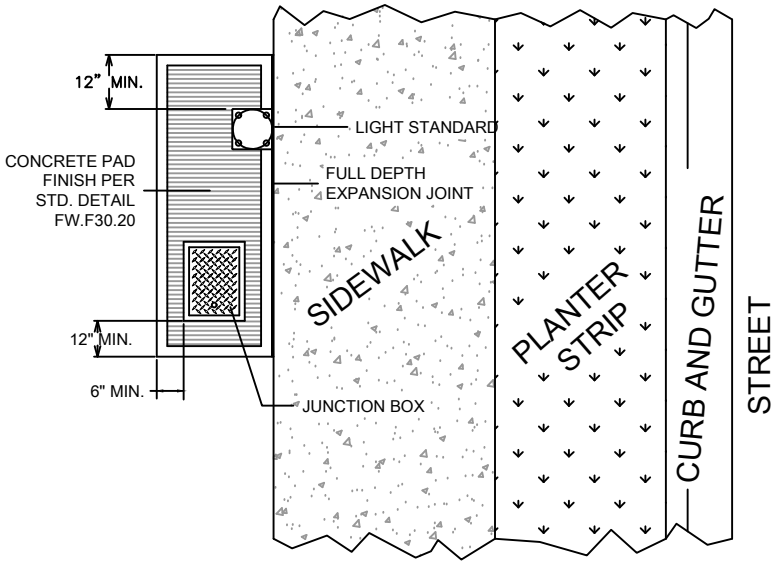
STD. DETAIL FW.J33.11



LIGHT STANDARD WITHOUT SIDEWALK



LIGHT STANDARD IN FRONT OF SIDEWALK



LIGHT STANDARD BEHIND SIDEWALK

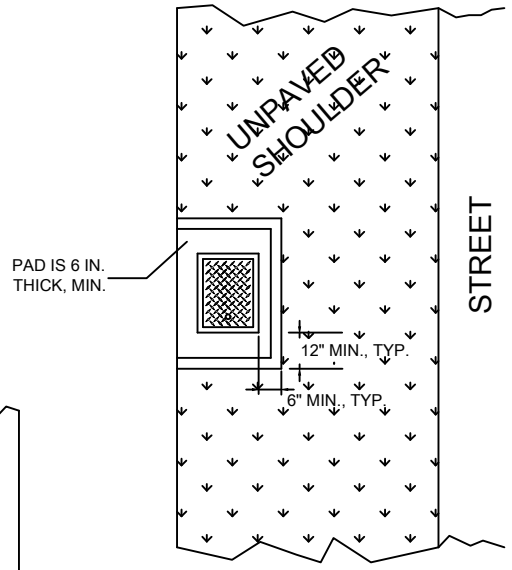
NOTES

1. FOR LIGHT STANDARD PLACEMENT, SEE STD. DETAIL FW.J33.24.
2. FOR LIGHT STANDARD AND FOUNDATION DETAILS, SEE STD. DETAILS FW.J33.10 AND FW.J33.11.

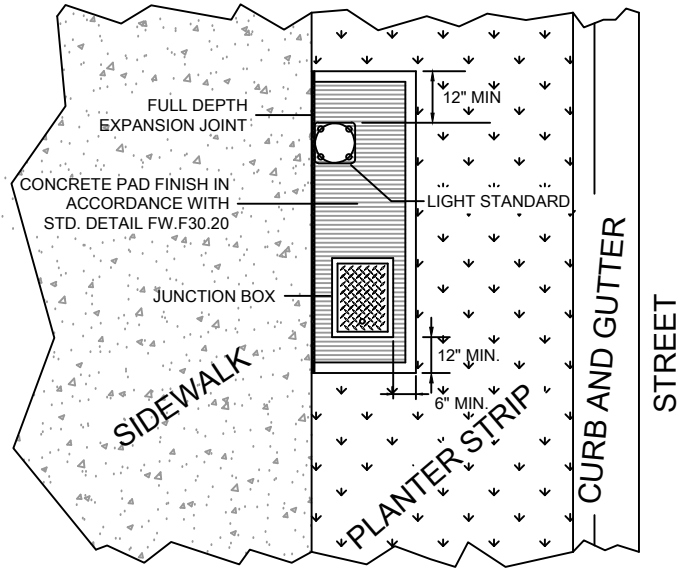
(NOT TO SCALE)

REV: JUL 2024

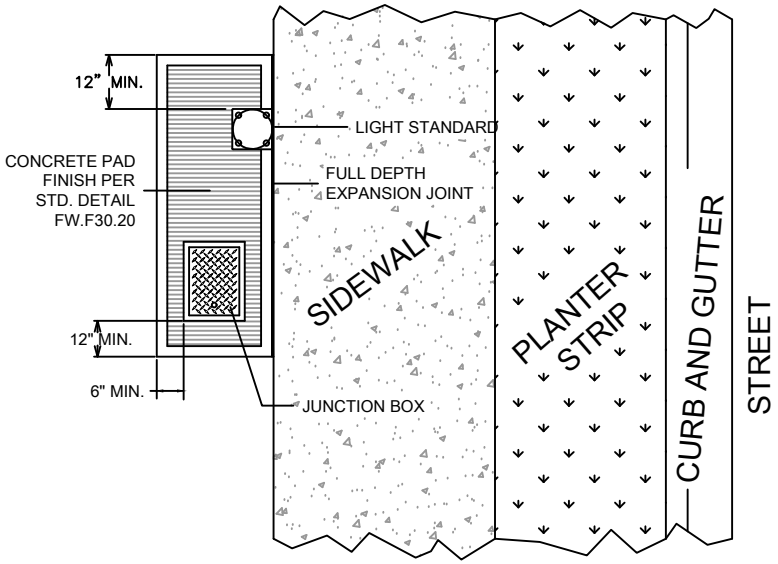
CITY OF Federal Way — PUBLIC WORKS	LIGHT STANDARD CONCRETE PAD	STD. DETAIL FW.J33.25



LIGHT STANDARD WITHOUT SIDEWALK



LIGHT STANDARD IN FRONT OF SIDEWALK



LIGHT STANDARD BEHIND SIDEWALK

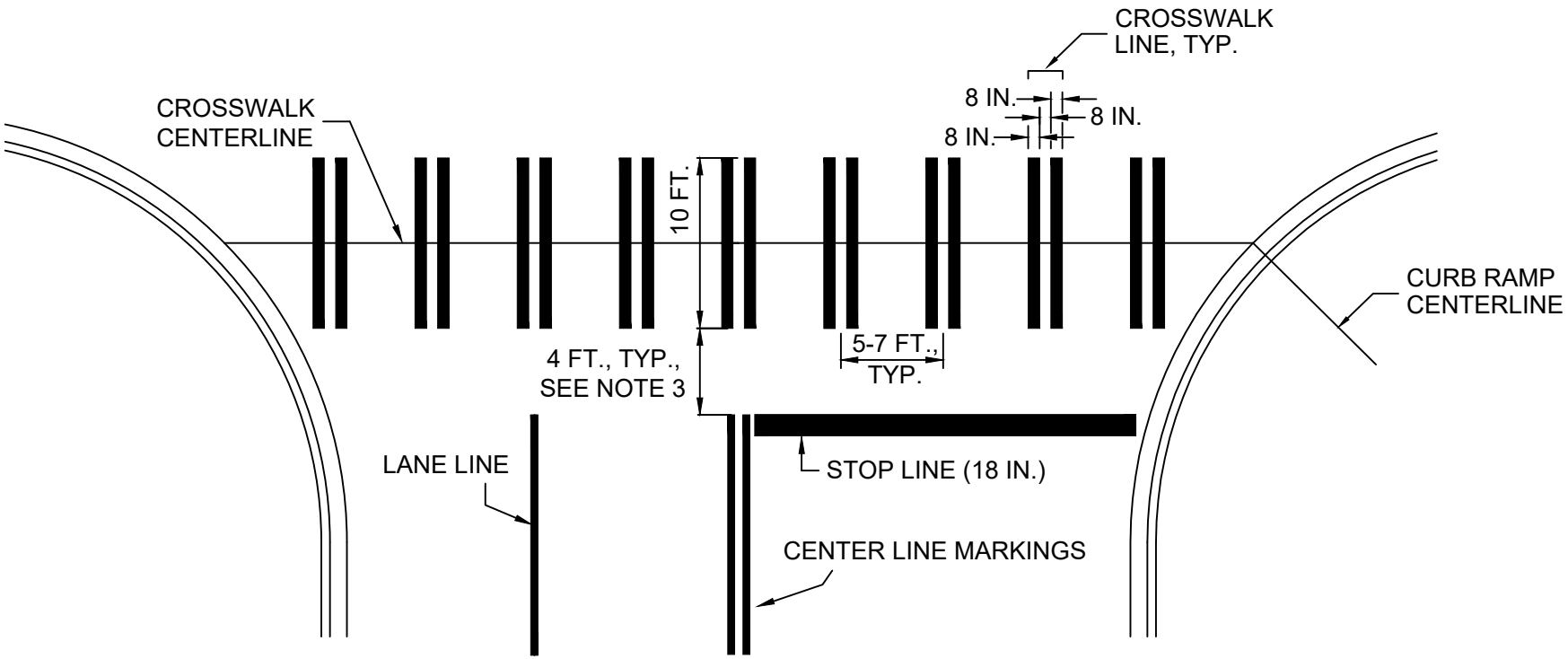
NOTES

1. FOR LIGHT STANDARD PLACEMENT, SEE STD. DETAIL FW.J33.24.
2. FOR LIGHT STANDARD AND FOUNDATION DETAILS, SEE STD. DETAILS FW.J33.10 AND FW.J33.11.

(NOT TO SCALE)

REV: JUL 2024

CITY OF Federal Way — PUBLIC WORKS	LIGHT STANDARD CONCRETE PAD	STD. DETAIL FW.J33.25



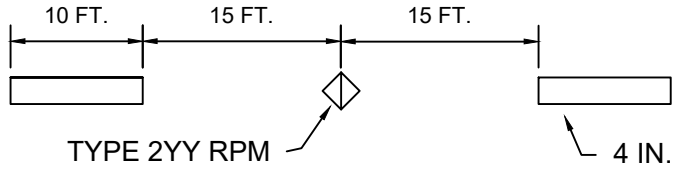
CROSSWALK LINE DETAIL

NOTES

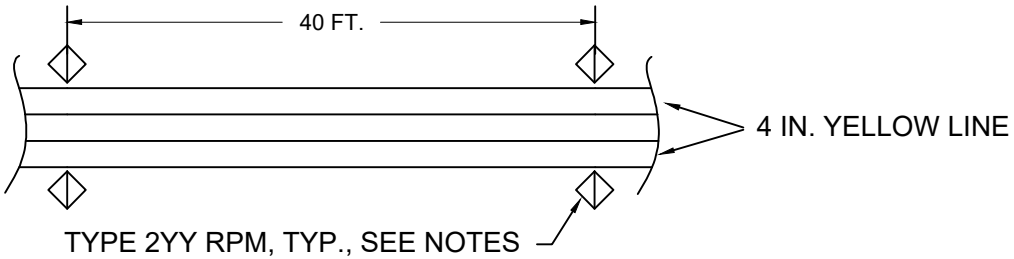
1. FOR MATERIALS, SEE STANDARD DETAIL FW.M20.10.
2. CROSSWALK LINE SHALL CONSIST OF TWO 8-INCH WIDE LINES, SEPARATED BY AN 8-INCH GAP - SEE DETAIL ABOVE.
3. CROSSWALK LINE SHALL NOT BE INSTALLED ON CONCRETE GUTTER PAN. USE OF SINGLE 8-INCH LINES NEAR THE GUTTER IS ALLOWED.
4. PROVIDE A MINIMUM OF 4 FEET BETWEEN FACE OF STOP LINE AND BOTTOM OF CROSSWALK. PROVIDE ADDITIONAL SPACE IF INDICATED BY TURNING MOVEMENT ANALYSIS.
5. CROSSWALK LINE SHALL TYPICALLY BE ALIGNED WITH CENTER LINE AND LANE LINE MARKINGS. OTHER CROSSWALK LINE SHALL BE CENTERED BETWEEN THESE.
6. STOP LINE USE CASES - SEE STANDARD DETAIL FW.M3.10
7. TRAFFIC ARROWS TYPE 1S, 2SL, 2ST, 3SL, 3SR, 4S, AND 7S - SEE WSDOT STANDARD PLAN M-24.40 AND STANDARD DETAIL FW.M3.10
8. YIELD LINE SYMBOL - SEE WSDOT STANDARD PLAN M-24.60 - TYPE 2, UNLESS APPROVED BY THE CITY TRAFFIC ENGINEER
9. ACCESS PARKING SPACE SYMBOL - SEE WSDOT STANDARD PLAN M-24.60
10. BICYCLE LANE SYMBOL - SEE WSDOT STANDARD PLAN M-9.50
11. HIGH OCCUPANCY VEHICLE (HOV) LANE SYMBOL - SEE WSDOT STANDARD PLAN M-7.50
12. SPEED BUMP SYMBOL - SEE WSDOT STANDARD PLAN M-24.60

REV: MAR 2025

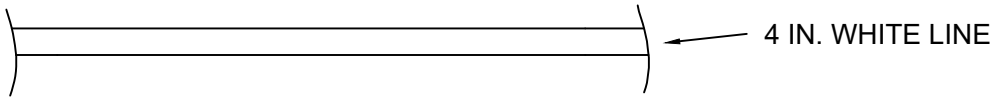
CENTER LINE



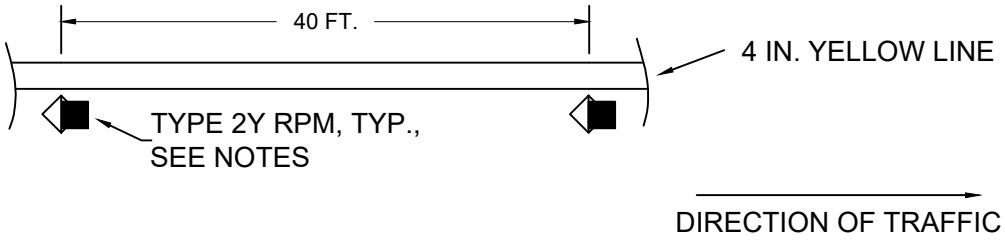
DOUBLE CENTER LINE



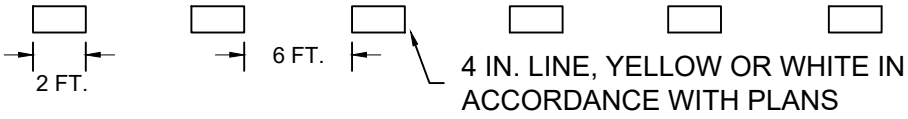
WHITE EDGE LINE



YELLOW EDGE LINE



DOTTED EXTENSION LINE



NOTES

1. FOR PAVEMENT MARKING PATTERNS AND DETAILS, SEE STANDARD DETAIL FW.M20.10.
2. FOR RPM TYPES, SEE STANDARD DETAIL FW.20.40.
3. ALL RPMS SHALL BE LOCATED TO PROVIDE 4 INCHES BETWEEN STRIPING AND RPMS.
4. TYPE 2 RPMS SHALL BE USED ON ALL ARTERIALS AND COLLECTORS, IF STRIPED.
5. WHERE CURBING IS USED IN PLACE OF STRIPING, USE THE RPM PATTERN APPLICABLE TO THE STRIPING BEING REPLACED.
6. WHERE RAISED MEDIAN OR YELLOW CURBING IS USED IN PLACE OF STRIPING, USE TYPE 2YR RPMS, WITH RED FACING OPPOSITE THE DIRECTION OF TRAFFIC.
7. WHERE RAISED MEDIAN OR WHITE CURBING IS USED IN PLACE OF STRIPING, USE TYPE 2WR RPMS, WITH RED FACING OPPOSITE THE DIRECTION OF TRAFFIC.
8. WHERE TYPE 2YR AND TYPE 2WR RPMS ARE USED, THESE ARE REQUIRED FOR EVERY LINE ON EACH SIDE OF THE STREET WHERE THERE IS A MEDIAN OR CENTER CURBING.
9. MARK FIRE HYDRANTS WITH TYPE 2BB RPMS, SEE STANDARD DETAIL FW.M20.42.

LEGEND

MONO-DIRECTIONAL RPM TYPE 2

BI-DIRECTIONAL RPM TYPE 2

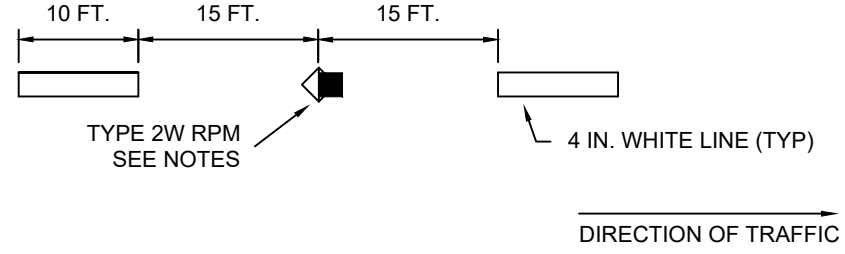
REV: JAN 2026

CITY OF Federal Way PUBLIC WORKS

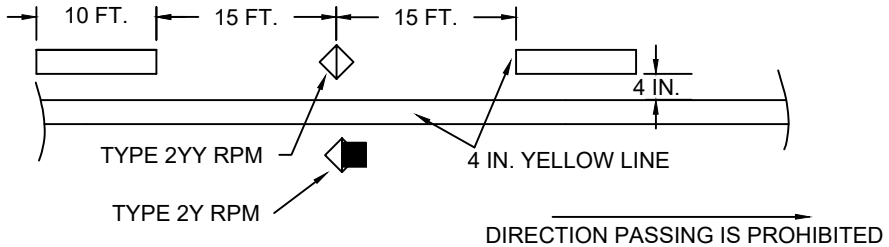
RAISED PAVEMENT MARKERS - SHEET 1 OF 4

STD. DETAIL FW.M20.30

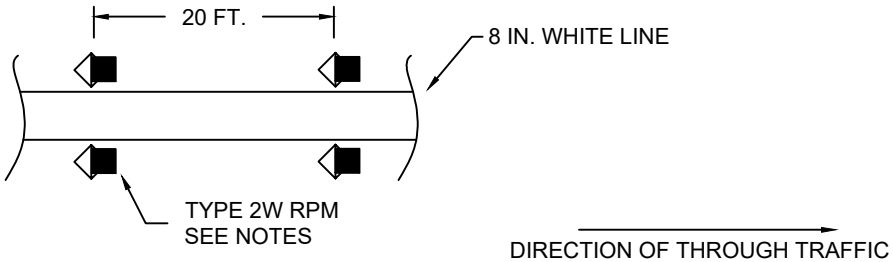
LANE LINE



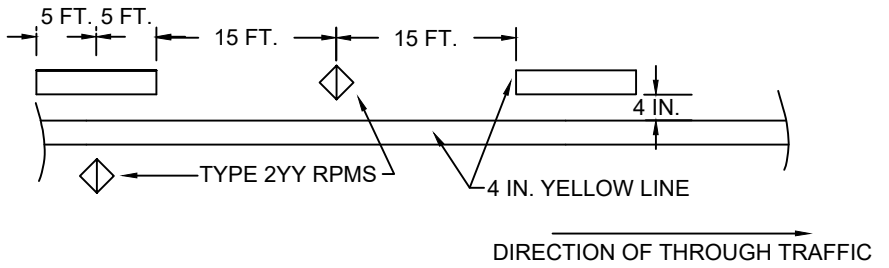
CENTER LINE WITH NO PASS LINE



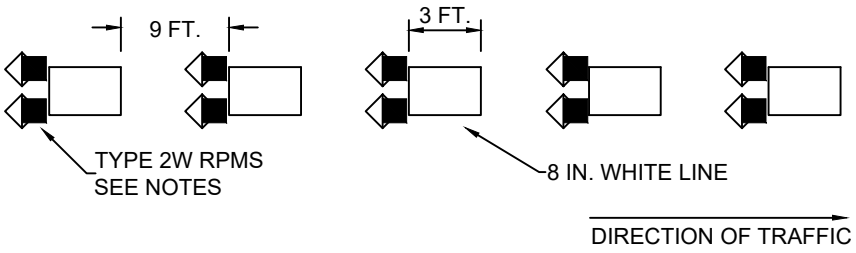
WIDE SOLID LANE LINE



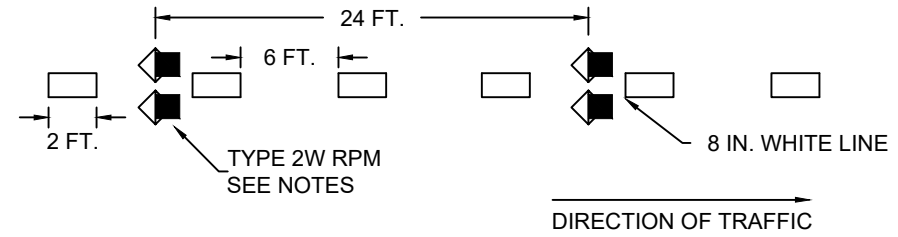
TWO-WAY LEFT-TURN CENTER LINE



WIDE DOTTED LANE LINE



WIDE DOTTED EXTENSION LINE (FOR HOV LANE USE)

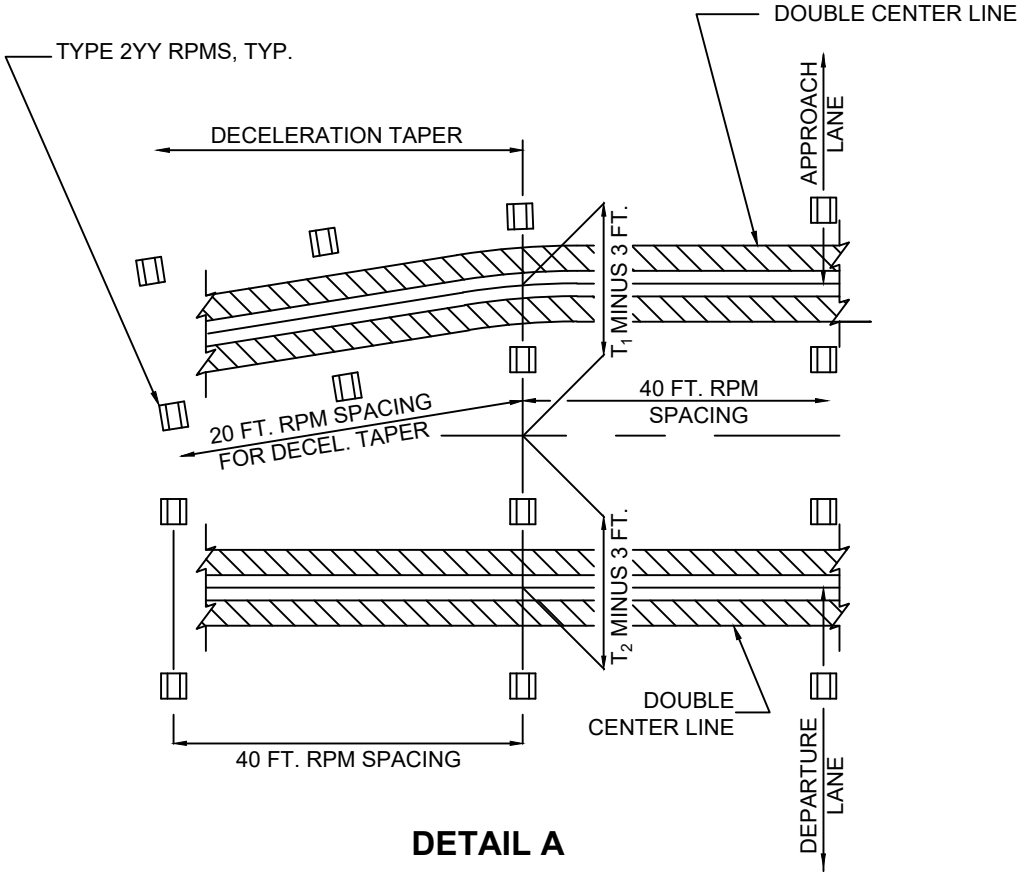


RAISED PAVEMENT MARKER (RPM) TYPES

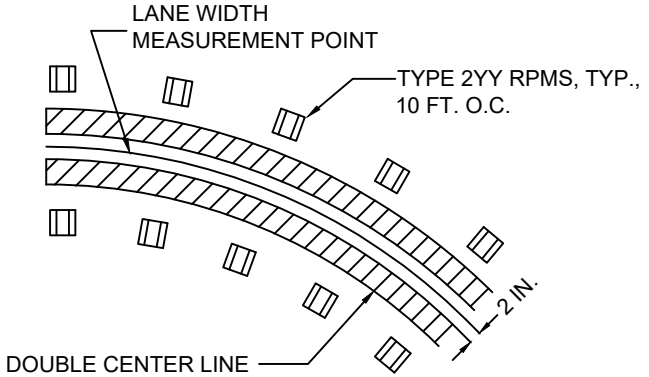
TYPE 1	NON-REFLECTIVE	NOT USED
TYPE 2W	REFLECTIVE FACE ONE SIDE	WHITE
TYPE 2WR	REFLECTIVE FACE BOTH SIDES	WHITE / RED
TYPE 2Y	REFLECTIVE FACE ONE SIDE	YELLOW
TYPE 2YY	REFLECTIVE FACE BOTH SIDES	YELLOW / YELLOW
TYPE 2YR	REFLECTIVE FACE BOTH SIDES	YELLOW / RED
TYPE 2BB	REFLECTIVE FACE BOTH SIDES	BLUE/BLUE

SEE STANDARD DETAIL FW.M20.30 FOR RPM DETAILS AND NOTES.
SEE STANDARD DETAIL FW.M20.10 FOR STRIPING PATTERN NOTES.
SEE STANDARD DETAIL FW.M20.42 FOR TYPE 2BB RPM DETAILS AND NOTES.

REV: JAN 2026



DETAIL A

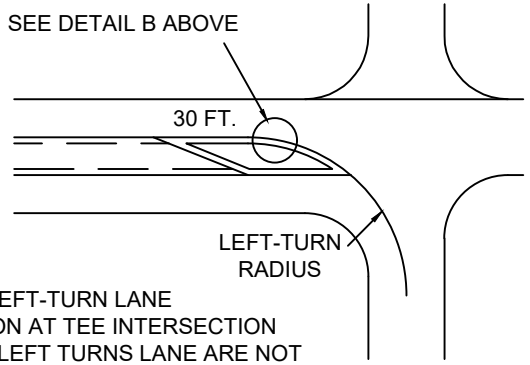


DETAIL B

WHERE:

T_1 = WIDTH OF LEFT-TURN LANE ON APPROACH SIDE OF STREET CENTERLINE

T_2 = WIDTH OF LEFT-TURN LANE ON DEPARTURE SIDE OF STREET CENTERLINE

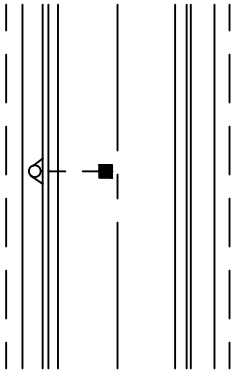


TWO-WAY LEFT-TURN LANE TERMINATION AT TEE INTERSECTION OR WHERE LEFT TURNS LANE ARE NOT PERMITTED AND TWO-WAY LEFT-TURN LANE IS NOT CONTINUED BEYOND INTERSECTION.

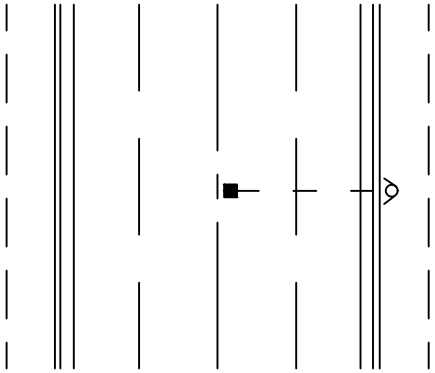
END TWO-WAY LEFT-TURN LANE

SEE STANDARD DETAILS FW.M20.30 AND FW.M20.40 FOR RPM DETAILS AND NOTES.
SEE STANDARD DETAIL FW.M20.10 FOR STRIPING PATTERN NOTES.
SEE STANDARD DETAIL FW.M20.42 FOR TYPE 2BB RPM DETAILS AND NOTES.

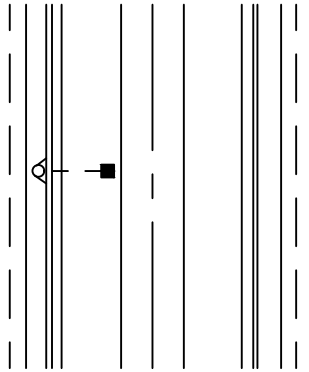
REV: JAN 2026



TWO-LANE STREET (WITH OR WITHOUT PAINTED CENTER LINE)
(SEE NOTES)



MULTI-LANE STREET WITHOUT TURN LANE OR MEDIAN
(SEE NOTES)



THREE-LANE STREET WITH TWO-WAY LEFT-TURN LANE
(SEE NOTES)

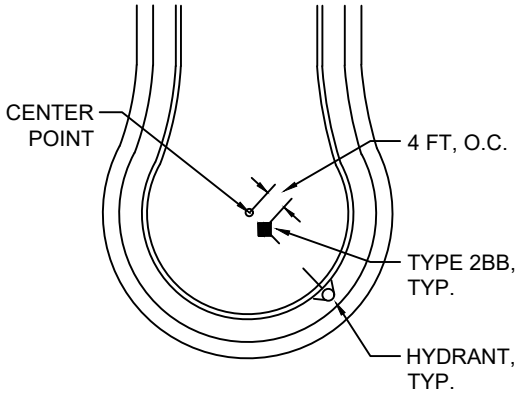
NOTES

1. PLACE TYPE 2BB RPMS WITH REFLECTIVE SIDE FACING TRAFFIC AND IN LINE WITH THE HYDRANT.

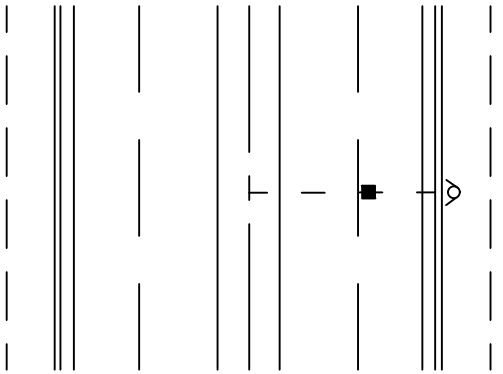
2. TYPICALLY, TYPE 2BB RPMS SHALL BE PLACED 6-12 INCHES FROM THE PAINTED CENTER LINE OF THE STREET (OR CENTER OF STREET, IF NO STRIPING) ON THE SIDE OF THE STREET CLOSEST TO THE HYDRANT. LEAVE A 2- TO 4-INCH GAP BETWEEN RPMS AND ANY ROADWAY PAINT OR MARKINGS.

- FOR MULTI-LANE STREETS WITH TURN LANE OR MEDIAN, PLACE THE TYPE 2BB RPM 6-12 INCHES FROM THE LANE LINE CLOSEST TO THE HYDRANT.

- FOR CUL-DE-SACS, PLACE THE TYPE 2BB RPM APPROXIMATELY 4 FEET FROM THE CENTER OF THE CUL-DE-SAC BULB, ON THE SIDE OF THE STREET CLOSEST TO THE HYDRANT.



CUL-DE-SAC
(SEE NOTES)



MULTI-LANE STREET WITH TURN LANE OR MEDIAN
(SEE NOTES)

TYPE 2BB PAVEMENT MARKER PLACEMENT

REV: JAN 2026

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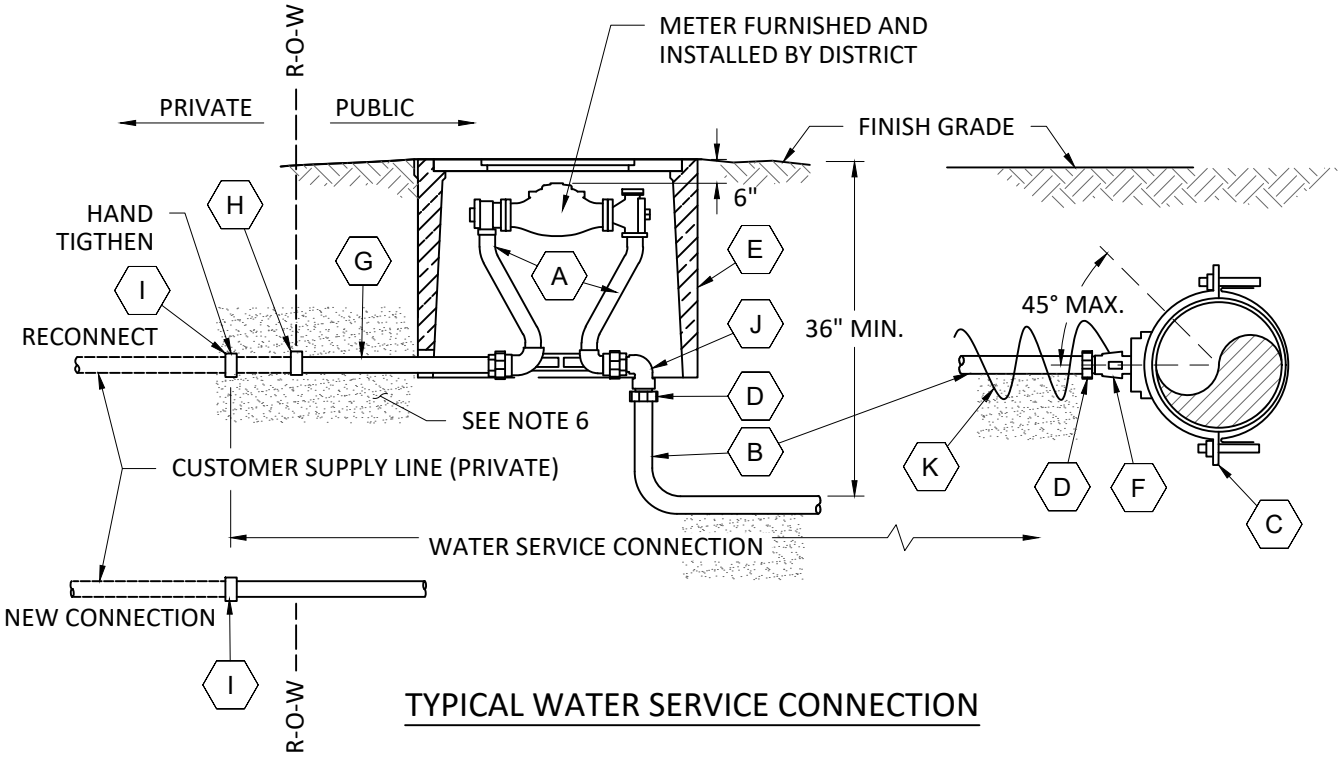
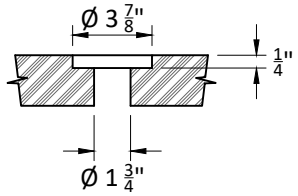
RAISED PAVEMENT MARKERS - SHEET 4 OF 4

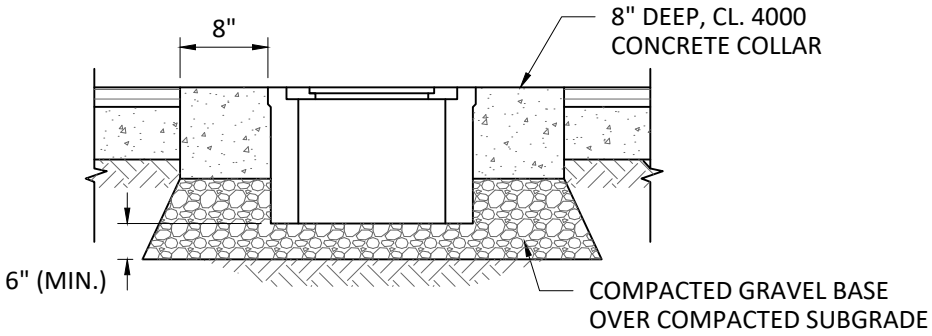
STD. DETAIL FW.M20.42



TYPICAL WATER SERVICE CONNECTION



TOUCH READ RECESS AND HOLE FOR AMR/AMI



TRAFFIC METER BOX IN CONCRETE / HMA DRIVEWAY OR ROAD SHOULDER

NOTES:

1. METER SETTER SHALL BE CENTERED WITHIN METER BOX (PLAN VIEW), BOTH HORIZONTAL DIMENSIONS.
2. WATER SERVICE CONNECTION AND CONFIGURATION SHALL BE INSTALLED AS SHOWN ON PLANS, OR AS MAY BE OTHERWISE DIRECTED BY THE DISTRICT.
3. SERVICE LINES SHALL BE INSTALLED PERPENDICULAR (PLAN VIEW) TO WATER MAIN, UNLESS OTHERWISE SHOWN ON THE PLANS. NON PERPENDICULAR SERVICE LINES IF ALLOWED, SHALL BE WRAPPED W/ NO. 12 COPPER WIRE WITH A 12-IN LOOP EXPOSED IN THE METER BOX.
4. SERVICE LINES SHALL BE CONTINUOUS WITHOUT SPLICES.
5. CUSTOMER SUPPLY LINE (PRIVATE). CONNECTION TO BRASS NIPPLE INCLUDES FITTINGS, REDUCERS, BUSHINGS, AND STIFFENERS AS NECESSARY.
6. BACKFILL FOR SAND DRAINS. PLACE 4 INCHES MINIMUM AROUND THE SERVICE LINE IN TRENCH SECTION.
7. FOR WATER SERVICE CONNECTIONS DESIGNATED FOR 1.5 AND 2-INCH DIAMETER SERVICE LINES, SEE STANDARD PLAN 1201.

Lakehaven WATER & SEWER DISTRICT

WATER SERVICE CONNECTION 1" AND SMALLER

1 OF 2

NOT TO SCALE	STD. PLAN NO. **1200.1**	MAY 2024

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MATERIAL LIST

(A) METER SETTER:
· 5/8" × 3/4" METER: FORD VH72-12WC OR MUELLER H-1404-2 × 13" WITH TWO (2) H-14222-N ENDS.
· 1" METER: FORD VH74-12WC OR MUELLER H-1404-2 × 12" WITH TWO H-14222-N ENDS.
· DOUBLE PURPOSE INLET & OUTLET COUPLING (FEMALE IRON PIPE UNION, SWIVELS OR FLARED COPPER).
· DRILLED PADLOCK WINGS ON METER STOP.
· SINGLE CHECK VALVE ON OUTLET.

(B) SERVICE LINE PIPE:
1" BLACK CTS POLYETHYLENE TUBING, DR 9, 250 PSI PRESSURE RATING: PE 4710 RESIN, JM EAGLE, OR EQUAL.

(C) SERVICE SADDLE:
ROMAC 101 NS WITH 1" CC (AWWA) TAP SINGLE STRAP OR APPROVED EQUAL.

(D) ADAPTOR AS NEEDED (USE STAINLESS STEEL PIPE INSERT):
· 3/4" MIPT × 1" CTS COMPRESSION: MUELLER H-15428-N, OR FORD C84-34G-NL "GRIP JOINT".
· 1" MIPT × 1" CTS: MUELLER H-15428-N, OR FORD C88-44G-NL "GRIP JOINT". USE STAINLESS STEEL PIPE STIFFENER.

(E) METER BOX:
· ARMORCAST A6001946PCX12 (13" × 24") AND COVER W/ HINGED READER LID RATED FOR TRAFFIC LOADS (A6001969R), MOUSE HOLE PRE-DRILLED -*OR*-
· DFW1324C-12-1CT W/HINGED READER LID
PROVIDE TOUCH READ RECESS ON LID AS SHOWN

(F) CORPORATION STOP:
1" INLET AWWA TAPER (CC) THREAD × 1" CTS COMPRESSION. MUELLER B-25008N, OR FORD FB1000-4-G-NL "GRIP JOINT". USE STAINLESS STEEL STIFFENER. SHUT-OFF TO BE ORIENTED AT THE SIDE TO FACILITATE OPERATION

(G) BRASS NIPPLE:
· 3/4" IPS × 8" LONG
· 1" IPS × 8" LONG

(H) PVC TEMPORARY CAP (PENDING CONNECTION TO CUSTOMER SUPPLY LINE, HAND TIGHTENED): SEE (I)
· 3/4" IPS
· 1" IPS

(I) EXTEND CUSTOMER SUPPLY LINE, AND CONNECT TO BRASS NIPPLE INCLUDING FITTINGS, REDUCERS, BUSHINGS, AND STIFFENERS AS NECESSARY. SEE (G)

(J) BRASS 3/4" OR 1" × 90° STREET ELL

(K) 12-GAUGE INSULATED SOLID COPPER LOCATING WIRE, BLUE PLASTIC COATED (FOR POLY PIPE ONLY), BARE WIRE ENDS. NO SPLICES ALLOWED. PERMANENTLY CONNECT WIRE END TO SADDLE OR CORP. STOP.

NOTE:

ALL PARTS SHALL BE NSF/ANSI 61 AND NSF/ANSI 372 COMPLIANT.

Lakehaven WATER & SEWER DISTRICT

WATER SERVICE CONNECTION
1" AND SMALLER
2 OF 2

NOT TO SCALE	STD. PLAN NO. **1200.2**	MAY 2024

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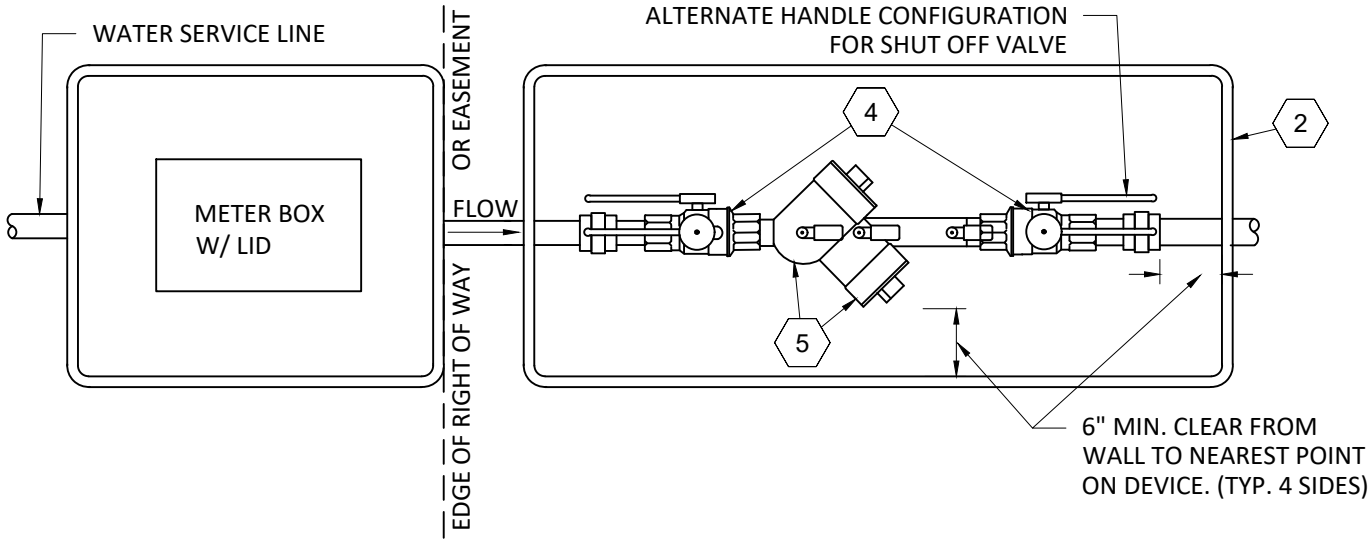
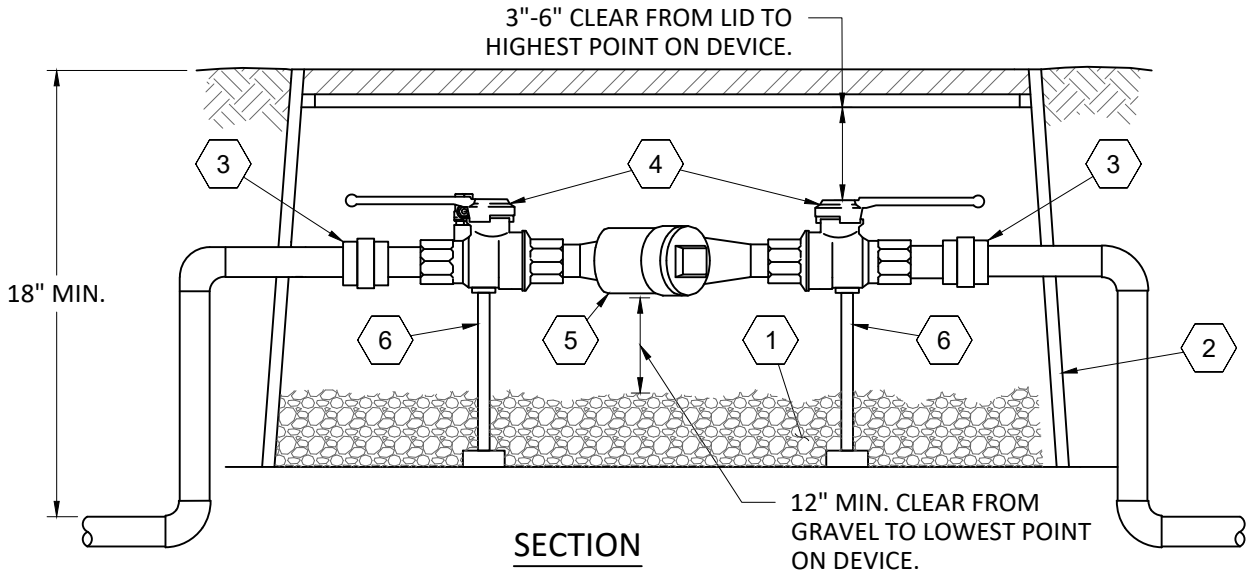


PLAN



SECTION

1. 1" ROUND WASHED GRAVEL, 6" MIN. DEPTH
2. ENCLOSED DOUBLE CHECK VALVE ASSEMBLY (DCVA) IN TWO METER BOXES STACKED ON TOP OF EACH OTHER, OR ONE OVERSIZED METER BOX. METER BOX SHALL HAVE REMOVABLE COVER. METER BOX(ES) AND LID SHALL BE STRUCTURALLY RATED FOR ANTICIPATED LOADING CONDITIONS.
3. UNION
4. SHUT OFF VALVE
5. WADOH APPROVED CHECK VALVE
6. SUPPORTS AS NECESSARY PER MANUFACTURER'S RECOMMENDATIONS

NOTES:

1. INSTALLATION PER MANUFACTURER'S RECOMMENDATION AND MINIMUM STANDARDS OF THE UNIFORM PLUMBING CODE (UPC) AND WASHINGTON STATE DEPARTMENT OF HEALTH (WSDOH) APPROVED INSTALLATION LIST.
2. TESTING TO BE PERFORMED BY A WSDOH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. THE SATISFACTORY TEST REPORT SHALL BE SUBMITTED TO LAKEHAVEN PER WSDOH REQUIREMENTS.
3. DCVA IS OWNED, OPERATED, AND MAINTAINED BY PROPERTY OWNER.

Lakehaven WATER & SEWER DISTRICT

DOUBLE CHECK VALVE ASSEMBLY 2-1/2" & SMALLER

NOT TO SCALE	STD. PLAN NO. **1400**	MAY 2024

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SPECIAL PROVISIONS

INTRODUCTION

(******)

The following Special Provisions consist of Lakehaven Water and Sewer District's Construction Standards for potable water transmission and distribution facilities in the Lakehaven Water and Sewer District ("LWSD," or "District") with modifications as noted for the current project. These special provisions and appendices shall be included within the City of Federal Way's "SR 99 at S 373rd St Roundabout Project, Project #36224" bid and contract documents and specifications, and shall pertain to the Bid Schedule B work including water facility improvements and Bid Schedule B bid items. Where these "Schedule B" special provisions do not cover a specific component of the work, the City of Federal Way Special provisions will apply (if applicable). These Special Provisions, including the Construction Standards, have been developed for use in conjunction with the "Standard Specifications for Road, Bridge, and Municipal Construction" 2026 edition as published by the Washington State Department of Transportation (WSDOT) and the Washington State Chapter of the American Public Works Association (APWA), hereinafter referred to as the "Standard Specifications," all of which are made a part of the Contract Documents and shall govern all of the Work.

The Standard Specifications, except as they may be modified by the Amendments and Special Provisions in these Contract Documents, shall govern all of the Work. Reference in these Special Provisions to "Contracting Agency" should be read and interpreted for this project as the "City of Federal Way."

Paragraph numbering in these Special Provisions is integrated with the section numbering of the Standard Specifications. Each provision in these Special Provisions supplements, modifies, or replaces the comparable Standard Specification or is a new provision. A 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.

A project specific Special Provision or modification to the Construction Standards is differentiated with the following under the heading:

(******)

The General Special Provisions (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)

Current editions of the following are also incorporated into these Special Provisions by reference and where applicable as noted:

- Current Edition of the Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA.

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- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), currently adopted edition, with Washington State modifications and jurisdictional road agency modifications.
- City of Federal Way Development Standards (2026).
- King County Surface Water Design Manual (2021).
- Contractors are responsible for obtaining a copy of applicable referenced publications at their own expense.

An appendix or appendices as included in the Contract Documents shall be incorporated herein by reference as part of these Special Provisions.

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 1 – GENERAL REQUIREMENTS

DESCRIPTION OF WORK

(******)

This Contract provides for removing and disposing of asbestos-cement, steel, and ductile iron pipe water mains; decommissioning existing water main in place; installing 6-inch and 8 inch diameter ductile iron pipe water main; placement of controlled density fill and polyethylene encasement, installing steel casing; removing valves and installing gate valves; removing and replacing service lines; removing and replacing hydrants; permitting; construction survey and staking; material testing; temporary water service and construction sequencing; utility potholing; removing road pavement; channelization; hot mix asphalt installation; removing and installing guard rail; restoring the site including property restoration; and other related work all in accordance with the Contract.

1-01 DEFINITIONS AND TERMS

1-01.2 Abbreviations

(******)

1-01.2(1) Associations and Miscellaneous

Supplement this subsection with the following:

NSF	National Science Foundation
ANSI	American National Standards Institute
AWWA	American Water Works Association
PRV	Pressure Reducing Valve Station
CFW, or COFW	City of Federal Way

1-01.3 Definitions

(******)

Supplement this section with the following:

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

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

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

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Existing Water Main
Water mains in place at the time of issuance of Notice to Proceed to the Contractor.

New Water Main
Water mains not in place at the time of issuance of Notice to Proceed to the Contractor (i.e. those installed by the Contractor as a part of the Work).

1-04 SCOPE OF THE WORK

1-04.1 Intent of the Contract

(******)

Supplement this section with the following:

All parts of the Bid Schedule B Contract Documents are essential and complementary. A requirement occurring in one is binding as though occurring in all. Omissions from the Contract Documents, or discrepancies in the details of work, which are manifestly necessary to carry out the intent of the Contract Documents or which are clearly implied or customarily performed, shall not relieve the Contractor from performing such omitted or incorrectly described details of the work, but they shall be performed as if fully and correctly set forth and described in the Contract Documents.

1-04.4(1) Minor Changes

(******)

Delete the first paragraph and replace it with the following:

Payments or credits for changes amounting to $50,000.00 or less may be made under the Bid Item "Minor Change for Water Improvements (For Bid Purposes Use $____)." At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All "Minor Change" work will be within the scope of the Contract Work and will not change Contract Time.

1-04.4(2) Value Engineer Change Proposal (VECP)

(******)

Delete this subsection in its entirety.

1-04.6 Variation in Estimated Quantities

(December 30, 2022 APWA GSP, Option B)

Revise the first paragraph to read:

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original Proposal quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of the Contract item, adjusted to exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 25 percent from the original Proposal quantity and if the total extended bid price for that item at time

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of award is equal to or greater than 10 percent of the total contract price at time of award. In that case, payment for contract work may be adjusted as described herein:

(******)

Supplement this section with the following:

The quantities for certain Bid Items within Bid Schedule B only, specifically identified in the Bid Form with an asterisk ("*"), have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the Work progresses and will be paid at the original bid price, regardless of final quantity. These Bid Items shall not be subject to the provisions of 1-04.6 of the Standard Specifications.

1-05 CONTROL OF WORK

1-05.3 Plans and Working Drawings

(******)

Add the following new subsections:

1-05.3(1) Contracting Agency Standard Plans

Applicable Contracting Agency Standard Plans as shown in the Plans are incorporated into these Contract Documents.

1-05.3(2) Standard Plans

Applicable WSDOT and City of Federal Way Standard Plans as shown in the Contract Appendices are incorporated into these Contract Documents.

1-05.4 Conformity With and Deviations from Plans and Stakes

(******)

Supplement this number list and continue past item 10 with the following:

The Contractor shall perform the following project surveying and construction staking and marking:

- Establish survey control network within the project, including control and reference points near the right-of-way margins.
- Stake and mark the approximate right-of-way margins in the vicinity of the proposed hydrant assemblies, air/vac assemblies and meter box(es) and where new water main or existing water main is located within a 10.0' offset of existing right-of-way lines.
- Acquire GPS coordinates or offset measurement from fixed surface reference points outside the limits of the work, for new fittings not directly connected to either a valve or another fitting that is directly connected to a valve and for points of connection of new water main to existing water main.

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- Preservation and protection of control and reference points and stakes and marks provided by the Contracting Agency, including establishment of supplemental offset stakes, marks, and control or reference points as necessary for the Contractor's work.

- Supplemental survey control, staking, and marking, both horizontal and vertical, including reference and offset stakes, necessary to accommodate their performance of the Work and to assure proper placement of project elements.

- Stake and mark the following water appurtenances shown on the Contract Plans.

    - Waterline connection points (proposed pipe to existing pipe).
    - Waterline fitting locations including tees, crosses, horizontal and vertical bends, valves, hydrants, caps, plugs, thrust blocking, permanent blow off assemblies, tapping sleeve and valve assemblies, reducers, and other fittings noted in the Contract Plans.
    - Offset points to establish line and grade for water main between fitting locations including water main pipe deflection points.

These stakes and marks will govern the Contractor's work.

See special provision 1-05.18 for additional surveying requirements associated with "As-Built Survey and Record Drawings (Min. Bid of $____)."

This work shall be considered incidental to "Roadway Surveying" within Bid Schedule A.

1-05.4(1) Utility Potholes

Add the following new subsection:

1-05.4(1) Utility Potholes

(******)

At the general locations as shown in the Plans, at each water main connection (i.e.; new water main to existing water main), and/or at such locations as may be directed by the Engineer, except where potholes were previously completed during design and provided to the Contractor in the Contract Plans, the Contractor shall excavate to and expose a sufficient extent or portion of the utility or utilities to confirm the horizontal location(s), depth(s), alignment(s), diameter(s), material(s), pipe joint or fitting configuration of the utility or respective utilities to establish the associated connection, and extension and/or clearance requirements relative to the information included in the Plans and Contract provisions. The Contractor shall exercise extra precautions in excavating to and exposing the utility or utilities to protect the utility(ies) from damage and service disruptions. Special equipment, such as vacuum excavators or excavation with hand tools, may be necessary for this work.

Prior to backfilling, the exposed utility or utilities shall also be reviewed by the Engineer or the Contracting Agency Inspector. Following documentation and review, the exposed utility or utilities shall be carefully covered with suitable native material. Backfill for the pothole shall be compacted to match the adjoining materials, to 95 percent of maximum density as specified in Section 3-03.3(14)D, or as the Engineer may direct. For potholes outside the limits of Project improvements and/or trench

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restoration, the pothole restoration shall meet the jurisdictional agency requirements and the surface shall be restored to match the pre-existing condition and adjacent section. Otherwise, temporary surfacing may be used subject to the provisions of Section 1-07.23(1).

1-05.6 Inspection of Work and Materials

(******)

Supplement this section with the following:

The Contractor shall be responsible for providing preliminary and production aggregate gradation, and compaction control testing by a qualified, independent material testing laboratory and HMA mix design if specified. Such proposed laboratory shall be subject to the Engineer's review and approval in advance of the testing required for the Work specified in this section.

Certified production sample aggregate tests and HMA mix design by qualified aggregate and hot-mix asphalt producer(s) may be accepted by the Engineer.

Compaction testing shall be completed by the Contractor and compaction tests shall be performed at a minimum frequency of one (1) per 100 linear feet of each lift of compacted pipe zone bedding and backfill, and trench backfill, for each day that such material is placed. Compaction tests for surfacing materials, including HMA, shall be performed at a minimum frequency of one (1) time per course (lift), one (1) time per day, one (1) time per each sublot, or once per 100 tons of material placed, whichever is more frequent. Additional tests or more frequent testing intervals shall be performed as may be requested by the Engineer or jurisdictional agency, and/or as may be required to confirm that the specified minimum compacted density has been achieved. Test methods and procedures shall be as established by the WSDOT Materials Laboratory. The Contractor shall coordinate with and provide time and workspace for the Material Tester to perform their work as described herein.

See SP 1-06.2(1) Samples and Tests for Acceptance within Bid Schedule A special provisions for additional requirements for Material Testing.

1-05.13 Superintendents, Labor, and Equipment of Contractor

1-05.13(1) Emergency Contact List

(******)

Supplement this section with the following:

It is imperative that the designated Contractor emergency contacts be available to immediately respond to and resolve emergency situations. The Contractor shall be charged for such expenses as may be incurred by the Contracting Agency to provide such service, if said emergency is not immediately corrected to the satisfaction of the Contracting Agency.

1-05.14 Cooperation With Other Contractors

(******)

Supplement this Section with the following:

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Other Contracts or Other Work

See Appendix G for a list of third-party utility work anticipated to occur in the vicinity of the Schedule B Work at or around the time of construction.

Add the following new section:

1-05.17 Oral Agreements

(******)

No oral agreement or conversation with any officer, agent, or employee of the Contracting Agency, either before or after execution of the contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the contract. Such oral agreement or conversation shall be considered as unofficial information and in no way binding upon the Contracting Agency, unless subsequently put in writing and signed by the Contracting Agency.

Add the following new section:

1-05.18 As-Built Survey and Record Drawings

(******)

As-Built Survey

The following work only applies to Bid Schedule B work.

The following work under "As-Built Survey" must be approved and stamped by a professional licensed surveyor ("PLS").

After construction, the Contractor's surveyor shall survey and document all horizontal and vertical locations of all new water and new sanitary sewer facilities within the project limits in order to develop the As-Built survey. These facilities shall include all water and sewer gravity and force-main mainlines, hydrants, laterals, branches, or side sewers that can be surveyed after construction is substantially complete. See a specific list below for requirements.

The Contractor's surveyor shall record locations by centerline station, offset, and elevation and applicable notes on all installed or modified water and sewer appurtenances including, but not limited to:

- Water Facilities:
  - Final water main horizontal alignment with survey shots every fifty (50) feet.
  - Top of water valve nuts and valve covers.
  - Existing ground surface at fire hydrant(s).
  - Top of water meter, permanent blowoff assembly or air-vacuum assembly box, and cube launch.
  - Top and four (4) corners of pressure reducing vault.

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  - Top of backflow assemblies or double check valve box.
- Sanitary Sewer Facilities:
  - Top of manhole covers ("Rim Elevation").
  - Manhole size and type.
  - Manhole sump elevation.
  - Manhole ladder and cone orientation.
  - Invert(s) of all gravity sewer pipes within manholes including pipe size and material.
  - Top of side sewer cleanouts.
  - Final sewer force main alignment with survey shots every fifty (50) feet
  - Top of Sewer force main valves.
  - Top and four (4) corners of force main vaults.

Appurtenances with round covers should have one survey shot in the center of the manhole or valve cover or at the center of the fire hydrant.

After construction has been completed the Contractor shall finalize an as-built survey and provide the information in one (1) full-size and one (1) half-size copy (electronic and paper) and AutoCAD 2021 or later version file to the Engineer. This as-built survey shall consist of the following:

This drawing shall bear the Surveyor's (PLS) seal and signature certifying its accuracy on plan sheet. This following note shall be added to each As-Built survey plan and shall read as follows:

> *"I hereby certify that the horizontal and vertical locations of the water lines and facilities shown hereon are the result of a field survey performed by myself, a professional surveyor/engineer, or an employee under my supervision, during construction. The above certification is based upon work performed within generally accepted professional survey practices. I make no other warranty either expressed or implied."*

Record Drawings

The following work under "Record Drawings" shall be completed by the Contractor. Throughout construction, the Contractor shall keep a set of redline drawings that record as-built information at the project site. This set of drawings shall be provided to the Engineer at the end of the project. This record drawing information shall, at a minimum, consist of the following:

- All changes to the Contract Plans.
- Pothole information gathered by the Contractor.
- Existing utility information not included in the Contract Plans or that differs from the Contract Plans.
- All existing utilities uncovered or crossed with the new water or sanitary sewer facilities including station/offset and depth below existing pavement.

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SPECIAL PROVISIONS – BID SCHEDULE B

1-06 CONTROL OF MATERIAL

1-06.2 Acceptance of Materials

1-06.2(1) Samples and Tests for Acceptance

(******)

Supplement this subsection with the following:

Compaction tests shall be performed at a minimum frequency of one (1) per 100 linear feet of each lift of compacted pipe zone bedding and backfill, and trench backfill, for each day that such material is placed. Additional tests or more frequent testing intervals shall be performed as may be requested by the Engineer or jurisdictional agency, and/or as may be required to confirm that the specified minimum compacted density has been achieved. Test methods and procedures shall be as established by the WSDOT Materials Laboratory.

This work shall be considered incidental to "Material Testing" within Bid Schedule A.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.4 Sanitation

1-07.4(2) Health Hazards

(******)

Supplement this subsection with the following:

Work on this project will involve exposure to asbestos cement pipe. The Contractor shall be responsible to ensure that all Work in the vicinity of, and the removing, handling, processing, hauling and disposing of asbestos cement pipe conforms to the rules, regulations, and recommended practices of the jurisdictional agencies, at a minimum.

1-07.5 Environmental Regulations

1-07.5(4) Air Quality

(******)

Supplement the first paragraph of this subsection with the following:

The local air pollution authority for work in the vicinity of and the removing, handling, processing, hauling, and disposing asbestos cement pipe is the Puget Sound Clean Air Agency.

1-07.6 Permits and Licenses

(******)

Supplement this section with the following:

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Contact with the permitting agencies concerning the below-listed permit(s) shall be made through the Engineer. All costs to obtain and comply with additional permits shall be included in the applicable Bid Items for the Work involved.

The Contractor shall coordinate with the Contracting Agency in completing the applications and preparing plans as applicable and shall be responsible to submit such applications and plans, and to secure and comply with the provisions of, the following:

Puget Sound Clean Air Agency:

Asbestos / Demolition Notification for Contractors and Property Owners (Contractor paid).

State of Washington Department of Labor and Industries:

Notice of Asbestos Abatement Project (Contractor paid).

1-07.9 Wages

1-07.9(3) Apprentices

(******)

Supplement this section with the following:

Apprentice Utilization
An Apprentice Utilization Requirement is included. See Bid Schedule A for and 1-07.9(3) for requirements. Bid Schedule A Apprenticeship requirements also apply to Bid Schedule B.

1-07.17 Utilities and Similar Facilities

(******)

Add the following new subsection:

1-07.17(3) Utility Potholing

(******)

Potholing may be included as a bid item for use in determining the location of existing utilities in advance of the Contractor's operations. If potholing is not included as a bid item, then it shall be considered incidental to other Work. The Contractor shall submit all potholing in requests to the Engineer for approval a minimum of five (5) working days before potholing is scheduled. Additionally, the Contractor shall provide potholing at the Engineer's request. Potholing as directed by the Engineer, or included as a bid item, shall be considered in addition to potholing included as incidental for utility installation.

The Contractor shall perform potholing as directed by the plans, or the Engineer, a minimum of five (5) working days prior to crossing to allow for potential revisions. Where underground utilities are found to be in the way of construction, such condition shall not be deemed to be changed or differing site condition and, if necessary, pipe alignment or grade shall be modified. The Contractor shall not have cause for claim of downtime or any other additional costs associated with 'waiting,' if the Contracting

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Agency provides design revisions (related to the information supplied per this section) within three (3) working days after the Contractor provided the surveyed elevations.

No payment will be made unless potholing has been performed prior to trench excavation and witnessed by the Engineer or representative of the Contracting Agency. Different utilities may be found to occupy a common trench. Any two (2) or more utilities separated by three (3) feet or less shall constitute one (1) locate. Where multiple utilities exist in close proximity, the Contractor shall be paid for one (1) locate for every five (5) feet of exploration trench. The quantity for this item is included to provide a common proposal for bid purposes. The actual quantity used in construction may vary from that amount. The unit price will not be adjusted if the actual quantity used varies by more than 25 percent.

Where Contractor elects to perform potholing outside of Contract restoration limits rather than within the restoration limits, then pothole restoration shall be per the jurisdictional ROW agency requirements and costs shall be borne by the Contractor.

In no way shall the Work described under Site Specific Potholing relieve the Contractor of any of the responsibilities described in Section 1-07.17 of the Standard Specifications and Special Provisions and elsewhere in the Contract Documents.

Add the following new subsection:

1-07.17(4) Resolution of Utility Conflicts

(******)

This work involves the identification and resolution of utility conflicts not identified in the Plans between proposed improvements and existing utilities. The Contracting Agency will pay these costs by force account if the work proves to be acceptable and the Contractor has performed the work with the authority of and due notice to the Engineer.

In the event that a conflict arises between the proposed improvements and an existing utility, the Resolution of Utility Conflicts item will compensate the Contractor for standby time and additional work in the following manner:

1. Standby time resulting from existing utility conflicts:

   Standby time is defined as time the Contractor is unable to proceed with progression of a specific work item (i.e., storm drainage, underground utility installation, etc.) due to conflicts with existing facilities. However, payment for standby time shall be limited to:

   A. For each agreed upon conflict, a maximum of four (4) hours of standby time will be paid for actual delay of labor and equipment due to a utility conflict. The Contractor shall be responsible to adjust its work schedule and/or reassign its work forces and equipment to other areas of work to minimize standby time.

   B. If the conflict is resolved within one (1) hour of notification to the Engineer, no standby time will be paid.

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2. Additional work required to resolve utility conflicts will be paid for at the bid unit prices for the associated work. Work that can be measured and paid for at the Contract unit prices shall not be identified as force account work. This work includes but is not limited to:

   A. Water fittings, valves, and pipe realignment of line and/or grade for the water facilities to avoid existing utilities.

   B. Additional water fittings, valves, and pipe required by a change in alignment and/or grade, not exceeding the limits set in Section 1-04.4 of the Standard Specifications.

1-07.18 Public Liability and Property Damage Insurance

1-07.18 Insurance

1-07.18(2) Additional Insured

Supplement section 1-07.18(2) of Bid Schedule A special provisions with the following additional insured:

- Lakehaven Water and Sewer District, and its officers, elected officials, employees, agents, and volunteers.

1-08 PROSECUTION AND PROGRESS

1-08.4 Prosecution of Work

Add the following new subsections:

1-08.4(2) Construction Sequence Criteria

(******)

The Contractor shall be responsible for the planning, scheduling, and sequencing of the Bid Schedule B Work. This shall include aligning and coordinating with Bid Schedule A work and Bid Schedule A traffic control and staging plans. The potential and suggested construction sequence plan is intended to identify sequencing criteria while maintaining water service to the extent practical and meeting the Contracting Agency's requirements for water facility construction.

The Contractor shall develop a proposal for "Temporary Water Service and Construction Sequencing" suitable to their operations while meeting the requirements for water service disruptions and meeting the Contracting Agency's requirements for water facility construction as set forth in these contract documents. The proposed construction sequence shall list all connections to live water mains, both Existing Water Mains and New Water Mains, as defined in Special Provision 1-01.3. Further, this sequencing plan shall align with the approved WSDOT traffic control plans.

Water facility work shall not commence prior to the Engineer's approval of the Contractor's proposed construction sequence for the work.

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1-08.4(3)A Allowable Water Service Disruption and Notice

(******)

The Contractor shall coordinate and confirm with the Engineer a minimum of 72 hours [three (3) business days] in advance of a water main shutoff exceeding four (4) hours or 48 hours [two (2) business days] in advance of a water main shutoff not exceeding four (4) hours, in accordance with the schedule submitted to and reviewed by the Engineer. Any such water service disruption shall be limited to **8:00 a.m. to 5:00 p.m., Monday through Friday,** exclusive of Contracting Agency holidays for which no disruption will be allowed.

The Contractor shall prepare and hand-deliver Contracting Agency-furnished notification forms ("Door Hangers") a minimum of 48 hours [two (2) business days] in advance of a water service disruption exceeding four (4) hours, or 24 hours [one (1) business day] in advance of a water service disruption not exceeding four (4) hours. The Contracting Agency will provide the locations or addresses of the affected buildings and premises.

1-08.4(3)B Temporary Water Service

(******)

The Contractor shall be responsible to develop a proposed plan to provide temporary water service for any scheduled Work requiring a water main or meter shutoff exceeding the following:

- Eight (8) hours during any calendar day.
- Twelve (12) hours on consecutive calendar days.
- Sixteen (16) hours in a 7-calendar day period.

Such plan, as a prerequisite for performing the scheduled work, shall be submitted for the Engineer's review a minimum of 72 hours [three (3) business days] prior to the time that the Contractor needs to commence Work to complete the proposed temporary service(s). Acceptance of a proposed plan for temporary water service shall be at the sole discretion of the Engineer and the Contractor shall not presume that a proposed plan will be accepted. The Contractor shall prepare and hand-deliver Contracting Agency-furnished notification forms ("Door Hangers") a minimum of 48 hours [two (2) business days] prior to commencing temporary water service installation in accordance with an approved plan.

Temporary water service will not be allowed to operate for the two (2) full weeks including weekends across Christmas (December 25th) and New Years (January 1st). District customers must be on standard water service during this time.

Temporary water facilities shall be in accordance with Section 7-10 "Temporary Water Service and Construction Sequencing."

1-08.4(3)C Schedule Development

(******)

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In developing a proposed project schedule and construction sequence plan, the Contractor shall consider the following, at a minimum:

Bacteriological test sampling occurs on two (2) consecutive days following satisfactory completion of the 24-hour minimum chlorine solution contact time for disinfection. Bacteriological test samples are typically taken only on Monday-Tuesday, Tuesday-Wednesday, or Wednesday-Thursday, excluding holidays, and subject to holiday constraints for the Contracting Agency's testing laboratory. These sampling days allow the Contracting Agency's laboratory to obtain 48-hour test results (laboratory operations are typically Monday through Saturday, excluding holidays). For this Contract, bacteriological test samples may also be taken on Thursday-Friday, excluding holidays.

Pressure testing, disinfection, draining, filling, and flushing of new or temporary water facilities shall be coordinated with and be performed at the direction of the Contracting Agency inspector and in total will require a minimum of five (5) weekdays (excluding holidays) to complete. Flushing of disinfected mains and appurtenances, following satisfactory completion of the 24-hour minimum chlorine solution contact time, shall be performed until satisfactory chlorine residual levels for bacteriological testing have been achieved as determined by the Contracting Agency inspector. Flushing of mains and appurtenances following disinfection and installation, in accordance with Contracting Agency requirements for the "swab and go" process, shall be at a minimum of three (3) feet per second and continue for the greater of: A) a minimum of eight (8) exchanges of water in that segment; B) a minimum of two (2) minutes; C) as necessary until there is no sediment, debris, or other objectionable color, taste, or odor; or D) as necessary to achieve clean, potable water meeting Department of Health and Contracting Agency requirements, as determined by the Contracting Agency inspector. Additional details are specified in Section 7-09.

The contract duration and outlined work sequence as shown and described in the plans of these contract documents anticipate that it will be necessary for certain tasks and activities to be performed at more than one location concurrently during a work shift and for some work such as sawcutting, excavation and placement of anchored temporary steel plates in advance of water main removal or installation may be necessary. The assumptions for the suggested staged construction are presented in more detail in the plans.

The contract duration and the work sequence also anticipate that it may be necessary to utilize specialized equipment and/or procedures for portions of the work such as potholing using vacuum excavation and providing temporary support in coordination with Puget Sound Energy for utility poles during trench work for removal and installation of water facilities in the vicinity of those utility poles.

Work outside of weekly working days, Monday through Friday is not anticipated to be necessary except in the case of an emergency.

END OF DIVISION 1

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 2 – TEMPORARY FEATURES

2-04 TEMPORARY TRAFFIC CONTROL

2-04.1 Description

(******)

Add the following after the third paragraph in this section:

Placement and removal of steel plates, temporary trench backfill including HMA, if elected at the Contractor's option for the trench crossings prior to completing the trench backfill and permanent driveway restoration, shall be incidental to the respective contract items for water main removal and installation and conduit installation, and no separate measurement or payment will be made.

2-04.3 Construction Requirements

2-04.3(2) Traffic Control Plans

(******)

Supplement this section with the following:

The Contractor shall prepare site specific Traffic Control Plans where Bid Schedule B work falls outside of the Bid Schedule A Traffic Control plan work areas. Where this is applicable and on SW 374th St, see Appendix M-2. Where the Contractor requires traffic control to construct the watermain along SR 99 that is not covered by traffic control and staging plans within Bid Schedule A, the Contractor is responsible for developing and submitting specific traffic control plans for City and WSDOT approval prior to the water main working beginning.

Costs for developing and implementing project temporary traffic control for Bid Schedule B work shall be considered incidental to Bid Schedule A Section 2-04 bid items.

END OF DIVISION 2

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 3 – EARTHWORK

3-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

(******)

Replace the Section title with the following:

3-01 CLEARING, GRUBBING, ROADSIDE CLEANUP, AND SITE RESTORATION

3-01.1 Description

(******)

The first paragraph is revised to read:

The Contractor shall clear, grub, and clean up those areas as may be described in the Special Provisions or shown or noted on the Plans and as staked or flagged. Staking and flagging shall be:

- Performed by the Contractor in coordination with the Contracting Agency inspector, except as may be performed by the Contracting Agency as set forth in the contract documents.
- Limited to those areas necessary to reasonably perform the Work.
- Subject to the Contracting Agency's review prior to the commencement of either clearing or grubbing.

During performance of the Work, the Contractor shall protect from harm all trees, bushes, shrubs, fences, or other objects outside the project limits, and/or that are designated or identified to remain within the project limits.

3-01.2 Disposal of Usable Material and Debris

(******)

The first paragraph is revised to read:

When possible, the Contractor shall salvage and recycle usable material such as timber, chips, or firewood produced by clearing, grubbing, site restoration, or roadside cleanup. Tree removal shall be subject to the provisions of the land use jurisdiction. Trees larger than 6-inch diameter at four (4) feet above the base that are in easements, including right-of-way, and not designated by the jurisdictional agency as property of the agency, shall be first offered to the abutting property owner prior to removal and disposal. The Contractor shall not allow the public to fall or to limb, buck, or otherwise cut felled trees.

3-01.3 Construction Requirements

(******)

Supplement this section with the following:

Clearing and grubbing debris shall <u>not</u> be incorporated into the completed Work or right-of-way. All such materials shall be disposed of in accordance with Section 3-01.2(2).

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The Contractor shall preserve and protect existing trees, shrubs, rockeries, retaining walls, mailboxes, driveway surfaces, and other improvements not designated for removal, whether in right-of-way or on private property, in the vicinity of existing and replacement water facilities, including service connections and appurtenances, as more specifically shown and noted in the Plans and specified in Section 1-07.16, unless specific written authorization and direction have been received from the respective property owner, Contracting Agency, and jurisdictional agency(ies) as applicable.

Add the following new subsection:

3-01.3(5) Site Restoration

(******)

Following completion of the other items of Work, the Contractor shall:

1. Complete restoration that shall restore the site to its existing condition or better than original condition and as shown in the restoration plans and details within the Contract Plans.
2. Remove any trash, litter, or construction debris from the work area, including the Contractor's staging area(s), and any such contractor-generated trash, litter, or construction debris that is on private property.
3. Arrange for and remove any tracked debris, dust, or rock in the travelled way of project limits and adjacent side streets and the frontages and driveways accessing the work area.
4. Restore to pre-construction condition, landscape materials including topsoil, sod, bark mulch and/or seeding, and/or surface improvements not identified for removal. Topsoil, sod, bark mulch, and/or seeding shall meet the requirements within Standard Specification 8-02. Special materials and work will be necessary to restore the site per the Restoration Plans and to match both the pre-existing conditions and the adjacent undisturbed improvements.
5. Rock, retaining wall, and edging shall be either salvaged and reinstalled or replaced with materials sized to match and conforming to the pre-existing condition and adjoining sections, as applicable, and shall be placed to ensure a solid uniform feature consistent with the pre-existing conditions.
6. Fill holes and smooth, contour, and shape the ground, outside of the areas to receive hardscape improvements, to eliminate closed depressions and blend naturally with the surrounding area.
7. Repair or restore to the satisfaction of the Local Jurisdictional Agency, surface or subsurface features including landscaping or plantings, utilities, and/or street system improvements damaged or disturbed by the Contractor's operations.
8. Where applicable, match concrete driveway style, type, aggregate, color, jointing, and other existing driveway conditions.
9. Fence Removal: Carefully dismantle and remove the existing fence and salvage all materials determined satisfactory for incorporation in the reset fence. Contractor shall also provide safe storage of all fence materials salvaged until such time as they are reset. Any concrete post footings shall be broken up and removed and the posts carefully cleaned and stored. All post holes shall be filled to meet existing grade. All work shall be done in a proficient manner with care taken to not disturb the surrounding area and existing fence to remain. Any damage done to the area or existing fence to remain, caused by the Contractor's operations, shall be repaired to the original condition at no expense to the Owner.

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10. Reset Fence: Clean and assemble the salvaged fence components, incorporate all required new materials, and reset the fence plumb and true to the lines, grades, and limits established. The Contractor shall furnish and install concrete footings for the relocated fence when the existing fence in original position was of this type of construction.
11. All impacted frontage items noted for reset/relocation shall adhere to the following precedence:
    a. The Contractor shall reset the facility in its original location.
    b. If, during construction, the Local Jurisdictional Agency, Owner, or homeowner requests a facility relocation, the Contractor shall relocate the facility elsewhere within the property to which it was originally located adjacent.

Removed materials shall be hauled to and disposed of at a site authorized and permitted for resource recovery, salvage, or disposal of the respective material as appropriate.

Satisfactory completion of site restoration shall be a precedent condition for determining whether the Work is Physically Complete.

3-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

3-02.1 Description

(******)

Supplement this section with the following:

The Contractor shall remove and dispose or salvage all items as shown and noted in the Plans, and other miscellaneous items necessary to complete the Work, and as provided herein. The Proposal contains Bid Items for specific items to be removed, including incidental items as described in Section 3-02.5 and Division 10. The Proposal also contains a lump sum Bid Item "Removal of Structures and Obstructions" to cover all other removal items not covered by specific bid items.

The Work shall include removal of miscellaneous traffic items not listed above and temporary storage and reinstallation of permanent signage.

HMA removal included in "Removal of Structures and Obstructions" shall be full depth.

When repair bands, clamps, spools, sleeves, and couplings are exposed, salvage to Contracting Agency at the SeaTac water tank site (South 324th Street, east of Pacific Highway South). Site access and off-loading of the pipe materials by the Contracting Agency at the site shall be coordinated a minimum of one (1) business day in advance with the Engineer. Further, appurtenances noted in the plans to be salvaged shall also be delivered to the above address per these specifications.

In addition, the Work in this section includes decommissioning of existing water main pipe and repurposing casing pipe that is to remain out of service and in place. This scenario will only occur where called out in the plans and/or in the event the Local Jurisdictional Agency and Contracting Agency determine full removal of the water main will cause undue disruption to existing conditions.

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3-02.2 Vacant

(******)

Revise this section, including heading, to read:

3-02.2 Materials

Materials shall meet the requirements of the following sections:

Location Wire	9-37.1(1)
Locate Station	9-37.2(2)
Grounding Anode	9-37.3(3)
10-Inch Diameter Ductile Iron Pipe	9-30.1(1)
Screw Plug	9-37.2
Transition Couplings	9-30.2(12)
Standard Duty Type 1 Junction Boxes	9-29.2

3-02.3 Construction Requirements

(******)

Replace the last paragraph in this section with the following:

The Contractor shall arrange to dispose waste, excess materials, and items and materials identified in the Plans for removal. Such items and materials shall be processed as necessary, hauled, and salvaged or disposed at no separate expense to the Contracting Agency except as may be otherwise specified in the Contract. Materials not salvaged, or suitable or designated for resource recovery, shall be disposed at a permitted site in accordance with Section 3-03.3(7)C.

Add the following subsection:

3-02.3(4) Asbestos Cement Pipe Removal, Handling and Disposal

(******)

The Contractor shall remove all asbestos-cement pipe where such pipe is designated for removal on the Plans, as may be required where out-of-service asbestos-cement water main intrudes or may intrude into or otherwise interfere with the Work, and/or as may be directed by the Engineer. The Work under this section also includes handling and disposing the asbestos-cement pipe, together with any asbestos containing waste materials such as pipe fragments, protective clothing, HEPA filters, decontamination rinse water, asbestos-contaminated containers, and debris.

For the purposes of this contract, and regulatory compliance, asbestos-cement pipe shall be considered nonabsorbent, friable asbestos-containing material and the Contractor performing the asbestos pipe removal shall be a certified (current) asbestos abatement Contractor receiving certification from the Washington Department of Labor and Industries (L&I). For the purposes of Chapters 296-62 and 296-65 WAC, the Work under this section shall be classified as "Class II asbestos work." Asbestos is classified as a Class 9 hazardous material, Identification Number NA 2212, under CFR Title 49 "Transportation."

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The Contractor shall ensure that the removal and handling including haul and disposal of the waste asbestos meets the requirements of EPA regulation 40 CFR Part 61, local health department regulations, Federal Motor Carrier Safety Act, all other applicable regulations, and these contract provisions.

Prior to performing any contract work, the Contractor shall obtain all permits from, and provide notification to, the Washington State Department of Labor and Industries, the Puget Sound Air Pollution Control Authority (PSCAA), and other permitting and regulatory agencies with jurisdiction over the Work involving asbestos as the law requires.

Prior to commencing asbestos related work, the Contractor shall provide the Engineer with written verification, including copies of approvals and notifications that have been given and/or obtained from the required jurisdictional agencies, and the Contractor's schedule for all Work involving asbestos removal and handling including haul or disposal. The schedule shall include the sequencing and scheduling of asbestos related Work and identify the proposed waste disposal site. The proposed waste disposal site shall be located in the State of Washington and shall be permitted to accept asbestos waste material.

If any portion of the Work under this section will not be performed by the Contractor, the Contractor shall submit a subcontract request as provided in Section 1-08.1, including any proposed independent or commercial hauling companies. Subject to the provisions of State law and interpretation by the Washington State Department of Labor and Industries, a certificate of registration in compliance with RCW 39.27 may not be necessary for independent or commercial hauling companies. However, in all cases, independent and commercial hauling companies are required to file Statements of Intent to Pay Minimum Prevailing Wages and Affidavits of Wages Paid in accordance with the requirements of State law as administered by the Department of Labor and Industries and the provisions of RCW 39.12 may be applicable as noted in Section 1-08.1.

The Contractor shall designate a Washington State Certified Asbestos Supervisor (CAS) to personally supervise the removal, handling, and disposal of the asbestos and to ensure that the Work involving the asbestos is accomplished by certified asbestos workers pursuant to the requirements of the Washington State Department of Labor and Industries and federal law. The CAS shall be on-site during removal and handling of the asbestos, including cutting the pipe, placing and sealing the asbestos in containers, labeling the containers for transport and disposal, and loading the containers into the transport vehicle(s) that will remove the material from the site.

Prior to commencing asbestos related work, the Contractor shall furnish the Engineer with copies of the current certifications for the CAS and asbestos workers.

The Contractor shall ensure the safety of all workers, visitors to the site, and the general public in accordance with all applicable laws, rules, and regulations. Work areas involving asbestos, including areas of removal and handling asbestos-cement and associated materials, shall be controlled, clearly marked with barrels and asbestos warning signs, and have access restrictions as set forth in Section 4.05(b) of the PSCAA's Regulation III.

Wet methods using appropriate equipment, wetting agents, and methods as set forth in Section 4.05(b) of the PSCAA's Regulation III and not prohibited under WAC 296-62-07712(4), are the presumed standard engineering controls and practices for the work. More specifically, following the

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work procedures described in Appendices A and C in the "Evaluation of Asbestos Exposures During Selected Procedures Involving Underground Asbestos Containing Pipe" (by Schumacher and Associates under contract with the Snohomish County PUD, as published by the Washington Education Training and Resource Center, WETRC) for cutting pipe with a carbide wheel, cutting pipe with a hand saw, installing a repair band onto a pipe, cutting pipe with a snap cutter, and installing a tap while the pipe is under pressure have been evaluated and determined to keep asbestos exposure below the permissible exposure limits. Use of alternative engineering controls and practices as recognized in Chapter 296-62 WAC, or that may result in time-weighted average or excursion concentrations exceeding permissible exposure limits, will require initial and subsequent air monitoring, exposure assessments, supplemental control measures, establishment of regulated area, and associated actions as provided in WAC 296-62-07712(10)(f) and WAC 296-62-07711.

All asbestos-cement water pipe designated for removal as shown on the Plans that has been determined to potentially or actually interfere with the Work, or as may be directed by the Engineer for removal, and any asbestos containing waste materials including pipe fragments, protective clothing, HEPA filters and asbestos-contaminated containers and debris shall be sealed in a leak tight container or containers as soon as possible after removal, but no later than the end of each work shift. If disposal bags are used to contain and transport the removed asbestos cement materials, the bags shall be: specifically formulated and approved for asbestos material removal, haul, and disposal; a minimum thickness of 6-mil.; and yellow in color. All containers shall be labeled, including asbestos warning, in accordance with regulatory requirements.

Immediately following placement and sealing of the asbestos containing materials in a bag or bags, the sealed bags shall be placed and sealed in a second bag. Each leak-tight container shall be permanently marked with the name of the waste generator (i.e., Lakehaven Water and Sewer District), date, location (address) of the generated waste, and quantity of material within the container.

Properly sealed and labeled containers of removed asbestos shall be hauled from the site and disposed at a waste site permitted to accept such waste. Such containers of removed asbestos may be temporarily stored in an on-site location agreed to by the Contractor, Contracting Agency, and jurisdictional road agency, provided that the location is secured and signed in accordance with applicable rules and regulations. In the event that a mutually acceptable on-site location for the secure, temporary storage of the containers cannot be determined, the Contractor shall remove the containers from the site no later than the end of each work shift. In no event shall the Contractor allow the removed asbestos and containers to remain on private property, to be transshipped to an intermediate off-site storage area, or comingled with other materials. The Contractor shall dispose asbestos within ten (10) days of removal in accordance with the provisions of Section 4.07 of the PSCAA's Regulation III.

Transportation vehicles and drivers that move the asbestos waste material from the project to the disposal site shall comply with federal and state labeling, shipment record-keeping, and licensing requirements.

The Contractor shall be responsible to track the removed asbestos using the Contracting Agency's prescribed Waste Shipment Record form and to ensure that the requisite signatures are obtained of the material transfer and disposal process. The material information on the form shall provide a direct correlation between the removed asbestos, the sealed and labeled containers of removed asbestos, and the transported and disposed containers of removed asbestos. The Contractor shall provide the

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original copy of the completed Waste Shipment Record form(s) to the Engineer within ten (10) calendar days following disposal.

Add the following new subsection:

3-02.3(5) Removing Existing Water Facilities

(******)

The Contractor shall remove the existing water facilities including mains, valves, valve boxes, hydrants, hydrant laterals, hydrant assemblies, fittings, thrust blocks, water service connections, Pressure Reducing Valve Stations, and other appurtenances as shown and noted in the Plans, as may be directed by the Engineer, and as set forth in these contract provisions.

Removal shall be conducted in such a manner as to prevent damage to other facilities including existing water facilities, storm sewers, sanitary sewers, power poles, underground utilities, or other improvements that are to remain. Any facilities not designated for removal including, but not limited to, water facilities, storm sewers, sanitary sewers, power poles, underground utilities, or other improvements damaged due to the Contractor's operations, shall be repaired or replaced by the Contractor to the satisfaction of the Engineer at no additional expense to the Contracting Agency.

Water main removal shall include the pipe and associated fittings, corporation stops, saddles, repair bands, spools, sleeves, couplings, and thrust blocks, if a separate contract bid item is not included for removal of structures and obstructions or for one (1) or more specifically identified components.

Water valve removal shall include disconnecting the valve from the attached pipe and/or fitting(s) and removing the valve together with the associated valve box, including the base, middle, upper, and sections as applicable, risers, if any, and lid, and associated asphalt or concrete pad, if any.

Hydrant assemblies shall be removed to the branch of the hydrant tee at the water main where shown on the Plans or as may be directed by the Engineer. Where the hydrant assembly is connected to existing water main that is designated for removal, the hydrant assembly tee shall be removed with the water main.

Water service connections shall be removed to the corporation stop at a minimum, including saddle and shutoff valve (if present), service line and fittings, meter box and lid, setter, individual service pressure reducing valve (if present and designated for removal on the Plans), including box and lid. Water meters shall be removed and salvaged by Contracting Agency personnel. Water service connection removal shall also include removal of the portion of customer supply line in right-of-way or easement either shown in the Plans for removal or that conflicts with installation of a new water service connection, including reconnection to the remaining portion of the customer water supply line. In the event that remnant portions of existing water service lines cannot be removed at the corporation stop due to unacceptable disturbance of existing improvements as determined by the Contracting Agency, the service line shall be removed to the maximum extent practical without such disturbance and the exposed end of the remnant portion of the existing water service line shall be plugged with mortar.

Where the water main is to remain in service and the corporation stop of a removed water service connection will not be used, the corporation stop shall be removed together with the pipe saddle, if

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necessary. A brass plug with rubber grommet or gasket shall be used with either the existing or new saddle to seal the pipe penetration as directed by the Contracting Agency's Inspector.

All removed water facilities shall become the property of the Contractor and shall be processed, hauled, and disposed in accordance with the contract provisions, unless otherwise noted on the Plans or specified in the Special Provisions. If designated on the Plans or Special Provisions, removed hydrants, valves, fittings, and/or special water facility components shall be salvaged to the Contracting Agency and shall be delivered to a location as specified in the Contract or as may be directed by the Contracting Agency's inspector. Cast iron, ductile iron, or steel pipe may be salvaged by the Contractor or disposed by the Contractor at a permitted site. Asbestos cement pipe shall only be disposed of at a permitted site.

Sawcutting (full depth) of existing asphalt concrete pavement and/or Portland cement concrete including sidewalks, driveways, and cement concrete curb and gutter, as required for pipe removal shall be in accordance with Section 3-02.3(3).

Trench excavation for the removal of water facilities shall be unclassified and as otherwise provided in Section 3-07.3 including implementation of a trench safety system.

In public rights-of-way, excavated materials shall be removed, hauled, and disposed of at a site permitted to receive such materials.

Prior to backfilling the excavation, the remaining portion of existing pipe that is to remain out of service or abandoned in place shall be decommissioned as set forth in Subsection 3-02.3(6).

Where the remaining portion of the existing water main is to remain in service following removal of the designated water main, valve, hydrant assembly, water service connection, or Pressure Reducing Valve Station the Contractor shall perform one (1) or more of the following as applicable and as may be directed by the Engineer:

Water Main:

- Install permanent cast iron or ductile iron cap or plug with associated fittings, and thrust block if shown on the Plans; or
- Install temporary blowoff in accordance with Lakehaven Water and Sewer District Standard Plan 1300; or
- Install temporary blind flange or restrained MJ plug at exposed run or branch of a tee to remain if a temporary blowoff will not be necessary as determined by the Engineer.

Valve:

See "Water Main" above.

Hydrant Assembly:

Install temporary or permanent blind flange or appropriate cap or plug on the branch of the hydrant tee as may be directed by the Engineer.

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Water Service Connection:

Install temporary cap on the corporation stop or permanent plug as specified or as may be directed by the Engineer.

Following satisfactory removal of the water facilities, and water facility decommissioning as applicable, the vacant trench or excavation shall be backfilled, and completed to grade.

In public rights-of-way, the trench shall be backfilled to subgrade with the following:

- City of Federal Way – Crushed Surfacing Top Course.
- City of Des Moines – Crushed Surfacing Top Course.
- Unincorporated King County – Crushed Surfacing Base Course.
- City of Auburn – Crushed Surfacing Top Course.

Backfill shall be compacted in accordance with Method C compaction as provided in Section 3-03.3, and graded to provide a firm, smooth and uniform surface for placement of subsequent surfacing materials to finish grade.

In areas outside of public rights-of-way, or in public rights-of-way outside the limits of existing or proposed structural roadway sections, including curbs, and gutters, if allowed by the jurisdictional agency, the trench shall be backfilled to subgrade with suitable native material from the trench excavation and compacted in accordance with Method C compaction as provided in Section 3-03.3(14)C. Native material will not be paid for as import crushed surfacing if used as suitable trench backfill. Native material backfill determined to be unsuitable shall be replaced with Aggregate for Gravel Base. If suitable native excavated and replacement materials are insufficient to complete the trench backfill to subgrade as determined by the Engineer, Aggregate for Gravel Base shall be placed, compacted in accordance with Method C compaction as provided in Section 3-03.3(14)C, and graded to provide a firm, smooth, and uniform surface for placement of subsequent surfacing materials to finish grade.

Surfacing for completion of the trench restoration shall be in accordance with the trench detail included or referenced in the Plans, standard plans and/or Contract provisions. Completion of trench restoration may be partially or completely deferred pending complete installation of the new water main subject to the Contractor's coordination in advance with and approval by the Engineer and the requirements of the jurisdictional road agency.

In areas subject to traffic and/or in areas designated to remain accessible, the Contractor shall be responsible to complete the trench restoration, install temporary steel plates, or otherwise ensure safe access for traffic as provided in the contract provisions and required by the jurisdictional road agency. In no situation shall an incompletely restored trench section remain exposed to traffic or impoundment of incident rainfall or stormwater runoff. Following satisfactory testing, or the permitted duration for the temporary surfacing as may be allowed by the jurisdictional road agency in coordination with the Engineer, the Contractor shall remove temporary backfill, steel plates, or other temporary provisions and complete the trench backfill and surfacing. In areas where new water main is placed in the same trench where the existing water main has been removed, pipe removal shall not

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be considered complete until the new main has been placed, the trench backfilled, and surfacing placed or restored.

A Puget Sound Energy representative shall be present during work in the vicinity of power or light poles and gas main. The Contractor shall coordinate with Puget Sound Energy's designated representative a minimum of two (2) business days in advance of any such work and adjust work hours as necessary to accommodate the representative's schedule.

See special provision 7-15.3(5) Removing and Decommissioning Existing Service Connections, for additional construction requirements when removing service lines.

Pressure Reducing Valve Stations:

Any installed shoring shall be removed prior to backfilling. In public rights-of-way, the excavation shall be backfilled to subgrade with the following:

- City of Federal Way – Crushed Surfacing Top Course.
- City of Des Moines – Crushed Surfacing Top Course.
- Unincorporated King County – Crushed Surfacing Base Course.
- City of Auburn – Crushed Surfacing Top Course.

Add the following new subsection:

3-02.3(6) Decommissioning Water Mains

(******)

Where indicated on the Plans, or as may be directed by the Engineer, sections of existing water main that are to remain out-of-service and in-place shall be decommissioned in accordance with this subsection.

At transitions between water main that is designated to be removed and water main that is to remain in-place and out-of-service, or at locations shown on the Plans or directed by the Contracting Agency inspector for locate stations and connecting location wire, the Contractor shall cut the exposed end of the pipe to remain to create a smooth surface on the exposed pipe wall, free of jagged edges, and clear the pipe to remain of debris and water. Asbestos cement pipe shall be cut with a Reed Wheel Cutter or shell cutter with controlled flowing water. After confirming that the pipe has been cleared, the Contractor shall install a location wire in the exposed terminus of the pipe to remain. The location wire shall be of sufficient length for a continuous, unspliced connection between locate stations at each end of the out-of-service section of pipe, with a minimum of one (1) foot of surplus (coiled) wire at each locate station as installed to finish grade. The wire shall be installed at sufficient depth between the pipe and locate station or with sufficient slack to prevent disturbance by or allow adjustment of the wire's depth to accommodate installation of future utilities as shown on the Plans.

Locate stations shall generally be located outside of traffic areas as shown on the Plans. Spacing between locate station pairs shall not exceed 500 linear feet. A grounding anode with connecting wire

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to the locate wire termination at the locate station shall be installed at each locate station as described in Section 9-37.3.

Following connection of the location wire termini at the locate stations, the Contractor shall check for continuity. If continuity is not confirmed, the Contractor shall correct the installation, including removal of the wire and installation of new location wire if it is determined that there is a fault in the wire. If continuity is confirmed, unless otherwise indicated on the Plans, the Contractor shall fill the pipe to remain in place along its entire length with controlled density fill (CDF) or controlled low-strength material (CLSM) meeting the requirements of Section 3-07.3(1)E. The CDF shall extend beyond and surround the pipe ends to ensure no future settlement. After filling the pipe with concrete slurry and completing the compacted trench backfill, the Contractor shall recheck the location wire for continuity between the pair of locate stations at each terminus.

The locate station shall be installed at, and adjusted as necessary to match, finish grade. The Contractor shall protect the locate station pending completion of surfacing and adjustment to finish grade.

If neither location wire and locate stations, nor filling with concrete slurry are noted on the Plans, the exposed ends of the remaining portions of existing pipe that are to remain out of service or abandoned in place shall be filled and sealed with a plug of commercial concrete extending into the pipe a minimum distance of the larger of two (2) feet or three (3) pipe diameters. Care shall be used in placing the concrete in the pipe to ensure that the opening of the pipe is completely filled and thoroughly plugged. After the exposed pipe end has been satisfactorily plugged, the Contractor shall complete placement of compacted trench backfill.

Add the following subsection:

3-02.3(7) Saw Cutting

(******)

All pavement removed, regardless of type, shall be sawcut with a neat, full depth, vertical edge/line.

Prior to the placement of Hot Mix Asphalt in locations illustrated in the plans, the Contractor shall sawcut a neat, full depth, vertical edge/line within the existing pavement where the proposed pavement adjoins. The sawcut shall also be set at a continuous offset from the face of curb as illustrated in the plans.

The Contractor shall be responsible for ensuring that special precautions are undertaken so that, in accordance with Department of Ecology guidelines, no concrete (asphalt or cement) or concrete by-products are discharged into any storm drain or surface water. Cutting operations will increase the pH of water, therefore filtering is not acceptable.

Thoroughly clean saw cuts where necessary using high pressure water (1,400 psi or greater). All wastewater shall be collected using vacuuming and/or pumped into containers for disposal.

Impervious surfaces contaminated from cutting operations shall be cleaned by sweepers to prevent contaminants from entering storm systems.

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Collection and disposal of wasted water shall be considered incidental to and included in the various Bid Items involved with the operation. All pavement removed, regardless of type, shall be sawcut with a neat, full depth, vertical edge/line.

Add the following new subsection:

3-02.3(8) Removal and Protection of Private Improvements

(******)

Where specifically shown and noted in the plans, the Contractor shall remove, protect, or salvage to the owners all these improvements under the private ownership or control and/or maintained by the private owners including, but not limited to, fences, block walls, and landscape vegetation or appurtenances. This work shall be completed by hand and extreme care shall be taken when dealing with existing facilities. The Bid Item contains specific items to be removed and protected including work incidental to listed items as described in this section and Division 10.

Add the following new subsection:

3-02.3(9) Repurposing 10" Steel Casing Pipe

(******)

Where specifically shown and noted in the Plans, the Contractor shall remove existing 6" steel pipe and any other items including but not limited to concrete plugs, wood blocks, metal bands, and sand from within existing 10" casing pipe. The contractor shall CCTV the 10" casing pipe after removing all items from within the existing 10" casing pipe and provide results as well as notify the engineer of any discrepancies at least 10 working days prior to installing extensions or transition couplings to the existing 10" casing pipe.

3-03 ROADWAY EXCAVATION AND EMBANKMENT

3-03.1 Description

(******)

The first paragraph is supplemented with the following:

The Work also includes excavating and grading driveways as shown on the Plans.

3-03.3(7) Disposal of Surplus Material

3-03.3(7)A General

(******)

This subsection is revised to read:

The Contractor shall remove, haul to, and dispose of materials from roadway excavation at a site permitted to receive such materials.

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3-03.3(19) Removal of Pavement, Sidewalks, Curbs, and Gutters

(******)

Delete the first two (2) numbered items under the first paragraph of this section, replace them with the following, and revise the numbering for items 3 and 4 to 2 and 3, respectively:

1. Pavement designated for removal, or pavement damaged in conjunction with trench excavation for water facility removal or installation, or other improvement, shall be hauled to and disposed at a site permitted for disposal or recovery of such material. None of the removed pavement material shall be incorporated into the Work.

Supplement this section with the following:

Prior to pavement removal, the Contractor shall make a full-depth sawcut to delineate the areas of pavement removal from those areas of pavement to remain. The Engineer shall review and approve proposed sawcut locations as marked by the Contractor prior to such full-depth sawcut. No wastewater from the sawcutting operation shall be released directly to any stream or storm sewer system.

Where trenching is performed through paved areas, including asphalt pavement and concrete pavement, the hard surface pavements shall be pre-cut with concrete saws specifically designed for this purpose before pavement removal and before commencing excavation. All pavement cuts shall be continuous and shall be made with a machine specifically equipped for this purpose. Skip-cutting may be used for asphalt concrete pavement removal, but the pavement edge shall be cut a second time using a concrete saw prior to repairing the pavement at the Contractor's own expense.

The pavement shall be cut in neat, straight lines at least two (2) feet either from the neat-line trench section wall as shown on the Plans, at locations shown on the Plans, or from the upper edge of the trench wall, whichever is greater. Where the remaining pavement would be less than five (5) feet in width, this strip of pavement shall also be removed. The cuts so made shall ensure a minimum of damage to pavement surfaces that will remain.

No trenching undercutting shall be permitted. Where trenching operations result in pavement undercutting, where any pavement is damaged outside the allowable trench widths as shown on the Plans, or where the Contractor fails to protect otherwise acceptable cut edges during trenching and backfilling, the Contractor shall re-cut the pavement one (1) foot back from and parallel with the actual trench wall or otherwise make repairs as directed by the jurisdictional agency, all at the Contractor's own expense.

Add the following new subsection:

(******)

3-03.3(20) Driveway Excavation

Excavation to subgrade for driveway restoration as shown on the Plans shall be considered the same as roadway excavation for the purposes of measurement and payment.

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3-07 STRUCTURE EXCAVATION

3-07.3(1) General Requirements

(******)

Replace this section with the following:

All structure excavation, trenching, and shoring shall be performed in strict compliance with Chapter 39.04.180 RCW, the Washington Industrial Safety and Health Act, Chapter 49.17, as promulgated under the Washington State Safety Code relating to excavation, trenching and shoring and as set forth in "Safety Standards for Construction Work," Chapter 296-155 WAC Part N, as well as all other applicable local, Contracting Agency, State, and Federal laws and regulations.

All shoring, including sheeting and bracing, or equivalent trench stabilization and worker protection system required to perform and protect the excavation, and to safeguard the personnel who may enter the excavation, shall be furnished by the Contractor. If workers enter any trench or other excavation four (4) feet or more in depth that does not meet the open pit requirements as generally set forth in Section 3-07.3(3)B, it shall be shored.

The Contractor shall submit a general and detailed project wide shoring plan prior to beginning construction for approval.

The Contractor alone shall be responsible for worker safety and the Contracting Agency assumes no responsibility therefor.

Upon completing the Work, the Contractor shall remove all shoring, unless otherwise shown on the Plans or directed by the Engineer.

The Contractor is advised that the Contracting Agency has not so delegated, and the Engineer does not purport to be, a trench excavation system safety expert, is not so engaged in that capacity under this Contract, and has neither the authority nor the responsibility to enforce construction safety laws, rules, regulations, or procedures, or to order the suspension of work for claimed violations of trench excavation safety.

The furnishing by the Contracting Agency of resident project representation and inspection shall not make the Contracting Agency responsible for the enforcement of such laws, rules, regulations, or procedures, nor shall such make the Contracting Agency responsible for construction means, methods, techniques, sequences, procedures, or for the Contractor's failure to properly perform the Work necessary for proper trench excavation safety.

3-07.3(1)C Removal of Unstable Base Material

(******)

Replace this subsection with the following:

When the material at the bottom of an excavation is not stable enough to support the Structure, including where applicable, compacted pipe bedding and backfill, trench backfill, and surfacing materials (i.e., structural roadway or driveway sections, curbs, gutters, sidewalks, topsoil, plantings),

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the Contractor shall excavate below subgrade and replace the unstable material with compacted gravel backfill as provided in Section 7-09.3(8).

3-07.3(1)D Disposal of Excavated Material

(******)

Replace the third paragraph with the following:

If the Contract includes structure excavation, Class A or B, including haul, shoring or extra excavation, Class A or B, or Trench Safety System, the Contract unit price shall include all costs for loading and hauling excavated material to a permitted disposal site, or to and from a temporary stockpile. Any such stockpiled materials either suitable or designated for incorporation in the Project shall be handled in accordance with Subsection 3-07.3(1)E.

3-07.3(1)E Backfilling

(******)

Delete the second sentence in the first paragraph and insert the following:

Trench backfill material shall be Crushed Surfacing Top Course meeting the requirements of 9-03.3(1).

Delete the fourth paragraph and replace with the following:

Controlled Density Fill (CDF) or Controlled Low-Strength Material (CLSM) – CDF is a self-compacting, cementitious, flowable material requiring no subsequent vibration or tamping to achieve consolidation. The Contractor shall provide a mix design in writing to the Engineer on WSDOT Form 350-040 and utilize ACI 229 as a guide to develop the CDF mix design. No CDF shall be placed until the Engineer has reviewed the mix design.

CDF shall be designed per the following requirements:

<u>For pumpable CDF used in the abandonment of water and/or sewer pipe (i.e., pipe filled with CDF):</u>

- When in City of Federal Way Right-of-Way - minimum 28-day strength of 150 psi and a maximum 28-day strength not to exceed 250 psi.
- When in King County Right-of-Way - minimum 28-day strength of 50 psi and a maximum 28-day strength not to exceed 700 psi.

<u>For CDF used in the trench backfill:</u>

- When in City of Federal Way Right-of-Way - minimum 28-day strength of 150 psi and a maximum 28-day strength not to exceed 250 psi.
- When in King County Right-of-Way - minimum 28-day strength of 50 psi and a maximum 28-day strength not to exceed 300 psi.

The CDF consistency shall be flowable (approximate slump 3 to 12 inches max).

Supplement this section with the following:

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City of Federal Way - When using Controlled Density Fill in the City of Federal Way Right-of-Way, it shall be made of blended hydraulic cement type 1-L and include an air entrainer (Daravair 1000 or approved equal meeting ASTM C260). The CDF mix design shall not include malleated rosin (i.e., MasterAir AE90) as a supplied air entrainment and waterproofing admixture or any wax-based curing compounds.

3-07.3(3) Construction Requirements, Structure Excavation, Class A

3-07.3(3)D Shoring and Cofferdams

(******)

Replace the first numbered item under the eighteenth (18th) paragraph with the following:

1. Remove all structural shoring, including temporary sheeting, bracing, and fasteners, not designated on the Plans to become part of the completed Work.

Add the following new subsection:

3-07.3(3)F Trench Restoration and Temporary Protection

(******)

All trenches shall be closed up and fully backfilled with compacted trench backfill and permanent surfacing as shown on the Plans, graded level and surfaced with temporary compacted crushed surfacing top course and/or pavement, protected with anchored temporary steel plates, or otherwise be secured prior to completing each day's work.

In areas where traffic must be restored between work shifts, the Contractor shall provide a safe, smooth, drivable surface for traffic, including access to fronting parcels.

In areas subject to traffic, trenches not backfilled, protected with steel plates, or otherwise sufficiently restored for the safe flow of traffic and access, shall be protected and delineated with traffic safety and directional devices conforming to OSHA and WISHA requirements and the MUTCD as modified by the WSDOT.

Steel plates shall be treated and have a non-skid surface. Steel plates potentially subject to vehicle traffic loads shall be sufficiently dimensioned and anchored to safely support an HS 25-44 loading at the posted speed limit, including impact loading. Such temporary trench coverage shall either completely cover the incomplete trench section or extend sufficiently beyond the edge of pavement or the travelled way and be supplemented with reflectorized delineators and/or other devices as necessary to ensure traffic safety and provide a smooth transition to and from the adjoining undisturbed travel surface. Adjoining plates shall not have gaps and Commercial HMA shall be used to provide a smooth transition between the plates and the existing travel surface. Signing shall be installed in accordance with the MUTCD as modified by the WSDOT.

All such costs to install and remove temporary trench backfill, steel plates, and supplemental traffic and Work area safety provisions shall be incidental to the contract prices for water main removal and installation, and related items of Work, and no separate measurement or payment shall be made.

Add the following new subsection:

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3-07.3(3)G Trench Safety Systems

(******)

The Contractor shall provide all materials, labor, and equipment necessary to shore trenches to protect the Work and existing improvements and natural features not designated for removal and to provide safe working conditions in the trench. The Contractor may elect to use any combination of shoring and overbreak, tunneling, boring, sliding trench shield, or other method of accomplishing the Work consistent with applicable local, State, or Federal safety codes.

If workers enter any trench four (4) feet or more in depth that does not meet the open pit requirements of Section 3-07.3(3)B, the excavation shall be shored as provided in Section 3-07.3(4). The Contractor alone shall be responsible for worker safety and the Contracting Agency assumes no responsibility.

Upon completing the Work, the Contractor shall remove all shoring unless the Plans or the Engineer direct otherwise.

Shoring to be removed, or moveable trench shields or boxes, shall be located at least 2-1/2 pipe diameters away from metal or thermoplastic pipe, if the bottom of the shoring, shield, or box extends below the top of the pipe, unless a satisfactory means of reconsolidating the bedding or side support material disturbed by shoring removal can be demonstrated.

Damages resulting from improper shoring or failure to shore shall be the sole responsibility of the Contractor.

The furnishing by the Contracting Agency of resident project representation and inspection shall not make the Contracting Agency responsible for the enforcement of such laws, rules, regulations, or procedures, nor shall such make the Contracting Agency responsible for construction means, methods, techniques, sequences, procedures, or for the Contractor's failure to properly perform the Work necessary for proper trench excavation safety.

Add the following new subsection:

3-07.3(3)H Excavation using Hydraulic Methods (Hydro-Excavation)

(******)

The Contractor shall excavate using hydraulic methods (hydro-excavation) where indicated in the Plans or where directed by the Engineer.

The Contractor shall perform hydro-excavation using a rotary nozzle water wand and compressor capable of delivering a maximum pressure of no greater than 3,000 PSI at the tip of the rotary nozzle water wand. All equipment used for hydro-excavation work shall be maintained in good working order and be free from oil leaks or mechanical hazards. The Contractor shall do the following prior to beginning hydro-excavation work or exposing tree roots:

- Remove any turf, mulch, or loose debris and soil and wet the surface.

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- Install physical barriers (e.g., screen fencing or debris guards) when working within ten (10) feet of an area outside the work zone.
- Identify and protect underground utilities per standard locating procedures.

During hydro-excavation activities, the Contactor shall operate the rotary nozzle water wand at approximately a 45 degree angle to the ground and maintain at least six (6) inches between the nozzle tip and the soil being excavated or any exposed tree roots greater than 1.5 inches in diameter. Water pressure shall be sufficient to dislodge soil but gentle enough to preserve the protective outer sheath and bark tissue of the roots. The contractor shall operate the rotary nozzle water wand at a pressure of no greater than 1,000 PSI when excavating in the proximity of known or discovered tree roots greater than 1.5 inches in diameter or where directed by the Engineer. All hoses used shall be secured with whip guards and safety pins during operation.

The Contractor shall maintain a vacuum suction to promptly remove loosened spoils and slurry during excavation. The vacuum suction shall be performed in such a way that the water and slurry are removed from the excavation without damaging the protective outer sheath and bark tissue of the roots. The Contractor shall not allow water or slurry to build up in the trench during hydro-excavation operations. The Contractor shall take care to prevent sloughing of adjacent soil into the trench. Any damage to adjacent structures as a result of hydro-excavation activities shall be repaired by the Contractor at no cost to the Contracting Agency.

3-07.3(3)I Excavation using Pneumatic Methods (Pneumatic Excavation)

(******)

The Contractor shall excavate using Pneumatic methods (pneumatic excavation) where indicated in the Plans or where directed by the Engineer.

The Contractor shall perform pneumatic excavation using a Supersonic Air Tool capable of using compressed air between 90 and 125 PSI delivered from a compressor at a rate of between 185 and 375 CFM and be capable of producing air speeds near 1,400 mph at the nozzle tip. The tool shall be equipped with a dead man trigger and a dirt shield. All equipment used for pneumatic excavation work shall be maintained in good working order and be free from oil leaks or mechanical hazards. All hose junctions used shall have whip guards and safety pins installed during operation. The Contractor shall do the following prior to beginning pneumatic excavation work or exposing tree roots:

- Remove any turf, mulch, or loose debris and soil and wet the surface.
- Install physical barriers (e.g., screen fencing or debris guards) when working within ten (10) feet of an area outside the work zone.
- Wet the excavation area using a soaker hose.

The Contactor shall operate the pneumatic excavator at an angle between 30 and 45 degrees relative to the ground and maintain at least one (1) inch between the tip of the tool and the bottom of the soil being exposed. Excavation shall occur in lifts not exceeding eight (8) inches in depth. The Contractor shall take care to prevent sloughing of adjacent soil into the trench. Any damage to adjacent structures as a result of pneumatic excavation work shall be repaired by the Contractor at no cost to the Contracting Agency.

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3-07.3(3)J Protection of Tree Roots 1.5 Inches and Larger

(******)

The Contractor shall make every attempt to protect all roots greater than 1.5 inches in diameter and greater and keep intact. The Contractor shall notify the Engineer immediately if roots equal to or greater than 1.5 inches are discovered within the trench. The Engineer may require the Contractor to switch excavation methods to eliminate or minimize damage to tree roots within the excavation. The Engineer shall inspect such tree roots prior to backfilling the excavation. No tree roots greater than 1.5 inches shall be cut or pruned without written approval from the Engineer. Any root pruning shall be performed with clean, sharp tools, under the onsite supervision of an arborist.

Any tree roots 1.5 inches in diameter or greater or exposed root zones anticipated to be left exposed longer than one (1) day shall be covered using burlap and colored plastic sheeting. If the Contractor anticipates prolonged exposure, the Contractor shall check the soil moisture twice daily and wet the area using soaker hoses to maintain adequate soil moisture.

An arborist shall be on site during any excavation activity within the Inner Critical Root Zone (ICRZ) of any tree identified in the Plans or as directed by the Engineer. The Engineer shall be notified a minimum of three (3) working days ahead of expected work within the ICRZ.

END OF DIVISION 3

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 4 – AGGREGATES AND BASES

4-04 ACCEPTANCE OF AGGREGATE

4-04.1 Description

(******)

Delete the last paragraph and insert the following:

Nonstatistical evaluation will be used for the acceptance of aggregate materials. Materials not conforming to Contract requirements shall not be installed and installed materials determined to be non-conforming shall be removed and replaced as specified in Section 1-05.7.

4-04.3 Construction Requirements

4-04.3(5) Nonstatistical Evaluation

(******)

Revise this subsection to read:

Each lot of aggregate materials produced under nonstatistical evaluation and having all constituents falling within the specification limits shall be accepted with no further evaluation. When one (1) or more constituents fall outside the specification limits, a minimum of three (3) sublots will be sampled and tested or when less than three (3) sublots exist, additional samples shall be tested to provide a minimum of three (3) sets of results for evaluation. If one (1) or more constituents fall outside the specification limits in any of the subsequent samples, the material shall be rejected and any such materials placed in the Work removed and replaced with materials conforming to the constituent specification limits.

4-04.3(7)C Rejection Without Testing

(******)

Revise the second paragraph to read:

No payment will be made for the rejected materials unless the Contractor requests that the rejected material be tested and such testing determines that the material conforms to the specification limits for the constituents. All costs for such supplemental sampling and testing shall be at the Contractor's sole cost and expense.

END OF DIVISION 4

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 5 – SURFACE TREATMENTS AND PAVEMENTS

5-05 CEMENT CONCRETE PAVEMENT

5-05.2 Materials

(******)

Supplement this section with the following:

When constructing improvements in the City of Federal Way Rights-of-Way, the following supplemental requirements shall apply:

- Type 1L cement is only allowed for use.
- All concrete mix designs shall not include maleated rosin (i.e., MasterAir AE90) as a supplied air entrainment and waterproofing admixture or any wax-based curing compounds.

END OF DIVISION 5

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

7-09 WATER MAINS

7-09.1 Description

(******)

Revise this section to read:

This Work consists of installing water mains and appurtenances in accordance with the Plans, these Standard Specifications, and the Special Provisions, at the locations and depths shown and noted in the Plans, and as may be directed by the Engineer.

7-09.1(1) Definitions

(******)

Supplement this subsection with the following:

7-09.1(1)F Minor Change for Water Improvements

Minor Change for Water Improvements shall be per Section 1-04.4(1) of these Special Provisions.

7-09.2 Materials

(******)

Revise this section to delete any references to steel, polyvinyl chloride (PVC), and Polyethylene pipe for permanent water supply facilities.

Pipe for water main shall only be ductile iron pipe Special Thickness Class 52, or such thicker-walled pipe as shown in the Plans and specified in Section 9-30. All pipe and fittings for water main shall have restrained joints utilizing thrust restraint systems at locations where shown on the Plans and as specified in Section 9-30.

Replace the Sections listed for Trench Backfill under the "Aggregates" heading as follows:

Trench Backfill (in Right-of-Way)	9-03.9(3)
Trench Backfill (outside of Right-of-Way)	9-03.15, 9-03.10
Controlled Density Fill	3-07.3(1)E

Supplement this section with the following:

Materials shall meet the requirements of the following sections:

Thrust Blocks	5-05.3
Thrust Collars	5-05.3

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7-09.3 Construction Requirements

(******)

Supplement and revise this section with the following:

All construction within public road rights-of-way shall be in conformance with the requirements of the City, County, or State governmental agency having jurisdiction in which the Work is performed, as herein specified and as directed by the Engineer.

All trench excavation required for the installation of water mains and appurtenances shall be unclassified. All material excavated from trenches and piled adjacent to the trench, or in a roadway or public thoroughfare, shall be piled and maintained so that the toe of the slope of the spoil material is at least two (2) feet from the edge of the trench and does not extend beyond the limits of the protected work area as identified in the approved project temporary traffic control plan(s). The spoil material shall be piled in a manner to prevent surface water from flowing into the excavation and in a manner that will cause a minimum of inconvenience to public travel. Unencumbered access shall be provided to all fire hydrants, water valves, and meters and clearance shall be left to enable the free flow of storm water in all gutters, conduits, and natural water courses.

All public traffic shall be permitted to pass through the Work with as little inconvenience and delay as possible. The Contractor shall keep existing roads and streets adjacent to or within the limits of the Project open to and maintained in a good and safe condition for traffic at all times. The Contractor shall remove any deposits or debris and shall repair any damage resulting from its operations.

Construction shall be conducted so as to cause as little inconvenience as possible to abutting property owners. Additionally, convenient access to each facility's driveways and buildings along the line of Work shall be maintained at all times.

Upon completion of rough grading or placing any subsequent layer thereon, the surface of any road bed disturbed shall be brought to a smooth, even condition, free of bumps and depression, and satisfactory for the use of public traffic.

On its own responsibility and expense, the Contractor shall provide adequate safeguards, safety devices, and protective equipment and take any other needed actions on its own responsibility or as the Engineer may determine reasonably necessary to protect the life, health, and safety of the public and to protect property in connection with the performance of the Work covered by the Contract. Where shown on the Plans or otherwise directed by the Contracting Agency or City, County, or State governmental agency having jurisdiction, the Contractor shall install silt fences meeting the requirements of the Standard Plans where runoff from areas disturbed by construction activities could impact adjacent undisturbed property. All costs to install silt fences are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the unit or lump sum bid prices of the Contract.

The types of gravel material that shall be used in trenches or other excavations are divided into several classifications. The descriptions of the materials, the locations where they shall be used, and the method for computing pay quantities are set forth in the following Sections and are shown on the Contract Plans.

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Garden areas shall not be disturbed until after the end of the growing season.

The Contractor shall comply with all covenants, requirements, and stipulations of easement documents that provide the right of the Contracting Agency to perform the Work on private property.

7-09.3(5) Grade and Alignment

(******)

Revise this subsection, including title, to read:

7-09.3(5) Grade, Depth, and Alignment

The Contractor shall verify the locations and establish the depth of existing water mains at the points where connections are to be made prior to trenching for the pipelines. A separate contract pay item has been provided for this purpose for the current project under "Connect to Existing Water Main ___ -Inch Diameter."

The profile shall be adjusted so neither a high spot nor a low spot is created adjacent to the connection to the existing water mains.

The depth of trenching for water mains shall be such as to provide a minimum cover of:

- 36 inches for 10-inch diameter and smaller water pipes, and
- 48 inches for 12-inch diameter and larger water pipes,

over the top of the pipe, or a minimum of twelve (12) inches over the top of valve nut, whichever is deeper, or as otherwise shown on the Plans. Deeper excavation may be necessary due to localized breaks in grade or to install the new main under existing culverts, other utilities, or obstructions.

To provide for future street/road widening, this standard minimum cover shall be measured from the ground surface where the proposed water main is to be located or the adjacent edge of pavement, whichever provides the lower water main elevation.

Where the profile of the pipeline and ground surface is shown on the Plans, the pipeline shall be laid to the elevation shown regardless of depth.

7-09.3(6) Existing Utilities

(******)

Supplement this subsection with the following:

In addition to those facilities exposed above the ground surface, certain underground utility facilities exist, both known and of record and unknown. The plans have been prepared for the Contractor's convenience in locating, protecting, and avoiding conflicts with existing utilities. It is based upon best available information, but is not intended to be a complete record. The contractor is responsible for independently verifying the locations of utilities prior to construction per RCW 19.122.

The locations of the underground utility facilities shown on the Plans have been provided from available records and may not reflect the exact location of the underground utility facility. The

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proposed water facilities constituting the Work have been designed to minimize potential conflicts with the existing known underground utility facilities.

If the Plans so indicate, certain existing underground utility facilities shall require removing or relocating the underground utility facility by the utility owner before the Contractor begins Work. If said utility owner has not done so by the time Work begins, the Contractor shall immediately notify the Engineer and Contracting Agency in writing.

The Contractor shall advise the Utilities Underground Location Center of the commencement of the Work by calling 1-800-424-5555 or 811, providing the proposed construction area and the proposed schedule of work sequence, so the respective participating utilities may field-mark their underground utility facilities, as provided for in RCW 19.122. The Contractor shall also individually advise those utilities and private parties not participating in said one number locator service. The Contractor shall, by letter and copies thereof, demonstrate to the Contracting Agency its efforts to fully inform both the non-participating utilities and private parties and the Utilities Underground Location Center of its activities. Furthermore, the Contractor shall demonstrate full cooperation with each utility and private party involved in the Project. The Contractor shall conform to all other provisions of RCW 19.122.

As provided for in RCW 19.122, "reasonable accuracy" in field-locating (marking) underground utility facilities means a field mark within 24 inches of the outside dimensions of both sides of an underground utility facility.

The minimum horizontal spacing between water mains and gas mains, power cable, telephone cable, cable TV, and other underground utility facilities, except sanitary sewers and storm drains, shall be three (3) feet, measured horizontally. Where vertical separation is less than eighteen (18) inches, where shown on the Plans or as may be authorized by the Engineer, the Contractor shall install a polyethylene closed-cell foam pad having a minimum density of 9.5 pounds per cubic foot. The pad shall be installed such that horizontal and vertical pressure is necessary to place the pad between the outer surfaces(s) of the water pipe and proximate utility facility.

The minimum horizontal spacing between water mains and non-potable water, including storm drains and sanitary sewers, shall be ten (10) feet measured horizontally, unless a closer spacing is shown on the Plans, in which case certain pipe protection provisions are shown. If these horizontal spacing and/or vertical clearance/spacing requirements cannot be met and are not already provided for in the Plans, the Contractor shall immediately notify the Engineer and Contracting Agency in writing.

Certain alterations in alignment and grade of the proposed water system may be required if an existing underground utility facility, by field-location, is found to occupy that corridor indicated on the Plans to be reserved for construction of the proposed water system or if the standard spacing cannot otherwise be achieved. The Contractor shall do all necessary excavation and potholing to expose such underground utility facilities to prevent damage to them, which may otherwise result from the Work. The Contractor shall protect all existing underground utility facilities from damage resulting from the Work. The alignment and grade of the proposed water system shown on the Plans shall only be altered upon the written express approval of the Engineer.

The Contractor shall also notify those owners of underground utility facilities within close proximity of the proposed water system, within a reasonable period of time prior to construction at a particular

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location, so said owner and the Contractor can coordinate the precautions necessary to facilitate construction of the proposed water system and protect that particular underground utility facility.

Any damages or disruptions to underground utility facilities resulting from the Contractor's operation shall be reported to the owner of said underground utility facility and to the Contracting Agency. Repairs to the damaged or disrupted underground utility facility shall immediately be made by the owner of said underground utility facility or by the Contractor, at the sole discretion of the owner of said underground utility facility. The cost for repairs to damaged or disrupted underground utility facilities shall be borne by the Contractor, unless the underground utility facility was not field-marked within "reasonable accuracy" defined by RCW 19.122.

Whenever existing drainage channels, ditches, culverts, storm drains, or structures are disturbed, the Contractor shall provide suitable means for diverting and maintaining all flows during construction in that area. After construction has been completed in that area, all channels, ditches, culverts, storm drains, or structures shall be returned to their original location and functional use.

Where the proposed water system is in close proximity of existing utility poles, the Contractor shall coordinate construction procedures with the owners of the affected utility poles. The Contractor shall give to the owners of affected utility poles reasonable advance notice so that the Contractor and owners of affected utility poles can properly protect the integrity of the utility poles by temporarily holding or moving the utility poles during construction of the proposed water system.

To efficiently perform the Work, the Contractor shall be fully responsible to coordinate the Work and make the necessary arrangements, including permits and payment of any associated charges, with the respective owner of underground utility facilities to relocate, move, remove, or alter their underground utility facilities to attempt to minimize or eliminate conflicts during construction of the proposed water system in ways not otherwise shown on the Plans.

Any authorized agent of the Contracting Agency or owners of underground utility facilities may enter the site of the water system improvements at any time to repair, rearrange, alter, or connect their facilities. The Contractor shall cooperate with such efforts and shall avoid creating delays or hindrances to those doing the work. As needed, the Contractor shall arrange to coordinate work schedules.

All utility facilities including, but not limited to, water main valve boxes, gas main valve boxes, water meter boxes, and the like shall remain accessible and marked by the Contractor at all times during construction.

All costs to comply with this Section, including any repair and/or restoration of facilities necessitated by the Contractor's operations, are incidental to the Contract and are the responsibility of the Contractor, except as otherwise provided in RCW 19.122. The Contractor shall include all related costs in the Contract bid prices.

7-09.3(7) Trench Excavation

(******)

Revise this subsection to read:

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All excavation performed on this Project shall be considered unclassified. Excavation shall consist of the removal of any and all material encountered, including cutting and removal of existing surfacing, tree stumps, trees, logs, abandoned railroad ties, piling, riprap, etc., if necessary. Excavation limits for applicable contract Bid Items are shown on the Plans.

The Contractor shall perform all excavation of every description and of whatever materials encountered to the depth indicated on the Plans. All excavations shall be made by open cut where no method is specified in the Plans, unless provided for otherwise. All trenches shall be excavated to true and smooth bottom grades and in accordance with the lines given by the Engineer. The trench bottom shall provide uniform bearing and support for each length of pipe. Bell holes shall be excavated to the extent necessary to permit accurate work in making and inspecting the joints. The banks of the trenches shall be kept as nearly vertical as soil conditions will permit. Where required to control trench width or to protect adjacent structures, the trench shall be sheeted and braced. Standard excavating equipment shall be adjusted so as to excavate the narrowest trench possible.

Trench excavation shall be not more than fifty (50) linear feet ahead of the pipe laying and backfilling operation and all trenches shall be closed up and fully backfilled, leveled, and temporarily patched or graveled, or protected with an anchored steel plate at the end of each day as provided in Section 1-07.23(1). In certain circumstances such as high-risk of trench sidewall cave-in, paralleling in close proximity with another utility which could slough into the open trench, critical street crossings, etc., this distance shall be shortened accordingly by the Contractor.

The Contractor shall exercise sound engineering and construction practices in excavating the trench and maintaining it so that no damage will occur to any foundation, structure, utility pole or anchor, pipeline, or other facility because of sloughing or slopes, or from any other cause. If, as a result of the excavation, there is disturbance of the ground which may endanger other property, the Contractor shall immediately take remedial action. No act, representation, or instruction of the Engineer or Contracting Agency shall in any way relieve the Contractor from liability for damages or costs that result from trench excavation.

Care shall be taken not to excavate below the depth specified. Excavation below that depth shall be backfilled with select backfill material and compacted as specified herein.

The Contractor shall prevent damage to major tree roots, particularly those equal to or larger than two (2) inches in diameter. Specialized equipment and excavation methods including, but not limited to, hydro-excavation, pneumatic-excavation, vacuum excavation, or excavation with hand tools may be necessary to ensure that such tree roots are not damaged by the Contractor's operations.

In public rights-of-way, excavated materials shall be removed, hauled, and disposed of at a site permitted to receive such materials.

In areas outside of public rights-of-way, or in public rights-of-way outside the limits of existing or proposed structural street sections, including curbs, gutters, driveways, and sidewalks if allowed by the jurisdictional agency, suitable native material may be removed, hauled, and temporarily stockpiled for use as trench backfill. Native material will not be paid for as import crushed surfacing if used as suitable trench backfill. Native material backfill determined to be unsuitable shall be removed, hauled, disposed at a permitted site, and replaced with suitable material in accordance with Section 7-09.3(8).

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7-09.3(7)A Dewatering of Trench

(******)

Revise this subsection to read:

Where water is encountered in the trench and other excavations for structures, it shall be removed during pipe-laying and backfilling operations and the trench and/or excavation so maintained until the ends of the pipe are sealed and provisions are made to prevent floating of the pipe, or the structure is placed or constructed and provisions are made to prevent it from floating. Trench water or other deleterious materials shall not be allowed to enter the pipe at any time.

The Contractor shall furnish all equipment necessary to dewater the excavation and shall dispose of the water in such a manner as not to cause a nuisance or menace to the public or damage or cause deterioration of existing improvements or natural features, which includes at a minimum discharging to steel roll off tanks per 7-10.3(3) (Baker tanks or approved equal). The dewatering system shall be installed and operated by the Contractor so that the groundwater level outside the excavation is not reduced to the extent that adjacent structures or property are endangered or damaged. The release of groundwater to its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundation soil, prevent disturbances of backfill, and prevent movement of structures and pipelines. Containment and discharge of such collected groundwater shall be in accordance with the TESC Plan as reviewed by the Engineer and shall include baker tanks (or approved equal) or other measures to dechlorinate and reduce turbidity to acceptable levels (maximum 25 NTU) prior to discharge.

Prior to construction, the Contractor shall submit a dewatering plan that describes proposed dewatering methods and equipment that will be used to keep excavations above the pipe foundation level free from water during construction. The plan shall also identify the method and location for disposing collected water, including methods for controlling turbidity.

7-09.3(7)B Rock Excavation

(******)

Revise this subsection to read:

Rock excavation shall cover the removal and disposal of rock that requires systematic drilling and blasting for its removal and also boulders exceeding two (2) cubic yards in volume. Ledge rock, stone larger than 1-1/2 inches, or boulders shall be removed to provide a minimum clearance of four (4) inches under the pipe, with additional clearance required for pipe bells as necessary to provide uniform bearing and support for each length of pipe and permit accurate Work in making and inspecting the joints.

Hardpan, hard clay, glacial till, sandstone, silt stone, shale, or other sedimentary rocks that are soft, weathered, or extensively fissured will not be classified as rock excavation, even though it may be advantageous to use explosives in its removal. Rock is defined as one which has a modulus of elasticity of more than 200,000 psi or unconfined compressive strength at field moisture content of more than 2,000 psi.

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Materials removed shall be replaced with selected native materials from adjacent trenches or from imported bedding or backfill as designated by the Engineer.

It is anticipated that solid rock will not be encountered. When such material is anticipated to be encountered, it will be paid for through an established Bid Item.

7-09.3(7)C Extra Trench Excavation

(******)

Revise this subsection to read:

Changes in grades of new water main, including hydrant laterals, from those shown on the Plans may be necessary because of unmarked or unknown utilities or for other reasons. If, in the opinion of the Engineer, it is necessary to adjust, correct, relocate or in any way change the line and grade, such changes shall be made by the Contractor as specified herein.

When pipeline grade is lowered in excess of one (1) foot below the grade indicated on the Plans, the Contractor shall make extra excavation as necessary.

When the pipeline horizontal alignment is changed by more than one (1) foot from the line indicated on the Plans, after the trench has been excavated, the Contractor shall excavate the trench at the changed location and backfill and compact the previous trench.

Additional excavation so required will be classified as extra trench excavation.

Any additional width made in excess of the designated neat line width of the trench as shown on the Plans by the Contractor shall be backfilled with the same material and in the same manner as specified herein for backfilling within the neat line limits of the trench.

7-09.3(8) Removal and Replacement of Unsuitable Materials

(******)

Revise this subsection to read:

When so directed by the Engineer, excavation shall be extended below the structure or pipeline grades to permit the placing of foundation material.

Whenever in excavating a trench for water mains the bottom of the trench exposes peat, soft clay, quicksand, or other unsuitable foundation material, such material shall be removed to the depth directed by the Engineer and backfilled with foundation material to the plan depth of the trench bottom. Unsuitable foundation materials may include silty soils, fine, sandy soils, or saturated clay, peat, or other soft material as determined by the Engineer. Silty soils or fine, sandy soils usually flow in the presence of a stream of water. Saturated clays, peats, or other soft materials do not break down into fine particles and flow. Any such removed unsuitable foundation material that is removed shall be replaced with compacted foundation material per 9-03.12(1).

When native excavated material is shown on the Plans or directed by the Engineer to be used for trench backfill, any such material removed from the trench that is determined by the Engineer to be unsuitable for trench backfill shall be removed, loaded directly into trucks, and hauled to a waste site

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permitted to receive such material. Stockpiling of unsuitable material at the Project site will not be allowed.

When native excavated material is shown on the Plans or directed by the Engineer to be used for trench backfill and sufficient suitable native excavated material is not available for backfilling the trench, aggregate material meeting the requirements of Section 9-03.9(3) "Crushed Surfacing Base Course for Trench Backfill" or the aggregate material as shown on the Plans shall be furnished and placed to complete the trench backfill.

7-09.3(9) Bedding the Pipe

(******)

Revise this subsection, including title, to read:

7-09.3(9) Pipe Zone Bedding and Backfill

Gravel backfill for pipe zone bedding shall be placed to depths shown on the Plans and shall be rammed and tamped around the pipe to 95 percent of maximum density by the use of shovels or other approved hand-held tools, so as to provide firm and uniform support for the full length of the pipe, valves, and fittings. Care shall be taken to prevent any damage to the pipe or its protective coating.

Gravel backfill for pipe zone bedding for pipe zone backfill shall be placed in uniform lifts on each side of and above the pipe as shown on the Plans, and shall be compacted to 90 percent of maximum density.

7-09.3(10) Backfilling Trenches

(******)

Revise this subsection to read:

Trench backfill material, placement and compaction for ductile iron pipe shall be as shown in the Plans.

When all pipe, fittings, valves, valve boxes, and other appurtenances have been properly installed and inspected, the trench shall be backfilled. Prior to backfilling, all shoring or other trench safety system components and debris shall be removed from the trench. Shoring and trench safety system components used by the Contractor shall be removed just ahead of the backfilling operation. Backfill up to twelve (12) inches over the top of the pipe shall be evenly and carefully placed. Materials capable of damaging the pipe or its coating including, but not limited to, large rocks, stumps, logs, brush, broken concrete, frozen dirt clumps, pavement pieces, and other deleterious material shall be removed from the backfill material. The remainder of the material shall be continually placed from the end of the trench.

In public rights-of-way, the trench shall be backfilled to subgrade with Crushed Surfacing for Trench Backfill (see Contract bid items for type of Crushed Surfacing use), compacted in accordance with Method C compaction as provided in Section 3-03.3, and graded to provide a firm, smooth, and uniform surface for placement of subsequent surfacing materials to finish grade.

In areas outside of public rights-of-way, or in public rights-of-way outside the limits of existing or proposed structural roadway sections, including curbs, gutters, and sidewalks, if allowed by the

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jurisdictional agency, the trench shall be backfilled to subgrade with suitable native material from the trench excavation and compacted in accordance with Method C compaction as provided in Section 3-03.3(14)C. Native material will not be paid for as import crushed surfacing if used as suitable trench backfill. Native material backfill determined to be unsuitable shall be replaced with Aggregate for Gravel Base. If suitable native excavated and replacement materials are insufficient to complete the trench backfill to subgrade as determined by the Engineer, Aggregate for Gravel Base shall be placed, compacted in accordance with Method C compaction as provided in Section 3-03.3(14)C, and graded to provide a firm, smooth, and uniform surface for placement of subsequent surfacing materials to finish grade.

Suitable native excavated material in excess of the quantity for compacted trench backfill, when such material would be allowable as set forth above, shall be removed from the site and hauled to and disposed at a site permitted to receive such material. Stockpiling of such excess material at the project site shall not be allowed.

7-09.3(11) Compaction of Backfill

(******)

Revise this subsection to read:

Unless the density of the trench backfill within a road right-of-way is required to be greater by the jurisdictional road agency, the trench backfill material shall be compacted to at least 95 percent of the maximum density as specified in Section 3-03.3(14)D, "Compaction and Moisture Control Tests," for the purposes of this project, the trench backfill materials and compaction shall be as shown on the Plans.

Maximum density and optimum moisture for non-granular materials will be determined using WSDOT Test Method No. 609. Maximum density and optimum moisture for granular materials will be determined using WSDOT Test Method No. 606.

In-place density and moisture content will be determined using the Washington Densometer method or Nuclear Gauge as outlined in the WSDOT Construction Manual.

The backfill material shall be placed in successive layers not exceeding twelve (12) inches in loose thickness and each layer shall be mechanically compacted to the density specified herein as the trench is backfilled.

At locations where paved streets, roadway shoulders, driveways, or sidewalks will be constructed or reconstructed over the trench, the backfill shall be spread in layers and be compacted by mechanical tampers. In such cases, the backfill material shall be placed in successive layers not exceeding six (6) inches in loose thickness and each layer shall be compacted with mechanical tampers to the density specified herein. Mechanical tampers shall be of the impact type as approved by the Engineer.

The Contractor shall provide the proper size and type of mechanical compaction equipment and select the proper method of utilizing said equipment to attain the required compaction density. The thickness of layers and the number of passes shall be adjusted to the extent necessary to attain the required compaction density. Impact compactors shall be operated with the least practical amount of pressure or weight applied and vibratory compactors shall be operated with no more weight applied

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than the unsupported weight of the machine's pad and boom, all to achieve the required compaction density without overloading the pipe or structure.

Moisture content of the backfill material may be adjusted to achieve the required compaction density. This adjustment may be attained by sprinkling the backfill material, by adding and mixing dry backfill material, or by windrowing the backfill material and allowing it to dry prior to placement in the trench.

Contracting Agency, at its sole discretion, may perform compaction tests on the compacted backfill material at any time. Areas to be tested shall be at the direction of the Engineer. The Contractor shall perform all work necessary to allow compaction tests to be conducted. The compaction tests shall be performed by a testing consultant/laboratory selected by the Contracting Agency and the costs expended for the services of said testing consultant/laboratory shall be borne by the Contracting Agency.

The Contractor, at its sole expense, shall remove and recompact material that does not meet the specified compaction requirements; shall promptly and properly refill, regrade, restore, or otherwise repair any trench settlement; and shall otherwise remedy any defects that appear in the backfill. Where the required compaction density cannot be achieved on the existing backfill material, the Contractor shall remove and replace said backfill with material able to meet said compaction densities.

7-09.3(12) General Pipe Installation

(******)

Supplement this subsection with the following new subsections:

7-09.3(12)A Laying Ductile Iron Pipe, Fittings, and Appurtenances

Ductile iron pipe shall be handled and installed in accordance with AWWA C-151 and the recommendations of the pipe manufacturer. The pipe shall be laid to the line and grade shown on the Plans, in the Standard Plans, and as may be directed by the Engineer.

All pipe, fittings, and appurtenances shall be carefully checked by the Contractor upon delivery to the project site as well as just prior to their installation and placement in the trench. Any pipe, fitting, or appurtenance that is damaged or defective, or where interior is not clean and free from contaminants or other deleterious substance or foreign object, or which could contaminate the installed pipe, fitting, or valve, shall not be installed. The Contractor shall immediately notify the Engineer of any defect or damage. At the discretion of the Engineer, the defective or damaged pipe, fitting, or appurtenance shall either be repaired by an authorized representative of the pipe or fitting manufacture prior to installation or shall be removed from the site.

The pipe, fittings, and appurtenances shall be carefully bedded, joined, and protected. All pipe, fittings, and appurtenances shall be kept free from contamination by dirt, gravel, water, vector, or introduction of other deleterious material or foreign object. To ensure cleanliness inside the pipe and fittings and better ensure the effectiveness of the disinfection process, pipe openings shall be closed with water-tight plugs, as reviewed by the Contracting Agency, until the pipe is placed in the trench and when pipe laying is stopped at the end of a work shift or breaks in the progress of the work.

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The bottom of the trench shall be finished to grade in such a manner that the pipe will have bearing along the entire length of the barrel. Any standing water shall not be allowed to remain, but shall be immediately removed from the trench and disposed in accordance with the SWPP.

Except where necessary to make connections with other pipelines and where otherwise authorized by the Engineer, ductile iron pipe shall be laid with bells facing the direction of laying. The bells shall face upward where pipelines are laid on an appreciable slope, as authorized by the Engineer. A non-toxic pipe lubricant, as recommended by the pipe manufacturer and approved for use in potable-water applications, shall be applied to the gasket and pipe mating surfaces. Bolts on mechanical joint and flanged pipe, fittings, spools, and appurtenances shall be tightened uniformly to the torque recommended by the manufacturer.

All joints in the pipe, fittings, valves, flexible couplings, etc., shall be fully seated with small clearances allowed for pipe expansion. Where flexible couplings are required, the space between pipe ends shall not exceed 1/4-inch to prevent pipe movement. When the space between pipe ends is excessive, short sections of pipe may be inserted as a spacer ring to limit such pipe movement within the coupling or mechanical joint sleeve fitting, to obtain the 1/4-inch spacing limitation provided herein.

All fittings and pipe that will come in contact with cement concrete, such as from concrete pipe encasement and thrust blocking, shall be protected by a layer of heavy building paper or plastic sheeting. The material shall be wrapped loosely around the pipe and need not be watertight, but no part of the pipe or fittings shall be exposed to the cement concrete. Care shall be exercised during backfilling to prevent the plastic film wrap from becoming punctured or otherwise damaged. The Contractor shall comply with other requirements for placing concrete thrust blocking provided in Section 7-09.3(21) "Concrete Thrust Blocking."

Only mechanical joint sleeve fittings shall be used to connect plain ends of ductile iron pipe and/or spools; flexible couplings shall not be used for this purpose.

Fittings shall not be backfilled until first approved by the Engineer, or Contracting Agency, for compliance with the Plans and Specifications.

Where shown on the Plans or otherwise directed by the Engineer, the Contractor shall install pipe anchor blocks, sacked slope retainer, and timber baffles meeting the requirements of the Standard Plans in the backfilled trench where water mains are installed on slopes 20 percent or greater.

7-09.3(12)B Taste and Odor

No water main pipe, fitting, or other appurtenances will be accepted by the Contracting Agency in which an objectionable taste and/or odor is detected in water which has been in contact with the interior surface(s) of said material, either before or after the material has been installed. Taste and odor testing, if determined necessary by the Contracting Agency, shall be conducted and timing for this shall be subject to the third-party taste and odor testing agency's schedule. All such testing by the City of Seattle, and resulting corrective actions required by the Contracting Agency to remedy a defect or defects as may be determined by such testing, shall be at the Contractor's sole expense.

7-09.3(13) Handling of Pipe

(******)

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Delete the first paragraph and replace with the following:

Pipe shall be handled in a manner that will prevent damage to the pipe, pipe lining, or coating. Pipe and fittings shall be loaded and unloaded using hoists and slings in a manner to avoid shock or damage and under no circumstances shall they be dropped, skidded, or rolled against other pipe. If any part of the coating or lining is damaged, repair thereof shall be made by the Contractor at no additional expense to the Contracting Agency and in the following manner:

- For cement-mortar lining and seal coat - Damages to cement mortar linings or sealcoat shall be repaired at an institution or shop that adheres to ANSI/AWWA C104/A 21.4 standards.
- For epoxy coating – Damages to epoxy coating shall be repaired at an institution or shop that adheres to ANSI/AWAA C550 standard.

If the Contractor is unable to meet the above repair procedures, the pipe or fitting shall be replaced at the Contractor's expense. Field repairs of damaged pipe or fittings will not be considered. Damaged pipe shall be rejected and the Contractor shall immediately place damaged pipe apart from the undamaged and shall remove the damaged pipe from the site within 24 hours.

Supplement this subsection with the following:

Each pipe, fitting, or other accessory shall be carefully inspected and thoroughly cleaned of any dirt or deleterious material which might be present on the inside prior to its installation. Such cleaning shall be accomplished prior to lowering the pipe or other accessories into the trench and after the materials are placed in the trench, care shall be taken to keep them internally clean. To minimize risks and expedite the Work, it is suggested that the open ends of stockpiled pipe be plugged or sealed with a polyethylene bag or equivalent mechanism to prevent the introduction of dirt or deleterious material and that the pipe be cleaned using and/or swabbed with a clean foam cube designed for that purpose and saturated in a 1 percent hypochlorite solution.

The Contractor shall exercise particular care to guard against the entrance of stormwater or sewage into the trench during the course of construction. All sanitary sewers and storm drain lines, house side sewers, and/or other subsurface drains shall be located prior to excavation. The Contractor shall employ provisions to protect the Work from contamination by deleterious liquids.

7-09.3(14) Cutting Pipe

(******)

Revise this subsection to read:

Whenever it becomes necessary to cut a length of pipe, the cut shall be made by abrasive saw or by special pipe cutter. All pipe ends shall be square with the longitudinal axis of the pipe and shall be reamed or otherwise smoothed so that good connections can be made. Threads shall be cleanly cut. Oxyacetylene torch cutting of ductile iron pipe shall not be allowed.

Flaring of copper tubing shall be accurately and smoothly performed with tools designed specifically for this task.

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7-09.3(15) Laying of Pipe on Curves

7-09.3(15)A Ductile Iron Pipe

(******)

Revise this subsection to read:

Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflecting the joints. If the pipe is shown curved on the Plans and no special fittings are shown, the Contractor can assume that the curves can be made by deflecting the joints with standard lengths of pipe. If shorter lengths are required, the Plans will indicate maximum lengths that can be used. The amount of deflection at each pipe joint when pipe is laid on a horizontal or vertical curve shall not exceed the manufacturer's printed recommended deflections. For the purposes of this project, the maximum allowable deflection shall be three (3) degrees or the manufacturer's recommendation, whichever is least.

Where field conditions require deflection or curves not anticipated by the Plans, the Engineer will determine the methods to be used. No additional payment will be made for laying pipe on curves as shown on the Plans, nor for field changes involving standard lengths of pipe deflected at the joints. When special fittings not shown on the Plans are required to meet field conditions, additional payment will be made for special fittings.

When rubber-gasketed pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose.

7-09.3(16) Cleaning and Assembling Joints

(******)

Revise this subsection to read:

Joints shall be "made-up" in accordance with the manufacturer's recommendations. Standard joint materials, including rubber ring gaskets, shall be furnished with the pipe. Materials shall be suitable for the specified pipe sizes and pressures.

All parts of the pipe ends, couplings, fittings, and appurtenances shall be cleaned to remove oil, grit, or other foreign matter from the joint. Care shall be taken to keep the joint from contacting the ground.

Pipe not furnished with a depth mark shall be marked before assembly to ensure visual observation of the work.

7-09.3(19) Connections

7-09.3(19)A Connections to Existing Mains

(******)

Revise this subsection to read:

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No connection to the existing water system shall be made until all provisions for hydrostatic pressure testing, as required in Section 7-09.3(23) "Hydrostatic Pressure Test," and disinfection, as required in Section 7-09.3(24) "Disinfection of Water Mains," have been met.

At least one (1) connection to the existing water system shall be made within 96 consecutive hours of the time that written acceptable results of the most recent bacteriological sampling are available as provided in Section 7-09.3(24)W, "Subsequent Bacteriological Sampling." If at least one (1) connection is not made within the specified time period, additional sampling meeting the requirements of Section 7-09.3(24)O, "Repetition of Flushing and Testing" shall be conducted.

Connections to the existing system shall not be made without first making the necessary arrangements with the Contracting Agency at least 24 hours in advance. Work shall not be started until all of the materials, equipment and labor necessary to properly complete the work, including that for temporary surface repair, are assembled on the site. When work is once started on a connection, it shall proceed continuously without interruption and as rapidly as possible until completed and under continuous observation by Contracting Agency. All existing mains shall be restored to service overnight and on weekends and holidays.

The Contractor shall coordinate its work on connections to the existing system with that of Contracting Agency's main cleaning efforts as provided for in Section 7-09.3(24)X., "Main Cleaning." In certain cases, foam rubber cubes used for main cleaning must be inserted into the new system prior to its connection to the existing system.

If the connection to the existing system involves temporarily discontinuing water service to customers, the Contractor shall be responsible for notifying the customers affected by the service interruption, as well as the fire protection authority having jurisdiction, at least 24 hours, but preferably 48 hours, in advance of said service interruption. Contracting Agency shall advise the Contractor as to which customers are affected by the service interruption and shall provide the forms ("door-hangers") to be used for said notification efforts. The Contractor shall fill in the appropriate spaces in said forms. The Engineer may, under certain special circumstances, require this connection work to be performed during times other than normal working hours at no additional expense to Contracting Agency.

Valves in the existing system, or between the existing system and the new system, shall be operated only by Contracting Agency personnel or by others under the Engineer's specific direction.

The work anticipated for each connection to the existing system is detailed on the Plans. If conditions are subsequently found to differ from those shown on the Plans, revisions to the connections to the existing system must first be approved by the Engineer.

The interior of all pipe and fittings used to make connections to the existing system shall be cleaned of all deleterious material, including contaminants and foreign objects, and swabbed and/or sprayed with a clean, 1 percent hypochlorite solution, mixed in a clean container, before they are installed. If any portion of the new system becomes contaminated during the connection work by the inadvertent entry of ditch water or any other reason, the new system shall again be disinfected in accordance with the provisions of Section 7-09.3(24), "Disinfection of Water Mains" before said connection work is continued.

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"Swab-and-Go" Procedure

The Contractor shall use the "swab-and-go" process as outlined below for connecting a newly-installed section or segment of inactive water main to Existing Water Main or New Water Main which is active, only under the following conditions:

1. The section of new water main to be connected, including any stubbed service connections, attached hydrant assemblies, or other connected water system improvements, has successfully passed the hydrostatic pressure and disinfection tests;
2. The length of pipe to be installed to complete the connection to either extend the existing water system or to complete the connection to the new water system is twenty (20) feet or one (1) full standard length of water pipe or less, except as provided below;
3. The section of new water main as described in Item '1' above or segment of new water main as described in Item '2' above, proposed to be connected to the existing water system, has been protected from contamination or the introduction of deleterious substances or foreign objects;
4. Provisions are in place to ensure that draining the isolated segment of existing water main to which connection is to be made, or the section of new water main as described in Item '1' above, can be performed without introducing standing water into the trench or otherwise compromising the physical, chemical, or biological integrity of the existing water main(s) and section or segment of new water main or lateral;
5. Provisions are in place to allow water system source water to fill and flush the connecting section of existing main and the new section or segment of water main or lateral; and
6. Connection is approved by the Contracting Agency.

The Contractor shall remove previously installed end protections from the new segment or length of pipe to be installed and connected to the existing water system and protect the pipe from any subsequent introduction of any contaminant or other deleterious substance or foreign object. The Contractor shall inspect the interior and exterior of the pipe for any defects or damage and immediately remove and dispose at an appropriate location any contaminant or other deleterious or foreign object observed in the pipe. The Contractor shall immediately notify the Engineer of any defect or damage. At the discretion of the Engineer, or Contracting Agency, the defective or damaged pipe shall either be repaired by an authorized representative of the pipe manufacture prior to installation or shall be removed from the site.

The segment or length of new pipe that has been inspected and determined acceptable for installation shall then be swabbed and/or sprayed with a clean, 1 percent hypochlorite solution, mixed in a clean container, before they are installed. The swab shall be new, clean, and unused and shall be formulated for the specific purpose of swabbing the interior surface of cement-mortar lined ductile iron water pipe for potable service with a hypochlorite solution without degradation of the swab or generation of ancillary debris. The sprayer shall be dedicated to the purpose of applying hypochlorite solution. If any portion of the new system becomes contaminated during the connection work by the inadvertent entry of ditch water or any other reason, the new system shall again be disinfected in accordance with the provisions of Section 7-09.3(24), "Disinfection of Water Mains," before said connection work is continued.

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In certain situations, lengths of pipe in excess of twenty (20) feet, or one full standard length of water pipe, may be installed under the "Swab-and-Go" procedure subject to the determination and discretion of the Contracting Agency. If the length of pipe from the existing water system to the new water system is longer than ten (10) feet, but no longer than sixty (60) feet, this section of new pipe, together with any downstream section of existing main, shall be subject to bacteriological testing as specified in Section 7-09.3(24), "Disinfection of Water Mains." The Contractor shall install temporary blowoff assemblies as necessary to conduct these tests.

All pipe and fittings exposed by the excavation for a connection to an existing asbestos cement water main shall be bedded with pea gravel meeting the requirements of Section 9-03.25, "Pea Gravel for Asbestos-Cement Pipe Connections." The pea gravel shall be carefully placed around the exposed section of existing asbestos-cement pipe and fitting to ensure that the pipe and fitting are fully supported and that no stress is transferred from the new pipe, including fittings and valves, to the existing asbestos cement pipe, including any proximate fittings or valves.

Where asbestos-cement water main pipe is encountered and removal of a section thereof is required in order to complete installation of the new water main, the Contractor shall comply with all applicable statutes, regulations, and requirements for disposal of said removed section of asbestos-cement pipe promulgated by the Puget Sound Air Pollution Control Agency and any other City, County, State, or Federal governmental agency having jurisdiction. For the purposes of the current project, the Contractor shall comply with the requirements of these Special Provisions for asbestos cement pipe removal and disposal.

7-09.3(21) Concrete Thrust Blocking

(******)

Revise this subsection to read:

Concrete thrust blocking, including "deadman" blocks and "thrust collars," as detailed on the Plans and in the Standard Plans, shall be placed at bends, tees, caps, plugs, crosses, and other fittings as required. Concrete used for the blocking shall be poured-in-place and conform to the requirements of Section 6-02.2, "Concrete Structures-Materials."

Concrete blocking shall bear against solid, undisturbed earth at the sides and bottom of the trench excavation. The Contractor shall determine the size to be of sufficient proportions and installed so as to withstand the required test pressure and operating conditions. The Contracting Agency reserves the right to require the Contractor to retain the services of a qualified soils engineer to determine adequate thrust blocking size. Blocking shall be placed behind all fittings with unbalanced thrust. Precast blocking or blocking made from timber or other materials shall not be used.

If the Contractor unnecessarily disturbs soil which is meant to bear new concrete thrust blocks, the concrete thrust block shall be resized to obtain a bearing area as specified in the contract plans against undisturbed soil at the expense of the Contractor.

The Contractor shall not backfill those thrust blocks installed by the Contractor without first being observed by the Engineer.

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All fittings shall be protected by a layer of jute, 15-pound building paper, or polyethylene sheeting before placing concrete. Blocking shall be formed so that bolts, joints, gaskets, and flanges of adjacent joints are clear of the concrete and so that bolts and joints can be dismantled without removing the concrete.

At caps and plugs, where connection to future mains is anticipated, the Contractor shall provide a precast concrete brick of sufficient dimensions between the fitting surface and the poured-in-place concrete.

Concrete thrust blocking shall be in place for at least 24 hours prior to the hydrostatic pressure test to allow the concrete to sufficiently hydrate.

7-09.3(22) Blowoff Assemblies

(******)

Revise this subsection to read:

Blowoff assemblies shall be constructed at the locations shown on the Plans and in accordance with the Standard Plans.

Blowoff assemblies shall not be backfilled until first approved by the Contracting Agency for compliance with the Plans and Specifications.

7-09.3(23) Hydrostatic Pressure Test

(******)

Revise this subsection to read:

All water mains and appurtenances including, but not limited to, water service connection taps, service saddles, corporation stops, and service pipe and fittings, shall be tested in sections of convenient length under a hydrostatic pressure equal to 250 pounds per square inch (250 psi).

Sections to be tested shall normally be limited to 1,500 feet in length. The Engineer may require that the first section of pipe, not less than 1,000 feet in length, installed by each of the Contractor's working crews, be tested in order to qualify the crew and the material. Pipelaying shall not be continued more than an additional 1,000 feet until the first section has been tested successfully.

Prior to requesting the Engineer to witness the "official" pressure test, the Contractor shall have all equipment set up, completely ready for operation, and shall have successfully performed an acceptable "pre-test" to assure that the pipe is in a satisfactory condition.

All costs to comply with this Section are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the unit or lump sum bid prices of the Contract.

7-09.3(23)A Testing Extensions from Existing Mains

(******)

Revise this subsection to read:

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When 1) the existing water system is extended with new pipe to connect to a new system; 2) the new water system has successfully passed the hydrostatic pressure and disinfection tests; 3) connection is approved by the Contracting Agency; and 4) the length of pipe from the existing water system to the new water system is sixty (60) feet or less, this section of new pipe and fittings shall require no hydrostatic test. However, all pipe and fittings required to effect this connection shall be disinfected according to Section 7-09.3(19)A., "Connections to Existing Mains." Any visible leakage detected from pipe, valves, and fittings required to effect the connection shall be corrected by the Contractor, and witnessed by the Contracting Agency, at no additional expense to the Contracting Agency.

Where the length of pipe between the existing water system and the new water system exceeds sixty (60) feet, this section of new pipe shall pass the hydrostatic pressure test and undergo the disinfection procedure, all as specified herein. The Contractor shall install temporary blowoff assemblies as necessary to conduct these tests.

7-09.3(23)C Testing Hydrants Installed on Existing Mains

(******)

Revise this subsection to read:

For hydrants installed and connected to existing water mains, and the connection/lateral pipe is sixty (60) feet or less, the hydrant assembly including hydrant tee, connection/lateral pipe, auxiliary gate valve, and other fittings shall not be subject to a hydrostatic pressure test. All pipe, fittings, and appurtenances for the fire hydrant assembly shall be disinfected using the same procedure provided in Section 7-09.3(19)A., "Connections to Existing Mains." Any visible leakage detected from the pipe, valves and fittings for the hydrant assembly shall be corrected by the Contractor and witnessed by the Contracting Agency, at no additional expense to the Contracting Agency, when subjected to the normal working pressure of the existing water system.

Where the connection/lateral pipe exceeds sixty (60) feet, the connection/lateral pipe and fittings between the auxiliary gate valve and main hydrant valve shall be subjected to the hydrostatic pressure test and disinfection procedures as specified in Section 7-09.3(24), "Disinfection of Water Mains" and Section 7-09.3(23), "Hydrostatic Pressure Test."

Add the following new subsection:

7-09.3(23)D Equipment for Hydrostatic Pressure Test

(******)

All pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose and piping, and measuring equipment necessary for performing the test shall be furnished and operated by the Contractor and witnessed by the Engineer.

A clean container of water from which the pressure pump suction shall draw shall be provided while pumping pressure into the water system being tested. The clean container shall have a new plastic liner installed prior to use on the project.

This "make-up" water shall contain a minimum concentration of approximately fifty (50) parts per million (50 ppm) of free chlorine by the addition of a 12 percent hypochlorite solution. All pumps and

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other equipment used for this hydrostatic pressure test shall be properly disinfected to prevent the introduction of contamination to the section being tested.

Gauges used in the test shall be accompanied with certifications of accuracy from a laboratory approved by the Contracting Agency. If the gauge proposed for use by the Contractor by its appearance could possibly provide erroneous test results, the Contracting Agency will provide its own gauge for use during the hydrostatic pressure test(s).

The quantity of water required to restore the pressure (the "make-up" water) shall be accurately determined by pumping through a positive displacement water meter with a sweep unit hand registering one (1) gallon per revolution. The meter shall be approved by the Engineer. As an alternative, the Contractor may provide a volumetric graduated container approved by the Engineer to accurately record the quantity of the "make-up" water.

Add the following new subsection:

7-09.3(23)E Hydrostatic Pressure Test Procedure

(******)

The section of pipeline to be tested shall be backfilled sufficiently to prevent movement of the pipe under test pressure. All thrust blocks shall be in place and time allowed for the concrete to sufficiently cure before testing. Where permanent blocking is not otherwise required, the Contractor shall furnish and install temporary blocking and remove it after testing is complete.

The water system to be tested shall be filled with a chlorinated water solution in accordance with Section 7-09.3(24)S., "Filling Procedure." The chlorinated water solution shall be allowed to stand in the water system to be tested a sufficient length of time (approximately 24 hours) to allow the escape of air and allow the lining of the pipe to absorb water, all before hydrostatic pressure testing is conducted.

The test shall be accomplished by pumping the water system to be tested up to the required test pressure, stopping the pump for fifteen (15) minutes, and then pumping the water system to be tested up to the beginning test pressure again. During the test, the water system being tested shall be observed to detect any visible leakage.

Acceptability of the hydrostatic pressure test shall be determined by two (2) factors:

1. The quantity of chlorinated water solution required to restore the pressure (the "make-up" water) shall not exceed the volume as determined by the formula:

$$L = \frac{ND(P)^{0.5}}{29{,}600}$$

in which:

L = allowable leakage/"make-up" water volume within a fifteen (15) minute period in gallons

N = number of joints in the length of pipeline tested

D = nominal inside diameter of the pipe in inches

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P = average test pressure during the leak test in pounds per square inch (gauge) (PSIG)

[Table 7-09.3(23)E provides the solution to this formula for different diameters and lengths of water main assuming an average test pressure of 250 psig and an assumed number of joints per 100 feet of water main of seven (7).]

2. There shall be no appreciable or abrupt loss in pressure during the fifteen (15) minute test period.

The hydrostatic pressure test shall be conducted with the hydrant auxiliary gate valve(s) opened and the main hydrant valve(s) closed. At the acceptable conclusion of this hydrostatic pressure test and when the water system is placed into service, each hydrant will be inspected for visible leakage under working pressure conditions while the hydrant ports are capped and the main hydrant valve is fully opened (to close the hydrant barrel drain valve). Any visible leakage or defects discovered from this visual inspection shall be corrected by the Contractor.

[See Tables Following]

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TABLE 7-09.3(23)E

MAXIMUM ALLOWABLE LEAKAGE/"MAKE-UP" WATER VOLUME (L)

FOR 15-MINUTE HYDROSTATIC PRESSURE TEST

$$L = \frac{ND(P)^{0.5}}{29{,}600}$$

ASSUMED AVERAGE TEST PRESSURE (P): 250 PSIG

ASSUMED NUMBER OF JOINTS PER 100 FEET OF WATER MAIN (N): 7

DIAMETER (D) = 4 INCHES

LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	(PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
50	0.007	0.030	0.060	1.728	0.006	0.103
100	0.015	0.060	0.120	3.455	0.013	0.206
150	0.022	0.090	0.179	5.183	0.019	0.308
200	0.030	0.120	0.239	6.910	0.026	0.411
250	0.037	0.150	0.299	8.638	0.032	0.514
300	0.045	0.179	0.359	10.365	0.039	0.617
350	0.052	0.209	0.419	12.093	0.045	0.720
400	0.060	0.239	0.479	13.820	0.051	0.823
450	0.067	0.269	0.538	15.548	0.058	0.925
500	0.075	0.299	0.598	17.275	0.064	1.028
550	0.082	0.329	0.658	19.003	0.071	1.131
600	0.090	0.359	0.718	20.730	0.077	1.234
650	0.097	0.389	0.778	22.458	0.084	1.337
700	0.105	0.419	0.838	24.185	0.090	1.440
750	0.112	0.449	0.897	25.913	0.096	1.542
800	0.120	0.479	0.957	27.640	0.103	1.645
850	0.127	0.509	1.017	29.368	0.109	1.748
900	0.135	0.538	1.077	31.095	0.116	1.851
950	0.142	0.568	1.137	32.823	0.122	1.954
1000	0.150	0.598	1.197	34.550	0.129	2.057
1050	0.157	0.628	1.256	36.278	0.135	2.159
1100	0.165	0.658	1.316	38.005	0.141	2.262
1150	0.172	0.688	1.376	39.733	0.148	2.365
1200	0.179	0.718	1.436	41.460	0.154	2.468

* For a 32-gallon garbage can with a top diameter equaling approximately 18.5 inches.

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TABLE 7-09.3(23)E

MAXIMUM ALLOWABLE LEAKAGE/"MAKE-UP" WATER VOLUME (L)
FOR 15-MINUTE HYDROSTATIC PRESSURE TEST

$$L = \frac{ND(P)^{0.5}}{29{,}600}$$

ASSUMED AVERAGE TEST PRESSURE (P): 250 PSIG

ASSUMED NUMBER OF JOINTS PER 100 FEET OF WATER MAIN (N): 7

DIAMETER (D) = 6 INCHES

LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	(PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
50	0.011	0.045	0.090	2.591	0.010	0.154
100	0.022	0.135	0.179	5.183	0.019	0.308
150	0.034	0.202	0.269	7.774	0.029	0.463
200	0.045	0.269	0.359	10.365	0.039	0.617

* For a 32-gallon garbage can with a top diameter equaling approximately 18.5 inches.

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TABLE 7-09.3(23)E

MAXIMUM ALLOWABLE LEAKAGE/"MAKE-UP" WATER VOLUME (L)
FOR 15-MINUTE HYDROSTATIC PRESSURE TEST

$$L = \frac{ND(P)^{0.5}}{29{,}600}$$

ASSUMED AVERAGE TEST PRESSURE (P): 250 PSIG

ASSUMED NUMBER OF JOINTS PER 100 FEET OF WATER MAIN (N): 7

DIAMETER (D) = 8 INCHES

LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
50	0.015	0.060	0.120	3.455	0.013	0.206
100	0.030	0.120	0.239	6.910	0.026	0.411
150	0.045	0.179	0.359	10.365	0.039	0.617
200	0.060	0.239	0.479	13.820	0.051	0.823
250	0.075	0.299	0.598	17.275	0.064	1.028
300	0.090	0.359	0.718	20.730	0.077	1.234
350	0.105	0.419	0.838	24.185	0.090	1.440
400	0.120	0.479	0.957	27.640	0.103	1.645
450	0.135	0.538	1.077	31.095	0.116	1.851
500	0.150	0.598	1.197	34.550	0.129	2.057
550	0.165	0.658	1.316	38.005	0.141	2.262
600	0.179	0.718	1.436	41.460	0.154	2.468
650	0.194	0.778	1.555	44.915	0.167	2.673
700	0.209	0.838	1.675	48.370	0.180	2.879
750	0.224	0.897	1.795	51.825	0.193	3.085
800	0.239	0.957	1.914	55.280	0.206	3.290
850	0.254	1.017	2.034	58.735	0.219	3.496
900	0.269	1.077	2.154	62.190	0.231	3.702
950	0.284	1.137	2.273	65.645	0.244	3.907
1000	0.299	1.197	2.393	69.100	0.257	4.113
1050	0.314	1.256	2.513	72.555	0.270	4.319
1100	0.329	1.316	2.632	76.010	0.283	4.524
1150	0.344	1.376	2.752	79.465	0.296	4.730
1200	0.359	1.436	2.872	82.920	0.308	4.936
1250	0.374	1.496	2.991	86.375	0.321	5.141
1300	0.389	1.555	3.111	89.830	0.334	5.347
1350	0.404	1.615	3.231	93.285	0.347	5.553
1400	0.419	1.675	3.350	96.740	0.360	5.758

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SPECIAL PROVISIONS – BID SCHEDULE B

LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
1450	0.434	1.735	3.470	100.195	0.373	5.964
1500	0.449	1.795	3.590	103.650	0.386	6.170
1550	0.464	1.855	3.709	107.105	0.398	6.375
1600	0.479	1.914	3.829	110.560	0.411	6.581
1650	0.494	1.974	3.949	114.015	0.424	6.787
1700	0.509	2.034	4.068	117.470	0.437	6.992
1750	0.523	2.094	4.188	120.925	0.450	7.198
1800	0.538	2.154	4.308	124.380	0.463	7.404
1850	0.553	2.214	4.427	127.835	0.476	7.609
1900	0.568	2.273	4.547	131.290	0.488	7.815
1950	0.583	2.333	4.666	134.745	0.501	8.020
2000	0.598	2.393	4.786	138.200	0.514	8.226
2050	0.613	2.453	4.906	141.655	0.527	8.432
2100	0.628	2.513	5.025	145.110	0.540	8.637
2150	0.643	2.573	5.145	148.565	0.553	8.843
2200	0.658	2.632	5.265	152.020	0.566	9.049
2250	0.673	2.692	5.384	155.475	0.578	9.254
2300	0.688	2.752	5.504	158.930	0.591	9.460
2350	0.703	2.812	5.624	162.385	0.604	9.666
2400	0.718	2.872	5.743	165.840	0.617	9.871
2450	0.733	2.932	5.863	169.295	0.630	10.077
2500	0.748	2.991	5.983	172.750	0.643	10.283

* For a 32-gallon garbage can with a top diameter equaling approximately 18.5 inches.

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TABLE 7-09.3(23)E

MAXIMUM ALLOWABLE LEAKAGE/"MAKE-UP" WATER VOLUME (L)
FOR 15-MINUTE HYDROSTATIC PRESSURE TEST

$$L = \frac{ND(P)^{0.5}}{29{,}600}$$

ASSUMED AVERAGE TEST PRESSURE (P): 250 PSIG

ASSUMED NUMBER OF JOINTS PER 100 FEET OF WATER MAIN (N): 7

DIAMETER (D) = 12 INCHES

LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	(PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
50	0.022	0.090	0.179	5.183	0.019	0.308
100	0.045	0.179	0.359	10.365	0.039	0.617
150	0.067	0.269	0.538	15.548	0.058	0.925
200	0.090	0.359	0.718	20.730	0.077	1.234
250	0.112	0.449	0.897	25.913	0.096	1.542
300	0.135	0.538	1.077	31.095	0.116	1.851
350	0.157	0.628	1.256	36.278	0.135	2.159
400	0.179	0.718	1.436	41.460	0.154	2.468
450	0.202	0.808	1.615	46.643	0.174	2.776
500	0.224	0.897	1.795	51.825	0.193	3.085
550	0.247	0.987	1.974	57.008	0.212	3.393
600	0.269	1.077	2.154	62.190	0.231	3.702
650	0.292	1.167	2.333	67.373	0.251	4.010
700	0.314	1.256	2.513	72.555	0.270	4.319
750	0.337	1.346	2.692	77.738	0.289	4.627
800	0.359	1.436	2.872	82.920	0.308	4.936
850	0.381	1.526	3.051	88.103	0.328	5.244
900	0.404	1.615	3.231	93.285	0.347	5.553
950	0.426	1.705	3.410	98.468	0.366	5.861
1000	0.449	1.795	3.590	103.650	0.386	6.170
1050	0.471	1.885	3.769	108.833	0.405	6.478
1100	0.494	1.974	3.949	114.015	0.424	6.787
1150	0.516	2.064	4.128	119.198	0.443	7.095
1200	0.538	2.154	4.308	124.380	0.463	7.404
1250	0.561	2.244	4.487	129.563	0.482	7.712
1300	0.583	2.333	4.666	134.745	0.501	8.020
1350	0.606	2.423	4.846	139.928	0.521	8.329
1400	0.628	2.513	5.025	145.110	0.540	8.637

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SPECIAL PROVISIONS – BID SCHEDULE B

LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	(PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
1450	0.651	2.602	5.205	150.293	0.559	8.946
1500	0.673	2.692	5.384	155.475	0.578	9.254
1550	0.695	2.782	5.564	160.658	0.598	9.563
1600	0.718	2.872	5.743	165.840	0.617	9.871
1650	0.740	2.961	5.923	171.023	0.636	10.180
1700	0.763	3.051	6.102	176.205	0.656	10.488
1750	0.785	3.141	6.282	181.388	0.675	10.797
1800	0.808	3.231	6.461	186.570	0.694	11.105
1850	0.830	3.320	6.641	191.753	0.713	11.414
1900	0.853	3.410	6.820	196.935	0.733	11.722
1950	0.875	3.500	7.000	202.118	0.752	12.031
2000	0.897	3.590	7.179	207.300	0.771	12.339
2050	0.920	3.679	7.359	212.483	0.790	12.648
2100	0.942	3.769	7.538	217.665	0.810	12.956
2150	0.965	3.859	7.718	222.848	0.829	13.265
2200	0.987	3.949	7.897	228.030	0.848	13.573
2250	1.010	4.038	8.077	233.213	0.868	13.882
2300	1.032	4.128	8.256	238.395	0.887	14.190
2350	1.054	4.218	8.436	243.578	0.906	14.499
2400	1.077	4.308	8.615	248.760	0.925	14.807
2450	1.099	4.397	8.795	253.943	0.945	15.116
2500	1.122	4.487	8.974	259.125	0.964	15.424

* For a 32-gallon garbage can with a top diameter equaling approximately 18.5 inches.

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TABLE 7-09.3(23)E

MAXIMUM ALLOWABLE LEAKAGE/"MAKE-UP" WATER VOLUME (L)
FOR 15-MINUTE HYDROSTATIC PRESSURE TEST

$$L = \frac{ND(P)^{0.5}}{29{,}600}$$

ASSUMED AVERAGE TEST PRESSURE (P): 250 PSIG

ASSUMED NUMBER OF JOINTS PER 100 FEET OF WATER MAIN (N): 7

DIAMETER (D) = 16 INCHES

LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	(PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
50	0.030	0.120	0.239	6.910	0.026	0.411
100	0.060	0.239	0.479	13.820	0.051	0.823
150	0.090	0.359	0.718	20.730	0.077	1.234
200	0.120	0.479	0.957	27.640	0.103	1.645
250	0.150	0.598	1.197	34.550	0.129	2.057
300	0.179	0.718	1.436	41.460	0.154	2.468
350	0.209	0.838	1.675	48.370	0.180	2.879
400	0.239	0.957	1.914	55.280	0.206	3.290
450	0.269	1.077	2.154	62.190	0.231	3.702
500	0.299	1.197	2.393	69.100	0.257	4.113
550	0.329	1.316	2.632	76.010	0.283	4.524
600	0.359	1.436	2.872	82.920	0.308	4.936
650	0.389	1.555	3.111	89.830	0.334	5.347
700	0.419	1.675	3.350	96.740	0.360	5.758
750	0.449	1.795	3.590	103.650	0.386	6.170
800	0.479	1.914	3.829	110.560	0.411	6.581
850	0.509	2.034	4.068	117.470	0.437	6.992
900	0.538	2.154	4.308	124.380	0.463	7.404
950	0.568	2.273	4.547	131.290	0.488	7.815
1000	0.598	2.393	4.786	138.200	0.514	8.226
1050	0.628	2.513	5.025	145.110	0.540	8.637
1100	0.658	2.632	5.265	152.020	0.566	9.049
1150	0.688	2.752	5.504	158.930	0.591	9.460
1200	0.718	2.872	5.743	165.840	0.617	9.871
1250	0.748	2.991	5.983	172.750	0.643	10.283
1300	0.778	3.111	6.222	179.660	0.668	10.694
1350	0.808	3.231	6.461	186.570	0.694	11.105
1400	0.838	3.350	6.701	193.480	0.720	11.517
1450	0.867	3.470	6.940	200.390	0.745	11.928
1500	0.897	3.590	7.179	207.300	0.771	12.339
1550	0.927	3.709	7.419	214.210	0.797	12.750
1600	0.957	3.829	7.658	221.120	0.823	13.162
1650	0.987	3.949	7.897	228.030	0.848	13.573
1700	1.017	4.068	8.136	234.940	0.874	13.984
1750	1.047	4.188	8.376	241.850	0.900	14.396

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LENGTH OF MAIN	MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME				DEPTH IN GARBAGE CAN *	
(FEET)	(GALLONS)	(QUARTS)	(PINTS)	(CU IN)	DECIMAL INCHES	16TH INCHES
1800	1.077	4.308	8.615	248.760	0.925	14.807
1850	1.107	4.427	8.854	255.670	0.951	15.218
1900	1.137	4.547	9.094	262.580	0.977	15.630
1950	1.167	4.666	9.333	269.490	1.003	16.041
2000	1.197	4.786	9.572	276.400	1.028	16.452
2050	1.226	4.906	9.812	283.310	1.054	16.864
2100	1.256	5.025	10.051	290.220	1.080	17.275
2150	1.286	5.145	10.290	297.130	1.105	17.686
2200	1.316	5.265	10.530	304.040	1.131	18.097
2250	1.346	5.384	10.769	310.950	1.157	18.509
2300	1.376	5.504	11.008	317.860	1.183	18.920
2350	1.406	5.624	11.247	324.770	1.208	19.331
2400	1.436	5.743	11.487	331.680	1.234	19.743
2450	1.466	5.863	11.726	338.590	1.260	20.154
2500	1.496	5.983	11.965	345.500	1.285	20.565

* For a 32-gallon garbage can with a top diameter equaling approximately 18.5 inches.

Add the following new subsection:

7-09.3(23)F Repetition of Pressure Test Procedure

(******)

Any visible leakage detected shall be corrected by the Contractor regardless of the allowable leakage specified above. Should the water system being tested fail to successfully meet the hydrostatic pressure test as specified, the Contractor shall, at no expense to the Contracting Agency, locate and repair the defects and then re-test the water system as herein specified. The Contracting Agency shall witness said repairs of the defects found.

Defective materials or work, discovered as a result of the hydrostatic pressure test, shall be replaced by the Contractor at no expense to the Contracting Agency. Whenever it is necessary to replace defective material or correct the work, the hydrostatic pressure test procedure shall be repeated by the Contractor at its own expense until a satisfactory hydrostatic pressure test is obtained.

7-09.3(24) Disinfection of Water Mains

(******)

Revise this subsection to read:

All new water mains, water service connection pipelines and appurtenances thereof, and repaired portions of existing water mains or extensions thereto, shall be filled, flushed, and disinfected using this procedure.

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All costs to comply with this Section 7-09.3(24) are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the unit or lump sum bid prices of the Contract.

7-09.3(24)M Chlorinating Connections to Existing Water Mains and Water Service Connections

(******)

Revise this subsection to read:

The disinfection procedure for connections to existing mains shall be as specified in Section 7-09.3(19)A., "Connections to Existing Mains." The disinfection procedure for service connections shall be as specified in Section 7-15.3(5), "Pressure Testing and Disinfection of Water Service Connections."

7-09.3(24)N Final Flushing and Testing

(******)

Revise this subsection to read:

When satisfactory results of the intermediate chlorine residual test(s) have been achieved, the disinfection solution shall be thoroughly flushed and expelled from all parts of the water system to be tested, including from the water service connection pipelines. Replacement water shall be fed into the water system to be tested through a flushing box obtained and connected by the Contractor. To ensure expulsion of the solution, chlorine residual tests shall be conducted at the designated non-source sample points and at the end of each water service connection pipeline and the tests shall show a residual not in excess of that carried in the Contracting Agency's system in the vicinity of the "feed point(s)."

Due to the restricted capacity of the flushing box, low flushing velocities should be anticipated.

Before flushing has commenced, the hydrant barrel and the flushing box and its appurtenances shall be disinfected using the procedure as that provided in Section 7-09.3(24)S., "Filling Procedure."

Flushing overnight will not be permitted.

7-09.3(24)O Repetition of Flushing and Testing

(******)

Revise this subsection to read:

Should the first disinfection procedure [consisting of the initial and subsequent bacteriological tests constituting one (1) "round" of tests] yield unsatisfactory bacteriological test results, the disinfection procedure shall be repeated by the Contractor at its own expense until satisfactory results are obtained. Failure to obtain satisfactory test results shall be considered as failure by the Contractor to keep the pipe clean before and during construction, and/or failure to properly disinfect the water system.

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Add the following new subsection:

7-09.3(24)P Sequence of Hydrostatic Pressure Testing and Water for Testing

(******)

The hydrostatic pressure test shall be performed after the water system to be tested has been initially filled, but before bacteriological sampling is conducted. The Contractor shall comply with the requirements for this procedure provided in Section 7-09.3(23), "Hydrostatic Pressure Test."

The Contracting Agency shall provide a reasonable quantity of water for the testing procedures described herein. The Contracting Agency shall first provide approval to the Contractor for use of said water, based upon its determination whether supply in excess of normal domestic demands is available at that particular time. Excessive wasting of water shall not be permitted. The cost for water in excess of a quantity deemed reasonable by the Engineer shall be borne by the Contractor in accordance with the Contracting Agency's latest fee schedule.

Add the following new subsection:

7-09.3(24)Q Equipment for Main Filling, Flushing, and Disinfection

In order to prevent possible contamination of the water system and to reduce wasting of water, the Contracting Agency shall provide to the Contractor one (1) of two (2) devices each time the Contractor requests water to be supplied to the water system to be tested. For the filling procedure hereinafter detailed in Section 7-09.3(24)S., "Filling Procedure," the Contracting Agency shall provide a backflow prevention device (hereinafter referred to as a "chlorinator box") for this purpose. For the chlorine residual testing, flushing, and sampling procedures hereinafter detailed in Section 7-09.3(24)T., "Intermediate Chlorine Residual Test," Section 7-09.3(24)N., "Final Flushing and Testing," Section 7-09.3(24)V., "Initial Bacteriological Sampling," and Section 7-09.3(24)W., "Subsequent Bacteriological Sampling," the Contracting Agency shall provide a different backflow prevention device, hereinafter referred to as the "flushing box."

The chlorinator box is equipped with an electrically-driven chemical feed pump which can be adjusted to provide a free chlorine concentration of approximately fifty parts per million (50 ppm) at a variety of flow rates. The chlorinator box is also provided with a short section of 2-1/2-inch diameter inlet hose adaptable to a 2-1/2-inch diameter NST hose thread and is equipped with a meter and double check valve assembly. A power source with a minimum capacity of 110 volts A.C. and 500 watts shall be supplied by the Contractor to operate the pump. The flushing box is also provided with a short section of 2-1/2-inch diameter inlet hose adaptable to a 2-1/2-inch NST hose thread and is equipped with a meter and double check valve assembly, but has no chemical feed pump. Both the chlorinator box and flushing box shall be checked out by the Contractor at the Contracting Agency's Water Operations Building on an "as-available" basis, upon execution of an agreement holding the Contracting Agency harmless from any damage to either device while in the Contractor's custody. Other sections of 2-1/2-inch diameter hose to be used for connecting either device to the water system to be tested can also be provided to the Contractor on an "as-available" basis. The Contractor shall supply all labor and equipment necessary to load and unload either device at the Water Operations Building. The chlorinator box shall be returned to the Water Operations Building after each day's use by the Contractor.

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No other method of disinfection/chlorine solution injection will be acceptable unless, prior to use, the Contractor obtains written approval from the Engineer. The use of dry chlorine compounds inserted into the water system during installation is prohibited and deemed an unacceptable disinfection procedure by the Contracting Agency.

To provide access at all extremities of the water system to be tested and in the absence of a permanent blowoff assembly or fire hydrant assembly necessary for filling, disinfecting, and hydrostatically testing the water, the Contractor shall furnish temporary blowoff assemblies meeting the requirements of the Standard Plans, including provisions for temporary thrust restraint. During testing procedures, the Contractor shall furnish a standpipe assembly for permanent blowoff assemblies as that shown for temporary blowoff assemblies in the Plans. All hoses used for connecting the chlorinator box or flushing box will be furnished by the Contracting Agency at the Water Operations Shop building. The Contractor shall furnish all hoses, dechlorination equipment and materials, velocity dissipaters, and/or containment vessels for flushing, draining, and disposing the disinfection solution from the water main.

In addition, the Contractor shall furnish containers of 5.25 percent hypochlorite solution and a chlorine residual testing kit (capable of detecting a range from 0 to no more than 250 ppm free chlorine residual) required for the disinfection procedure.

Add the following new subsection:

7-09.3(24)R Sample Collection and Bacteriological Testing Results

(******)

Bacteriological samples shall remain in the custody of the Contracting Agency at all times. Sample bottles will be brought to the Project site and samples collected and delivered to the laboratory by the Contracting Agency or an authorized agent thereof. Contracting Agency collections of the first sample shall be limited to Monday, Tuesday, and Wednesday between 8:00 a.m. and 2:00 p.m., excluding holidays. Second day samples shall be limited to Tuesday, Wednesday, and Thursday between 8:00 a.m. and 2:00 p.m., excluding holidays.

Copies of the written reports of bacteriological tests shall be obtained from the laboratory only by employees of the Contracting Agency or an authorized agent thereof.

Add the following new subsection:

7-09.3(24)S Filling Procedure

(******)

Each extremity of the water main system to be tested shall be equipped with a fire hydrant assembly or permanent blowoff assembly, as shown on the Plans. Other pipe extremities shall be equipped with a temporary blowoff assembly meeting the requirements of the Standard Plans. The end of each water service connection pipeline shall be equipped with a temporary valve to be used during this main filling, flushing, disinfection, and hydrostatic pressure testing procedure, if the meter setter has not been installed.

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The water system to be tested, including water service connection pipelines, shall be filled with a chlorinated water solution by use of the chlorinator box, so that all parts of the water system to be tested shall have an initial free chlorine residual of at least fifty (50) parts per million (50 ppm), but not more than 100 parts per million (100 ppm). The Contractor shall connect the chlorinator box between the existing water system and a point on the water system to be tested, which is selected by the Contractor and approved by the Engineer. Representatives of the Contracting Agency shall observe this filling process.

If water is drawn from a fire hydrant on the existing water system, the flow shall be regulated from said hydrant by use of the auxiliary gate valve, with the main hydrant valve fully opened (to close the hydrant barrel drain valve).

The Contractor shall disinfect the hydrant barrel and the chlorinator box and its appurtenances by infusing a 1 percent hypochlorite solution into a hydrant port after the auxiliary gate valve is closed and after the main hydrant valve is opened. This solution shall be discharged from the hydrant barrel through the chlorinator box before it is connected to the water system to be tested.

The initial chlorine content shall be tested at pipe extremities and other representative points, the number of which is a function of the size of the water system to be tested, and shall be determined by and at the direction of the Engineer and witnessed by representatives of the Contracting Agency. These points shall hereinafter be referred to as the "designated non-source sample points."

During the filling process, all valves and other appurtenances to the water system to be tested shall be operated by the Contractor.

The hydrostatic pressure test shall be undertaken at this time, before proceeding further, in accordance with Section 7-09.3(23) "Hydrostatic Pressure Test."

Add the following new subsection:

7-09.3(24)T Intermediate Chlorine Residual Test

(******)

The disinfection solution shall be retained in the water system to be tested for a period of at least 24 hours. After this period, the Contractor shall obtain and connect a flushing box from the existing system to the water system to be tested in order to conduct a test for free chlorine residual. This test shall be performed by the Contractor and witnessed by the Engineer. The test will be deemed acceptable if the residual measured at the designated non-source sample points is no lower than forty (40) parts per million (40 ppm) less than the initial free chlorine residual recorded during the filling procedure. If this residual is not achieved, the Contractor shall clean and/or disinfect the water system by use of the chlorinator box to refill the system with more disinfection solution and provide for a further retention period. The hydrant barrel and flushing box and its appurtenances shall be disinfected using the procedure as that provided in Section 7-09.3(24)S., "Filling Procedure."

Add the following new subsection:

7-09.3(24)U Discharge of Disinfection Solution

(******)

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The environment to which the chlorinated water disinfection solution is to be discharged shall be inspected by the Contractor and if there is any question that the chlorinated discharge will cause damage to the environment, a reducing agent shall be applied to the water to be wasted to neutralize the chlorine residual remaining in the water (such as sodium thiosulfate in burlap sacks placed across the water stream). Disposal may be made to any available sanitary sewer, provided the rate of disposal does not overload the sewer and the disposal is approved by the sewer agency having jurisdiction.

Where necessary, Federal, State, and local regulatory agencies should be contacted to determine special provisions for the disposal of heavily chlorinated water.

Add the following new subsection:

7-09.3(24)V Initial Bacteriological Sampling

(******)

Bacteriological samples shall be collected by the Contracting Agency from the source(s) and the designated non-source sample points using the flushing box obtained and connected by the Contractor. The hydrant barrel and the flushing box and its appurtenances shall be disinfected using the procedure as provided in Section 7-09.3(24)S., "Filling Procedure." The Contractor shall not disconnect the box, nor its appurtenances, nor otherwise cause any disturbance prior to the collection of the samples. At least fifteen (15) minutes prior to the scheduled time for collection of the samples, the flow from the source tap(s) and the designated non-source sample points shall be regulated by the Contractor to a flow conducive to the collection of the samples.

Bacteriological samples will be analyzed for total coliform bacteria, and for heterotrophic bacteria by the heterotrophic plate count (HPC) analysis. The maximum allowable coliform content of the flushed sample shall be zero (0). The maximum allowable HPC population count in all source samples shall be fifty (50) counts per milliliter (50/ml). The maximum allowable HPC population count for samples from any of the designated non-source sample points shall be no greater than fifty (50) counts per milliliter (50/ml) above the highest HPC population count from a source sample.

The HPC population count from any source sample that exceeds fifty (50) counts per milliliter (50/ml) shall be deemed as an indeterminate test and the Contractor shall obtain and connect a flushing box to allow new samples to be drawn for initial bacteriological testing in accordance with the procedures provided herein.

Add the following new subsection:

7-09.3(24)W Subsequent Bacteriological Sampling

(******)

A subsequent bacteriological sample shall be collected by the Contracting Agency at each point where an initial bacteriological sample was collected, again using a flushing box obtained and connected by the Contractor. The hydrant barrel and the flushing box and its appurtenances shall be disinfected using the procedure as provided in Section 7-09.3(24)S., "Filling Procedure." The Contractor shall not disconnect the box nor its appurtenances nor otherwise cause any disturbance prior to the collection of the samples. At least fifteen (15) minutes prior to the scheduled time for collection of the samples,

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the flow from the source tap(s) and the designated non-source sample points shall be regulated by the Contractor to a flow conducive to the collection of the samples.

These subsequent bacteriological samples shall be collected at least 24 hours, but no longer than 48 hours after the initial bacteriological samples were collected. However, the subsequent bacteriological samples may be collected later than 48 hours after the initial bacteriological samples were collected upon concurrence of the Contractor. The results of the tests performed by the laboratory on these samples shall meet the same criteria as those allowed for the initial bacteriological samples. No flushing of the water system to be tested will be allowed between initial and subsequent bacteriological sampling procedures. The Contractor may charge the system with the flushing box and run no more than sixty (60) seconds of flow at each designated non-source sample point to purge the sample station prior to collecting the test sample.

The water system shall be deemed disinfected when written results of both the initial and subsequent bacteriological tests, constituting one (1) "round" of tests, meet the criteria herein set forth. Before placing the water system into service, a satisfactory written report shall be received by the Contracting Agency from the certified laboratory evidencing successful tests. The Contractor's attention is directed to Section 7-09.3(19)A., "Connections to Existing Mains," which provides for the maximum allowable period when a connection to the existing system is to be made by the Contractor after the water system has been deemed disinfected.

Add the following new subsection:

7-09.3(24)X Main Cleaning

The Contractor shall flush and drain the section of new main as directed by the Contracting Agency's on-site representative immediately following satisfactory completion of all bacteriological testing. After the main has been flushed to the satisfaction of the Contracting Agency's on-site representative, the Contractor shall connect the new water main improvements to the existing water system and the new water main improvements will be placed into service as approved and as may be directed by the Contracting Agency's representative.

In the event that the new water system improvements fail more than two (2) cycles of initial and subsequent bacteriological tests, the Contractor may request to have the Contracting Agency perform main cleaning. The Contractor must notify the Contracting Agency one (1) week in advance of the time such main cleaning is desired to be performed. The Contractor shall cooperate with the main cleaning efforts.

The main cleaning procedure will require the furnishing and installation by the Contractor, at its own expense, temporary cube launch facilities at the extremities of the water system to be tested. For water mains less than or equal to 8-inch diameter, permanent blowoff assemblies meeting the requirements of Section 7-09.3(22), "Blowoff Assemblies," temporary blowoff assemblies meeting the requirements of Section 7-09.3(24)Q., "Equipment for Main Filling, Flushing and Disinfection," and fire hydrants are acceptable for use as cube launch facilities. For water mains larger than 8-inch diameter, the temporary cube launch facility shall consist of ductile iron pipe and fittings connected to each end of the water main, extended to a point between one (1) and three (3) feet above the ground surface with a blind flange tapped 2-inch and providing the minimum size as follows:

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- 12-inch water main – 8-inch cube launch facility.
- 16-inch and 24-inch water main – 12-inch cube launch facility.

The interior of all pipe and fittings used for temporary cube launch facilities shall be cleaned of all deleterious material and swabbed and/or sprayed with a clean, 1 percent hypochlorite solution mixed in a clean container, before they are installed. At the conclusion of main cleaning, the Contractor shall remove and dispose of the temporary cube launch facilities and restore the water system and ground surface to meet the requirements of the Plans and these Specifications, all at its own expense.

The Contractor shall repair and restore, at its own expense, any damage caused by the main cleaning procedure including, but not limited to, erosion caused by water flow from blowoffs, fire hydrants, and cube launch facilities.

This main cleaning procedure shall not relieve the Contractor of its responsibility for ensuring the proper disinfection of the water system it installed.

Add the following new subsections:

7-09.3(25) Surface and Subsurface Facility Preservation and Restoration

(******)

7-09.3(25) A General

The Contractor shall be responsible for preserving and protecting existing improvements outside the limits of the improvements as shown on the Plans or that are not shown on the Plans for removal, modification, or other improvement, for preserving the safe movement of traffic through and adjacent to the Work area, and for restoring any such improvements disturbed or damaged by the Work to their original or superior condition prior to performance of the Work.

The Contractor shall be responsible for obtaining the final release from the jurisdictional land-use and/or right-of-way permit issuing agency and other jurisdictional agencies, as applicable, including conformance to the requirements of the respective agency or agencies.

Where the Contractor is permitted to use private property adjacent to the Work, which permission is provided in writing by the property owner and to the Contracting Agency, the property so used shall be returned to its original or superior condition as determined by the property owner and the Contracting Agency.

7-09.3(25)C Ballast and Crushed Gravel Surfacing

This work shall consist of constructing one (1) or more courses of crushed stone upon a prepared subgrade or backfilled trench in conformity with the lines, grades, depth, and typical cross-sections shown on the Plans or as established by the Contracting Agency or the jurisdictional agency. Unless otherwise provided, the Contractor shall comply with the requirements of Section 4-04, "Ballast and Crushed Surfacing."

The surface which will receive crushed stone shall first be brought to a uniform grade prior to aggregate. Immediately prior to the placement of the crushed stone, all drainage ditches, shoulders,

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driveways, parking lots, and other areas disturbed or damaged by the Contractor's operations shall be graded to their original smooth contours that existed prior to the Work.

When the existing gravel shoulder is damaged by the operations of the Contractor, the Contractor shall reconstruct and otherwise repair the shoulder in accordance with the City, County, or State governmental agency having jurisdiction. Where existing gravel driveways are disturbed or otherwise damaged by the Contractor's operations, the driveway shall be restored in a manner equal to or better than the condition that existed prior to performing the Work to the original lines, grades, widths, and depth of crushed surfacing material.

Construction of crushed surfacing preparatory to asphalt concrete, cement concrete, or asphalt-over-cement concrete pavement repair shall meet the requirements of the appropriate subsection of this Section.

Crushed surfacing top course shall be used for restoration of the gravel streets, shoulders, and driveways, as directed by the Engineer. Crushed surfacing shall be spread in layers not exceeding two (2) inches, unless otherwise directed by the Engineer, and thoroughly compacted as hereinafter specified.

Immediately following spreading and final shaping, each layer of surfacing shall be compacted to at least 95 percent of the standard density determined by WSDOT Test Method No. 606 before a next succeeding layer of surfacing or pavement is placed. The determination of field in-place density shall be made by the Nuclear Gauge or the Washington Densometer. When the thickness of surfacing is less than 0.15-foot, density testing will not be required and the Engineer will determine the number of passes required for the particular compaction equipment available.

Vibratory compactors and rollers shall obtain the specified density for each layer. A mist spray of water shall be applied as needed to replace moisture loss by evaporation. The completed layer shall have a smooth, tight, uniform surface true to the line, grade, and cross-section shown in the Plans or as staked by the Engineer.

Damage to graveled areas shall be held to a minimum, consisting of the actual trench width and the necessary width to stockpile excavated materials. The Contractor shall repair and replace, at its own expense, crushed stone in areas damaged or disturbed by the Contractor beyond the above-defined immediate construction area.

Final grading shall include complete grading, leveling, surface restoration, and shaping of the entire area to make it neat and smooth in appearance and shall require hand labor over and above what can be performed with equipment. Ruts or ridges that are apparent to the eye shall be repaired to the satisfaction of the Engineer. All surfaces shall be well-graded to provide uniform slopes and to provide shaped surfaces capable of carrying off the surface water without ponding. To obtain the neat appearance desired, the Contractor shall use hand labor in areas not graveled and remove exposed rocks.

During dry periods, the Contractor shall provide water sprinkling prior to and during the placement of crushed surfacing material to control dust emissions.

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Unless required sooner by the City, County, or State governmental agency having jurisdiction, the permanent shoulder restoration shall be completed within 72 consecutive hours after the initial trench excavation that disturbed and/or damaged the existing street improvement.

Add the following new subsection:

7-09.3(26) Placing New Water Facilities Into Operation

(******)

Subsequent to satisfactory completion of hydrostatic pressure testing, disinfection, and bacteriological testing, and taste and odor testing, the Contracting Agency will allow the new water facilities to be directly connected to the existing Contracting Agency's water supply system. The Contractor shall complete any remaining connections between the new water facilities and existing water facilities, and the new facilities placed into active service, within 72 hours of the satisfactory completion of the water quality testing. Opening of new or existing valves to place the new water facilities into operation shall only be performed by the Contracting Agency.

Before final acceptance, the new water facilities shall remain in operation for a period of at least ten (10) calendar days. Any leaks or other defects in the Work detected in that period shall be promptly corrected by the Contractor to the satisfaction of the Contracting Agency at the sole expense of the Contractor.

Add the following new subsection:

7-09.3(27) Steel Casing

(******)

Water main casing method of installation shall be determined by the Contractor and submitted for Engineer approval.

The annular space between the pipe and the casing pipe or tunnel liner shall be filled by sluicing or blowing sand into the space. Care shall be exercised to insure that the entire space is filled and that the pipe is not disturbed during the placement of the backfill between the pipe and the casing. The Contractor shall remove the pipe and reinstall it if the pipe is not within the tolerances shown on the drawings and as specified.

Contractor Submittals

Submit all procedures or material descriptions requiring the Engineer's approval prior to mobilizing. Include the following information in the operations and design submittal:

Submittal requirements include, but are not limited to the following:

1. Verification of Line and grade calculations relative to water main installation and final grade.

2. Copies of field notes used to establish grade.

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3. Material list.

4. Details on casing spacer and end seal materials, dimensions and installation procedures and recommendations.

7-10 VACANT

(******)

Revise this section, including heading, to read:

7-10 TEMPORARY WATER MAINS AND WATER SERVICE CONNECTIONS

7-10.1 Description

This work consists of constructing, operating, maintaining, and removing temporary water mains and construction sequencing in support of permanent water system improvements in accordance with the Plans and Specifications.

7-10.2 Materials

Materials shall meet the requirements of the following sections:

Pipe	9-30.1
Ductile Iron Pipe	9-30.1(1)
Steel Pipe (4-inch and Under)	9-30.1(4)B
Polyvinyl Chloride (PVC) Pressure Pipe (under 4-inch)	9-30.1(5)B
Polyethylene Pressure Pipe (under 4-inch)	9-30.2(10)
Temporary Water Mains	9-30.9(1)
Fittings	9-30.2
Ductile Iron Pipe	9-30.2(1)
Steel Pipe (4-inch and Under)	9-30.2(4)B
Restrained Joints	9-30.2(6)
Transition, Reducing and Flexible Couplings	9-30.2(12)
For Temporary Water Mains	9-30.9(1)
Valves	9-30.3
Tapping Sleeve and Valve Assembly	9-30.3(4)
End Connections	9-30.3(5)
Gate Valves (4-inch to 12-inch)	9-30.3(6)
Bronze Gate Valves (Under 3-inch)	9-30.3(9)
Ball Valves for Temporary Water Main and Service Connections	9-30.9(1)
Water Service Connections (2-inch and Smaller)	9-30.6
Saddles	9-30.6(1)
Corporation Stops	9-30.6(2)
Polyethylene Tubing	9-30.6(3)A
Service Fittings	9-30.6(4)
Brass Nipples and Fittings	9-30.6(6)

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Insulating Service Couplings	9-30.6(8)
Temporary Water Service Connections	9-30.9(2)
Temporary Pipe and Hose Ramps	9-37.2

The Contractor shall provide to the Engineer the names of the manufacturer(s) of the water distribution materials proposed for inclusion in the Work, which materials shall conform in every respect to these Specifications, and shall provide the Manufacturer's Certificate of Compliance meeting the provisions of the General Conditions for the materials proposed for inclusion in the Work. As used in this Specification, the term "lot of material delivered to the Work" shall mean a shipment of the water distribution materials as it is delivered to the job site.

The Engineer shall have free access to all testing and records pertaining to material to be delivered to the job site. The Engineer may elect to be present at any or all material testing operations.

7-10.3 Construction Requirements

The Contractor shall furnish and install temporary water facilities, including a protected connection or connections to active water facilities, temporary water mains and service connections, and other temporary improvements as described in this Section when and as shown on the Plans, in accordance with a proposed plan for “Temporary Water Service” and “Construction Sequencing” as approved by the Engineer, and as necessary to maintain water service and prevent water service disruptions exceeding the threshold time limits set forth in subsections 1-08.4(3)A, “Allowable Water Service Disruption and Notice,” and 1-08.4(3)B, “Temporary Water Service.”

Prior to commencing the Work under this Section, the Contractor shall prepare and submit for the Engineer’s review a proposed plan for temporary water service as generally provided in subsection 1-08.4(3)B. The plans depicted in the Contract Plans are a suggested starting point for a Contractor developed plan, but the submitted plan shall be the responsivity of the Contractor as to meet the Contract provisions and align with Bid Schedule A staging and traffic control plans. At a minimum, the Plans shall include the proposed general configuration and location of the temporary water mains, specific configuration for a typical temporary water service connection, and provisions for:

- Protecting the temporary facilities from damage due to traffic, weather, and vandalism.
- Accommodating the safe movement of vehicular and pedestrian traffic.
- Controlling discharges without damage to public or private improvements.
- Responding to temporary water main and service connection issues during work and non-work hours.

Generally, temporary water facilities shall be installed in protected areas outside of traffic areas. Where necessary to facilitate the safe movement of vehicles and pedestrians, and to protect the temporary water facilities from damage or disruption, temporary pipe or hose ramps shall be installed.

Temporary pipe or hose ramps across traveled public roadways shall be aligned on a slight diagonal from perpendicular to centerline of the roadway to allow for staggered wheel and impact loadings. Any such installation shall be subject to the review and approval of the jurisdictional agency and such

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supplemental conditions as may be imposed and shall be accompanied by temporary traffic control signs as shown on the Plans or reviewed Traffic Control Plan. A Plan or proposed Plan for Temporary Water Service shall limit the number of roadway crossings to the maximum practical extent.

The design and installation of the temporary pipe or hose ramps shall provide for the safe movement of traffic across the surface of the ramp, and protect the pipe or hose without displacement or damage to the pipe or pavement under the temporary ramp.

Open cutting of driveways, roadways, or other paved surface for temporary water facilities will not be allowed except in locations as shown on the Plans for removal and replacement of existing surfacing. In lieu of temporary ramps, the Contractor may pneumatically bore and install temporary water facilities under paved surfaces. The depth of the pneumatic bore shall be sufficient to protect the temporary water facilities and surface improvements from damage, and shall otherwise be aligned both horizontally and vertically to avoid damaging other subsurface or surface facilities or other improvements.

Water in the temporary water mains shall be used only to provide temporary water service to Contracting Agency water service accounts.

Disruptions of water service shall conform to the coordination and notification requirements of Section 1-08.4(3)A, "Allowable Water Service Disruption and Notice."

Following satisfactory completion of the new water main and/or restoration of water service, the Contractor shall remove, dispose and/or salvage the used temporary water facilities, including temporary pipe and hose ramps, and restore any improvements disturbed by such temporary facilities.

7-10.3(1) Temporary Water Mains

Connection to the existing active water main or main shall be protected by an approved backflow prevention device, whether a chlorination or flush box, as furnished by the Contracting Agency. The connection configuration shall be in accordance with the "Temporary Water Main Assembly" detail as shown in the Plans and described in this subsection.

The Contractor shall be responsible to apply for and obtain the chlorination or flush box from the Contracting Agency at the Water Operations building, including payment of the standard deposit. No rental charge will be applied for water use through either the chlorination or flush boxes when used in conjunction with Contracting Agency projects. The backflow device shall either be connected to an available fire hydrant or temporary blowoff as identified in the Plans or approved Temporary Water Service Plan.

The Contractor shall furnish and install security measures to ensure the integrity of the temporary connection and water mains. At a minimum, the backflow prevention device shall be installed outside the traffic clear zone and be secured to one (1) or more ecology or equivalent concrete blocks with stainless steel aircraft cable and high-strength steel padlock(s). Temporary anchors and insulation shall be placed along the temporary water mains as necessary to secure the pipe and minimize the potential for freezing or other damage.

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The Contractor shall furnish and install manifolds, fabricated or cut-in tees, control valves, and temporary water main blowoff assembly as shown on the Plans or the approved Temporary Water Service Plan to isolate and control flow to, drainage from, or flushing of the main or mains. Temporary water main blowoff assemblies shall be placed and secured in a similar manner as the backflow prevention device.

Handling of temporary water main materials shall be in accordance with Section 7-09 and AWWA C651.

Prior to placing the temporary water main and connected temporary water service connection stubs into service, the water main shall be hydrostatically tested to a minimum pressure of 150 psi, disinfected, and subjected to bacteriological testing as otherwise provided in Section 7-09. If authorized by the Contracting Agency inspector, the method for chlorination as provided in Section 4.5 of AWWA C615-14, modified to include use of a flushing cube as furnished by the Contracting Agency, may be used to disinfect the temporary water main.

7-10.3(2) Temporary Water Service Connections

The Contractor shall furnish and install temporary water service connections as shown on the Plans, or the approved Temporary Water Service Plan, as necessary to maintain water service to customers in accordance with subsections 1-08,4(3)A, "Allowable Water Service Disruption and Notice," and 1-08.4(3)B, "Temporary Water Service" and as provided in this subsection.

Temporary water service lines shall have a minimum nominal diameter of 1-inch or the dimension shown on the Plans, whichever is larger. The temporary water service line shall be connected to the temporary water main at a fabricated tee or corporation stop and saddle. If connected at a fabricated tee, a ball valve or curb stop valve shall be installed after the tee to control the flow to the service line.

The temporary water service lines shall be terminated with a temporary cap pending confirmation of sound connections and flushing to clear and disinfect the temporary service lines prior to connection to the back (customer) side of the meter setter. A 90-degree street el or swing joint shall be used with short segment of pipe and appropriate connector as shown on the Plans or as necessary to complete the connection to the meter setter. The meter will be removed in advance by the Contracting Agency.

Following confirmation of sound connections and completion of disinfection and flushing to the satisfaction of the Contracting Agency inspector, the Contractor shall complete the temporary connection to the back (customer) side of the meter setter. The Contractor shall perform and coordinate with the Contracting Agency inspector any subsequent flushing of the temporary service connection and customer supply line as determined by the Contracting Agency inspector.

7-10.3(3) Steel Roll Off Storage Tanks

The Contractor shall furnish and install temporary steel roll off storage tanks (Baker tank or approved equal) to discharge all water that is drained from water mains, required to dewater trenches, or pumped from project excavations.

If required, overnight storage of steel roll off storage tanks shall be completely within the right-of-way or Contracting Agency owned easements.

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Drained or stored water shall not be discharged to sanitary or storm sewer systems and shall be treated including dechlorination, decreasing the turbidity to a maximum of 25 NTUs, and decreasing the transparency to maximum 33cm prior to discharging treated water.

7-12 VALVES FOR WATER MAINS

7-12.1 Description

(******)

Revise the first paragraph to read:

Valves for water mains shall be suitable for a public potable water system environment and for installation in a plumb (vertical position), intended to be installed in a normal position on buried and non-buried pipelines for water distribution and transmission systems.

7-12.2 Materials

(******)

Revise the first paragraph to read:

Materials shall meet the requirements of the following Sections:

Concrete Blocks	9-12.1
Concrete Brick	9-12.2
Valves	9-30.3
Valve Boxes	9-30.3(1)
Combination Air Release/Air Vacuum Valves	9-30.3(3)
Tapping Sleeve and Valve Assembly	9-30.3(4)
End Connections	9-30.3(5)
Resilient-Seated Gate Valves (4-Inch to 12-Inch)	9-30.3(6)
Resilient-Seated Gate Valves (16-Inch)	9-30.3(7)
Gate Valves (24-Inch)	9-30.3(8)
Bronze Gate Valves	9-30.3(9)
Check Valves	9-30.3(10)
Pressure Reducing and Pressure Relief Valves	9-30.3(11)
Steel Casing for Boring, Jacking, and Direct Burial	9-30.8(1)
Flow Strainers	9-30.8(2)
Pressure Gauges	9-30.8(3)

7-12.3 Construction Requirements

(******)

Supplement this section with the following:

Trench excavation, bedding and backfill materials and requirements shall conform to the provisions of Section 7-09, “Water Mains.”

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Following completion of the installation, the surface or surfacing in the area affected by the installation shall be constructed in accordance with the Plans, and/or restored to pre-construction conditions as provided in Section 3-01.3(5), "Site Restoration" and Section 7-09.3(25), "Surface and Subsurface Facility Restoration."

Add the following new subsection:

7-12.3(2) Valve Installation

(******)

Gate valves shall be resilient-seat gate valves unless otherwise shown on the Plans.

All valves shall be inspected upon delivery in the field to ensure proper working order before installation. They shall be set and connected to the pipe in the manner as set forth in the AWWA standard for the type of connecting ends furnished. The valves shall be carefully inspected for injury to the outer protective coatings. At all places where the coating has been ruptured or scraped off, the damaged area shall be repaired per Section 7-09.3(13).

Upon delivery to the Project, all valves shall be opened to prevent the collection of water in the valve while being stored. The interiors of the valves shall be cleaned of all deleterious material and shall be carefully inspected in both the open and closed position prior to installation. The valve operating stem shall be set plumb when installed, unless otherwise shown in the Plans. As provided for in Section 7-09.3(5), "Grade, Depth, and Alignment," the depth of trench excavation shall be such that the minimum cover over any valve operating nut is one (1) foot. No valve shall be placed in such a location as to be within any roadside ditch, drainage ditch, drainage channel, or other low area that collects intermittent drainage water. Valves not flanged to fitting groups shall be provided with concrete thrust blocking meeting the requirements of the Standard Plans.

Backfilling and compaction around the valves shall be as specified in Section 7-09.3(10), "Backfilling Trenches" and Section 7-09.3(11), "Compaction of Backfill." After installation, all valves shall be subjected to hydrostatic pressure testing and disinfection procedures as specified in Section 7-09.3(24), "Disinfection of Water Mains" and Section 7-09.3(23), "Hydrostatic Pressure Test." Should any defects in the design, materials, or workmanship appear during these tests, the Contractor shall correct such defects with the least possible delay and to the satisfaction of the Contracting Agency.

Add the following new subsection:

7-12.3(3) Valve Box Installation

(******)

Valve boxes shall be set plumb and centered over the valve or valve operator, where the axis of the valve box is common with the projected axis of the valve stem, in a manner that the valve box does not transmit shock or stress to the valve. The valve box bottom section shall be installed in a manner as to be supported by an Ethafoam® collar not less than two (2) inches in thickness. The bottom section shall not rest directly upon the body of the valve or the water pipeline.

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Backfill shall be carefully tamped around the valve box bottom and top sections to a distance of three (3) feet on all sides of it or to the undisturbed trench wall, if it is closer. The valve box cover shall be set flush with the existing or proposed finished grade for streets, sidewalks, driveways, and or other flexible or rigid pavement surface, whichever is applicable, with the lug slots oriented such that the lugs of the cover are parallel with the water main. Where valves are located in sections designated to receive more than one (1) surfacing course of either aggregate or pavement, and the intermediate surface courses will be opened to traffic prior to placement of the final lift of surfacing material, the Contractor shall install the valve box extension to allow adjustment to match the grade and surface of each intermediate and the final layer and shall adjust the valve box extension to match each such intermediate and final grade and surface.

No deleterious material and debris shall be left within the valve box. Cast iron pipe shall be provided and installed between valve box bottom and top sections for deep valve installations. Cut ends shall be squared, beveled, and deburred prior to installation.

Add the following new subsection:

7-12.3(4) Concrete Valve Box Protective Pad Installation

(******)

All valves with valve boxes located outside a paved surface shall be provided with a concrete valve box protective pad. The concrete valve box protective pad shall be constructed to the dimensions shown and otherwise in accordance with the Standard Plans and details. Valve boxes shall be adjusted to match the finish grade and surface without depressions.

Add the following new subsection:

7-12.3(5) Air Vacuum Valve Assembly Installation

(******)

Combination air release and vacuum valve assemblies shall be installed at locations shown on the Plans and in accordance with the Standard Plans. The actual tap on the water main shall be at the actual high point of the constructed water main. The standpipe and the box which contains the valve shall be located outside the traveled portion of the roadway, preferably behind the curb and sidewalk at property line intersections. All piping shall be continuously sloped to permit escape of any entrapped air within the water mains.

Add the following new subsection:

7-12.3(6) Tapping Sleeve and Tapping Gate Valve Installation

(******)

Tapping sleeves and tapping gate valve assemblies shall be installed on existing water mains at points of water main connections (normally denoted as "wet taps") shown on the Plans. Tapping sleeves and tapping gate valves shall be installed in accordance with the manufacturer's recommendations using tools and equipment specifically designed for this work. Tapping sleeves and tapping gate valve assemblies shall first be tested by air or water at a minimum pressure of 100 pounds per square inch,

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with no perceptible loss after at least two (2) minutes, after installation onto the existing main and before cutting into the existing main. Bedding and backfill material shall be carefully compacted around the assembly after it is installed. The Contractor shall also comply with applicable provisions of Section 7-09.3(19)A, "Connections to Existing Mains."

Add the following new subsection:

7-12.3(7) Pressure Reducing Valve Station Installation

(******)

Pressure reducing valve stations shall be constructed at the locations and elevations shown on the Plans and in accordance with the Standard Plans and the details for the particular installation shown on the Plans.

The vault shall meet the size requirements shown on the Plans and meet the requirements of the standard detail. The vault shall be installed so that all vault joints, penetrations of pipe and other appurtenances, etc., are watertight.

Pressure gauges shall conform to the requirements of Section 9-30.8(3) "Pressure Gauges."

Pressure Relief Valve and Drainage Assembly shall be of the materials indicated in the Plans. The sump basin shall be constructed at the locations shown in the Plans. Any horizontal above ground relief piping shall be located at least one (1) foot from the edge of any concrete sidewalk and horizontal elements shall be installed parallel to the running slope of the adjacent sidewalk.

Grubbing the structure site, building and later removing shoring, pumping or draining excavated areas, protecting excavated materials from the weather, and placing and compacting backfill shall all meet the requirements of Division 3-07 "Structure Excavation" for structure excavation, Class A.

The bedding material for the vault shall be placed on firm soil. If the foundation is deemed inadequate by the Engineer, the Contractor shall excavate and remove from the Project the unsuitable material and furnish and place foundation material Class A or Class B meeting the requirements of Section 7-09.3(8) "Removal and Replacement of Unsuitable Foundation Material." The vault shall be installed level and plumb and shall be watertight. The access cover shall be seated properly to prevent rocking.

The pressure reducing valves, strainers, pressure relief valve, isolation gate valves, pipe fittings, and other appurtenances shall be constructed in accordance with the applicable AWWA and Uniform Plumbing Code requirements.

The vault access hatch shall extend six (6) inches above the finished grade when the vault is located in a non-traffic area and the backfill material shall be sloped up to meet the hatch frame. The access hatch shall be flush with the finished grade when the vault is located in a pedestrian and traffic areas. The Contractor shall slope the pavement away from the hatch when the vault is located in a pedestrian or traffic area. The hinge to the access hatch shall be on the right side of the ladder (oriented when climbing). The exterior standpipes for the vault vent and pressure relief valve outlet shall be located as shown on the Plans.

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When the access hatch is located in a sidewalk or pedestrian access route, the lid shall be made of ADA compliant surface materials and installed at more than 0.5% and less than 1.75% cross slope.

The Contractor shall be required to submit four (4) copies of all applicable installation, operation, and maintenance manuals from the pressure reducing and pressure relief valve manufacturer.

Add the following new subsection:

7-12.3(8) Intertie Vault Modifications

(******)

The Contractor shall take care to protect the existing lid, portions of the existing concrete vault not required to be removed, existing brass meter, and wooden support. Any damage to the existing vault and water main fittings and appurtenances to remain shall be fixed by the Contractor at no cost to the Contracting Agency. The Contractor shall only excavate the minimum amount of material necessary to construct project improvements.

The Contractor shall expose and verify existing water main fittings and appurtenances within the existing vault as well as between the existing vault and existing gate valve immediately to the East. The Contractor shall notify the Engineer in writing at least two (2) working days prior to ordering any new water main fittings or appurtenances required that are different from those indicated in the Plans.

All new fittings and appurtenances between the existing brass valve and new gate valve immediately to the East shall be constructed using the "swab and go" process.

Any cuts made into the existing vault wall shall not exceed twelve (12) inches beyond the outside diameter of the new DI 8-inch DI Spool. Any remaining openings between the vault wall to remain and new DI Spool shall be grouted and watertight. Any backfilling including pipe zone bedding and trench backfill shall not occur until the concrete or mortar has thoroughly set.

7-14 HYDRANTS

7-14.2 Materials

(******)

Revise this section to read:

Materials shall meet the requirements of the following Sections:

Hydrants	9-30.5
End Connections	9-30.5(1)
Hydrant Dimensions	9-30.5(2)
Hydrant Extensions (Vertical)	9-30.5(3)
Hydrant Lateral Restraints	9-30.5(4)
Traffic Safety Flanges	9-30.5(5)
Guard Posts	9-30.5(6)
Hydrant Nozzles	9-30.5(7)
Operating Nuts	9-30.5(8)

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Pipe for Water Main	9-30.1
Ductile Iron Pipe	9-30.1(1)
Fittings	9-30.2
Ductile Iron Pipe	9-30.2(1)
Restrained Joints	9-30.2(6)
Transition, Reducing, and Flexible Couplings	9-30.2(12)
Valves	9-30.3
Gravel Backfill for Drywells	9-03.12(5)
Construction Geotextile for Underground Drainage	9-33

7-14.3 Construction Requirements

(******)

Supplement this section with the following:

Trench excavation, bedding, and backfill materials and requirements shall conform to the provisions of Section 7-09, "Water Mains."

Following completion of the installation, relocation, reconnecting, extending or removing a fire hydrant or fire hydrant assembly, the surface or surfacing in the area affected by the Work shall be constructed in accordance with the Plans, and/or restored to pre-construction conditions as provided in Section 3-01.3(5), "Site Restoration" and Section 7-09.3(25), "Surface and Subsurface Facility Restoration."

Hydrant laterals shall be constructed with restrained joints using pipe and materials specified in LWSD Standard Plan No. 1100.1 unless shown differently in the Plans. Tie rods or shackle rods shall not be used to provide thrust restraint for the hydrant lateral.

The lateral shall be extended perpendicular from the connecting main at the hydrant tee to the fire hydrant and be constructed with as few joints as possible. Where the distance between the hydrant tee and the hydrant is less than an integral number of standard minimum standard laying lengths of pipe from the pipe manufacturer, the number of joints between the hydrant valve and the hydrant shall be limited to the next larger integral number of laying lengths minus one (1), except where the Plans show or the Contracting Agency inspector determines that bends are necessary. Where more than one (1) segment of pipe is required, such as at bends, the minimum pipe length between fittings shall be two (2) feet. The length of the hydrant lateral shall not exceed fifty (50) linear feet, unless otherwise shown on the Plans or approved by the Engineer.

7-14.3(1) Setting Hydrants

(******)

Revise this subsection to read:

Fire hydrants shall be installed at the locations shown on the Plans and in accordance with the Standard Plans. Hydrants shall not be installed within three (3) feet of the traveled portion of the travelled way. In addition, a minimum 3-foot radius unobstructed, level working area shall be provided around all hydrants. Hydrants shall be installed plumb (vertical) with the hydrant pumper (steamer)

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port facing the street or the most likely approach and location of a fire truck while pumping at the hydrant and as may be directed by the Contracting Agency's Inspector.

The hydrant bury depth, defined by AWWA C502-14 as the distance to the nearest six (6) inches from the finished ground surface to the bottom of the connecting pipe, shall be a nominal 3.5 to 4.5 feet, except as otherwise shown on the Plans or directed by the Contracting Agency's Inspector.

The bottom of the traffic safety flange shall be set between three (3) inches and six (6) inches above the finished grade at the base of the fire hydrant. The level of the clear zone around the fire hydrant shall match the back edge of sidewalk, or outside edge of pavement for the travelled way in rural road sections.

All hydrants shall be set on a concrete block as shown in the Standard Plans. The hydrant barrel drain shall waste into a pit of porous gravel material meeting requirements of Section 9-08.12(5), "Gravel Backfill for Drywells." The Contractor shall ensure that the drain is not covered or otherwise constrained from draining. The gravel shall be separated from the backfill material by construction geotextile for underground drainage.

Fire hydrants installed in unimproved areas not shown in the Plans to be surfaced with flexible or rigid paving materials shall have a concrete collar as shown in the Standard Plans and as specified hereunder. Concrete shall be Class 3000 as specified in subsection 6-02.3(2)B and shall be a minimum of two (2) feet in diameter, centered on the hydrant, by 0.5-foot thick. The concrete shall be placed against and separated from the hydrant barrel by a 3/8-inch thick premolded joint filler conforming to subsection 9-04.1(2). In areas adjacent to paved roadway shoulder, sidewalks, or walkways, and the fire hydrant is less than five (5) feet from the edge of such paved surface, the concrete collar shall be installed as a rectangular section with minimum two (2) feet from the center of the hydrant to the edge of the concrete and extended to the meet the edge of the paved surface. When the collar is placed adjacent to Portland cement concrete pavement, a 3/8-inch premolded joint filler conforming to subsection 9-04.1(2) shall be installed between the two (2) vertical surfaces. Concrete finishing shall be in accordance with subsection 8-04.3(1) at a minimum or shall match the adjoining finished concrete surface.

All fire hydrants shall be inspected upon delivery in the field to ensure proper working order before installation. After installation, auxiliary gate valves, fittings, other appurtenances, and fire hydrants up to the main hydrant valve shall be subjected to the hydrostatic pressure test as specified in Section 7-09.3(23), "Hydrostatic Pressure Test." The fire hydrant itself shall be subjected to the normal working pressure of the water system after it is placed into service and any detectable leakage from any portion of the hydrant assembly shall be corrected by the Contractor at its own expense. After installation, fire hydrants, auxiliary gate valves, and other appurtenances thereto shall be subjected to disinfection procedures as specified in Section 7-09.3(24), "Disinfection of Water Mains." If the fire hydrant itself is not subject to disinfection as a designated non-source sample point, the fire hydrant shall be filled with a clean, 1 percent hypochlorite solution with the auxiliary gate valve closed and the main hydrant valve fully opened (to close the hydrant barrel drain valve).

Fire hydrants shall not be backfilled until first approved by the Engineer for compliance with the Plans and Specifications. Standard hydrant bury depth shall be 3.5 to 4.5 feet. A non-standard bury depth may be allowed.

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After all installation and testing procedures are satisfactorily completed, the exposed portion of the fire hydrant, except the Storz adapter, shall be painted as specified in LWSD Standard Plan No. 1100.1, Note 3.

Any fire hydrant not in service shall be so identified by covering with a burlap or plastic bag properly secured.

7-14.3(2) Hydrant Connections

(******)

Revise this subsection to read:

Fire hydrant connections or laterals shall consist of 6-inch ductile iron pipe from the water main to the fire hydrant and shall include an auxiliary gate valve set vertically and placed in the connection or lateral in accordance with the Standard Plans. The ductile iron pipe shall be Special Thickness Class 52 or the thickness class used for the adjacent water mains, whichever is greater.

7-14.3(2)A Hydrant Restraints

(******)

Revise this subsection to read:

The thrust created in the fire hydrant connection or lateral shall be restrained at the joints using a thrust restraint system provided for in Section 9-30.5(4), "Hydrant Restraints" and as shown in the Standard Plans. Shackle or tie rods or thrust blocks shall not be used to restrain thrust.

7-14.3(2)B Auxiliary Gate Valves and Valve Boxes

(******)

Revise this subsection to read:

The auxiliary gate valve and valve box shall be installed in accordance with Section 7-12.3(2), "Valve Installation" and Section 7-12.3(3), "Valve Box Installation." The auxiliary gate valve shall be installed in a manner compatible with the hydrant connection/lateral thrust restraint system. An asphalt valve box protective pad shall also be installed where required in accordance with Section 7-12.3(4), "Asphalt Valve Box Protective Pad Installation." A valve marker post for the auxiliary gate valve shall not be installed.

Add the following subsection:

7-14.3(8) Hydrant Assemblies

(******)

Where shown on the Plans, or as may be directed by the Engineer, the Contractor shall furnish and install a hydrant assembly in accordance with these Specifications and the Standard Plans.

Installation of the hydrant tee fitting, auxiliary valve, and lateral main, and the hydrant shall be in accordance with the respective sections of the specifications. All such work shall be incidental to

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"Hydrant Assembly," and no separate measurement or payment will be made. When a separate bid Proposal item is included, all costs for furnishing and installing one (1) or more restrained joint fittings, as determined necessary by the Contracting Agency's inspector to avoid conflicts with other utilities or obstructions not shown on the Plans, shall be included in and incidental to the lump sum or unit price per pound for "Additional Ductile Iron Fittings."

7-15 SERVICE CONNECTIONS

7-15.1 Description

(******)

Revise this section to read:

This work consists of installing water service connections from the Contracting Agency water main to and including a meter box or vault with lid, meter setter, and connection to the customer supply line for the premise or purpose served. Service connections shall be constructed at the locations shown on the Plans and in accordance with the Standard Plans.

7-15.2 Materials

(******)

Revise this section to read:

Materials shall meet the requirements of the following Sections:

Water Service Connections	9-30.6
Saddles	9-30.6(1)
Corporation Stops	9-30.6(2)
Polyethylene Tubing	9-30.6(3)A
Service Fittings	9-30.6(4)
Meter Setters	9-30.6(5)
Brass Nipples and Fittings	9-30.6(6)
Meter Boxes	9-30.6(7)
Insulating Service Couplings	9-30.6(8)
"U" Branch Connections	9-30.6(9)
Service Line Bedding and Backfill	9-03.13
Pressure Reducing Valves for Services	9-30.3(12)
Water Main Shutoff and Flow Control Valves for Services	9-30.3(13)

7-15.3 Construction Requirements

Add the following subsection:

7-15.3(2) Installing Water Service Connections

(******)

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All service connections to water mains shall be made using saddles as specified and be of the size and type as shown on the Standard Plans and compatible with the water main pipe. Service pipelines (lines) shall be installed perpendicular to the main unless shown otherwise in the Plans. Locate wire shall be installed with water service lines that are not installed perpendicular to the water main.

The depth of trenching for the water service line shall be a minimum of three (3) feet of cover over the top of the pipe, or the depth of the water main to which the service line is connected, whichever is deeper, and except in the immediate vicinity of and at transitions to the water main or meter setter. Additional depth may be necessary to avoid obstructions and/or to meet jurisdictional agency requirements. Particular care shall be exercised to ensure that the main is not damaged by the Work undertaken to install the service connection.

Excavating and backfilling for service connections shall be as specified in Section 7-09, except that the service line shall be installed under pavement, curbs, gutters, and sidewalks by boring or other methods approved by the jurisdictional road agency. Where applicable, existing service lines shall be used to pull new service lines in order to avoid disturbing existing roadway pavement, curbs, gutters, or sidewalks. Open cut trenching of pavement, curbs, gutters, or sidewalks will not be allowed unless the Plans provide for removal, reconstruction, or overlay of the pavement or removal or reconstruction of the curb, gutter, and sidewalk at that location and approval is obtained from the jurisdictional agency. The Contractor shall be solely responsible for compliance with such terms and conditions as may be imposed by the jurisdictional agency as prerequisite for allowing open trenching of such surfaces in areas not otherwise shown on the Plans for removal or improvement.

In areas outside the limits of pavement, curbs, gutters, or sidewalks that are to remain, and in the absence of other surface or subsurface constraints, or in the event that the Contractor is unable to complete installation of a replacement water service line that is under pavement, curb, gutter, or sidewalk by pulling the new line concurrently with removal of the existing (disconnected) service line or by boring, open trench excavation may be allowed subject to the review of the jurisdictional road agency and Engineer. The trench section shall be as shown in the Standard Plans for water mains except that the neat-line trench width shall be eight (8) inches wide or the outside diameter of the water service line (or lines) plus two (2) inches, plus an additional one (1) inch of separation between each service line when placed in a single trench, whichever is larger.

Service lines shall be cut using a tool or tools specifically designed to leave a smooth, even, and square end on the piping material to be cut. Cut ends shall be reamed to the full inside diameter of the pipe. Pipe ends to be connected using couplings that seal to the outside surface of the pipe shall be cleaned to a sound, smooth finish before the couplings are installed. The meter box shall be adjusted to the finished grade after the surface has been acceptably restored.

Where shown in the Plans, existing service connections shall be reconnected to the new main. Where only the service line is being renewed, the existing corporation stop and service saddle may be used subject to the Engineer's review. In the event that a service connection is abandoned at the main, and the water main is to remain in service, and the corporation stop will not be used, the corporation stop shall be removed, together with the pipe saddle if necessary. A brass (domestically sourced) plug with rubber grommet or gasket with either the existing or new saddle shall be used to seal the pipe penetration as directed by the Engineer.

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The location of existing service lines and customer supply lines shall be verified in the field by the Contractor. The Contractor shall notify affected customers of the service interruption in accordance with Section 1-08.4(3).

Pipe to extend or replace an existing customer supply line beyond the meter box (setter) shall be polyethylene pipe, except as necessary for the transition to the remaining portion of the customer supply line beyond the point of connection. Insulating couplings shall be used at any connection between galvanized or iron pipe and copper pipe. All fittings, appurtenances, and other miscellaneous materials on the sections of existing pipe that have been removed shall become the property of the Contractor.

All piping and fittings for the water service connections shall be left exposed until they have been inspected by the Contracting Agency and approval for backfill has been expressly provided by the Contracting Agency. After the meter setter is installed, the Contractor shall flush water through the new water service connection pipeline and meter setter to remove sediment and debris a minimum of two (2) minutes or longer if necessary to achieve clean water acceptable to the Engineer and to ensure the service connection has full-flowing capacity.

Typical meter box locations are outside of vehicle or pedestrian traffic areas and in an accessible area of the right-of-way or easement side of the connecting water main. In the event that a meter box is shown on the Plans to be installed in a traffic area, or a non-traffic area is not available for installation of the meter box as determined by the Engineer, a meter box and lid rated for HS20-44 axle loadings shall be installed in accordance with the Standard Plan detail for traffic meter box and lid as shown in the Standard Plans.

The Contractor shall adjust the meter box to the finished grade after the surface has been acceptably completed or restored. Surface and subsurface restoration shall be as specified in Section 7-09, except as provided above.

Add the following subsection:

7-15.3(3) Reconnecting Existing Service Connections

(******)

This work consists of furnishing and installing a new service saddle, corporation stop, service line, fittings, tapping the water main, reconnecting to the existing meter setter, and removing or decommissioning the existing service connection tap, where shown on the Plans and in accordance with the Standard Plans. The meter setter, water meter, meter box, and connection to the customer supply line downstream of the meter box shall remain unchanged. This work shall conform to the applicable provisions of Section 7-15.3(1), "Installing Water Service Connections." For a "double installation," the Work shall include reconnections to two (2) existing meter setters and associated additional nipples and fittings.

Water service connections shall not be transferred to a new water main until the new water main has successfully passed a hydrostatic pressure test, disinfection procedures are completed, satisfactory bacteriological test results have been confirmed as applicable for the nature and extent of the water main installation, and the water main is placed into service.

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The Contractor shall be responsible for notifying the affected customer of the pending service interruption as set forth in Section 1-08.4(3)A.

The Contractor shall install one (1) continuous length of water service connection pipeline from the meter setter to the new corporation stop to which connection shall be made.

If the existing water service connection is on a water main that will remain in service, the existing water service connection pipeline shall be severed at the existing corporation stop, the corporation stop removed from the service saddle, and the tap on the service saddle plugged with a brass (domestically sourced) pipe plug. If the existing water service connection is on a water main that will not remain in service, the existing water service connection pipeline shall be severed at the existing corporation stop and the corporation stop shall be permanently closed. If the existing water service connection is "direct-tapped" without a service saddle on a water main that will remain in service, the corporation stop shall be removed, a service saddle installed centered over the tapped hole, and the tap on the service saddle plugged with a brass (domestically sourced) pipe plug.

Before the new corporation stop is opened, the Contractor shall temporarily remove the water meter from the meter setter and shall flush water through the new pipeline and meter setter inlet to remove sediment and debris for a minimum of two (2) minutes or until the water appears clear and deemed acceptable by the Contracting Agency and to ensure the service connection has full-flowing capacity. The Contractor shall then reinstall the water meter, activate the new water service connection, and again flush to remove air and deleterious material for a minimum of two (2) minutes or until the water appears clear and deemed acceptable by the Contracting Agency through an exterior hose bib situated on the building or premise served.

Add the following subsection:

7-15.3(4) Replacing Existing Service Connections

(******)

This work consists of furnishing and installing a new service saddle, corporation stop, service line, fittings, meter setter, meter box, reconnecting to the customer supply line downstream of the meter box, and decommissioning and removing the old service connection tap, setter, meter box and exposed portion thereof, where shown on the Plans and in accordance with the Standard Plans. This work shall conform to applicable provisions of Section 7-15.3.

The Contractor shall provide notification of service disruption to the affected customers as specified in Section 1-08.4(3)A .

The Contractor shall install a new water service connection prior to disrupting service to the affected customer. The Contractor shall flush water through the new water service connection pipeline and meter setter inlet to remove sediment and debris. Flushing velocities shall be sustained for a minimum of two (2) minutes or longer if necessary to achieve clean water acceptable to the Contracting Agency and to ensure the service connection has full-flowing capacity.

The Contractor shall then reconnect the new water service connection to the customer supply line downstream of the old meter box location, installing the pipeline in a route approved by the Contracting Agency to a depth necessary to provide at least two (2) feet of cover over the pipe. Pipe

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material used to extend and effect the reconnection of the customer supply line shall be the same as that used for the service line. The new pipe size shall be 1-inch or the size of the existing customer supply line, whichever is greater. Insulating couplings shall be used at any connection between dissimilar metal pipelines. Compression couplings can be used to connect pipes of the same material.

The Contracting Agency's inspector, or the Contractor as may be directed by the Contracting Agency's inspector, shall then relocate the water meter from the existing meter setter to the new meter setter. In certain circumstances the Contracting Agency will furnish a new meter to be used for the new water service connection. Removed water meters shall remain the property of the Contracting Agency. All costs for removing and installing water meters as may be directed by the Contracting Agency inspector shall be incidental to the other bid Proposal items.

If the existing water service connection is on a water main that will remain in service, the existing water service connection pipeline shall be severed at the existing corporation stop, the corporation stop removed from the service saddle, and the tap on the service saddle plugged with a brass (domestically sourced) pipe plug. If the existing water service connection is on a water main that will not remain in service, the existing water service connection pipeline shall be severed at the existing corporation stop and the corporation stop shall be permanently closed. If the existing water service connection is "direct-tapped" without a service saddle on a water main that will remain in service, the corporation stop shall be removed, a service saddle installed centered over the tapped hole, and the tap on the service saddle plugged with a brass (domestically sourced) pipe plug. The Contractor shall remove and dispose of the old meter setter and meter box and salvage to the Contracting Agency that material which the Contracting Agency has determined can be reused.

After installing the water meter in the new meter setter, the Contractor shall flush through the nearest outside faucet of the premise served for a minimum of two (2) minutes to remove air and deleterious material or a sufficient time until clarity of the water is acceptable to the Contracting Agency. The Contractor shall then reinstate water service to the affected customer.

Add the following subsection:

7-15.3(5) Pressure Testing and Disinfecting Water Service Connections

(******)

All water service connection components, including the customer supply line, fittings, and appurtenances shall be pre-disinfected prior to installation, except that disinfection of the service connection components from the water main tap to the end of the service line prior to the connection to the meter setter may be disinfected and flushed with the disinfection solution used to disinfect the water main subject to the determination of the Contracting Agency Inspector.

All new water service connections, including those replacing existing service connections, shall be subjected to the hydrostatic pressure test up to the meter stop on the meter setter in accordance with Section 7-09.3(23), "Hydrostatic Pressure Test." The service connection pipeline and fittings used to affect a reconnection as specified in Section 7-15.3(2), "Reconnecting Existing Service Connections" shall be tested at the working pressure of the water main before backfilling. Any visible leaks or other defects shall be corrected by the Contractor and witnessed by the Contracting Agency at no additional expense to the Contracting Agency. Any visible leaks detected on the customer supply line installed

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by the Contractor shall be corrected by the Contractor and witnessed by the Contracting Agency at no additional expense to the Contracting Agency.

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Add the following subsection:

7-15.3(6) Removing and Decommissioning Existing Service Connections

(******)

Where a water service connection will not remain connected to a water main, or where shown on the Plans or as may be directed by the Engineer, the Contractor shall remove, dispose, and/or salvage the existing service connection tap, meter setter(s), meter box(es), and appurtenances.

Water meters will either be removed by the Contracting Agency inspector, or shall be removed by the Contractor as may be directed by the Contracting Agency inspector, prior to removal of any other water service components in and including the meter box and lid. All such removed meters shall remain the property of the Contracting Agency and shall be directly delivered to the custody of the Contracting Agency inspector.

If the existing water service connection is on a water main that will remain in service, the existing water service connection pipeline shall be severed at the existing corporation stop, the corporation stop removed from the service saddle, and the tap on the service saddle plugged with a brass pipe plug (domestically sourced). If the existing water service connection is on a water main that will not remain in service, the existing water service connection pipeline shall be severed at the existing corporation stop and the corporation stop shall be permanently closed. If the existing water service connection is "direct-tapped" without a service saddle on a water main that will remain in service, the corporation stop shall be removed, a service saddle installed centered over the tapped hole, and the tap on the service saddle plugged with a brass pipe plug (domestically sourced).

Where water service connections will not remain connected to an active water main or where shown on the Plans or when the Contracting Agency inspector determines that a portion of water service connection designated for removal is not accessible, Contractor shall crimp or fold over the ends and abandon in place.

Excavating and backfilling, for removing and decommissioning water service connections shall be as specified in the applicable portions of Section 7-09, "Water Mains."

END OF DIVISION 7

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 8 – MISCELLANEOUS CONSTRUCTION

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.1 Description

(******)

Revise this section to read:

This work consists of furnishing, installing, maintaining, removing and disposing high visibility silt fence, ditch protection, and other water pollution and erosion prevention items in accordance with these Specifications and as shown on the Plans or directed by the Engineer.

8-01.3 Construction Requirements

8-01.3(1) General

(******)

Revise the first paragraph to read:

The Contractor shall install high visibility silt fence along the site preservation lines as shown on the Plans and as may be directed by the Engineer.

8-01.3(1)A Submittals

(******)

Insert the following sentence after the first sentence of the second paragraph, as amended, to read:

The TESC Plan shall also reflect the requirements of the local jurisdictional land-use agency for the project.

8-01.3(1)C2 Process Wastewater

(******)

Supplement this subsection as amended with the following:

Discharges from water mains, hydrant laterals, and service connections due to draining or flushing shall be dechlorinated and controlled to prevent pollution, erosion, or other degradation or damage to down gradient surface waters, groundwater, stormwater, or other improvements. In the event such discharges are directed to a temporary containment system for haul and discharge at an offsite location or discharge to a regulated facility, they shall be subject to the same provisions as for on-site disposal and the authorization of the jurisdictional agency.

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Add the following new subsection:

8-01.3(1)F Temporary Water Pollution and Erosion Prevention

(******)

Temporary water pollution / erosion control for this project shall consist of the following at a minimum and as shown on the Plans and as applicable to the site and project conditions:

- ESC Lead.
- High Visibility Silt Fence.
- Silt Fence.
- Stabilized Construction Entrance.
- Street sweeping and cleaning as necessary to remove any tracked dirt, loose materials, and/or debris.
- Temporary measures as required to maintain stormwater or surface water flows adjacent to water trenches.
- Ditch protection on existing drainage structures.
- Erosion control at culvert ends.
- Erosion and water pollution control for stockpiled materials.
- Wattles as necessary.
- Compost socks as necessary.
- Check dams as necessary.
- Offsite disposal of impounded sediments and temporary pollution and erosion prevention materials as necessary.
- Maintenance of BMPs including in the event of emergencies and as weather and field conditions dictate.
- Water management as necessary.
- Dispersion / Infiltration as necessary.
- Dechlorination socks or mats.
- Velocity dissipaters.
- All materials, tools, and equipment necessary to meet these requirements.

Implementation of such temporary water pollution and erosion prevention measures and features shall be consistent with the rules and regulations and such project-specific requirements as may be imposed by the jurisdictional land-use agency and shall be sufficient to ensure conformance to Federal, State, and local laws, regulations, and permits required for the project.

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Stormwater Sampling:

Stormwater sampling shall be performed by the Contractor or authorized representative at the frequencies required in the Construction Stormwater General Permit (weekly at minimum). Samples shall be analyzed for turbidity and pH in accordance with the Construction Stormwater General Permit.

Sampling shall be conducted in accordance with the EPA 180.1 analytical method and the Washington State Department of Ecology's How to do Stormwater Monitoring: A guide for construction sites, available online at http://www.ecy.wa.gov/pubs/0610020.pdf. Samples shall be taken at the point of discharge from the site. Reports of the sampling results shall be recorded in the project SWPPP and shall be submitted monthly to the Contracting Agency and the Washington State Department of Ecology. The DMR forms are mailed to permittees when permit coverage is granted for the project. If there are no discharges during the month, the Contractor is still required to submit a form stating "no discharge." The sampling results shall be submitted via mail to:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, Washington 98504-7696

Ecology must receive DMR's within fifteen (15) days after the end of each month. If the permittee monitors more frequently than required by the permit, these results also need to be submitted in the DMR.

Corrective measures shall be taken if benchmark values are exceeded.

The key benchmark turbidity value is 25 nephelometric turbidity units (NTU) for the downstream receiving water body. If the 25 NTU benchmark is exceeded in any sample collected from the discharge point, the following steps will be conducted:

a. Ensure all BMPs specified in this SWPPP are installed and functioning as intended.
b. Assess whether additional BMPs should be implemented and document modified BMPs in the SWPPP as necessary.
c. Sample discharge daily until the discharge is 25 NTU or lower.

If the turbidity exceeds 250 NTU at any time, the following steps will be conducted:

a. Notify Ecology by phone within 24 hours of analysis.
b. Continue sampling daily until the discharge is 25 NTU or lower. Initiate additional treatment BMPs such as off-site treatment, infiltration, filtration, and chemical treatment within 24 hours and implement those additional treatment BMPs as soon as possible, but within a minimum of seven (7) days.
c. Describe inspection results and remedial actions taken in the site log book and in monthly discharge monitoring reports.

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Sampling and monitoring for pH will occur during the phase of construction when concrete pouring will be conducted until fully cured [three(3) weeks from pour]. Samples will be collected weekly at all discharge points prior to discharge to surface water. Samples will be analyzed for pH using a calibrated pH meter and recorded in the site log book.

The key benchmark pH value for stormwater is a maximum of 8.0. If a pH greater than 8.0 is measured at a discharge point that has the potential to discharge to surface water, the following steps will be conducted:

a. Assess whether additional BMPs should be implemented and whether associated revisions to the SWPPP are necessary.

b. Stop (detain) all discharges from leaving the site and entering surface waters or storm drains if the pH is greater than 8.5.

c. Sample sedimentation pond the following day and if the pH exceeds 8.0 for the second consecutive day, implement C02 sparging treatment.

d. Sample and measure pH daily until there are three (3) consecutive pH measurements less than 8.0.

e. If there are three (3) consecutive pH measurements greater than 8.0, notify the Washington Department of Ecology by phone within 24 hours of the third measurement exceeding a pH of 8.0 and initiate discussions with Ecology regarding additional treatment BMPs.

f. Describe inspection results and remedial actions that are taken in the site log book and in monthly Discharge Monitoring Reports.

Add the following new subsection:

8-01.3(1)G Stormwater Discharge Monitoring Reports

A. Discharge Monitoring Reports (DMRs) Permittees required to conduct water quality sampling in accordance with Special Conditions S4.C (Turbidity/Transparency), S4.D (pH), S8 (303[d]/TMDL sampling), and/or G12 (Additional Sampling) must submit the results to Ecology. Permittees must submit monitoring data using Ecology's WQWebDMR web application accessed through Ecology's Water Quality Permitting Portal. Permittees unable to submit electronically (i.e., those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR at: Department of Ecology, Water Quality Program - Construction Stormwater, PO Box 47696, Olympia, WA 98504-7696. Permittees who obtain a waiver not to use WQWebDMR must use the forms provided to them by Ecology; submittals must be mailed to the address above. Permittees must submit DMR forms to be received by Ecology within fifteen (15) days following the end of each month. If there was no discharge during a given monitoring period, all Permittees must submit a DMR as required with "no discharge" entered in place of the monitoring results. DMRs are required for the full duration of permit coverage (from the first full month following the effective date of permit coverage up until Ecology has approved termination of the coverage). For more information, contact Ecology staff using information provided at the following website: www.ecy.wa.gov/programs/wq/permits/paris/contacts.html.

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B. Contractor to identify a licensed CESCL (Certified Erosion and Sediment Control Lead) at the beginning of the project and coordinate these reports and confirm receipt with the Contracting Agency.

8-01.3(2) Temporary Seeding and Mulching

8-01.3(2)B Temporary Seeding

(******)

Delete method '4' in the second paragraph. Aerial seeding using aircraft of any kind will not be allowed.

8-01.3(16) Removal

(******)

Revise the first paragraph to read:

When the Engineer determines that a water pollution or erosion prevention BMP is no longer required or is not serving its intended purpose, the Contractor shall remove the BMP and all associated components from the project. The Contractor shall remove all such BMP's within two (2) working days of such determination. Any BMP that has been determined to be ineffective shall be immediately replaced by a fully functional BMP as reviewed and approved by the Engineer and jurisdictional land-use agency. All temporary water pollution and erosion control BMP's not designated on the Plans to be incorporated into the finished Work shall be removed by the Contractor within five (5) working days of completing the Work.

8-02 ROADSIDE RESTORATION

8-02.3 Construction Requirements

8-02.3(4) Topsoil Type A

(******)

Supplement this section with the following:

Add information for Topsoil Type A. If none, delete this section and header.

(******)

Add the following subsection:

8-02.3(17) Protection of Private Property and Property Restoration

Property restoration shall consist of restoring existing landscape areas to their approximate original condition including, but not limited to, procurement and installation of new plant material and revising existing private irrigation systems, decorative features, and private illumination systems, as directed by the Engineer, where separate bid items are not included for the type of property restoration required and where the work to be performed is not indicated as incidental to other bid items of work or reflected on the Site Restoration Plans.

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The Contractor is specifically reminded that unnecessary damage caused beyond the limits of clearing or construction shall be repaired in like or better condition at the Contractor's sole expense.

The Contractor shall identify, protect from damage, and modify all private irrigation systems adjoining the project area within the fixed price lump sum contract amounts.

The Contractor shall identify, protect from damage, and modify all private illumination systems and yard lights adjoining the project area within the fixed price lump sum contract amounts.

The Contractor or their agent shall restore and restabilize disturbed areas by ensuring the cleanliness and accuracy of placing the disturbed private fences on the right-of-way line. Upon the completion of Work, all debris and litter shall be removed and the project area left clean within the fixed price lump sum contract amounts.

Additional property restoration not shown in the contract documents (including appendices) shall be performed by the Contractor at the direction of the Contracting Agency per 1-09.6 of the Standard Specifications.

8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES

8-06.1 Description

(******)

Supplement this section with the following:

This work shall also include replacing existing private cement concrete driveways in-kind where disturbed by construction.

8-06.2 Materials

(******)

Supplement this section with the following:

Materials shall meet the requirements of the following sections:

Cement Concrete Pavement	5-05.3(3)

See section 5-05 for additional concrete material information.

8-06.3 Construction Requirements

(******)

Add the following new subsection:

8-06.3(1) Private Concrete Driveway Reconstruction

Replace existing private cement concrete driveways in accordance with Section 8-06.3, matching horizontal dimensions, finish (exposed aggregate, broom, or tamped), and joint location of existing

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concrete. Concrete shall have a minimum thickness of six (6) inches, placed on a compacted base consisting of a 2-inch thickness of Crushed Surfacing Top Course.

8-22 PAVEMENT MARKING

8-22.3 Construction Requirements

(******)

Add the following new section:

8-22.3(7) Channelization Replacement

(******)

Requirements for channelization replacement for Schedule B Work shall match those required for Schedule A work.

8-35 VACANT

(******)

Revise this section, including heading, to read:

8-35 CONTROLLED DENSITY FILL AND POLYETHYLENE ENCASEMENT

8-35.1 Description

This work consists of furnishing and installing controlled density backfill per section 3-07 and furnishing and installing polyethylene encasement per section 7-09.3(17).

8-35.2 Materials

Materials shall meet the requirements of the following sections:

Controlled Density Fill	3-07.3(1)E
Polyethylene Encasement	7-09.3(17)

See section 5-05 for additional concrete material information.

8-35.3 Construction Requirements

Controlled density fill as pipe zone bedding and backfill shall extend to six (6) inches above the top of pipe and four (4) inches below the pipe. Within the CDF backfill zone, all pipe shall be wrapped in polyethylene encasement and taped/sealed per manufacturers' recommendations.

END OF DIVISION 8

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 9 – MATERIALS

9-01 CEMENT

9-01.2 Specifications

Section 9-01.2(1)B is modified with the following:

9-01.2(1)B Blended Hydraulic Cement

(December 16, 2022 CFW GSP)

When installing cement concrete within City of Federal Way Right-of-Way, the following requirements shall apply:

Type IL cement is only allowed for use within the City of Federal Way subject to the conditions listed below:

	Class 3000 Type 1L	Class 4000 Type 1L	Class 4000 Type 1L with crystalline waterproof-ing and corrosion protection admixture[1]	Class 5000 Type 1L
Pre-cast Foundations *(luminaires, signals, RRFBs, etc.)*	X	X	X	X
Cast-in-Place Foundations *(lumin-aires, signals, RRFBs, etc.)*		X	X	X
Pre-cast or cast-in-place catch basins, and manholes		X	X	X
Roads, curbs, curbs and gutters, roundabouts, aprons, side-walks, ADA ramps, and driveway approaches			X	X
Other exposed surfaces *(retain-ing walls, junction box aprons, cabinet bases, barriers, etc.)*			X	X

[1] *Crystalline Waterproofing admixtures (Penetron or approved equal) shall meet the following specification: ASTM C494, Type S, hydrophilic, crystalline permeability-reducing admixture for hydrostatic conditions (PRAH) shall form insoluble crystals throughout the concrete matrix, self-healing and sealing all pores, capillaries, and cracks up to 0.5mm (1/51 inch). The crystalline waterproofing admixture shall include a colored tracer material so that it is visible when included in the concrete mix.*

For all Type 1L concrete mixes, the City will not accept any maleated rosin (i.e., MasterAir AE90) as a supplied air entrainment and waterproofing admixture or any wax-based curing compounds.

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9-03 AGGREGATES

9-03.10 Aggregate for Gravel Base

(******)

Supplement the first paragraph of this section with the following:

Regardless of the depth of the layer, no "oversize" aggregate shall be allowed.

9-03.21 Recycled Material

(******)

Revise this section to read as follows:

Use of recycled material for blending with aggregate materials to be used for this Project is prohibited.

(******)

Add the following new section:

9-03.25 Pea Gravel

Pea gravel shall be semi round and free of organic/deleterious materials. Pea gravel shall adhere to the following:

Sieve Analysis (% Passing by Weight)	
Sieve Size	**Specification**
1/2-Inch	100%
3/8-Inch	85-100%
#4	10-30%
#8	0-10%
#16	0-15%

9-05 DRAINAGE STRUCTURES AND CULVERTS

9-05.12 Polyvinyl Chloride (PVC) Pipe

(******)

Supplement this section with the following new sub-section:

9-05.12(3) C900 & C905 Pipe

(******)

C-900 for pipe sizes 4"-12" and C-905 for pipe sizes 12" to 24" shall be per ANSI/AWWA C-900 & C905, DR 18.

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9-14 EROSION CONTROL AND ROADSIDE PLANTING

9-14.1(1) Topsoil Type A

(******)

Supplement this subsection with the following:

The topsoil shall be a sandy loam textural class as determined by the U.S. Department of Agriculture Soil Classification system, commercially available as a "3-Way" or "5-Way" mix, and be free from materials toxic to plant growth, noxious weed seeds, rhizomes, roots, subsoil, and debris.

9-14.3 Seed

(******)

Supplement this subsection with the following:

The grass seed dealer shall mix the grass seed only. The Contractor shall furnish the Engineer with a dealer's guaranteed statement of the composition, mixture , and the percentage of purity and germination of each variety. Hydroseed shall be composed of the following varieties mixed in the proportions indicated, or approved equal:

Name	% By Weight	% Purity	% Germination
Perennial Rye/ Lolimum perenne (blend of two: 'Dasher 3' and 'Cutter II,' or approved equal)	70%	98%	90%
Garnet Creeping Red Fescue/ Festuca rubra var. 'Garnet'	15%	98%	90%
Windward Chewing Fescue/ Festuca rubra spp. fallax var. 'Windward'	15%	98%	90%

9-14.4 Fertilizer

(******)

Supplement this subsection with the following:

All fertilizer applications for trees and shrubs shall follow Washington State University, National Arborist Association, or other accepted agronomic or horticultural standards.

Fertilizer for trees and shrubs shall be biodegradable fertilizer packets, 20-10-5, or approved equal. Apply per manufacturer's recommendations.

Fertilizer for lawn areas shall be 10-10-10 slow-release formula.

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9-14.5(3) Bark or Wood Chip Mulch

(******)

Supplement this subsection with the following:

Bark mulch shall be medium grade composted ground fir or hemlock bark.

The bark shall be uniform in color, free from weed seeds, sawdust, and splinters. The mulch shall not contain resin, tannin, wood fiber, or other compounds detrimental to plant life. The moisture content of bagged mulch shall not exceed 22 percent. The acceptable size range of bark mulch material is 1/2-inch to 1-inch with maximum of 20 percent passing the 1/2-inch screen.

9-14.7(4) Sod

(******)

Supplement this subsection with the following:

Sod shall be comprised of 60 percent Perennial Ryegrass, 40 percent Fine Fescue with degradable netting, or approved equal.

9-30 WATER DISTRIBUTION MATERIALS

(******)

Revise the first paragraph to read:

This Specification addresses pipe and appurtenances 24 inches in diameter and smaller for the treatment, processing, transmission, and distribution of potable water in a public water supply system.

Insert the following paragraph after the first paragraph:

All materials shall be new and undamaged. All materials in contact with potable water shall be lead-free in conformance with the provisions of NSF/ANSI Standards 61 and 372, in addition to the requirements of the Safe Drinking Water Act.

9-30.1 Pipe

(******)

Revise this section to read:

All pipe shall be clearly marked with the manufacturer's name, type, class, and thickness as applicable. Lettering shall be legible and permanent under normal conditions of handling and storage. The same manufacturer of each item shall be used throughout the Work.

Only ductile iron pipe, fittings, and couplings shall be used for permanent water transmission and distribution facilities, except as may be shown on the Plans or approved by the Engineer.

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9-30.1(1) Ductile Iron Pipe

(******)

Revise this subsection to read:

Ductile iron pipe shall be centrifugally cast conforming to AWWA C151 and shall have a double thick cement-mortar lining and 1-Mil seal coat conforming to AWWA C104. The minimum delivered laying length for push-on joint ductile iron pipe shall be eighteen (18) feet. The minimum length of ductile iron pipe to be used on a project shall be eighteen (18) feet, unless a shorter length is required between fittings or is otherwise shown on the Plans. Ductile iron pipe shall be a minimum Standard Thickness Class 52, or the thickness class shown on the Plans, whichever has a thicker wall.

No water main pipe, fitting, or other appurtenances will be accepted by the Contracting Agency in which an objectionable taste and/or odor is detected in water which has been in contact with the interior surface(s) of said material, either before or after the material has been installed. Taste and odor testing, if determined necessary by the Contracting Agency, shall be conducted through the Contracting Agency in accordance with the Contracting Agency's testing procedures and requirements. Such testing shall be subject to the Contracting Agency's schedule. All such testing by the Contracting Agency and resulting corrective actions required by the Contracting Agency to remedy a defect or defects as may be determined by such testing shall be at the Contractor's sole expense.

Non-restrained joints between lengths of ductile iron pipe shall be rubber gasket, push-on type, or mechanical joint conforming to AWWA C111 and rated for 350 psi pressure.

The dimensions and drilling of flange connections on flanged pipe and spools shall conform to the dimensions of ANSI B16.1 for cast iron or ductile iron flanges and flanged fittings, Class 125, unless otherwise shown on the Plans. All flanged faces shall be machined.

Where shown on the Plans or otherwise required to restrain thrust, the thrust restraint system between lengths of ductile iron pipe shall be as shown on the Plans or in the Standard Plans.

A minimum 3-inch neoprene pad or high-density polyethylene foam (e.g., Ethafoam 900, or approved equal) is required where pipe separations are less than six (6) inches.

Where shown on the Plans or otherwise required to restrain thrust, the thrust restraint system between lengths of ductile iron pipe with push-on type joints shall be:

- "Series 1100 HD MEGALUG ® Harness" as manufactured by EBAA Iron Sales, Inc., of Eastland, Texas.
    - Field lock/Sure Stop Gaskets are acceptable to restrain pipe in lieu of harnesses.

Where shown on the Plans or otherwise required to restrain thrust, the thrust restraint system between lengths of ductile iron pipe with mechanical joints shall be:

- "Series 1100 MEGALUG ®" as manufactured by EBAA Iron Sales, Inc., of Eastland, Texas.

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All thrust restraint system devices shall be UL listed and FM approved. Locking gaskets shall be specifically stated as compatible with the pipe, without qualification relative to the warranty by the respective manufacturers.

9-30.1(4)B Steel Pipe (4 Inches and Under)

(******)

Revise this subsection to read:

Where shown on the Plans and/or in the Standard Plans, steel pipe shall be hot-dip galvanized inside and out and shall conform to ASTM A120. Steel pipe shall be standard weight Schedule 40 welded and seamless with tapered threaded ends.

9-30.2 Fittings

(******)

Supplement this section with the following:

The type, material, and identification mark for bolts and nuts shall be provided.

9-30.2(1) Ductile Iron Pipe

(******)

Revise this subsection to read:

Fittings for ductile iron pipe shall meet the following requirements:

Ductile iron mechanical joint, rated for 350 psi working pressure, unless a different working pressure is shown on the Plans. The fitting dimensions, metal thicknesses, and manufacturing process shall conform to AWWA C153. Rubber gaskets for mechanical joints shall be in accordance with AWWA C111.

Ductile iron flanged joint, rated for 350 psi working pressure, unless a different working pressure is shown on the Plans. The fitting dimensions, metal thicknesses, and manufacturing process shall conform to AWWA C153.

The dimensions and drilling of flange connections shall conform to the dimensions of ANSI B16.1 for cast iron/ductile iron flanges and flanged fittings, Class 125, unless otherwise shown on the Plans. All flanged faces shall be machined. Gasket material for flat-faced or raised-face flanges shall be 1/8-inch minimum thickness synthetic rubber having a durometer measurement of sixty (60). Gaskets for flanges having a recess machined to receive an O-ring shall be Neoprene and shall have the dimensions and durometer measurement as recommended by the manufacturer for the particular service application.

Ductile iron, plain end, rated for 350 psi working pressure, unless a different working pressure is shown on the Plans. The fitting dimensions, metal thicknesses, and manufacturing process shall conform to AWWA C153 compact.

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Bolts in piping and fittings shall be malleable iron (pressure class 300), Cor-ten or stainless steel. Bolts and nuts for flanged pipe and fittings shall conform in size and length with ANSI/AWWA C111/A21.11. Stainless steel bolts shall meet the requirements of ASTM A-307, Grade A. Stainless steel nuts and bolts shall be type 316SS.

All fittings shall be cement-mortar lined and seal coated in accordance with AWWA C104.

Contractor shall provide Manufacturer's Certificate of Compliance in accordance with Section 1-06.3, "Manufacturer's Certificate of Compliance of the Standard Specifications" for all fittings and bolts to be used.

9-30.2(6) Restrained Joints

(******)

Revise this subsection to read:

Where shown on the Plans or otherwise required to restrain thrust, the thrust restraint system for mechanical joint fittings shall be:

- "Series 1100 MEGALUG ®" as manufactured by EBAA Iron Sales, Inc., of Eastland, Texas.

All thrust restraint system devices shall be UL listed and FM approved, shall be new and undamaged, and shall conform to the provisions of NSF/ANSI 61 in addition to the requirements of the Safe Drinking Water Act. Locking gaskets shall be specifically stated as compatible with the pipe, without qualification relative to the warranty by the respective manufacturer.

Add the following new subsection:

9-30.2(12) Transition, Reducing and Flexible Couplings

(******)

Transition couplings (12-inch minimum), reducing couplings, transition-reducing couplings, and flexible couplings for water mains shall be compression type with ductile iron components conforming to AWWA C219. Center rings/sleeves shall be ductile iron conforming to ASTM A536, grade 65-45-12 or malleable iron (pressure class 300) conforming to ASTM A47, grade 32510 or 35018. End rings/followers shall be ductile iron conforming to ASTM A536, grade 65-45-12 or malleable iron (pressure class 300) conforming to ASTM A47, grade 32510 or 35018.

Gaskets shall be vulcanized, molded, or extruded, natural or synthetic rubber free from porous areas, foreign materials, and visible defects. Reclaimed rubber shall not be used. Gaskets shall meet the requirements of ASTM D2000.

Bolts shall be carriage-type, high-strength, low alloy steel meeting the requirements of ASTM A307, ASTM F568 or AWWA C111, or high-strength ductile iron meeting the requirements of ASTM A536, grade 65-45-12. The bolts shall have national course rolled threads and heavy hexagon nuts. Stainless steel bolts require anti-seize compound.

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The long pattern solid sleeve coupling (MJ) shall be a minimum 12-inch length for pipe diameters equal to or less than 12-inch and shall be a minimum 15-inch length for pipe diameters greater than 12-inch.

The long body transition couplings (Romac 501, Hymax 2, or approved equal) shall be minimum 12-inch barrel length for pipe diameters equal to or less than 12-inch and shall be a minimum 14-inch barrel length for pipe diameters greater than 12-inch.

The coating of the coupling components shall be as applied in the factory by and to the standards of the manufacturer.

Reducing and flexible/straight couplings shall not be used for plain-end ductile iron/ductile iron pipe connections, or ductile iron/PVC pipe connections; only mechanical joint sleeve fittings shall be used in these cases.

Combination reducer/couplings shall not be allowed and shall be a separate reducer and transition coupling.

9-30.3 Valves

(******)

Replace this section and subsections, including titles, to read:

Valves shall be standard pattern of a manufacturer whose products are approved by the Engineer and shall have the name or mark of the manufacturer, year valve casting was made, size, and working pressure plainly cast in raised letters on the valve body.

The valve bodies shall be cast iron, ductile iron, or other approved material mounted with approved non-corrosive metals. All wearing surfaces shall be bronze or other approved non-corrosive material and there shall be no moving bearing or contact surfaces of iron in contact with iron. Contact surfaces shall be machined and finished in the best quality manner and all wearing surfaces shall be easily renewable.

9-30.3(1) Valve Boxes

Valve boxes shall be installed on all buried valves. The box shall be of cast iron, two-piece, slip-type, standard design with a minimum 5-inch inside diameter and base section corresponding to the size and depth of the valve. The box shall be coal-tar painted by the manufacturer using its standard. The cover shall be cast-iron, having the word "WATER" cast into it.

Where valve boxes are located within a sidewalk or pedestrian access route, valve box cover shall be a locking lid style and include a stainless steel center bolt with pentagon security head, spreader bar, and locking cams.

Where valve boxes are located in vehicle traffic areas, the valve box shall be the style specified in LWSD Standard Plan No. 1002 Valve Box Note 3 or approved equal.

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9-30.3(3) Combination Air Release/Air Vacuum Valves

Combination air release/air vacuum valves (or universal air release valves) shall be installed in air vacuum valve assemblies. The valve shall be designed to withstand a 300 psi pressure where the normal operating pressure does not exceed 100 psi.

All parts shall be NSF/ANSI 61 and NSF/ANSI 372 compliant.

The valve body and cover shall be cast iron conforming to ASTM A126, Class B. The float shall be stainless steel conforming to ASTM A240. Valve seats shall be Buna N rubber. All other internal parts of the valve shall be constructed of stainless steel or bronze.

Combination air release/air vacuum valves shall conform to AWWA C512.

For 1-inch and 2-inch valves, the inlet shall be equal in size to the outlet/large orifice. Both inlet and outlet shall have NPT screwed connections. The small orifice for a 1-inch valve shall be a minimum of 5/64-inch and that for a 2-inch valve shall be a minimum of 3/32-inch.

The combination air release / air vacuum valve (universal air release valve) shall of the size, model and manufacture's specified in LWSD Standard Plan No. 1203.1 &.2, or an approved equal.

9-30.3(4) Tapping Sleeve and Valve Assembly

Tapping valves shall be furnished with flanged inlet end connections. The outlet ends shall conform in dimensions to the AWWA Standards for flange, hub, or mechanical joint connections, except that the outside of the hub shall have a large flange for attaching a drilling machine. The seat opening of the valve must permit a diameter cut no less than 1/2-inch smaller than the valve size. Valves specifically designed for tapping and meeting the requirements of AWWA C500 and valves meeting the requirements of AWWA C509 shall be permitted. Tapping valves shall be permitted. Tapping valves shall be of the same type as other valves on the project.

Size-on-size tapping sleeves shall be cast iron, ductile iron, or stainless steel, except cast iron or ductile iron size-on-size tapping sleeves shall only be used on ductile iron or cast iron water mains. Reducing tapping sleeves shall be cast iron, ductile iron, stainless steel, or epoxy-coated steel.

Steel tapping tees shall meet the requirements of LWSD Standard Plan No. 1009, Note 2b.

9-30.3(5) End Connections

The dimensions of hub or bell end connections shall conform to the dimensions of AWWA C100. The dimensions of mechanical joint connections shall conform to the dimensions of ANSI A21.11.

The dimensions and drilling of flange connections shall conform to the dimensions of ANSI B16.1 for cast iron/ductile iron flanges and flanged fittings, Class 125, unless otherwise shown on the Plans. The bolt holes shall straddle the vertical centerline. All flanged faces shall be machined.

Where shown on the Plans or otherwise required to restrain thrust, the thrust restraint system for valves with mechanical joints shall conform to Section 9-30.2(6), "Restrained Joints."

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Tapered threaded ends shall conform to National Pipe Thread dimensions.

9-30.3(6) Resilient-Seated Gate Valves (4 Inches to 12 Inches)

Gate valves four (4) inches to twelve (12) inches in size shall conform to the requirements of AWWA C509 for resilient-seated gate valves for water supply service and shall include rubber gaskets. The resilient valve seats may be applied to the body or gate and shall seat against a corrosion-resistant surface on the interior of the valve body. If guiding is necessary to obtain shutoff, the design shall be such that corrosion in the guide area does not affect sealing. These valves shall have O-ring backing plates.

Resilient-seated gate valves four (4) inches to twelve (12) inches in size shall open counterclockwise and shall have non-rising stems, except OS & Y valves shall have rising stems.

Buried resilient-seated gate valves four (4) inches to twelve (12) inches in size shall be equipped with standard 2-inch wrench nuts. Non-buried valves shall be equipped with hand wheels, unless otherwise shown on the Plans.

EPDM rubber will not be allowed for gate valves and gasket shall be standard rubber.

9-30.3(7) Resilient-Seated Gate Valves (16-20 Inches)

Resilient-seated gate valves sixteen (16) to twenty (20) inches in size shall be American AVK Series 55 and conform to the requirements of AWWA C515 for resilient-seated gate valves for water supply service. Resilient valve seats may be applied to the body or gate and shall seat against a corrosion-resistant surface on the interior of the valve body. If guiding is necessary to obtain shutoff, the design shall be such that corrosion in the guide area does not affect sealing. Resilient-seated gate valves sixteen (16) to twenty (20) inches in size shall incorporate O-rings for the stem seal.

Resilient-seated gate valves sixteen (16) to twenty (20) inches in size shall open counterclockwise and shall have non-rising stems, except OS & Y valves shall have rising stems.

Buried resilient-seated gate valves sixteen (16) to twenty (20) inches in size shall be equipped with standard 2-inch wrench nuts. Non-buried valves shall be equipped with hand wheels, unless otherwise shown on the Plans.

EPDM rubber will not be allowed for gate valves and gasket shall be standard rubber.

9-30.3(8) Gate Valves (24 Inches)

Gate valves 24 inches in size shall be designed to lie horizontally in a horizontal pipeline.

Horizontal gate valves shall be equipped with solid bronze tracks securely fastened in the valve body and bonnet. The weight of the gates shall be carried on rollers throughout their entire length of travel. Bronze scrapers shall be provided to traverse the tracks ahead of the rollers in both directions of travel to remove any foreign matter accumulated on the track. Horizontal gate valves shall have non-rising stems.

Horizontal valves shall confirm to applicable requirements of AWWA C500.

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Buried horizontal gate valves shall be equipped with standard 2-inch wrench nuts. Non-buried horizontal gate valves shall be equipped with hand wheels and indicators to show the position of the gate in relation to the waterway. Gate valve operators shall open with counterclockwise turns, and shall have non-rising stems, except OS & Y valves shall have rising stems.

Horizontal gate valves shall have enclosed gear cases constructed of heavy cast iron housing steel gears. Horizontal gate valves shall also be equipped with bypass valve assemblies to (a) equalize pressure across the closure member to permit lower operating forces during opening and closing; (b) fill lines downstream of the main valve, thereby eliminating the possibility of wire drawing damage to main valve seats; and (c) provide for low-volume flow without throttling the main valve. The bypass valve shall be equipped with a wrench nut or hand wheel as provided for the main valve.

EPDM rubber will not be allowed for gate valves and gasket shall be standard rubber.

9-30.3(9) Bronze Gate Valves (Under 3 Inches)

Bronze gate valves shall be provided only where shown on the Plans. Bronze gate valves shall have bronze bodies with solid bronze discs. Bronze gate valves shall have non-rising stems, open counterclockwise, and furnished with a hand wheel. Bronze gate valves shall not be furnished where they will be buried.

9-30.3(10) Check Valves

The body and cover of check valves shall be made of gray cast iron or cast ductile iron, with bronze rings mounted to the cast iron swing gate. Check valves shall be for 150 psi working pressure, unless otherwise shown on the Plans. The check valves shall have adjustable tension lever and spring to provide non-slamming action under all conditions, unless the Plans call for something other than a lever and spring feature.

Swing-check valves shall confirm to AWWA C508.

9-30.3(11) Pressure Reducing and Pressure Relief Valves

To minimize requirements for spare parts and maintenance tools and expertise, pressure reducing and pressure relief valves shall be:

- "Model 90-01 Series Pressure Reducing Valve" as manufactured by Cla-Val Company of Newport Beach, California.
- "Model 50-01 Series Pressure Relief Valve" as manufactured by the Cla-Val Company of Newport Beach, California.

The pressure reducing valves shall maintain a constant downstream pressure regardless of varying inlet pressure. The valve shall be a hydraulically operated, diaphragm-actuated, globe style valve with a gray cast iron body. The pilot control shall be a direct-acting, adjustable, spring-loaded, normally-open, diaphragm valve, designed to permit flow when the controlled pressure is less than the spring setting. The pilot control system shall include a fixed orifice.

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The pressure relief valve shall maintain constant upstream pressure by relieving excess pressure or bypassing and shall maintain close pressure limits without causing surges. The valve shall be hydraulically operated, diaphragm-actuated, globe valve with a gray cast iron body. The pilot control shall be a direct-acting, adjustable, spring-loaded, normally-closed, diaphragm valve, designed to permit flow when controlling pressure exceeds spring setting. The pilot control system shall operate such that as excess line pressure is dissipated, the main valve shall gradually close to a positive, drip-tight seating.

All diaphragm-actuated valves shall contain a resilient, synthetic rubber disc, having a rectangular cross-section, contained on three and one-half (3-1/2) sides by a disc retainer and forming a tight seal against a single removable seat insert. The diaphragm assembly containing a valve stem shall be fully guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat. This diaphragm assembly shall be the only moving parts and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. The diaphragm shall consist of nylon fabric, bonded with synthetic rubber, and shall not be used as a seating surface. Packing glands and/or stuffing boxes are not permitted and there shall be no pistons operating the valve or pilot controls. All necessary repairs shall be possible without removing the valve body from the line.

Pressure reducing and pressure relief valves shall conform to AWWA C530.

9-30.3(12) Pressure Reducing and Pressure Relief Valves for Services

Pressure reducing and pressure relief valves for water main services shall be:

- Cash Acme E41 Pressure Regulating Valve (1.5” size), or approved equal.

The pressure reducing valves shall maintain a constant downstream pressure regardless of varying inlet pressure. The pressure relief valve shall maintain constant upstream pressure by relieving excess pressure or bypassing and shall maintain close pressure limits without causing surges.

9-30.3(13) Water Main Shutoff Valve for Services

Water Main Shutoff Valves for service connections shall be:

- Mueller 300 Ball Curb Valve (1.5” Size), or approved equal.

9-30.3(14) Valve Boxes for Service Pressure Reducing Valve Stations

Valve Boxes for Service Pressure Reducing Valve Services shall be:

- Armorcast A6001947TRCI-H13S, or approved equal.

9-30.5 Hydrants

(******)

Revise this section and subsections, including titles, to read:

Fire hydrants shall be the center-stem, compression-type conforming to the requirements of AWWA C502.

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To minimize requirements for spare parts and maintenance tools and expertise, fire hydrants shall be:

- "Medallion Model" as manufactured by Clow Corporation of Oskaloosa, Iowa.
- "M & H Model 929" as manufactured by Dresser Industries, Inc., of Bradford, Pennsylvania.
- "Centurion Model" as manufactured by Mueller Company of Decatur, Illinois.

Fire hydrant operating stems shall have square threads.

9-30.5 (1) End Connections

The end connection for fire hydrants shall be mechanical joint conforming to AWWA C153 compact.

9-30.5(2) Hydrant Dimensions

The minimum nominal diameter of the main hydrant valve opening shall be five (5) inches. The inside diameter of the hydrant end connection shall be six (6) inches. The minimum inside diameter of the hydrant barrel/standpipe shall be seven (7) inches.

The minimum nominal bury length shall be as specified in Section 7-14.3(1), “Setting Hydrants” unless a different bury length required for a particular hydrant installation is shown on the Plans.

The size of the hydrant auxiliary gate valve shall be as specified in LWSD Standard Plan No. 1100.1 unless a different size is specified on the Plans.

An outlet for drainage shall be provided in the base or barrel or between the base and barrel of the hydrant.

Field painting of the fire hydrant shall be as specified in Section 7-14.3(1), "Setting Hydrants."

9-30.5(3) Hydrant Extensions (Vertical)

Vertical fire hydrant extensions shall have an inside diameter matching that of the hydrant within which it is installed. The material shall be gray cast iron or ductile iron and shall conform to the AWWA Standards for such castings. The drillings of the connecting flanges on the extensions shall match the drillings of the flanges on the hydrant, if applicable.

Hydrant extensions shall also include the necessary hydrant operating stem extensions.

9-30.5(4) Hydrant Lateral Restraints

The thrust restraint system for fire hydrant laterals with mechanical joints shall conform to Section 9-30.2(6), "Restrained Joints."

9-30.5(5) Traffic Safety Flanges

Hydrants shall be provided with a traffic safety flange and be equipped with breaking devices at the traffic flange which will allow the hydrant barrel to separate at this point with a minimum breakage of hydrant parts from impact. There shall also be provided at this point a safety stem coupling on the main hydrant valve stem that will shear at the time of impact.

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9-30.5(7) Hydrant Nozzles

Each fire hydrant shall be provided with one (1) 4-inch diameter steamer nozzle and two (2) 2.5-inch diameter hose nozzles. Fire hydrants in the City of Auburn shall be provided with one (1) 4.5-inch diameter pumper port and two (2) 2.5-inch diameter hose ports. All nozzles shall be equipped with brass (domestically sourced) nipples screwed into the hydrant barrel and locked into place. Each hydrant shall be provided with hose ports and pumper port as specified in LWSD Standard Plan No. 1100.1.

The hose nozzles shall have National Standard Hose Threads. The hose nozzles shall be fitted with cast iron threaded caps with an operating nut of the same design and proportions as the main hydrant valve stem nut. The caps shall be threaded to fit the corresponding nozzles and shall be fitted with suitable Neoprene gaskets for positive water tightness under test pressures. There shall be no chain or cable connecting the hose nozzle caps to the hydrant body.

The steamer nozzle shall have a Pacific Coast Standard Thread on which shall be installed a 4-inch rigid female x 4-inch Storz smooth-faced adapter with a 4-inch Storz blind cap and rubber sealing gasket. The steamer nozzle for fire hydrants in the City of Auburn shall have National Standard Thread with a 5-inch Storz adaptor and cap. The Storz adapter and cap shall be made of anodized aluminum, heat-treated to T-6 condition strength. The Storz adapter and cap shall withstand a working pressure of 300 psi and a momentary burst pressure of 600 psi. A stainless steel set screw shall be used to permanently attach the Storz adapter to the steamer nozzle to prevent unauthorized removal. The Storz cap shall be tethered to the hydrant barrel with an 18-inch length of 1/8-inch aircraft cable, the ends of which shall be connected to its respective part with NICO sleeves. The Storz adapter shall not be painted.

9-30.5(8) Operating Nuts

The operating nut on the main hydrant valve stem and hose nozzle caps shall be as follows:

- Pattern of nut - Tapered pentagonal
- Height – 1-1/16-inch
- Size of pentagon - (measured from point to flat)
- 1.35-inch at bottom of nut
- 1.23-inch at top of nut
- The direction of opening shall be clearly marked on the operating nut or hydrant and shall be counterclockwise.

9-30.6 Water Service Connections (2-inch and Smaller)

(******)

Revise this section and subsections, including titles, to read:

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9-30.6(1) Saddles

Service saddles shall meet the requirements and be of the model listed on LWSD Standard Plan Nos. 1200.1 and 1201.1. The bodies of service saddles shall be ductile iron. Straps, nuts, and washers shall be galvanized steel. Wide bands with bolts, washers, and nuts shall be stainless steel.

Service saddles shall be:

- For 1-inch taps on ductile iron and asbestos cement water mains 12-inch and smaller, single strap saddles shall be used. For 1-inch taps on PVC water mains 12-inch and smaller, bolted/banded service saddles shall be used.
- For 1-inch taps on ductile iron and asbestos cement water mains larger than 12-inch, double strap service saddles shall be used. For 1-inch taps on PVC water mains larger than 12-inch, double bolted/banded service saddles shall be used.
- For service taps larger than 1-inch on ductile iron and asbestos cement water mains larger than 12-inch, double strap service saddles shall be used. For service taps larger than 1-inch on PVC water mains larger than 12-inch, double bolted/banded service saddles shall be used.
- The threads on the service tap on the saddle body shall be CC (AWWA taper) for 1-inch size and Female Iron Pipe thread for service taps larger than 1-inch size.

9-30.6(2) Corporation Stops

Corporation stops shall meet the requirements of the Standard Plans and these Specifications.

Corporation stops shall be of the models listed on LWSD Standard Plan Nos. 1200.1, 1201.1, 1202.1, and 1203.1 and made of bronze alloy.

For 1-inch service taps, the inlet connection shall be CC (AWWA taper) male thread. For service taps larger than 1-inch, the inlet connection shall be Male Iron Pipe thread.

For 1-inch service taps, the outlet connection shall be compression-gasket type compatible with the connection piping, with no special adapters required. Pipeline insert stiffener devices shall be installed for compression-end fittings on polyethylene pipe. For service taps larger than 1-inch, the outlet connection shall be Male Iron Pipe thread for the attachment of a special adapter.

9-30.6(3) Service Pipes

9-30.6(3)A Polyethylene Tubing

Polyethylene tubing shall meet the requirements of AWWA C901 for potable water service, and conform to the following specifications:

1.	Polyethylene Cell Classification:	PE 4710
2.	Polyethylene Material:	Type III, Category 5, Grade 34, Class C per ASTM D1248
3.	Nominal Size:	As shown in the Plans, or in the LWSD Standard Plan No. corresponding to the bid Proposal item.

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4.	Thickness:	SDR 9
5.	Diameter:	Copper Tube Size (CTS)
6.	Pressure Class:	250 psi

The finished product shall satisfactorily flare, without cracking, to standard brass (domestically sourced) water works flare fittings when using cold flaring methods and thereafter perform to the requirements herein specified.

The polyethylene tubing shall be marked in accordance with ASTM D2737 for CTS tubing sizes. It shall also carry the seal of the National Sanitation Foundation (NSF). A copy of the pertinent quality control test information shall be submitted in accordance with Section 5.5 of AWWA C901 for the polyethylene tubing furnished and installed in the completed Work.

All coils of polyethylene tubing shall be protected in shipment. Each coil shall be labeled clearly to show the size, coil length, and pressure rating of the tubing. The tubing shall be stored outside of direct sunlight.

9-30.6(4) Service Fittings

Couplings and adapters shall only be used where shown in the Standard Plans, on the Plans, or otherwise directed by the Engineer and shall conform to the provisions of NSF/ANSI 61 and NSF/ANSI 372 in addition to the requirements of the Safe Drinking Water Act.

Compression service couplings and adapters shall be:

- "Model H-15428 or H-15451 [with Liners #504281 (3/4-inch), #504385 (1-inch), #506139 (1-1/2-inch), or #506141 (2-inch)]" as manufactured by Mueller Company of Decatur, Illinois.
- "Model C84-34G, C84-44G, C84-66G, C84-77G, C14-66G, or C14-77G 'GripJoint' [with Insert Stiffeners #51 (3/4-inch), #52 (1-inch), #54 (1-1/2-inch), or #55 (2-inch)]" as manufactured by the Ford Meter Box Company, Inc., of Wabash, Indiana.

Couplings and adapters for water service connections shall be made of bronze or brass (domestically sourced) alloy. The connections for the couplings and adapters shall be Iron Pipe threads or outside compression-gasket type, as shown in the Standard Plan or otherwise necessary for the specific application. Pipeline insert stiffener devices shall be installed for compression-end fittings on polyethylene pipe.

9-30.6(5) Meter Setters

Meter setters shall meet the requirements of the Standard Plans and applicable parts of AWWA C800, and shall conform to the provisions of NSF/ANSI 61 in addition to the requirements of the Safe Drinking Water Act.

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Meter setters shall be:

- "Model VH72-12WC, VH74-12WC, VH76-12B-11-66-NL (with O-ring groove machined in face of flanges), or VH77-12B-11-77-NL (with O-ring groove machined in face of flanges)" as manufactured by the Ford Meter Box Company, Inc., of Wabash, Indiana.
- "Model H-1404-2x13-inch with two (2) H-14222-N ends for 5/8-inch x 3/4-inch and 1-inch meters, and B-2422-2-12x13-inch with bypass for 1-1/2-inch meter (grooved for O-ring gaskets on both flanges), and B-2422-2-12x17-inch with bypass for 2-inch meter (grooved for O-ring gaskets on both flanges)" as manufactured by Mueller Company of Decatur, Illinois.

For a 1-inch or less service connection, the meter setter shall have double purpose couplings on both inlet and outlet connections (female iron pipe union, swivels, or flared copper), an angle meter valve with drilled padlock wings, an outlet angle single or double check valve, and measuring twelve (12) inches high. For service connections larger than 1-inch size, the meter setter shall have Female Iron Pipe threads on the horizontal inlet and outlet, an angle inverted key valve with drilled padlock wings on the inlet, grooved for O-ring meter gaskets, no bypass, an angle single or double check valve on the outlet, and measuring twelve (12) inches high. 1-inch meter setters shall require a swivel joint.

The backside of the meter setters shall be domestically sourced brass and meet the following:

- 3/4-inch and 5/8-inch meter setter shall be an 8-inch nipple.
- 1-inch meter setter shall be an 8-inch nipple.
- 1-1/2-inch and 2-inch meter setters shall be a 12-inch nipple.

9-30.6(6) Brass Nipples and Fittings

Brass (domestically sourced) nipples and fittings shall be installed where shown in the Standard Plans and shall meet the requirements of ANSI B-16.15 and B1.20.1, ASA 125 pound class.

9-30.6(7) Meter Boxes

Meter boxes for a particular installation shall meet the requirements below. The DFW Plastic boxes are preferred over the Armorcast.

Meter boxes and covers shall be polymer concrete:

- 5/8-inch x 3/4-inch and 1-inch Meter:
  - DFW Plastics, Inc. DWF1324C-12-1CT (13-inch x 24-inch) and cover with hinged reader lid rated for H20 traffic loads.
  - Armorcast A6001946PCX12 (13-inch x 24-inch) and cover w/ hinged reader lid rated for traffic loads (A6001969R), mouse hole pre-drilled.
- 1-1/2-inch and 2-inch Meter: DFW B1730C-12-1CT or Armorcast A6001947TRCI-H13S and cover w/hinged reader lid rated for H20 traffic loads and recess for district AMR, mouse hole pre-drilled.
- Air Release/Air Vacuum Valve Assembly 1-Inch and 2-Inch: Armorcast Model A600194PCX12 with hinge reader door A6001947TRCI, or as specified in LWSD Standard Plan No. 1201.1.

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Meter box covers shall be non-skid, bolt-down, with hinged meter reading lids and include the cutout for AMR transmitter.

9-30.6(8) Insulating Service Couplings

Insulating couplings preventing a continuous electrical path shall be required at any point of connection of two (2) dissimilar metallic pipes (e.g., copper to galvanized iron or steel). The fitting used shall be manufactured for the purpose for which it is intended. The couplings shall be the outside compression-gasket type. Pipeline insert stiffener devices shall be installed for compression-end fittings on polyethylene pipe.

All materials shall conform to the provisions of NSF/ANSI 61 in addition to the requirements of the Safe Drinking Water Act.

9-30.6(9) "U" Branch Connections

"U" branch connections shall meet the requirements of the applicable Standard Plans, and conform to the provisions of NSF/ANSI 61 in addition to the requirements of the Safe Drinking Water Act.

"U" branch connections shall be:

- "Model H-15363" as manufactured by Mueller Company of Decatur, Illinois.
- "Model U48-43-14G" as manufactured by Ford Meter Box Company, Inc., of Wabash, Indiana.

"U" branch connections shall be made of bronze alloy. The outlets shall be 3/4-inch M.I.P. thread straight line. The inlet shall be conductive compression for 1-inch CTS O.D. copper or polyethylene service pipe. Maintain a branch spacing minimum of 13-1/2 inches between the outlets.

(******)

Add the following new Section and Subsections:

9-30.7 Flow Detection/Backflow Prevention Devices

9-30.7(1) Detector Double Check Valve Assemblies (DDC)

Detector double check valve assemblies shall conform to AWWA C506. The detector double check valve assembly shall consist of two (2) internally-loaded check valves, either spring-loaded or internally weighted, installed as a unit and include a smaller, factory-installed double check valve assembly and water meter in a bypass configuration to detect leakage or water theft. The manufacturer of the detector double check valve assembly shall be listed on the most current copy of the "Accepted Cross-Connection Control Assemblies" published by the Washington State Department of Health. The end connections shall be flanged, conforming to AWWA C153 compact.

Test cocks shall be installed and located in accordance with AWWA C506 for both mainline and bypass double check valve assemblies. The outlets to the test cocks shall be plugged.

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The detector water meter shall be:

- "Model PDR-10-100FS Remote-Reading 5/8-inch x 3/4-inch water meter registering in cubic feet" as manufactured by Precision Meters, Inc., of Orlando, Florida.

9-30.7(2) Detector Reduced Pressure Principle Backflow Devices (DRP)

Detector reduced pressure principle backflow prevention devices shall conform to AWWA C506 and shall conform to the provisions of NSF/ANSI 61 in addition to the requirements of the Safe Drinking Water Act. The detector reduced pressure principle backflow prevention device shall consist of two (2) independently acting, spring-loaded check valves separated by a spring-loaded differential pressure relief valve and shall include a smaller, factory-installed reduced pressure principle backflow device and water meter in a bypass configuration to detect leakage or water theft. The manufacturer of the detector reduced pressure principle backflow device shall be listed on the most current copy of the "Accepted Cross-Connection Control Assemblies" published by the Washington State Department of Health. The end connections shall be flanged, conforming to AWWA C153 compact.

Test cocks shall be installed and located in accordance with AWWA C506 for both mainline and bypass reduced pressure principle backflow prevention devices. The outlets to the test cocks shall be plugged.

The detector water meter shall be:

- "Model PDR-10-100FS Remote-Reading 5/8-inch x 3/4-inch water meter registering in cubic feet" as manufactured by Precision Meters, Inc., of Orlando, Florida.

9-30.7(7) Vacuum Breakers

9-30.7(7)A. Pressure Vacuum Breaker Assemblies

Pressure vacuum breaker assemblies shall consist of a spring-loaded check valve [3-inch and larger sizes consist of two (2) check valves], an independently operating air inlet valve, inlet and discharge shutoff valves, and properly installed test cocks. The air inlet valve is internally loaded to the open position, normally by means of a spring. This internal loading allows the device to be installed on the pressure side of a shutoff valve. The manufacturer of the pressure vacuum breaker assembly shall be listed on the most current copy of the "Accepted Cross-Connection Control Assemblies" published by the Washington State Department of Health. The end connections shall have tapered threads. The outlets to the test cocks shall be plugged.

9-30.7(7)B. Atmospheric Vacuum Breaker (AVB)

The atmospheric vacuum breaker is a device that allows air to enter the water line when the line pressure is reduced to a gauge pressure of zero or below. Poppets of AVB's shall be precision-fitted to ensure positive closure. No test cocks are required. The end connections shall have tapered threads.

(******)

Add the following new Section and Subsections:

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9-30.8 Miscellaneous Water Distribution Materials

9-30.8(1) Steel Casing for Boring, Jacking and Direct Burial

Where indicated on the Plans, continuous steel casings shall be bored, jacked, or direct buried into place. The steel casing shall be black steel pipe conforming to ASTM A53. The joints between sections shall be butt welded to produce a continuous bead around the full circumference of the casing to produce a rigid, watertight encasement. The minimum wall thickness of the casing shall be 0.250 inches for casings 24 inches or less in diameter, unless a larger wall thickness is shown on the Plans. The minimum wall thickness of the casing shall be 0.375 inches for casings over 24 inches in diameter, unless a larger wall thickness is shown on the Plans. Before installation, casing exterior shall be coated with shop-applied anticorrosive coating conforming to AWWA C210. Minimum coating thickness shall be 16 mils dry film thickness (DFT); however, thickness shall not exceed manufacturer's recommended thickness. Coating type shall be a polyamide epoxy-coal tar equal to Tnemec Hi-Build Theme-Tar, Series 46H-413.

Casing end seal shall be seamless synthetic rubber and a minimum of 1/8" thick. Heavy duty hose clamps shall be stainless steel.

9-30.8(1)B Spacers and Seals for Steel Casing Pipe

Casing spacers shall be "centered positioning" type bands at least 12 inch in width, and shall be either stainless steel or heavy duty fusion bonded epoxy coated steel. Runners shall be 2-inch wide glass reinforced plastic securely bonded to the spacer, and shall be aligned on the spacer along the axis of insertion of the water main into the casing pipe. Runner length shall approximate the width of the spacer. Securing the spacer to the water main shall be in accordance with the manufacturer's instruction. The height of the risers and runners combined shall be sufficient to keep the carrier pipe bell, couplings or fittings at least 0.75 inch from the casing pipe wall at all times and provide at least 1-inch clearance between the runners and the top of the casing wall, to prevent jamming during installation.

Acceptable spacers and end seals manufacturers are Pipeline Seal and Insulator model S12G-2 for stainless steel and model C12G-2, C8G-2 for fusion-bonded and coated steel, Cascade Waterworks Mfg. Co., Advance Products & Systems, Inc. or approved equal.

9-30.8(2) Flow Strainers

Flow strainers shall be iron-bodied, basket-type configuration of the size shown in the Standard Plans where flow strainers are required. The flow strainers shall feature a bolted cover machined to securely hold the screen in place and include a tapped boss at the bottom of the bowl for a blowoff outlet. The screen shall be constructed from perforated stainless steel and wire mesh screens shall not be allowed. Flow strainers 2-inch and larger shall have flanged end connections conforming to AWWA C153 compact.

9-30.8(3) Pressure Gauges

Pressure gauges shall conform to applicable AWWA and ANSI standards. The gauge shall be a premium grade industrial gauge with a stainless steel Bourdon tube element; 270° milled stainless steel movement; phenolic case; liquid-filled with an inert viscous fluid; high-impact, non-cracking plastic

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lens; 4.5-inch dial; and a 1/2-inch N.P.T. bottom male connection. All other exposed parts shall be stainless steel. The accuracy shall meet ANSI B40.1 specifications, Grade A: ±1 percent of span in middle half of scale with the balance of the scale ±2 percent of span. The gauges shall be protected by compatible snubbers and ball valves. The gauges shall be Marsh Mastergauge or equal.

The range of pressure scale shall be 0 to 200 pounds per square inch, unless shown otherwise on the Plans or in the Standard Plans.

(******)

Add the following new Section:

9-30.9 Temporary Water Facilities

9-30.9(1) Temporary Water Mains

Temporary water mains, including bends, fittings, and couplings shall be in accordance with the corresponding subsections hereinabove for permanent water facilities or be in accordance with the requirements of AWWA C901-08 "Polyethylene (PE) Pressure Pipe and Tubing, 1/2 In. (13 mm) Through 3 In. (76 mm), for Water Service" or AWWA C904-06 "Cross-Linked Polyethylene (PEX) Press Pipe, 1/2 In. (12 mm) Through 3 In.(76 mm), for Water Service." Temporary water mains, bends, fittings, and couplings shall have a minimum pressure class rating of 160 psi.

9-30.9(2) Temporary Water Service Connections

Temporary water service connections, including service lines, fittings, and couplings shall be in accordance with the corresponding subsections hereinabove for permanent water service connections, except that water service lines may be in accordance with the requirements of AWWA C901-08 "Polyethylene (PE) Pressure Pipe and Tubing, 1/2 In. (13 mm) Through 3 In. (76 mm), for Water Service," or AWWA C904-06 "Cross-Linked Polyethylene (PEX) Press Pipe, 1/2 In. (12 mm) Through 3 In. (76 mm), for Water Service." Temporary water service lines shall have a minimum pressure class rating of 160 psi.

In addition, connections may be fused, grip fitting, threaded, or barbed provided that the connection is sufficient for the minimum pressure rating of 160 psi.

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9-37 VACANT

(******)

Revise this section, including heading, to read:

9-37 MISCELLANEOUS MATERIALS

9-37.1 Location Wire and Locate Stations

9-37.1(1) Location Wire

Location wire (or tracer wire) for decommissioned water mains shall be of the material specified in LWSD Standard Plan No. 1010 and be APWA coded for water. The insulation shall have a minimum insulation rating of 300 volts and comply with ASTM-D-1248, 30 volt rating, and Restriction of Use of Hazardous Substances (RoHS) requirements.

Location wire shall be continuous and not be spliced between pairs of locate stations. Connections at terminations shall be installed so that no portion of uninsulated wire is exposed. The location wire shall have a minimum of one (1) foot of slack at the Locate Station after the station is set to final grade.

Wire connectors shall be as specified in LWSD Standard Plan No. 1010, Note 3. Non-locking friction fit, twist-on, or taped connectors will not be allowed.

9-37.1(2) Locate Station

Locate stations shall consist of an in-ground access box either fabricated or manufactured for the purpose of location wire terminations and tracer equipment connections for locating buried underground facilities.

Fabricated access boxes for locate stations shall consist of valve box and pad as specified in LWSD Standard Plan No. 1010. The valve box shall include an isolated terminal block with stainless steel nuts and bolts for each of the location and grounding wires. Terminal block posts shall be of sufficient length to allow a solid connection by standard line tracing equipment. If the terminal block is mounted externally, the valve box shall be installed inside a meter box as specified in LWSD Standard Plan No. 1010, Note 2. The terminal block shall be located within six (6) inches of the meter box lid.

Manufactured locate (test) stations shall be as specified in LWSD Standard Plan No. 1010, Note 2, or Engineer-approved equal. Locate stations with exposed (not internal) terminal blocks shall be enclosed either in a meter box as provided above for fabricated access boxes or shall be enclosed in a proprietary enclosure suitable for the location as approved by the Engineer.

Terminal blocks shall include a removable jumper between the posts for each of the location and grounding wires. The wire shall be as specified in subsection 9-37.1(1).

The locate station shall be installed so that the access lid, and enclosure as applicable, are flush to and match finish grade.

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9-37.1(3) Grounding Anode

Location wire shall be properly grounded at each Locate Station by using a magnesium grounding anode rod. The grounding anode rod shall be connected to the locate wire at the terminal block in the Locate Station as shown in LWSD Standard Plan No. 1010.

The grounding rod shall be a minimum of 18.5 inches long and 1.3 inches in diameter with a minimum weight of one (1) pound and specifically configured for the purpose of locate wire and locate station pairs for buried underground facilities. The grounding rod shall be driven into solid native soil, directly underneath the Locate Station so that the top of the grounding rod shall be at the same depth as the location wire's exit from the decommissioned water main or at the location recommended by the manufacturer of the Locate Station.

The insulation for the grounding wire shall be 30-Mil, red HDPE, with a minimum insulation rating of 300 volts and comply with ASTM-D-1248, 30 volt rating, and with RoHS requirements. The grounding wire shall have a minimum of one (1) foot of slack at the Locate Station after the station is set to final grade. Wire connectors shall be waterproof, 3M DBR, Copperhead SnakeBite moisture displacement connections, or Engineer-approved equal. Non-locking friction fit, twist-on, or taped connectors will not be allowed. Connections at terminations shall be installed so that no portion of uninsulated wire is exposed.

9-37.2 Temporary Pipe and Hose Ramps

Pipe and hose ramps for protecting temporary water mains and service lines and maintaining safe movement of traffic through the Work area shall be prefabricated, rated for a minimum HS 20-44 axle loading, and provide transition approach and departure ramps suitable for the anticipated traffic speeds.

Installed temporary ramps shall have sufficient stability to ensure that ramp is not displaced by vehicle or pedestrian movement over the surface of the ramp. In addition, the ramp configuration shall ensure that vehicle and pedestrian traffic over the surface of the ramp do not damage either the pipe or hose, or the existing pavement under the ramp.

Ramps across roadway surfaces shall be placed on a slight diagonal offset from perpendicular to the roadway centerline. Transition slopes and temporary traffic signing for the ramp crossings shall be as approved by the jurisdictional agency.

Fabricated temporary pipe or hose ramps shall be as manufactured by Brahman Systems, LLC, American Recycled Products, Mentor Hose Ramps, Rubberform, or Engineer-reviewed equal.

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SPECIAL PROVISIONS – BID SCHEDULE B

Add the following new Section and Subsections:

9-38 MODULAR BLOCK WALL UNITS

9-38.1 Modular Block Wall Units

Units and Cap Units for Modular Block Walls shall be:

- Keystone Compac® – Tri-plane, or approved equal.

END OF DIVISION 9

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SPECIAL PROVISIONS – BID SCHEDULE B

DIVISION 10 – MEASUREMENT AND PAYMENT – UNIT PRICE BID

(New Division)

(******)

10-01 GENERAL

When the Contract Documents state that a certain item of work "shall be considered incidental to the Contract", and whenever any aspect of work is not included in one (1) of the pay items listed below, then the cost of performing that work shall be included in the various bid prices of the Contract, and no separate payment will be made.

Contractor shall include all costs of doing this work within the unit and lump sum bid prices in the Proposal. If the Contract Documents require work that has no unit or lump sum Bid Item in the proposal, costs shall be incidental and included within the unit and lump sum bid prices in the Proposal.

For items listed below as being paid by "Force Account" or "Estimated (est.)," to provide a common basis for all bidders, the Contracting Agency has estimated, and included in the Proposal, dollar amounts for those items. 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 in accordance with Section 1-09.6 of the Standard Specifications.

10-02 BID SCHEDULE ITEMS

The following subsections correspond to the items on bid schedule B and shall be paid based on the conditions listed and as detailed in the Standard Specifications for that item. The Section where the item of work is discussed in the Standard Specifications and/or Special Provisions is shown in parentheses.

BID ITEMS - BID SCHEDULE B – SR 99 AT S 373RD ST ROUNDABOUT (CITY PROJECT #36224 / TIB# 8-1-113(014)-1

Bid Item No. B1 – As-Built Survey and Record Drawings (Min. Bid of $5,000) (1-05)

No specific unit of measurement will apply to the lump sum item of "As-Built Survey and Record Drawings (Min. Bid of $5,000)."

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"As-Built Survey and Record Drawings (Min. Bid of $5,000)," per lump sum.

The lump sum contract price for "As-Built Survey and Record Drawings," shall include the following:

- Field survey establishing horizontal and vertical locations of all new items specified within SP 1-05.18.
- Field survey establishing horizontal and vertical locations of all new sanitary sewer facilities including manhole rim elevations, pipe inverts, pipe sizes and materials, ladder and channel orientations, side sewers to the property lines and cleanouts, and all items specified within SP 1-05.18.

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- Development of record drawings meeting requirements in SP 1-05.18.
- Survey and development of As-Built survey drawings meeting requirements in SP 1-05.18.
- And shall include full pay for all labor, equipment, materials, personnel, and supervision utilized to perform the work specified herein.

No more than 25 percent of the bid amount for this item will be paid prior to the review and acceptance of the As-Built Survey and Record Drawing information by the Engineer.

Bid Item No. B2 – Utility Pothole **(1-05)**

Utility potholing will be measured per each location excavated, utility or utilities exposed, measured, documented, backfilled, and surface restored at the location(s) as shown on the Plans or as may be directed by the Engineer. No separate measurement or payment will be made for potholes within a 5-foot radius of each other. Work shall be performed in conformance with the Contract Documents and Section 1-07.17(3).

Payment will be made in accordance with Section 1-04.4 for the following Bid Item included in the Proposal:

"Utility Pothole," per each.

The Contract unit price per each for "Utility Pothole" shall be full pay for all Work to excavate, expose, measure, and document the existing underground utility or utilities at the locations as shown on the Plans or as may be directed by the Engineer and to place and compact backfill and restore the surface as specified.

No payment for "Utility Pothole" will be made where Contractor is to determine water main depth, type, and size at and when installing temporary blowoff assemblies. This will be considered incidental to the various bid items in the Contract.

When the Contract does not include a pay item for utility potholes, whether or not specifically identified on the Plans, utility potholing as described herein, including elective utility potholing such as may be performed by the Contractor to preserve or protect service lines or other utilities, shall be considered incidental to the Work and included in the other Contract pay items.

Bid Item No. B3 – Permits **(1-07)**

No specific unit of measurement will apply to the lump sum item of "Permits."

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"Permits," per lump sum.

The lump sum contract price for "Permits" shall include all costs associated with preparing, completing, and submitting permit applications and associated plans and documentation, requests, notifications, documentation, and compliance with permit and authorization requirements, application fees for the Puget Sound Clean Air Agency and Department of Labor and Industries, and any fees or penalties imposed by the jurisdictional agency(ies) resulting from the Contractor's non-compliance with regulatory requirements. The

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adherence to the requirements of the City of Federal Way ROW Permit (if required) is incidental to the lump sum price "Permits". Permits included within this work include, but are not limited to the following:

City of Federal Way:

- Supplemental temporary traffic control plan(s), temporary erosion and sediment prevention plan(s), noise, work hour and working day variance requests as necessary for the Work as performed by the Contractor (Contractor paid).
- Request for Administrative Decision/Director Approval Variance.

Puget Sound Clean Air Agency:

- Asbestos / Demolition Notification for Contractors and Property Owners (Contractor paid).

State of Washington Department of Labor and Industries:

- Notice of Asbestos Abatement Project (Contractor paid).

The lump sum price for "Permits" does not include the Work associated with application and compliance with the Construction Stormwater General Permit (if necessary). If applicable, the Work for the Construction Stormwater General Permit will be paid under the Bid Item for "Temporary Water Pollution and Erosion Prevention" per Section 8-01.

Bid Item No. B4 – Resolution of Utility Conflicts (For Bid Purposes Use $12,000.00) (1-07)

Measurement and payment for "Resolution of Utility Conflicts (For Bid Purposes Use $12,000.00)" shall be by force account per 1-09.6 of the Standard Specifications.

Payment will be made for the following Bid Item:

"Resolution of Utility Conflicts (For Bid Purposes Use $12,000.00)," per force account.

All costs for "Resolution of Utility Conflicts (For Bid Purposes Use $12,000.00)" will be paid by force account as provided in Section 1-09.6.

To provide a common proposal for all bidders, the Contracting Agency has estimated the amount for "Resolution of Utility Conflicts (For Bid Purposes Use $12,000.00)" and entered the amounts in the proposal to become a part of the total bid by the Contractor. The actual amount shall be determined by field conditions as the Work progresses and as set forth in this section. No reliance shall be placed on the amount estimated; the provisions of Section 1-04.6 shall not apply to this item. Payment or credits will be determined in accordance with Section 1-09.4. Utility conflicts due to the Contractor's actions or operations shall be resolved by the Contractor at no expense to the Contracting Agency.

Bid Item No. B5 – Sawcutting (3-02)

"Sawcutting" will be measured per linear foot.

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal.

"Sawcutting", per linear foot.

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The unit Contract price per linear foot for "Sawcutting" shall be full pay for all labor, materials, tools, fees, and equipment necessary to satisfactorily complete the Work as defined on the Plans and contained in these Special Provisions. Measurement for sawcutting other than what is shown in the Plans will not be compensated unless approved by the Engineer prior to the work occurring.

Bid Item No. B6 – Asphalt Pavement Removal (3-02)

"Asphalt Pavement Removal" will be measured by the square yard.

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"Asphalt Pavement Removal," per square yard.

The Contract unit price per square yard for "Asphalt Pavement Removal," shall be full compensation for all costs incurred to perform the Work described in Section 3-02.3(3), including the following considered incidental to the removal:

- Sawcutting the asphalt (full depth).
- Removing asphalt (full depth), hauling and disposing off site.
- Removing existing base course as necessary to install roadway section as shown in plans.

Bid Item No. B7 – Decommission Existing Water Main (6-Inch & 8-Inch) (3-02)

"Decommission Existing Water Main (6-Inch & 8-Inch)" will be measured by the linear foot along the centerline of the water main decommissioned.

Payment shall be made for the following Bid Item:

"Decommission Existing Water Main (6-Inch & 8-Inch)," per linear foot.

The size of the water main decommissioned will not be considered and is shown on the Contract Plans. The Contract unit price per linear foot for "Decommission Existing Water Main (6-Inch & 8-Inch)" shall be full compensation for all costs incurred by the Contractor in performing the Work defined in Subsection 3-02.3(6). Payment will be in accordance with the Contract unit price regardless of the material, pressure rating, or diameter of the decommissioned pipe. No separate payment will be made for furnishing and installing the wire, magnesium anode grounding rod, concrete, and locate stations including connections, valve cans, valve can protection pads, rebar, continuity testing, and necessary corrective measures as specified.

Unless a separate Bid Item is included in the Proposal, the following Work shall be considered incidental to Bid Items for removal, relocation, disposal and/or salvage, and decommissioning of water facilities: sawcutting; removing, hauling, and disposing existing pavement, curbs, gutters, or other surfacing materials from within the limits of the trench excavation section; protecting and restoring existing utilities, services, and improvements to remain; trench excavation irrespective of the materials and methods specified in the Plans or directed by the Engineer; stockpiling and protecting stockpiled or removing and disposing excavated native material; disassembling, handling, removing, hauling, disposing, salvaging, or decommissioning the

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feature as shown on the Plans or designated by the Contracting Agency; controlled density fill (CDF), locate station including copper/steel wire, valve box, ground rod, backfilling the trench with compacted Crushed Surfacing ____ Course or suitable native material and/or Aggregate for Gravel Base; placing, installing, or removing and replacing temporary surfacing and access provisions with permanent improvements; and restoring the surface, all as specified hereinabove and as shown on the Plans.

Bid Item No. B8 – Remove Service Line **(3-02)**

"Remove Service Line" will be measured per each from existing water main to the customer supply line connection for each service line removed and the pipe material and size will not be considered. The length of the service line will not be considered.

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"Remove Service Line," per each.

The Contract unit price per each for "Remove Service Line," shall be full compensation for all costs incurred to perform the Work described in Section 3-02.3(5), including the following considered incidental to the removal:

- Removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, meter setters, meter boxes, up to ten (10) feet of customer supply line (if applicable).
- Excavating (including hydro-excavation, vactor excavation, or hand excavation where specifically noted in the plans) including haul, temporary stockpiling, stockpile protection, and backfilling the trench with Crushed Surfacing ____ Course as specified.
- Material handling, processing, salvaging if specified, and haul to and disposal at a site permitted to receive removed material shall also be incidental to and included in this Bid Item. Payment will be in accordance with the Contract unit price, irrespective of the pipe material, pressure rating, service length, and size and the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B9 – Remove Water Valve (6-Inch and 8-Inch) **(3-02)**

"Remove Water Valve (6-Inch and 8-Inch)" will be measured per each.

Payment shall be made for the following Bid Item:

"Remove Water Valve (6-Inch and 8-Inch)", per each.

The Contract unit price per each for "Remove Water Valve (6-Inch and 8-Inch)" shall be full compensation for all costs to remove the existing water valve as specified in Section 3-02.3(5) with the following considered incidental to the removal:

- Removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, and associated corporation stops and saddles for water service lines.

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- Coordinating with Lakehaven Water and Sewer District for main isolation, cutting the pipe, and draining water to approved steel roll off tank.
- Disposal of removed pipe including haul and required permits.
- Excavating (including hydro-excavation, vactor excavation, or hand excavation where specifically noted in the Plans) including haul, temporary stockpiling, and stockpile protection.
- Furnishing and installing compacted trench backfill.
- Material handling, processing, salvaging, if specified, and haul to and disposal at a site permitted to receive removed material.

Bid Item No. B10 – Remove AC Water Main (6-Inch & 8-Inch) (3-02)

"Remove AC Water Main (6-Inch & 8-Inch)" will be measured by the linear foot along the centerline of the water main pipe removed, including fittings, and shall not consider size of water main removed.

Payment shall be made for the following Bid Item:

"Remove AC Water Main (6-Inch & 8-Inch)," per linear foot.

75 percent of payment shall be paid when the pipe is removed. The remaining 25 percent of payment shall be made once receipt of asbestos waste shipment record is received.

The Contract unit price per linear foot for "Remove AC Water Main (6-Inch & 8-Inch)" shall be full compensation for all costs incurred to remove the existing water main with the following considered incidental to the removal:

- Removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, and associated corporation stops and saddles for water service lines.
- Removal of air vacuum/blow off valve assemblies.
- Furnishing and installing compacted trench backfill meeting jurisdictional agency backfill standards.
- For AC main, asbestos cement removal and abatement per permit and contract requirements.
- The Contract unit price shall also include removal of concrete thrust blocks, unless separately identified and included in a separate pay item for "Removal of Structures and Obstructions."
- Coordinating with Lakehaven Water and Sewer District for main isolation, cutting the pipe, and draining water to approved steel roll off tank.
- Disposal of removed pipe including haul and required permits.
- Filling the exposed ends of pipe to remain with concrete or permanently or temporarily capping or plugging the exposed ends of water main to remain in service.
- Excavating (including hydro-excavation, pneumatic excavation, or hand excavation where specifically noted in the Plans) including haul, temporary stockpiling, stockpile protection, and backfilling the trench with crushed surfacing as specified.

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- Material handling, processing, salvaging, if specified, and haul to and disposal at a site permitted to receive removed material.

Unless a separate Bid Item is included in the Proposal, the following Work shall be considered incidental to Bid Items for removal, relocation, disposal and/or salvage, and decommissioning of water facilities:

- Removing, hauling, and disposing existing pavement, curbs, gutters, or other surfacing materials from within the limits of the trench excavation section.
- Protecting and restoring existing utilities, services, and improvements to remain.
- Trench excavation irrespective of the materials and methods specified in the Plans or directed by the Engineer, stockpiling and protecting stockpiled or removing and disposing excavated native material.
- Disassembling, handling, removing, hauling, disposing, salvaging, or decommissioning the feature as shown on the Plans or designated by the Contracting Agency.
- Placing, installing, or removing and replacing temporary surfacing and access provisions with permanent improvements.

Payment will be in accordance with the Contract unit price, irrespective of the pressure rating and size, and includes the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B11 – Remove Steel Water Main (6-Inch) (3-02)

"Remove Steel Water Main (6-Inch)" will be measured by the linear foot along the centerline of the water main pipe removed, including fittings, and shall not consider size of water main removed.

Payment shall be made for the following Bid Item:

"Remove Steel Water Main (6-Inch)," per linear foot.

The Contract unit price per linear foot for "Remove Steel Water Main (6-Inch)" shall be full compensation for all costs incurred to remove the existing water main with the following considered incidental to the removal:

- Removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, and associated corporation stops and saddles for water service lines.
- Removal of pipe from within 10" casing pipe including removal and disposal of concrete plugged ends, wood blocks, sand, and any materials found inside the 10" casing pipe. No additional payment will be made for cutting 6" pipe removed from the casing into smaller lengths.
- Removal of air vacuum/blow off valve assemblies.
- Furnishing and installing compacted trench backfill meeting jurisdictional agency backfill standards.
- The Contract unit price shall also include removal of concrete thrust blocks, unless separately identified and included in a separate pay item for "Removal of Structures and Obstructions."
- Coordinating with Lakehaven Water and Sewer District for main isolation, cutting the pipe, and draining water to approved steel roll off tank.

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- Disposal of removed pipe including haul and required permits.
- Filling the exposed ends of pipe to remain with concrete or permanently or temporarily capping or plugging the exposed ends of water main to remain in service.
- Excavating including haul, temporary stockpiling, stockpile protection, and backfilling the trench with crushed surfacing as specified.
- Material handling, processing, salvaging, if specified, and haul to and disposal at a site permitted to receive removed material.

Unless a separate Bid Item is included in the Proposal, the following Work shall be considered incidental to Bid Items for removal, relocation, disposal and/or salvage, and decommissioning of water facilities:

- Removing, hauling, and disposing existing pavement, curbs, gutters, or other surfacing materials from within the limits of the trench excavation section.
- Protecting and restoring existing utilities, services, and improvements to remain.
- Trench excavation irrespective of the materials and methods specified in the Plans or directed by the Engineer; stockpiling and protecting stockpiled or removing and disposing excavated native material.
- Disassembling, handling, removing, hauling, disposing, salvaging, or decommissioning the feature as shown on the Plans or designated by the Contracting Agency.
- Placing, installing, or removing and replacing temporary surfacing and access provisions with permanent improvements.

Payment will be in accordance with the Contract unit price, irrespective of the pressure rating and size, and includes the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B12 – Remove DI Water Main (8-Inch) (3-02)

"Remove DI Water Main (8-Inch)" will be measured by the linear foot along the centerline of the water main pipe removed, including fittings, and shall not consider size of water main removed.

Payment shall be made for the following Bid Item:

"Remove DI Water Main (8-Inch)," per linear foot.

The Contract unit price per linear foot for "Remove DI Water Main (8-Inch)" shall be full compensation for all costs incurred to remove the existing water main with the following considered incidental to the removal:

- Removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, and associated corporation stops and saddles for water service lines.
- Removal of air vacuum/blow off valve assemblies.
- Furnishing and installing compacted trench backfill meeting jurisdictional agency backfill standards.
- The Contract unit price shall also include removal of concrete thrust blocks, unless separately identified and included in a separate pay item for "Removal of Structures and Obstructions."

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- Coordinating with Lakehaven Water and Sewer District for main isolation, cutting the pipe, and draining water to approved steel roll off tank.
- Disposal of removed pipe including haul and required permits.
- Filling the exposed ends of pipe to remain with concrete or permanently or temporarily capping or plugging the exposed ends of water main to remain in service.
- Excavating including haul, temporary stockpiling, stockpile protection, and backfilling the trench with crushed surfacing as specified.
- Material handling, processing, salvaging, if specified, and haul to and disposal at a site permitted to receive removed material.

Unless a separate Bid Item is included in the Proposal, the following Work shall be considered incidental to Bid Items for removal, relocation, disposal and/or salvage, and decommissioning of water facilities:

- Removing, hauling, and disposing existing pavement, curbs, gutters, or other surfacing materials from within the limits of the trench excavation section.
- Protecting and restoring existing utilities, services, and improvements to remain.
- Trench excavation irrespective of the materials and methods specified in the Plans or directed by the Engineer; stockpiling and protecting stockpiled or removing and disposing excavated native material.
- Disassembling, handling, removing, hauling, disposing, salvaging, or decommissioning the feature as shown on the Plans or designated by the Contracting Agency.
- Placing, installing, or removing and replacing temporary surfacing and access provisions with permanent improvements.

Payment will be in accordance with the Contract unit price, irrespective of the pressure rating and size, and includes the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B13 – Remove Abandoned Steel Water Main (6-Inch) (3-02)

"Remove Abandoned Steel Water Main (6-Inch)" will be measured by the linear foot along the centerline of the water main pipe removed, including fittings, and shall not consider size of water main removed.

Payment shall be made for the following Bid Item:

"Remove Abandoned Steel Water Main (6-Inch)," per linear foot.

The Contract unit price per linear foot for "Remove Abandoned Steel Water Main (6-Inch)" shall be full compensation for all costs incurred to remove the existing water main with the following considered incidental to the removal:

- Removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, and associated corporation stops and saddles for water service lines.
- Removal of air vacuum/blow off valve assemblies.
- Furnishing and installing compacted trench backfill meeting jurisdictional agency backfill standards.

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- The Contract unit price shall also include removal of concrete thrust blocks, unless separately identified and included in a separate pay item for "Removal of Structures and Obstructions."
- Coordinating with Lakehaven Water and Sewer District for main isolation, cutting the pipe, and draining water to approved steel roll off tank.
- Disposal of removed pipe including haul and required permits.
- Filling the exposed ends of pipe to remain with concrete or permanently or temporarily capping or plugging the exposed ends of water main to remain in service.
- Excavating including haul, temporary stockpiling, stockpile protection, and backfilling the trench with crushed surfacing as specified.
- Material handling, processing, salvaging, if specified, and haul to and disposal at a site permitted to receive removed material.

Unless a separate Bid Item is included in the Proposal, the following Work shall be considered incidental to Bid Items for removal, relocation, disposal and/or salvage, and decommissioning of water facilities:

- Removing, hauling, and disposing existing pavement, curbs, gutters, or other surfacing materials from within the limits of the trench excavation section.
- Protecting and restoring existing utilities, services, and improvements to remain.
- Trench excavation irrespective of the materials and methods specified in the Plans or directed by the Engineer; stockpiling and protecting stockpiled or removing and disposing excavated native material.
- Disassembling, handling, removing, hauling, disposing, salvaging, or decommissioning the feature as shown on the Plans or designated by the Contracting Agency.
- Placing, installing, or removing and replacing temporary surfacing and access provisions with permanent improvements.

Payment will be in accordance with the Contract unit price, irrespective of the pressure rating and size, and includes the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B14 – Repurpose Steel Casing (10-Inch) (3-02)

There will be no measurement of "Repurpose Steel Casing (10-Inch)" as it is per lump sum.

Payment shall be made for the following Bid Item:

"Repurpose Steel Casing (10-Inch)," per lump sum.

The Contract lump sum price for "Repurpose Steel Casing (10-Inch)" shall be full compensation for all costs incurred to repurpose the existing 10-Inch water main casing with the following considered incidental to the repurposing:

- Furnishing and installing compacted trench backfill meeting jurisdictional agency backfill standards.
    - CCTV of existing casing and providing records to the District for review.

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- Furnishing and installing new ductile iron pipe, screw plugs, junction boxes, and transition couplings between existing and new pipe as shown in the Plans.
- Excavating including haul, temporary stockpiling, stockpile protection, and backfilling the trench with crushed surfacing as specified.
- Material handling, processing, salvaging, if specified, and haul to and disposal at a site permitted to receive removed material.

Unless a separate Bid Item is included in the Proposal, the following Work shall be considered incidental to Bid Items for removal, relocation, disposal and/or salvage, and decommissioning of water facilities:

- Removing, hauling, and disposing existing pavement, curbs, gutters, or other surfacing materials from within the limits of the trench excavation section.
- Protecting and restoring existing utilities, services, and improvements to remain.
- Trench excavation irrespective of the materials and methods specified in the Plans or directed by the Engineer; stockpiling and protecting stockpiled or removing and disposing excavated native material.
- Disassembling, handling, removing, hauling, disposing, salvaging, or decommissioning the feature as shown on the Plans or designated by the Contracting Agency.
- Placing, installing, or removing and replacing temporary surfacing and access provisions with permanent improvements.

Payment will be in accordance with the Contract unit price, irrespective of the pressure rating and size, and includes the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B15 – Remove Hydrant Assembly (3-02)

"Remove Hydrant Assembly" will be measured per each fire hydrant assembly removed including the valve and valve box per each. If the hydrant lateral is AC water main and a Bid Item is included for AC water main removal, removal and handling, including hauling and disposal of the hydrant lateral, will be measured under that item. If the hydrant assembly is connected to water main that is designated for removal, removal of the hydrant assembly tee shall be included in the measurement under the respective pipe removal item.

Payment shall be made for the following Bid Item:

"Remove Hydrant Assembly," per each.

The Contract unit price per each for "Remove Hydrant Assembly" shall be full compensation for all costs incurred to perform the Work described in Section 3-02.3(5), including:

- Removal of the fire hydrant assembly from the hydrant tee to and including the fire hydrant, valve and valve box, hydrant lateral fittings, and thrust block (if any).
- Furnishing and installing compacted trench backfill.
- If the hydrant tee is designated to remain in place, the Work also includes installation of the blind flange, cap, or plug as indicated on the Plans.

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- If the tee is designated for removal and the water main is to remain in service, the Work also includes installation of spool with couplings on the main pipe run as indicated on the Plans.
- If noted in the Plans, the Work shall also include salvage of the hydrant and/or hydrant valve to the Contracting Agency.
- If the hydrant lateral is AC water main and a Bid Item is included for AC water main removal, removal and handling, including hauling and disposal of the hydrant lateral, will be measured and paid for under that item. Otherwise, all such Work shall be considered incidental to and included in the Bid Item for removing the hydrant assembly.

Bid Item No. B16 – Shoring or Extra Excavation Cl. B (3-07)

There will be no measurement of "Shoring or Extra Excavation Cl. B" as it is per lump sum.

Payment shall be made for the following Bid Item:

"Shoring or Extra Excavation Cl. B," per lump sum.

The Contract unit price for "Shoring or Extra Excavation Cl. B" shall be full compensation for all costs necessary and incidental to:

- Designing, furnishing, placing, moving, and removing temporary shoring, or equivalent trench stabilization and worker protection system.
- When extra excavation is used in lieu of constructing the shoring, cofferdam, sheet piles, or caisson, the lump sum contract price shall be full pay for all excavation, backfill, compaction, and other work required for Extra Excavation Cl. B.

Bid Item No. B17 – Crushed Surfacing Top Course for Roadway (4-05)

Measurement and payment for "Crushed Surfacing Top Course for Roadway" shall be per ton.

Payment shall be made for the following Bid Item:

"Crushed Surfacing Top Course for Roadway," per ton.

Water used in placing and compacting surfacing materials on the Roadway will be considered incidental to the course of material being placed and no additional payment will be made.

The Contract unit price per ton for "Crushed Surfacing Top Course for Roadway" shall be full pay for:

- Furnishing, placing and spreading, shaping, and compacting crushed surfacing base acting as a base course for roadway and driveway asphalt, cement concrete curb and gutter, sidewalk, driveway entrances, and driveways.

For the purpose of establishing a common basis for evaluating bids, a provisional quantity has been shown on the bid form and does not necessarily represent the quantity, if any, of "Crushed Surfacing Top Course for Roadway" that may be necessary for the project work. Therefore, the "significant change" provisions of Section 1-04.6 do not apply. Actual quantities will be determined in the field as Work progresses.

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Bid Item No. B18 – Planing Bituminous Pavement (5-04)

"Planing Bituminous Pavement," will be measured by the square yard for planing bituminous pavement and edge grinding to the depths shown on the plans and typical sections.

Payment will be made for the following Bid Items in the Proposal:

"Planing Bituminous Pavement," per square yard.

The Contract unit price per square yard for "Planing Bituminous Pavement" shall be full compensation for all costs including, but not limited to, all necessary materials, labor, equipment to satisfactorily complete planing to the depth indicated on the Plans and disposal of associated materials.

Bid Item No. B19 – HMA Cl. 1/2-Inch PG 58H-22 for New Pavement (5-04)

"HMA Cl. 1/2-Inch PG 58H-22 for New Pavement," 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.

Payment will be made for the following Bid Items in the Proposal:

"HMA Cl. 1/2-Inch PG 58H-22 for New Pavement," per ton.

The Contract unit price per ton for "HMA Cl. 1/2-Inch PG 58H-22 for New Pavement" shall be full compensation for all costs including, but not limited to:

- Restore trenches with HMA from top of roadway base surfacing to existing grade per Contract Plans.
- Restore asphalt driveways with HMA from top of base course surfacing to existing grade per Contract Plans.
- Restore speed humps and raised crosswalks.
- Restore berms and thickened edges.
- Anti-stripping additive, tack coat, and joint sealant incurred to carry out the requirements of Section 5-04.

No price adjustments will be made for materials not conforming to the quality of gradations and asphalt content requirement for the specified hot mix asphalt or for placed hot mix asphalt with measured relative densities less than 92 percent of the reference maximum density. Any such material shall be removed from the project and the defective material replaced with compacted hot mix asphalt surfacing conforming to these specifications. All costs to remedy such defective Work shall be considered incidental to the bid Proposal items and no additional payment will be made.

No separate payment will be made for furnishing and application of CSS-1 asphalt emulsion at trench edges in paved sections, for preparing existing paved surfaces for subsequent lifts of HMA, at paving joints, or at the joints between or in association with temporary HMA pavement. Payment shall be incidental to and included in the Contract unit price for HMA.

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No separate payment will be made for furnishing and application of joint sealant at longitudinal or transverse joints between new HMA pavement and existing pavement. Payment shall be incidental to and included in the Contract unit price for HMA.

Bid Item No. B20 – HMA Cl. 1/2-Inch PG 58H-22 for Wearing Course (5-04)

"HMA Cl. 1/2-Inch PG 58H-22 for Wearing Course," 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.

Payment will be made for the following Bid Items in the Proposal:

"HMA Cl. 1/2-Inch PG 58H-22 for Wearing Course," per ton.

The Contract unit price per ton for "HMA Cl. 1/2-Inch PG 58H-22 for Wearing Course" shall be full compensation for all costs including, but not limited to:

- Place HMA for Overlay ("Wearing Course") per Contract Plans and Details.
- Anti-stripping additive, tack coat, and joint sealant incurred to carry out the requirements of Section 5-04.

No price adjustments will be made for materials not conforming to the quality of gradations and asphalt content requirement for the specified hot mix asphalt or for placed hot mix asphalt with measured relative densities less than 92 percent of the reference maximum density. Any such material shall be removed from the project and the defective material replaced with compacted hot mix asphalt surfacing conforming to these specifications. All costs to remedy such defective Work shall be considered incidental to the bid Proposal items and no additional payment will be made.

No separate payment will be made for furnishing and application of CSS-1 asphalt emulsion at pavement edges in paved sections, for preparing existing paved surfaces for subsequent lifts of HMA, at paving joints, or at the joints between or in association with temporary HMA pavement. Payment shall be incidental to and included in the Contract unit price for HMA.

No separate payment will be made for furnishing and application of joint sealant at longitudinal or transverse joints between new HMA pavement and existing pavement. Payment shall be incidental to and included in the Contract unit price for HMA.

Bid Item No. B21 – Temporary Pavement (5-04)

"Temporary Pavement" 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.

Payment will be made for the following Bid Item in the Proposal:

"Temporary Pavement," per ton.

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Included in the cost per ton for "Temporary Pavement" shall be placement and compaction of hot mix asphalt, cold mix asphalt (shoulders only), additives, roadway excavation to proposed subgrade depths irrespective of the materials and methods specified in the Plans or directed by the Engineer, haul, and disposal of temporary pavement. Cold mix asphalt shall be used for shoulders only.

For the purpose of establishing a common basis for evaluating bids, a provisional quantity has been shown on the bid form and does not necessarily represent the quantity, if any, of "Temporary Pavement" that may be necessary for the project work. Therefore, the "significant change" provisions of Section 1-04.6 do not apply. Actual quantities will be determined in the field as Work progresses.

Bid Item No. B22 – Minor Change for Water Improvements (For Bid Purposes Use $50,000) (7-09)

Measurement and payment for "Minor Change for Water Improvements (For Bid Purposes Use $50,000)" shall be by force account per 1-09.6 of the Standard Specifications.

Payments or credits for changes amounting to $50,000.00 or less may be made under the Bid Item "Minor Change for Water Improvements." At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All "Minor Change for Water Improvements" work will be within the scope of the Contract Work and will not change Contract Time.

"Minor Change for Water Improvements (For Bid Purposes Use $50,000)," per force account.

To provide a common proposal for all bidders, the Contracting Agency has estimated the amount for "Minor Change for Water Improvements (For Bid Purposes Use $50,000)" and entered the amount in the proposal to become a part of the total bid by the Contractor. The actual amount shall be determined by field conditions as the work progresses and as set forth in this section. No reliance shall be placed on the amount estimated. The provisions of Section 1-04.6 shall not apply to this item. Payment or credits will be determined in accordance with Section 1-09.4.

Bid Item No. B23 – Class 52 Ductile Iron Pipe for Water Main, ___-Inch Diameter with Restrained Joint Fittings (7-09)

Measurement of pipe for water mains will be by the linear foot of pipe laid and tested and shall be measured along the pipe through all installed fittings, valves, and couplings.

Payment will be made for the following Bid Items in the Proposal:

"Class 52 Ductile Iron Pipe for Water Main, 8-Inch Diameter with Restrained Joint Fittings," per linear foot.

The Contract unit price per linear foot for "Class 52 Ductile Iron Pipe for Water Main, ___-Inch Diameter with Restrained Joint Fittings" shall be full payment for all costs of the Work to complete the installation of the water main as specified in this Section. The following shall be incidental to and included in the Contract unit price(s) for water main as included in the Proposal:

- Locating existing utilities.
- Furnishing and installing pipe, fittings, and thrust blocks as shown on the Plans and details.

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- Tapping existing mains with a tapping tee.
- Furnishing and installing sand cushion or neoprene separation pad.
- Protecting existing surface and subsurface improvements that are to remain.
- Structure Excavation Class B including haul (including hydro-excavation, vactor excavation, or hand excavation where specifically noted in the Plans).
- Furnishing and installing pipe zone bedding. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- Placing, grading, and compacting of trench bedding and backfill as shown and noted in the Trench Section Detail within the Standard Plans. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- Stockpiling including haul and protecting stockpiled excavated trench materials if designated for trench backfill.
- Hauling and disposing of removed or excess materials.
- Filling, flushing, draining, hydrostatic pressure testing, disinfecting, bacteriological testing, and taste and odor testing.
- Furnishing, installing, maintaining, and removing temporary caps, flanges, blowoffs, and ecology blocks as part of construction sequencing.
- Providing notifications and coordinating with water service customers as necessary and per the Contract plans.
- All other incidental costs necessary for a complete installation in full working order, all as herein specified and otherwise shown in the Plans.

If the Contractor over-excavates the pipe trench, or if otherwise the width of the pipe trench becomes wider than the payment limit shown in the Contract Plans, all material removed and placed outside the excavation payment limit shall be at the Contractor's sole expense. The payment limits shown in the Contract Plans shall be considered for payment purposes only and are not a warranty that the trenches can be excavated and backfilled to those limits.

Bid Item No. B24 – Steel Casing, 18-Inch Diameter **(7-09)**

Measurement of "Steel Casing, 18-Inch Diameter" will be by the linear foot.

Payment will be made for the following Bid Items in the Proposal:

"Steel Casing, 18-Inch Diameter," per linear foot.

The unit contract price per linear foot shall be full pay for all work and materials to furnish and install the steel water line casing of the size and length shown in the Plans, including furnishing and installing casing coating/treatment, casing spacers, void fill material, end seals and all items shown in the standard details to create a complete casing system.

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Bid Item No. B25 – Additional Ductile Iron Fittings (7-09)

There will be no measurement of ductile iron fittings that are specifically shown and called out on the Plans as they will be incidental to "Ductile Iron Pipe for Water Main, __-Inch Diameter" or "Class 52 Ductile Iron Pipe for Water Main, __-Inch Diameter with Restrained Joint Fittings," per linear foot and will be furnished and installed by the Contractor to provide a complete system.

Measurement for "Additional Ductile Iron Fittings" will be per pound of additional fittings and couplings furnished, installed, and tested by the Contractor not shown on the Plans, but required by the Engineer to be installed to provide a complete system. The weight of the additional ductile iron fittings and couplings shall include mechanical joint glands, but exclude gland bolts, nuts, and gaskets. The installation of additional ductile iron fittings and couplings will be required by the Engineer for purposes that include, but are not limited to, deflection of the pipeline from its proposed alignment as shown on the Plans to avoid tree removal or unanticipated underground facilities.

Payment shall be made for the Bid Item:

"Additional Ductile Iron Fittings," per pound.

The Contract unit price per pound for "Additional Ductile Iron Fittings" shall be full payment for all costs of the Work to furnish and install additional cast iron fittings not shown on the Plans, but required by the Engineer to provide a complete system, and shall include all costs necessary for a complete installation in full working order, tested and disinfected, as herein specified and otherwise shown on the Plans, including associated thrust or restraint blocks, or restrained joint(s) and placing, grading, and compacting of trench bedding and backfill as shown and noted in the Water Trench Section shown in the Standard Plans. No additional payment shall be made for pipe zone bedding, pipe zone backfill, fittings, and couplings that would be normally anticipated in the Work shown on the Plans, even though said fittings and couplings were not specifically shown on the Plans.

For the purpose of establishing a common basis for evaluating bids, a provisional quantity has been shown on the bid form and does not necessarily represent the quantity, if any, of "Additional Ductile Iron Fittings" that may be necessary for the project work. Therefore, the "significant change" provisions of Section 1-04.6 do not apply. Actual quantities will be determined in the field as Work progresses.

Bid Item No. B26 – Connect to Existing Water Main, ___-Inch Diameter (7-09)

Measurement for payment of "Connect to Existing Water Main, ___-Inch Diameter," per each shall include connections made by long sleeve couplings or couplers, transitions couplings, or couplers as detailed in the Contract Plans and connections made using mechanical joint fittings and connecting them to existing water main pipe. Only connections made from newly-installed water main pipes to Existing Water Mains (as defined in Special Provision 1-01.3) will be counted for payment.

Payment will be made in accordance with Section 1-04.1 for the following Bid Items when included in the Proposal:

"Connect to Existing Water Main, 8-Inch Diameter," per each.

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The Contract unit price for "Connect to Existing Water Main, ___-Inch Diameter," per each shall include connections made by long sleeve couplings or couplers, transitions couplings or couplers as detailed in the Contract Plans, and connections made using mechanical joint fittings and connecting them to existing water main pipe.

The Contract unit price per each for "Connect to Existing Water Main, ___-Inch Diameter" shall be full pay for all work, including labor, materials, tools, and equipment to/for:

- Structure Excavation Class B including haul (including hydro-excavation, vactor excavation, or hand excavation where specifically noted in the plans).
- Install, adjust, and provide temporary blowoffs and blocking.
- Furnish and place pea gravel under existing asbestos cement water main (where applicable).
- Furnishing and installing solid concrete block as shown in Standard Plan(s).
- Furnishing and installing pipe zone bedding. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- Placing, grading, and compacting of trench bedding and backfill as shown and noted in the Trench Section Detail within the Standard Plans. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- Complete connections of new water main to existing water main as specified herein and as shown and noted in the Plans and plan details.

Bid Item No. B27 – Removal and Replacement of Unsuitable Foundation Material (7-09)

Removal and replacement of unsuitable material will be measured by the cubic yard. The depth shall be the actual depth removed to the depth specified in Section 7-09.3(5), "Grade, Depth and Alignment." The width shall be the actual width removed, but in no case shall the measured width exceed the allowable trench widths specified in Section 7-09.3(7), "Trench Excavation" and the neat-line trench width limits shown on the Plans. The length shall be the actual length of the pipe laid and shall be along the pipe through fittings, valves, and couplings.

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"Removal and Replacement of Unsuitable Foundation Material," per cubic yard.

The Contract unit price per cubic yard for "Removal and Replacement of Unsuitable Foundation Material" shall be full payment for all costs for the Work to remove unsuitable material and to furnish, place, and compact suitable foundation material as specified in Section 3-03.3(14), "Unsuitable Foundation Excavation" and 7-09.3(8), "Removal and Replacement of Unsuitable Materials," and per the details shown in the Contract Plans.

For the purpose of establishing a common basis for evaluating bids, a provisional quantity has been shown on the bid form and does not necessarily represent the quantity, if any, of "Removal and Replacement of Unsuitable Foundation Material" that may be necessary for the project work. Therefore, the "significant

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change" provisions of Section 1-04.6 do not apply. Actual quantities will be determined in the field as Work progresses.

Bid Item No. B28 – Crushed Surfacing Top Course for Trench Backfill (7-09)

Crushed Surfacing Base Course for trench backfill will be measured based on the computed volume within the excavated neat line trench width and depth, not to exceed the neat-line payment limits as shown on the Trench Section Standard Detail and for the length measured horizontally along the pipeline where the material is placed as directed by the Engineer.

Measurement and payment for "Crushed Surfacing Top Course for Trench Backfill" shall be per ton.

The Contract unit price per ton for "Crushed Surfacing Top Course for Trench Backfill" shall be full payment for all cost for the Work to furnish the material, placing and compacting of gravel base for trench backfill, as shown and noted in the Trench Section Detail within the Standard Plans, and as authorized in advance by the Engineer and shall be included in the various other Contract bid items where noted.

For the purpose of establishing a common basis for evaluating bids, a provisional quantity has been shown on the bid form and does not necessarily represent the quantity, if any, of "Crushed Surfacing Top Course for Trench Backfill" that may be necessary for the project work. Therefore, the "significant change" provisions of Section 1-04.6 do not apply. Actual quantities will be determined in the field as Work progresses.

Bid Item No. B29 – Dewatering (7-09)

No specific unit of measurement shall apply to the lump sum item for "Dewatering."

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"Dewatering," per lump sum.

The lump sum contract price for "Dewatering" shall be full pay for all labor, equipment, and materials required to remove water from trenches and controlling groundwater during pipe-laying and all pipe/fitting/connection installing operations, including preparing and submitting a dewatering plan and providing and operating storage and treatment tanks or other equipment needed to control turbidity and dechlorinate the water.

Bid Item No. B30 – Temporary Water Service (7-10)

No specific unit of measurement shall apply to the lump sum item for "Temporary Water Service."

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"Temporary Water Service," per lump sum.

The lump sum Contract price for "Temporary Water Service" shall be full pay for all labor, equipment, and materials required to furnish, install, maintain, and remove the temporary water service system as shown

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in the Contract Plans, per section 7-10 and where necessary to provide continual water service to District customers based upon how the Contractor sequences the work.

If the Contractor proposes a temporary water service plan with more temporary water service than shown in the Contract plans, it shall not be a basis for change. The Contractor shall review the Contract plans including these bid schedule B special provisions, the bid schedule B plans, the bid schedule A plans and special provisions and the bid schedule A traffic control and staging plans and develop a temporary water service and construction sequencing plan to minimize impacts and use temporary water service.

Bid Item No. B31 –Construction Sequencing **(7-10)**

No specific unit of measurement shall apply to the lump sum item for "Construction Sequencing."

Payment will be made in accordance with Section 1-04.1 for the following Bid Item when it is included in the Proposal:

"Construction Sequencing," per lump sum.

The lump sum Contract price for "Construction Sequencing" shall be full pay for all labor, equipment, and materials required to sequence the water main and service installation/removal as shown in the Contract plans, as described in these special provisions or as approved by the Engineer.

Bid Item No. B32 – Gate Valve, ___-Inch **(7-12)**

Measurement of valves shall be per each for each type and size installed as specified in this Section, except those gate valves, resilient-seated gate valves, check valves, pressure reducing valves, and pressure relief valves that are specifically included in other items of work.

Payment will be made in accordance with Section 1-04.1 for each of the following Bid Items that are included in the Proposal:

"Gate Valve, 8-Inch," per each.

The Contract price per each for the valve specified shall be full pay for all Work to furnish and install the valve complete in place on the water main including, but not limited to:

- Structure Excavation Class B including haul (including hydro-excavation, vactor excavation, or hand excavation where specifically noted in the Plans).
- Furnishing and installing valves, valve boxes and covers to grade, stem extensions, pipe nipples, couplings, polyethylene encasement, concrete blocking, concrete valve box collar, and all incidentals.
- Furnishing and placing asphalt or concrete valve box protective pad.
- Furnishing and installing asphalt collar (where applicable).
- Furnishing and installing valve marker posts (where applicable).
- Adjustment of valve can and cover (as necessary) to interim and/or final grade(s).

Bid Item No. B33 – Hydrant Assembly **(7-14)**

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Measurement of "Hydrant Assembly" shall be per each for each type specified.

Payment will be made in accordance with Section 1-04.1 for each of the following Bid Items that are included in the Proposal:

"Hydrant Assembly," per each.

The Contract unit price per each for "Hydrant Assembly" shall be full pay for all Work to furnish and install a fire hydrant assembly including, but not limited to:

- Structure Excavation Class B including haul (including hydro-excavation, vactor excavation, or hand excavation where specifically noted in the Plans).
- Installing the hydrant assembly components as shown in the standard plan(s).
- Furnishing and installing pipe zone bedding. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- Placing, grading, and compacting of trench bedding and backfill as shown and noted in the Trench Section Detail within the Standard Plans. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- Placing asphalt or concrete valve box protective pad and fire hydrant guard posts (if required).
- Furnishing, excavating for, grading, and constructing modular block walls where shown on the Contract Plans around the hydrant.
- Ductile iron pipe connecting the hydrant assembly to the Auxiliary Gate Valve to the hydrant assembly.
- Concrete thrust blocking (if required).
- Testing, disinfecting, and ensuring the satisfactory operation of the installed hydrant assembly.
- Painting and restoring the surface in areas not scheduled to receive other surface improvements.
- Furnishing and installing blue hydrant marker/RPM at roadway centerline.

Payment shall also include bends and associated restrained joints as identified in the Plans. Bends not shown in the Plans for the hydrant assembly lateral shall be measured and paid under "Additional Ductile Iron Fittings," per pound. No separate measurement or payment will be made for the connecting segments of ductile iron pipe.

Bid Item No. B34 – Service Replacement, 5/8-Inch x 3/4-Inch (7-15)

"Service Replacement, 5/8-Inch x 3/4-Inch" will be measured per each. Measurement of water service connection installations, reconnections of existing service connections, and replacements of existing service connections will be made per each for each size of water service connection installed and tested. No differentiation will be made for the depth of the water main to which connection is made or the depth of the water main where an existing service connection is to be abandoned and disconnected. No differentiation will be made for the depth to which the water service connection pipe must be laid to conform to the requirements of the jurisdictional road agency, nor the method used to install said pipeline either by boring methods, or by "open-cut" and surface restoration methods. Unless specific Contract bid

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items are provided, no differentiation will be made for traffic-rated meter boxes. A single (not double) service line shall be presumed unless otherwise specifically shown in the Plans and specifically included as a bid Proposal item. No differentiation will be made for the length of service connection installed; see contract plan and profiles for lengths of service lines and depths of connections to water mains.

The size noted for a service connection is the size of the water meter for the service connection and not necessarily the size of the service connection pipeline or water main tap. Where called out on the plans, a 2" service pipe (rather than a 1" per the standard plan) shall be installed and shall be incidental to this bid item.

Up to ten (10) linear feet of the customer supply line (commencing at the outlet of the new meter setter to the start of the existing customer supply line) shall be included in the price for replacement of existing service connections. No differentiation will be made for the depth to which the customer supply line must be laid, nor for the size of the pipe utilized.

Measurement for removing and decommissioning existing service connections will not be considered and shall be included within the service replacement. No differentiation will be made for the size of the water service connection to be abandoned, nor the depth of the water main from which the service line is to be disconnected.

Payment will be made in accordance with Section 1-04.1 for the following Bid Items that are included in the Proposal:

"Service Replacement, 5/8-Inch x 3/4-Inch," per each.

The Contract unit price of the above item as included in the Contract Bid Proposal shall be full pay for all Work to furnish and install the service line from the main to the setter, service connection, or service replacement including, but not limited to:

- Furnishing and installing new service connection, service line, meter setter, meter box, and all appurtenances as described in these Special Provisions and as shown in the Contract Plans and details.
- Structure Excavation Class B including haul (including hydro-excavation, vactor excavation, or hand excavation where specifically noted in the plans).
- Protection of existing utilities.
- Furnishing and installing pipe zone bedding. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- Placing, grading, and compacting of trench bedding and backfill as shown and noted in the Trench Section Detail within the Standard Plans. Trench backfill shall be paid under "Crushed Surfacing ___ Course for Trench Backfill."
- All temporary surface and subsurface facility restoration.
- Handling, cutting, laying, and cleaning the pipe and assembling joints of pipe and fittings.
- Tapping the water main.
- Hydrostatic pressure testing, flushing, and disinfection.

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- Removing and decommissioning existing service connection tap.
- Trenchless installation of service line including boring, pipe bursting, and/or slip-lining of a new service pipe where called out in the Contract Plans.
- Reconnecting customers' customer supply line (if applicable) with a maximum of ten (10) linear feet of new pipe.
- Coordination with homeowner where customer supply lines will be installed by customer per plans.
- Adjustment of meter box and cover (as necessary) to final grade.

All other incidental costs necessary for a complete installation in full working order, tested and disinfected, as herein specified and otherwise shown on the Plans.

The water meter will be furnished and installed by the Contracting Agency per the standard details.

Payment will be in accordance with the unit contract price, irrespective of the pipe material, pressure rating, and size, and includes the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B35 – 4-Inch PVC C-900 Casing for 2" Service Line (7-15)

Measurement of "4-Inch PVC C-900 Casing for 2" Service Line" shall be per linear feet.

Payment will be made in accordance with Section 1-04.1 for each of the following Bid Items that are included in the Proposal:

"4-Inch PVC C-900 Casing for 2" Service Line," per linear feet.

The unit contract price per linear foot shall be full pay for all work and materials to furnish and install the PVC water service casing of the size and length shown in the Plans, including furnishing and installing casing, casing spacers, restrained joints, sand fill material, end seals and clamps and all items to create a complete casing system.

Bid Item No. B36 – Ditch Protection (8-01)

Measurement of "Ditch Protection" shall be per each.

Payment will be made in accordance with Section 1-04.1 for each of the following Bid Items that are included in the Proposal:

"Ditch Protection," per each.

The Contract unit price shall be full pay for all Work to furnish and install biofilter bags, and staking where required, for ditch protection as shown on the Contract Plans. The Bid Item will include maintenance during construction and removal of all biofilter bags and staking at completion of the Project or when they are no longer needed. Trapped sediment shall be removed from the site as a part of the Work.

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Bid Item No. B37 – High Visibility Silt Fence **(8-01)**

Measurement of "High Visibility Silt Fence" shall be per linear foot.

Payment will be made in accordance with Section 1-04.1 for each of the following Bid Items that are included in the Proposal:

"High Visibility Silt Fence," per linear foot

The unit price for "High Visibility Silt Fence" shall be full pay for all costs to obtain, install, maintain, and remove the fence as specified in the Contract Plans. Once removed, the fencing shall remain the property of the Contractor.

Bid Item No. B38 – Fine Compost **(8-02)**

Measurement and for "Fine Compost" shall be per cubic yard.

Payment will be made for the following Bid Item:

"Fine Compost," per cubic yard.

The unit price for "Fine Compost" shall be full compensation for all equipment, labor, tools, and materials required to provide and place fine compost. Work elements shall include, but not be limited to, loading, hauling, placing, tilling, and incorporating into existing subgrade to the depth shown on the plans.

Bid Item No. B39 – Hydroseed, Temporary Erosion Control Seed Mix **(8-02)**

Measurement and for "Hydroseed, Temporary Erosion Control Seed Mix" shall be per acre.

Payment will be made for the following Bid Item:

"Hydroseed, Temporary Erosion Control Seed Mix," per acre.

The unit price for "Hydroseed, Temporary Erosion Control Seed Mix" shall be full compensation for all equipment, labor, tools, and materials required to provide and place hydroseed. Work elements shall include, but not be limited to, loading, hauling, and spreading hydroseed onto tilled subgrade where shown on the plans.

Bid Item No. B40 – Property Restoration (For Bid Purposes Use $10,000.00) **(8-02)**

Measurement and payment for "Property Restoration (For Bid Purposes Use $10,000.00)" shall be by force account per 1-09.6 of the Standard Specifications.

Payment will be made for the following Bid Item:

"Property Restoration (For Bid Purposes Use $10,000.00)," per estimated (est.).

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SPECIAL PROVISIONS – BID SCHEDULE B

Included in the Bid Item unit price shall be, but shall not necessarily be limited to, those items described in 8-02 herein and all necessary materials, labor, and equipment to satisfactorily complete the Work as defined in the Standard Specifications and these Special Provisions.

To provide a common proposal for all bidders, the Contracting Agency has estimated the amount for "Property Restoration (For Bid Purposes Us $10,000.00)" and entered the amount in the proposal to become a part of the total bid by the Contractor. The actual amount shall be determined by field conditions as the Work progresses and as set forth in this section. No reliance shall be placed on the amount estimated; the provisions of Section 1-04.6 shall not apply to this item. Payment or credits will be determined in accordance with Section 1-09.4.

Bid Item No. B41 – Beam Guardrail Type 31 **(8-11)**

Measurement of "Beam Guardrail Type 31" shall be per linear foot.

Payment shall be made for the following Bid Item:

"Beam Guardrail Type 31," per linear foot.

Payment for "Beam Guardrail Type 31" shall be full compensation for all labor, materials, tools and equipment necessary to satisfactorily complete the work as defined in the Plans, the Standard Specifications and these Special Provisions, including Type 31 to Type 1 adaptors, and connections between new guardrail and existing guardrail.

Bid Item No. B42 – Removing Guardrail **(8-11)**

Measurement of "Removing Guardrail" shall be per linear foot.

Payment shall be made for the following Bid Item:

"Removing Guardrail," per linear foot.

Payment for "Removing Guardrail " shall be full compensation for all labor, materials, tools and equipment necessary to satisfactorily complete the work as defined in the Plans, the Standard Specifications, and these Special Provisions.

Bid Item No. B43 – Paint Line **(8-22)**

Measurement of "Paint Line" shall be per linear foot.

Payment shall be made for the following Bid Item:

"Paint Line," per linear foot.

Payment for "Paint Line" shall be full compensation for all costs associated with installation channelization per standard specification 8-22, as shown in the Contract Plans and standard details and complying with the items described in this Section.

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Bid Item No. B44 – Controlled Density Fill and Polyethylene Encasement (8-35)

"Controlled Density Fill and Polyethylene Encasement" shall be measured per linear foot.

Payment shall be made for the following Bid Item:

"Controlled Density Fill and Polyethylene Encasement," per linear foot.

Payment for "Controlled Density Fill and Polyethylene Encasement", shall be full compensation for all labor, materials, tools and equipment necessary to satisfactorily complete the work as defined in the Plans, the Standard Specifications, and these Special Provisions including furnishing and installing controlled density fill (CDF) within the pipe zone bedding area and furnishing and installing polyethylene (PE) encasement per manufacturers' recommendations.

For the purpose of establishing a common basis for evaluating bids, a provisional quantity has been shown on the bid form and does not necessarily represent the quantity, if any, of "Controlled Density Fill and Polyethylene Encasement" that may be necessary for the project work. Therefore, the "significant change" provisions of Section 1-04.6 do not apply. Actual quantities will be determined in the field as Work progresses.

END OF DIVISION 10

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APPENDICES

APPENDICES

The following appendices are attached and made a part of this Contract:

Appendix M-1: Asbestos Handling

- Lakehaven Water and Sewer District:
  Asbestos Cement Pipe – Waste Shipment Record
  (To be completed by Contractor, Transporter, Waste Disposal Site)
- Washington State Department of Labor and Industries:
  Asbestos Project Notice of Intent
  (To be completed and submitted by Contractor)
  Instructions for Asbestos Project Notification
- Puget Sound Clean Air Agency:
  Asbestos / Demolition Notification
  (To be completed and submitted by Contractor)
  Article 4: Asbestos Control Standards
  (Corrected for Lakehaven Water and Sewer District projects)

Appendix M-2: Washington State Department of Transportation (WSDOT) Standard Plans

The following State of Washington Standard Plans for Road, Bridge, and Municipal Construction are attached and made a part of the Contract:

I-30.17-01	High Visibility Silt Fence
J-10	Electrical Conduit Placement
J-40.10-04	Locking Lid Standard Junction Box Types 1 & 2
TC420	Alternating 1-Lane, 2-Way Traffic: Flagger-Controlled (Highways, 40 mph or less)

Appendix M-3: City of Federal Way Standard Details

The following City of Federal Way Standard Details are attached and made a part of the Contract:

FW.B55.20-D	Trench Restoration
FW.B55.20-E	Trench Restoration And Overlay Limits For WSDOT Designated State Routes
FW.M20.10	Pavement Markings
FW.M20.30	Raised Pavement Markers - Sheet 1 of 4
FW.M20.40	Raised Pavement Markers - Sheet 2 of 4
	City of Federal Way Memo – Revision to Concrete Standards for Work in the Right-of-Way

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APPENDIX M-1

ASBESTOS HANDLING

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CLEAR FORM

LAKEHAVEN WATER and SEWER DISTRICT

ASBESTOS CEMENT PIPE – **WASTE SHIPMENT RECORD**

CONTRACTOR

1. WORK SITE LOCATION

MAILING ADDRESS: See "OWNER"

OWNER: Lakehaven Water and Sewer District

MAILING ADDRESS: P.O. BOX 4249, Federal Way, WA. 98063-4249

PHONE NO.: 253 / 941-1516

2. AC PIPE REMOVAL BY:

NAME:

REG. NO.:

MAILING ADDRESS:

PHONE NO.:

3. WASTE DISPOSAL SITE (WDS):

LOCATION:

MAILING ADDRESS:

PHONE NO.:

4. NESHAP JURISDICTIONAL AGENCY: Puget Sound Clean Air Agency

MAILING ADDRESS: 1904 3rd AVE.. Suite 105, Seattle. WA. 98101-3317

PHONE NO.: 206 / 689-4058

5. MATERIAL: FRIABLE ASBESTOS MATERIAL per PSCAA.	DIA. (IN.)	6. CONTAINERS: NO.	TYPE	7. TOTAL QUANTITY: (LF for pipe, or CY)
ASBESTOS CEMENT PIPE	-		BAG	- LF
ASBESTOS CEMENT PIPE	-		BAG	- LF
ASBESTOS CEMENT PIPE	-		BAG	- LF

8. SPECIAL HANDLING INSTRUCTIONS: REFER TO CONTRACT DOCUMENTS, INCLUDING SP 2-02

9. CONTRACTOR'S CERTIFICATION:

I hereby declare that the contents of this consignment are: fully and accurately described above by proper shipping name; are classified, packed, marked, and labeled in accordance with applicable rules and regulations; and are in all respects in proper condition for transport by highway according to applicable international and government regulations. (ref. NESHAP)

PRINTED / TYPED NAME and TITLE | SIGNATURE | / / MO. DAY YR.

TRANSPORTER

10. TRANSPORTER 1 - ACKNOWLEDGMENT OF RECEIPT OF MATERIALS:

NAME:

REG. NO.:

MAILING ADDRESS:

PHONE NO.:

PRINTED / TYPED NAME and TITLE | SIGNATURE | / / MO. DAY YR.

11. TRANSPORTER 2 - ACKNOWLEDGMENT OF RECEIPT OF MATERIALS:

NAME:

REG. NO.:

MAILING ADDRESS:

PHONE NO.:

PRINTED / TYPED NAME and TITLE | SIGNATURE | / / MO. DAY YR.

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LAKEHAVEN WATER and SEWER DISTRICT

ASBESTOS CEMENT PIPE – **WASTE SHIPMENT RECORD**

WASTE DISPOSAL SITE	
	12. OBSERVED DISCREPANCIES: (If none, state "None.") _____
	13. WASTE DISPOSAL SITE (WDS) OWNER OR OPERATOR: (ACKNOWLEDGMENT OF RECEIPT OF MATERIALS) I, as Owner / Operator (circle the one or ones that apply) of the WDS, hereby certify receipt of the asbestos materials covered by this Waste Shipment Record (manifest), except as noted in Item 12 above. PRINTED / TYPED NAME and TITLE _____ SIGNATURE _____ MO. / DAY / YR.

INSTRUCTIONS

WASTE GENERATOR SECTION (Items 1-9)

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the Owner of the facility and the Owner's phone number.
2. Enter the name and address of the Owner, authorized agent or Contractor responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the authorized agent or Contractor.
3. Enter the name, address, and physical site location of the Waste Disposal Site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS.
4. Provide the name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program.
5. Indicate the types of asbestos waste materials generated.
6. Enter the number of containers used to transport the asbestos materials listed in Item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used 1f not listed below):

   DM - Metal drums, barrels
   DP - Plastic drums, barrels
   BA - 6 mil plastic bags or wrapping
7. Enter the quantities of each type of asbestos material removed in units of linear feet for asbestos cement pipe.
8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.
9. The Owner, authorized agent of the Waste Generator, or Contractor performing the removal and preparing the waste materials for transport to the WDS must read and then sign and date this certification. The date is the date of receipt by the transporter.

NOTE: The **WASTE GENERATOR** must retain a copy of this form.

TRANSPORTER SECTION (Items 10 and 11)

10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this Waste Shipment Record for transport. Enter date of receipt and signature. If transporter is the same as the Owner, authorized agent, or Contractor, so indicate.

NOTE: The **TRANSPORTER** must retain a copy of this form.

WASTE DISPOSAL SITE SECTION (Items 12 and 13)

12. The authorized representative of the WDS must note in this space any discrepancy between the waste described on this Waste Shipment Record (manifest) and waste actually received, as well as any improperly enclosed or contained waste. Any rejected materials should be listed, and the destination of those materials provided. A site that converts asbestos-containing waste material to non-asbestos material is considered a WDS.
13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in Item 12. The date is the date of signature and receipt of shipment.

NOTE: The **WDS** must retain a completed copy of this form, AND must **send** a completed copy to the named Owner and Contractor in Items 1 and 2, respectively.

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Mail completed form to:
Department of Labor and Industries
PO Box 44614
Olympia WA 98504-4614

Asbestos Project Notice of Intent

This notice must be received no later than 10 calendar days prior to the start date. Complete all applicable boxes — incomplete or illegible notices will not be accepted. Attach separate page(s) with additional information if needed.

Submitting this form online electronically will provide you with a confirmation email, Notice number, and ability to print the Notice to post at your job site. Get more information at www.Lni.wa.gov/Asbestos.

Notice Date	Start Date	Completion Date

☐ Initial
☐ Amended — circle all changes
☐ On Hold — Reason: _____
☐ Off Hold — Resume Date: _____ New Completion Date: _____
☐ Emergency
☐ Waiver — ☐ Yes ☐ No
Who did you speak with at L&I? _____ Date: _____

Site Work Hours: Project dates and work hours must be exact.

	From		To		Additional Shifts From		To	
Sunday	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.
Monday	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.
Tuesday	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.
Wednesday	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.
Thursday	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.
Friday	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.
Saturday	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.	_____	a.m./p.m.

Contractor Information:

Company Name	Contractor Certification Number	
UBI	Phone Number	
Email Address	Additional Phone Number	
Job Site Certified Asbestos Supervisor	Supervisor Certification Number	Supervisor Phone Number
Additional Job Site Certified Asbestos Supervisor	Supervisor Certification Number	Supervisor Phone Number
Printed Name of Person Submitting Form	Signature	

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Property Owner:

Name	Company	
Owner's Agent	Phone Number	
Address		
City	State	Zip Code
Email Address(es)		

Job Site:

Address			
Building Name		Room	
City	County	State	Zip Code

Facility:

Facility Type ☐ Residential ☐ Commercial ☐ Educational ☐ Industrial ☐ Other:				
Year of Construction	Prior Use	Size		
Job Type ☐ Remodel	☐ Repair	☐ Demolition	☐ Maintenance	

Asbestos Project Details:

Select one:	☐ Removed	☐ Encapsulated
Select one:	☐ Indoors	☐ Outdoors

Quantity: square feet		
☐ Fireproofing	☐ Popcorn ceiling/texture	☐ Cement Asbestos Board (CAB)
☐ Mastic	☐ Wall texture	☐ Sheet vinyl
☐ Boiler insulation	☐ Duct paper	☐ Vinyl Asbestos Tile (VAT)
☐ Roofing	☐ Asbestos paper	☐ Other:

Quantity: linear feet		
☐ Mag/mudded pipe insulation	☐ Air cell pipe insulation	☐ Ducting/duct insulation
☐ Cement asbestos pipe	☐ Duct tape	☐ Other:

Control Measures:

☐ Negative pressure enclosure	☐ Wrap and cut
☐ Glove bag	☐ Wet methods
☐ Mini-enclosure	☐ HEPA vacuum
☐ Critical barriers	☐ Manual methods
☐ Other:	☐ Other:

Respiratory Protection:

☐ ½ Mask — Air Purifying Respirator	☐ Type C continuous flow — Supplied Air
☐ Full Mask — Air Purifying Respirator	☐ Type C pressure demand — Supplied Air
☐ Powered Air Purifying Respirator	☐ Other:

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Washington State Department of
Labor & Industries

August, 2007

Instructions for Asbestos Project Notification

The following information is for asbestos contractors and building owners submitting asbestos project notices to the Department of Labor and Industries, Division of Occupational Safety and Health. Notification of the department is required by state law, RCW 49.17.120(2). Specific requirements for notices are found in WAC 296-65-020. Asbestos projects include any construction, renovation, or demolition in a building or other facility with the potential to release asbestos fiber. The department also maintains a directive for industrial hygiene compliance staff with instructions for them on reviewing asbestos project notices, WISHA Regional Directive (WRD) 23.25, Asbestos Project Notification.

Preferred Notice Methods

The department has provided an online form for submitting notices at:

http://www.lni.wa.gov/Safety/Topics/AtoZ/Asbestos/ProjectForm.asp

Using the online form provides direct email notification of department regional staff and gives an immediate response from the department system acknowledging the notice. This method of notification is preferred by the department.

The notice form is also available in PDF format through the web site (L&I form F413-025-000). This form can be faxed or mailed to the department. The number for faxing notices is 360-902-4409. The mailing address is:

Department of Labor and Industries
Asbestos Certification Program
PO Box 44614
Olympia WA 98504-4614

Exemptions to Notification

There are two exemptions to notification of department prior to starting an asbestos project:

Small Size: Generally, no notice is required if the entire construction, renovation, maintenance, or demolition project involves disturbing less than 48 square feet of asbestos containing materials (the size of the material must also be less than 10 linear feet for piping or duct insulation).

Emergencies: If asbestos fiber is being released or release is imminent due to unforeseen circumstances, work to stabilize the site, protect people, and prevent further release of asbestos may commence immediately. The department must be notified within 3 working days of the start of the project. The emergency exemption only applies

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to work necessary to abate the immediate hazard, and the department must be notified of the project prior to any other related work. See the information below for more details on what is considered an emergency and additional requirements for posting and communication at emergency work sites. The section below on timely notification has information on waivers to the 10-day waiting period, which may be appropriate for continuing work following an emergency project.

Project Definition

An asbestos project is any work which will disturb asbestos-containing materials and has the potential for release of asbestos fiber. Notices should be specific to work that meets this definition. Mobilization and site preparation work that is unlikely to disturb asbestos-containing materials should not be included in the work dates of the notice. Once all expected abatement work is completed on a project, the notice should be closed out (if new material is found, a 10-day waiver may be appropriate to resume work under a new notice).

The purpose of the notice is to allow the department to monitor asbestos abatement activity and determine when and where projects are occurring. For complex activities at large sites it may be necessary to submit multiple project notices to describe the full scope of project phases or activities. The following are some considerations in determining whether a single or multiple notices will be appropriate.

- Is the work covered by separate contracts? Generally, the department expects each separate contract to have a separate notice.
- Is the work in separate buildings? Typically, a separate notice should be given for each building or address where work will occur; particularly if there will be a separate mobilization for each address.
- Is there a central job office? Where there is a single mobilization and a central jobsite office and entry point, a single notice may be appropriate, as long as department representatives can go to a single point to initiate an inspection at any time during the project.
- If the work crew and competent person will be restationed to a new building or other distinct location during the project, then separate notices should be provided to give specific location information. In large buildings, movement from one wing, floor, or functional space to another may require separate notifications if there is no single entry point that can be specified.
- Note: dividing a project into smaller projects to avoid notification is specifically prohibited. If any of the criteria above would suggest dividing the project into small projects, notification will still be required.
- If there are questions as to how many notices are necessary or on combining work into a single notice, the regional industrial hygiene compliance staff can answer questions and make decisions on notification requirements.

Timely Notification

To be considered timely, the asbestos project notice must be received no later than 10 calendar days prior to the start date of the project. 10 days gives the department time to process and review the notices.

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If circumstances prevent providing notice 10-days before starting asbestos project work, then a waiver to the 10-day prenotification requirement may be requested. The waiver must be requested from the regional industrial hygiene compliance staff. You may contact them through the nearest Department of Labor and Industries field location. Complete written notification information will be required and the regional staff may require additional written documentation of the circumstances requiring quick start of the project. When submitting the notice, indicate which staff member approved the 10-day waiver (if the notice was submitted prior to approval, please amend the notice with this information). No work may commence without a 10-day notice or acknowledgment of the project by DOSH industrial hygiene compliance personnel, unless the project meets the definition of an emergency asbestos project.

Examples of circumstances where a waiver of the 10-day notice requirement is appropriate include:

- People have been displaced from their home until asbestos hazards are abated.
- The project must proceed quickly to protect equipment, ensure continuous vital utilities, or minimize property damage.
- Asbestos-containing materials were encountered that were not identified during the asbestos survey and asbestos hazards must be abated to resume on-going work.
- Long-term contract situations with a limited class of work activities. Information must be provided on an annual basis, with notice for each specific work activity given prior to commencing.

Asbestos work is complicated and requires significant assessment and preparation; therefore projects that must proceed without time for a 10 day notice are rare. However, the DOSH compliance staff is directed to generally accommodate requests for waivers of the 10-day notice period. The quick nature of the project and short planning period are considered to make the project exceptional and a priority for inspection by the DOSH compliance program as part of the DOSH asbestos inspection emphasis program. Circumstances leading to the waiver request may also be reviewed during inspection of the project by DOSH compliance staff.

Form Information

Start and Completion Dates: Exact starting and completion dates of the asbestos project, including shifts during which abatement work will be accomplished. If other work is involved in the contract, limit the notice to time when set-up and abatement work handling asbestos-containing materials will be done that meets the definition of an asbestos project. Further, the dates given must not conflict with the dates specified for asbestos removal in the any work contracts.

Changes in the start or completion dates or work shifts must be communicated to the department by an amended notice. The dates for the notice must be for actual asbestos project work. Work such as intact flooring removal, on-call time during demolition, or contract time when work will not be conducted should not be given as a project time on the notice.

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- When the starting date or time changes, the amended notice must be filed no later than 5:00 p.m. on the business day prior to the starting date in the original notice and prior to the new starting date.
- When the completion date or time changes, the amended notice must be filed within eight hours from when the change is determined and before completion of the project.

Initial or Amended Notice: Initial notice is only the first notice for a project. Any updates should be marked as amended. When amending a notice by fax, circle the changed items. When using the online system, use the comment box to briefly describe the amendment.

On-Hold Status: On-Hold status is for projects that have been started, but where work has stopped for some reason and is expected to resume. For example, this may be for time between phases of a project, when there has been a scheduling problem between trades, or when there is a contract dispute.

Projects can not be placed on hold prior to starting. If there are specific reasons that the start date can not be set, contact the appropriate regional office and request a 10-day notice waiver. When setting a project on hold, please provide notes on the reason for the hold and the expected date for resuming work.

If all anticipated work has been completed, the project has ended and the notice should be closed out rather than being put on hold. If new materials are found at the site, work with the regional IH compliance staff to obtain a 10-day notice waiver to resume.

Work Hours: Give start and stop times for each work each day (including all shifts) and check the days of the week that work will occur. If the work shifts run overnight, check the day the shift begins. (For example if you work Friday from 6 pm to 4 am mark Friday and not Saturday, unless another shift begins on Saturday.)

Emergency: If the project is an emergency situation (reasonably unforeseeable projects involving significant ongoing hazards) notice must be provided to the Department within 3 working days of starting work. **Note:** Projects considered emergencies by other regulatory agencies might not be considered an emergency under Labor and Industries regulations. There are additional posting and communication requirements for emergency projects, see WAC 296-65-020(5). See the information below on emergencies for more information. When a 10-day notice waiver is requested, the project is not an emergency and should not be marked as such.

Property Owner: This box must contain the name of the property owner. If anyone will be representing the owner during the work the owner's agent and company must be provided. An owner's agent may be a property manager, attorney, architect, bank, holding company, etc. The general contractor on a project should not be listed as the owner's agent for this notice unless they own the facility or manage the property beyond the construction contract. Provide an address and phone number for contacting the owner or agent.

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Contractor: Contracted asbestos abatement projects must be conducted by a Certified Asbestos Contractor. For work that is done by a building or facility owner, designate In-House-Work in this field.

Job Site and Facility: You must include a complete and accurate job site address. This information must include the street location, city, Zip code and county. If the site is a large structure or complex of many buildings using the same street address, you must further identify where, within that complex, your project will be performed including the specific building and room. When there are multiple work locations on a large site or contiguous sites are conducted with a single job site office, the address for the site point of entry should be given on the form. Additionally, describe the facility type (office, school, apartment, house, etc.), age (years), and size (square feet).

Quantity of asbestos to be removed: Determine the total quantity of material to be removed, in both square feet and linear feet. Check the box for each type of material to be removed. Include all materials to be handled during the project. If there are materials such as asbestos flooring or roofing that will not be part of the asbestos abatement project, note in the comment section that these are being removed by intact removal methods.

Alternate Work Methods: For work utilizing control methods not specifically described in the DOSH asbestos standard, you must have the methods certified following the direction found in WAC 296-62-07712(8) (Class I work or other materials disturbed during removal) or WAC 296-62-07712(10)(f) (Class II work where the material are removed generally intact). A description of the method must be provided to the department.

For Class I alternate methods the certification must be submitted with your notice. Certification of the work methods is done by your consultants or personnel and is not subject to approval by the department, but this information will be used in evaluating the project for inspection scheduling and assessment of the work practices if there is an inspection or questions regarding the work. If you are using the online form for your notification, you can fax or mail the work plan and certification to the asbestos certification desk using the contact information above. Put your online notification form identification number on the cover sheet, to help us determine which project you are referencing. You may also contact the department industrial hygiene compliance staff to make arrangements for mailing, emailing, or hand delivering the documents.

Additional Information: The online form has a comment box that can be used for additional information you need to submit. If you are faxing or mailing the notice, the information can be given on an additional page or cover letter. Information that needs to be provided in the comment section includes:

- briefly describe changes that have been made to your work plans when making amendments (circle changes on faxed or mailed notices)
- when projects are placed on hold, describe the reason and when work is expected to resume
- who at L&I authorized a 10-day notice waiver
- any other information that may be helpful for L&I staff reviewing your asbestos project notice.

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Large-scale, On-going Projects

Building owners who have extensive asbestos work involved in operation and maintenance of their facilities may request a waiver from notification requirements. This waiver applies to ongoing maintenance and operations programs where asbestos is encountered on a regular basis and there are standard procedures for handling of the materials. The program materials and work description must be supplied to the regional industrial hygiene supervisor for approval of the program. The program must be reviewed each January or whenever there are significant changes to the program, personnel, or work site. Approved programs may conduct work without notice to the department for individual projects.

Emergency Projects

Conditions may arise unexpectedly that must be addressed immediately to prevent a greater hazard or significant operational impact. Asbestos work inherently involves significant hazard (asbestos is a human carcinogen with no known threshold limit). Projects conducted without careful planning can increase this hazard. However, other hazards or the potential for increased asbestos hazards may sometimes justify immediate action.

Examples of emergency projects:

- Water damage is causing a spray-applied asbestos containing insulation material to fall apart. A small removal project will allow access to repair the water piping, this project could reduce the need for immediate removal or cleanup of additional asbestos materials. After addressing the plumbing the remainder of the material to be cleaned up may be addressed in the normal manner, with appropriate advance notification to the departmentl.
- A critical component in an industrial plant is damaged in an accident. If immediate removal of nearby asbestos containing materials is necessary to access the damage and effect repairs this may prevent an unscheduled plant shut down. This could save considerable expense and avoid hazards from the sudden shutdown of the plant.

Emergency projects as defined under the Washington State Asbestos Act are not necessarily the same as those defined by local air quality authorities. Typically these organizations define emergency more broadly, and require pre-approved permits for all projects, including emergencies. Situations that fall under the emergency project definition of these other organizations, but are not considered emergencies by L&I, include materials found during construction that were not part of the original survey or projects necessary to protect equipment that do not represent a significant health or safety hazard. In such cases, L&I expects the advance notification requirements of the standard to be met. See the section on timely notifications.

Onsite Notification for Emergency Projects. When an emergency project is conducted the following notification requirements must be met:

- Employees and other people in the vicinity of the project must be notified of the project as soon as possible. This may be prior to the project if there is any delay

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in startup. Anyone entering the vicinity of the project, for example at a shift change, should be notified immediately.

- Employee representatives must also be notified (this would include collective bargaining representatives, safety committees or other representatives designated by the employees).
- A notice must be clearly posted at the work site describing the nature of the project (see the attachment at the end of this document).
- L&I must be notified within three days after commencing work including all information normally required for prenotification.

Not all unforeseen work is an emergency. Asbestos projects must be reasonably unforeseeable to be considered emergencies under the standard. Projects necessitated by poor maintenance, by waiting until parts fail to conduct regular replacement, or other circumstances leading to equipment or system failures that could be reasonably controlled, scheduled, or avoided by the facility owner are not emergency projects. Building and facility owners must make a good faith inspection of their facilities prior to any construction, renovation, remodeling, maintenance, repair, or demolition project that has a reasonable possibility of disturbing or releasing airborne asbestos. This requirement appears both in WAC 296-62-07721(1)(c)(ii) related to general industry activities and in WAC 296-62-07721(2)(b)(ii) related to construction activities. This responsibility includes anticipating maintenance needs and providing for appropriate handling of asbestos materials that may interfere with non-routine activities that can be reasonably expected to occur. Many options are available to building owners for handling these situations, including the following:

- Remove asbestos-containing materials to provide clear work areas for subsequent maintenance work;
- Arrange for alternate equipment, systems or operating procedures to allow time for arranging asbestos removal when necessary;
- Develop procedures for handling removal on a case-by-case basis and provide notification to the department under the ongoing maintenance provisions;
- Conduct limited removal of asbestos-containing materials so that the area is cleared for the maintenance work, but the size of the asbestos project falls below the notification threshold and other asbestos materials are left in a stable condition;
- Develop maintenance procedures that will not impact asbestos-containing materials in place.

Need more information?

Please call the Asbestos Certification Program at 360-902-5435 or e-mail to GASC235@LNI.WA.GOV

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Attachment—Sample Emergency Project Posting Form

EMERGENCY ASBESTOS PROJECT

This form, or equivalent, must be prominently posted in the vicinity of an emergency asbestos project. The Department of Labor and Industries, Division of Occupational Safety and Health, must be notified of the project within three days of commencement.

Project Description: (include type and quantity of asbestos material effected and the work procedures in use—containment, glovebagging, encapsulation, encasement, etc.)

Nature of the Emergency: (include description of hazards and reason for the unforeseen nature of the project)

Certified Asbestos Supervisor(s): (Competent Person)

Facility Owner or Representative:
Phone:

People Affected by Project: (employees or others in the vicinity of the project; these people must be informed of the project as soon as possible)

Employee Representatives: (Collective bargaining unit, safety committee or other designated representative for the employees affected by the project.)

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https://secure.pscleanair.org/pscaa.ui/notifications/asbestos

Asbestos/Demolition Notification

When Do I Need to Notify?

You need to notify the agency if your project is within King, Kitsap, Pierce and Snohomish County and includes any of the following:

- Removing a material that contains more than one percent (1%) **friable asbestos**.
- Removing 10 or more linear feet of **friable asbestos**.
- Removing 48 or more square feet of **friable asbestos**.
- Performing a **demolition** with a projected roof area greater than 120 square feet.

You do NOT need to notify the Puget Sound Clean Air Agency if:

- You are performing the project outside of our four county jurisdiction.
- You are removing **non-friable asbestos**.

How Do I Submit a Notification?

To submit a notification to the Puget Sound Clean Air Agency, you will need:

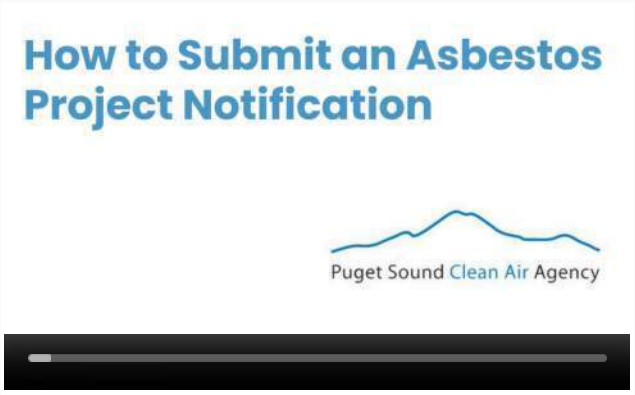
- An asbestos survey.
- A credit card.

To learn how to submit an asbestos project notification correctly and avoid costly mistakes:

- Watch the video.
- Review the legal definitions as needed.

If you have questions, contact us:

- by email (asbestos@pscleanair.gov)
- by phone at (206) 689-4058.



Begin the Notification Process

By clicking the button below, you will be able to:

- file a new notification,
- view past notifications, or
- amend an existing notification.

CONTINUE

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PUGET SOUND
Clean Air Agency

Contact Us

1904 Third Avenue Suite 105
Seattle, WA 98101
Tel: (206) 343-8800

Monday - Friday 8:00 AM - 4:30 PM
Closed federal holidays.

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APPENDIX M-2

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
(WSDOT) STANDARD PLANS

NOTE: THESE TRAFFIC CONTROL PLANS INCLUDED IN APPENDIX M-2 CAN ONLY BE UTILIZED FOR BID SCHEDULE B WORK AND ON SW 374TH ST. SEE BID SCHEDULE A PLANS FOR ALL OTHER TRAFFIC CONTROL PLANS.

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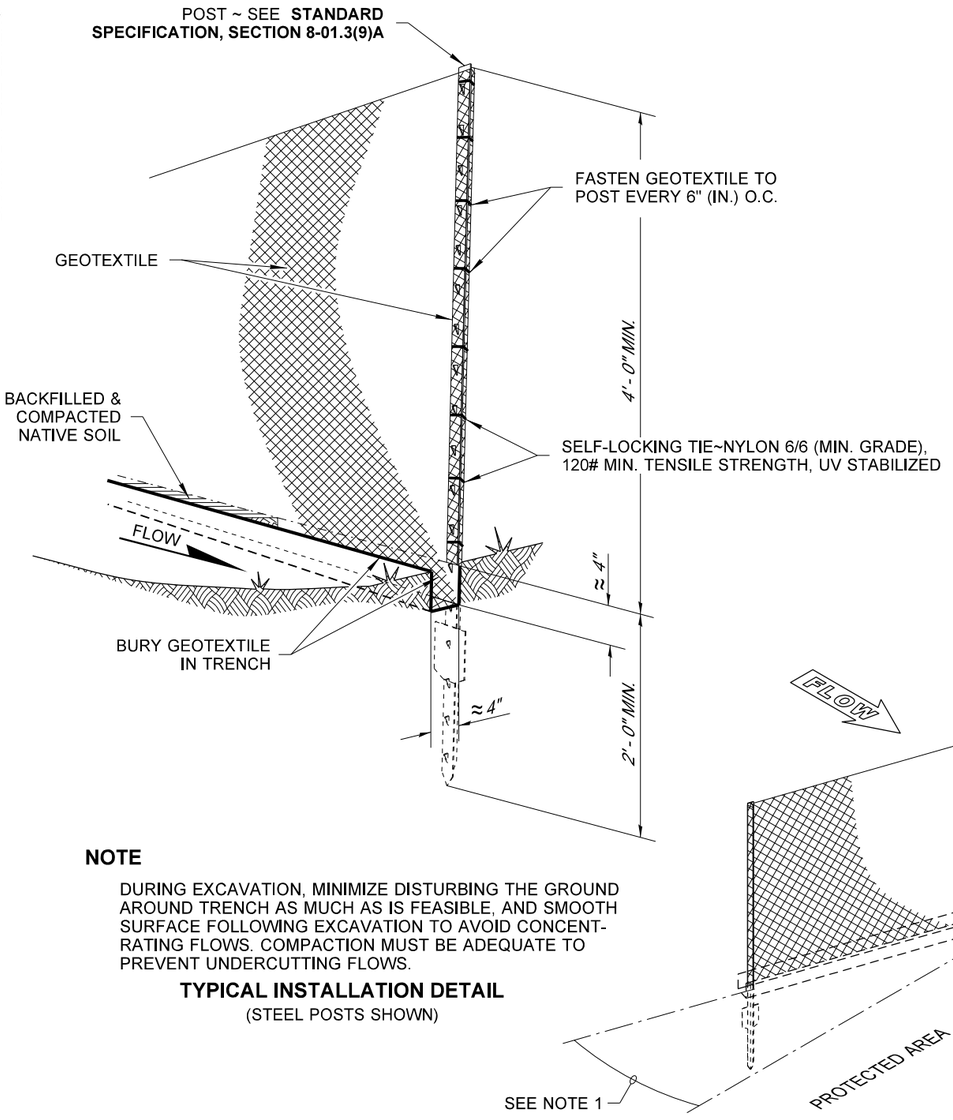
DRAWN BY: BILL BERENS

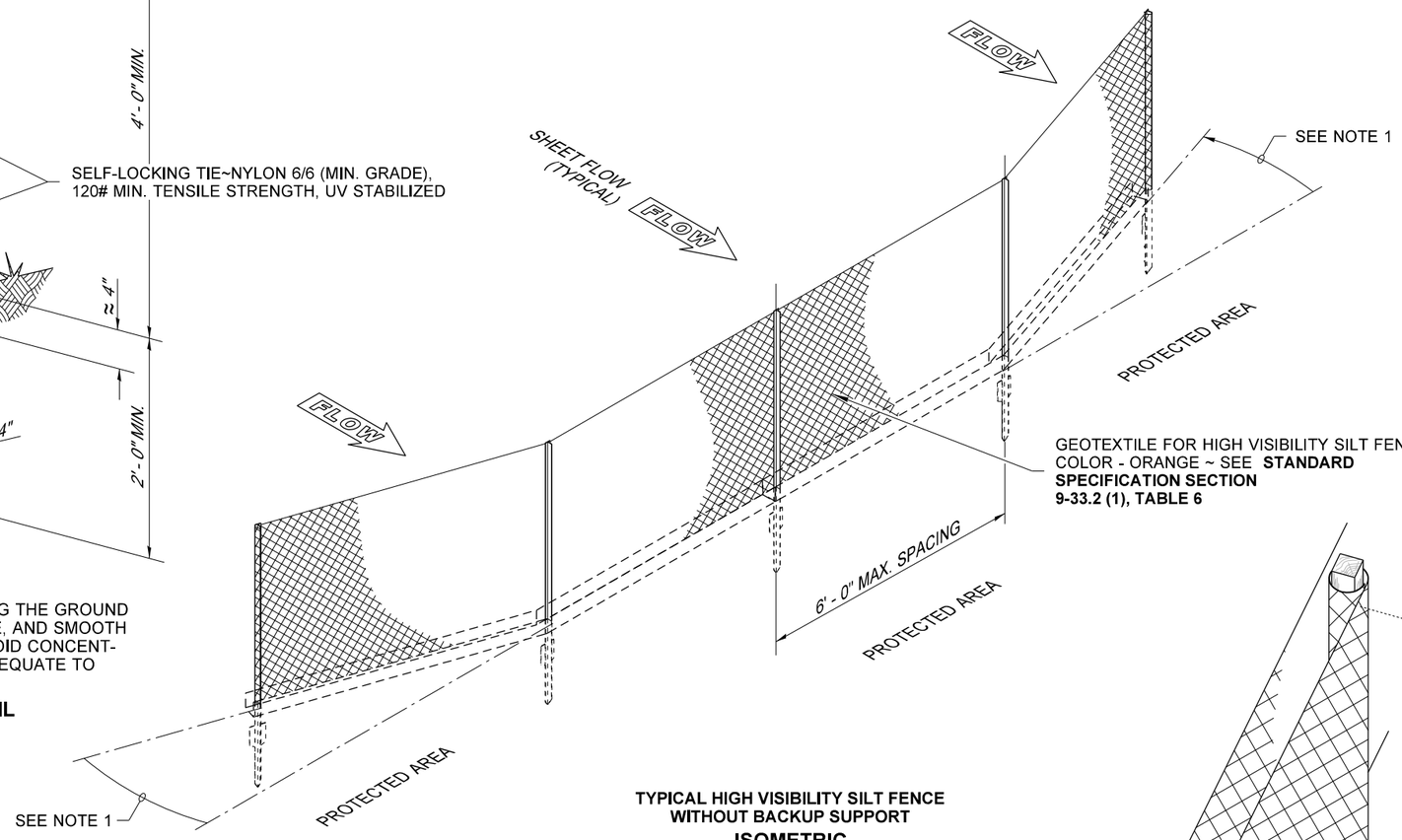


NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENT-RATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

TYPICAL INSTALLATION DETAIL

(STEEL POSTS SHOWN)



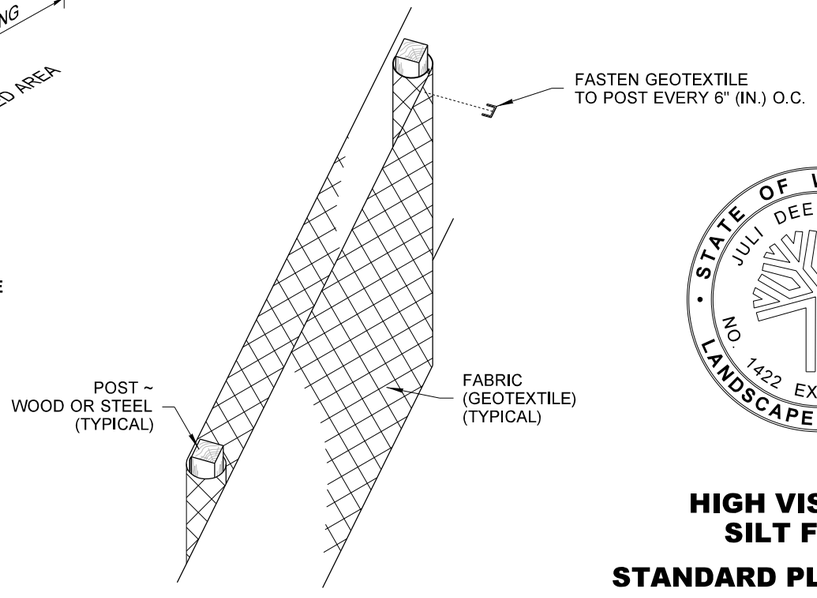
TYPICAL HIGH VISIBILITY SILT FENCE WITHOUT BACKUP SUPPORT

ISOMETRIC

(STEEL POSTS SHOWN)

NOTES

1. Angle Terminal end uphill 24" (in) to 48" (in) to prevent flow around fence (Typical).
2. Perform maintenance in accordance with **Standard Specification, Sections 8-01.3(9)A and 8-01.3(15)**.
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.



SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP. JOINING SECTIONS SHALL NOT BE PLACED IN LOW SPOTS OR IN SUMP LOCATIONS.

SPLICE DETAIL

(WOOD POSTS SHOWN)

STATE OF WASHINGTON · JULI DEE HARTWIG · NO. 1422 EXP. 06/21/2021 · LANDSCAPE ARCHITECT

HIGH VISIBILITY SILT FENCE

STANDARD PLAN I-30.17-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER

Washington State Department of Transportation

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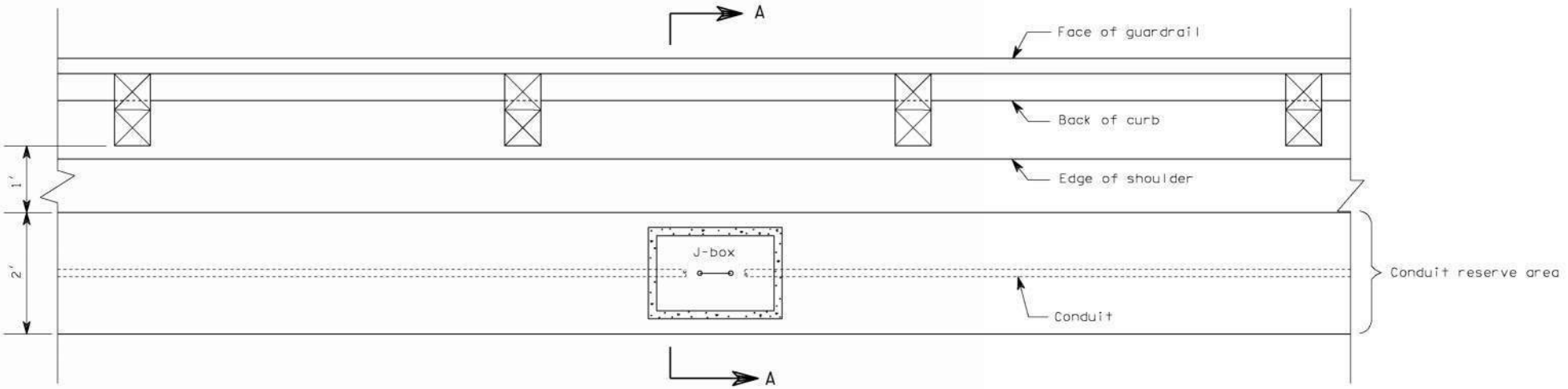
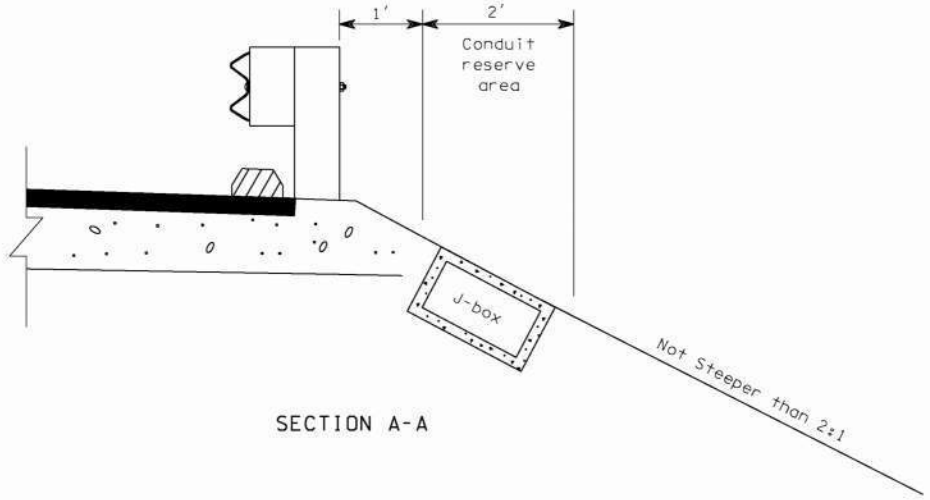


PLAN



SECTION A-A

ELECTRICAL CONDUIT PLACEMENT

WILLIAM D. BROWN
STATE OF WASHINGTON
0014812
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES SEPT 10, 1998

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND DATED, IS ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

STANDARD PLAN J-10

APPROVED FOR PUBLICATION

Clifford E. Mansfield 07-18-97

STATE DESIGN ENGINEER — DATE

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

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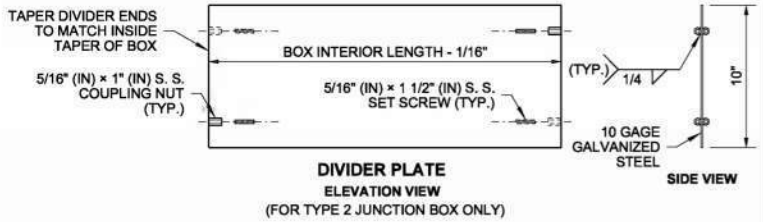
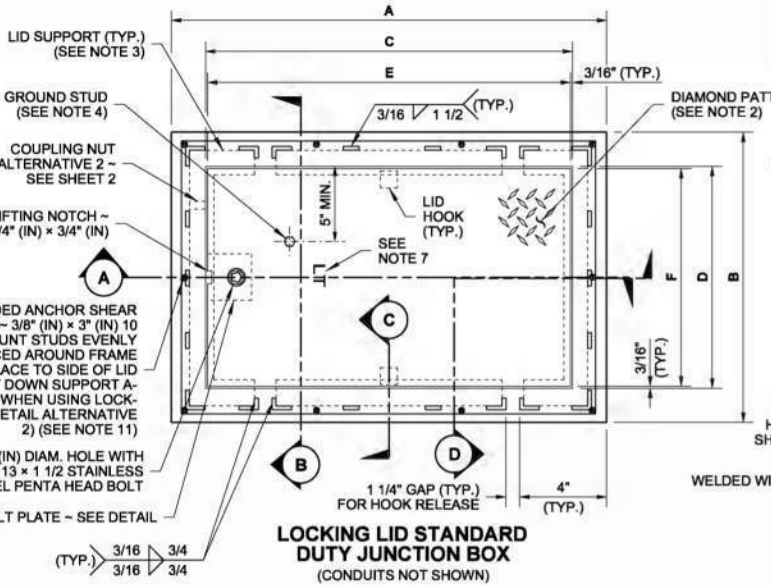


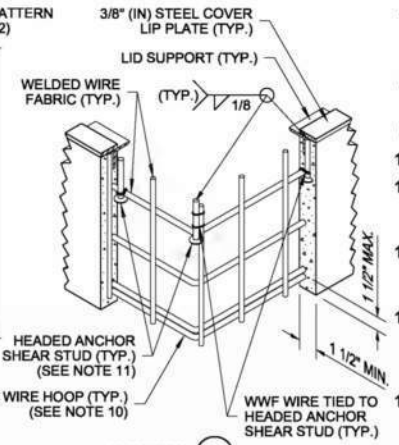
DIVIDER PLATE
ELEVATION VIEW
(FOR TYPE 2 JUNCTION BOX ONLY)

JUNCTION BOX DIMENSION TABLE

MARK	ITEM	BOX TYPE	
		TYPE 1	TYPE 2
A	OUTSIDE LENGTH OF JUNCTION BOX	22"	33"
B	OUTSIDE WIDTH OF JUNCTION BOX	17"	22 1/2"
C	INSIDE LENGTH OF JUNCTION BOX	18" ~ 19"	28" ~ 29"
D	INSIDE WIDTH OF JUNCTION BOX	13" ~ 14"	17" ~ 18"
E	LID LENGTH	17 5/8"	28 5/8"
F	LID WIDTH	12 5/8"	18 1/8"
	CAPACITY ~ CONDUIT DIAMETER	6"	12"



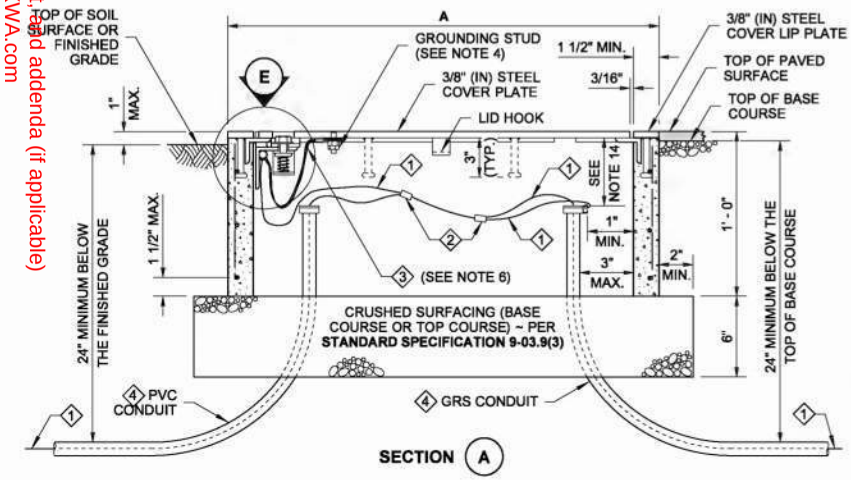
LOCKING LID STANDARD DUTY JUNCTION BOX
(CONDUITS NOT SHOWN)



SECTION (D)
PERSPECTIVE VIEW

NOTES

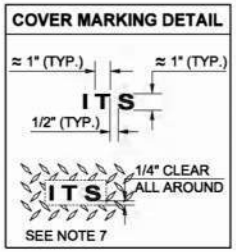
1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. Minimum lid thickness shown. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate, and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" (in) line thickness formed with a mild steel weld bead and shall be placed prior to hot-dip galvanizing.
3. Lid support members shall be 3/16" (in) minimum thick steel C, L, or T shape, welded to the frame.
4. A 1/4-20 NC × 3/4" (in) stainless steel ground stud shall be welded to the bottom of the lid; include (2) stainless steel nuts and (2) stainless steel flat washers.
5. Bolts and nuts shall be liberally coated with anti-seize compound.
6. Equipment Bonding Jumper shall be # 8 AWG min. × 4' (ft) of tinned braided copper.
7. The System Identification letters shall be 1/8" (in) line thickness formed with a mild steel weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. For System Identification details, see **Standard Specification 9-29.2(4)**.
8. When required in the Contract, provide a 10" (in) x 27 1/2" (in), 10 gage divider plate, complete, with fasteners, in each Type 2 Junction Box where specified.
9. When required in Contract, provide a 12" (in) deep extension for each Type 2 Junction Box where specified.
10. See the **Standard Specifications** for alternative reinforcement and class of concrete.
11. Headed Anchor Shear Studs must be welded to the Steel Cover Lip Plate and wire tied in two places to the vertical Welded Wire Fabric when in contact with each other. Wire tie all other Headed Anchor Shear Studs to the horizontal Welded Wire Fabric.
12. Lid Bolt Down Attachment Tab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawings for specifics.
13. Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults, and Pull Boxes shall not be placed within the sidewalks, walkways, shared use paths, traveled ways or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
14. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max. for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" (in) min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.

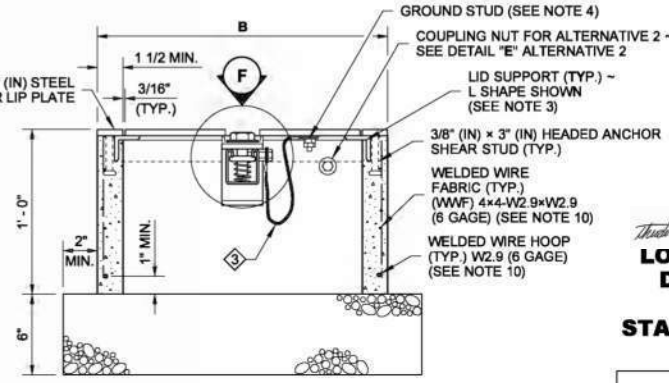


SECTION (A)

1. Equipment Grounding Conductor
2. Copper Solderless Crimp Connector
3. Equipment Bonding Jumper (See Note 6)
4. See Contract for conduit size and number

COVER MARKING DETAIL





SECTION (B)
(CONDUITS NOT SHOWN)

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

Bailey, Ted
Apr 25 2016 9:32 AM

LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2 STANDARD PLAN J-40.10-04

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Carpenter, Jeff
Apr 28 2016 3:12 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

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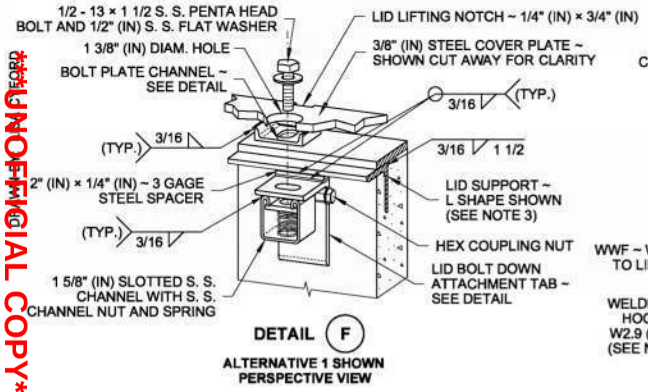
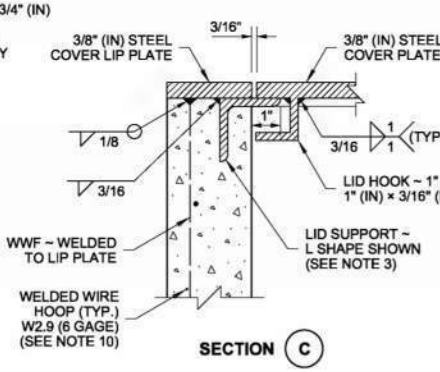
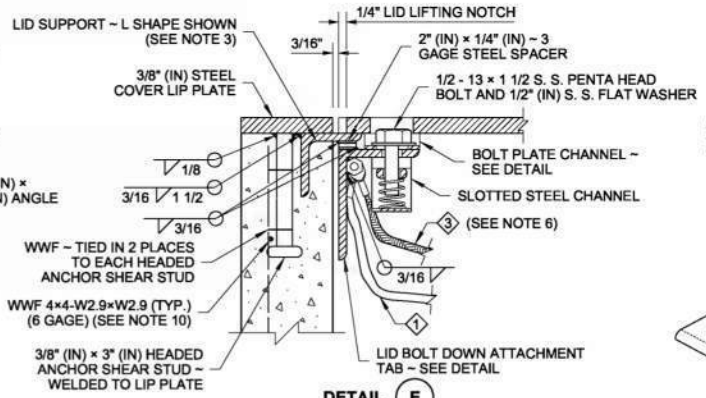


DETAIL F
ALTERNATIVE 1 SHOWN
PERSPECTIVE VIEW



SECTION C



DETAIL E
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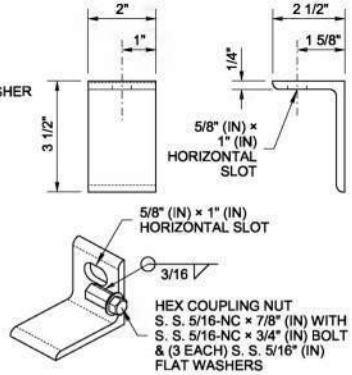
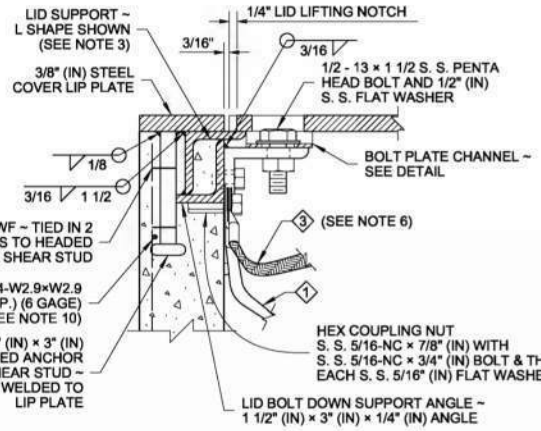


ALTERNATIVE 1
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)



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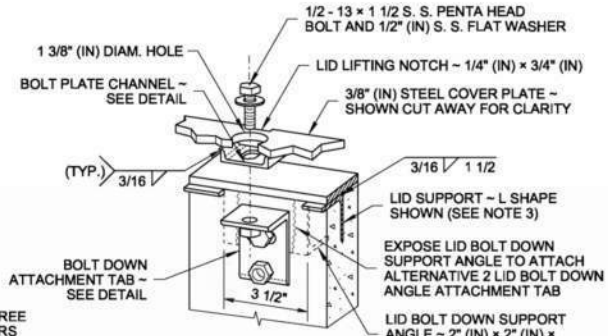
ALTERNATIVE 2 SHOWN



DETAIL F
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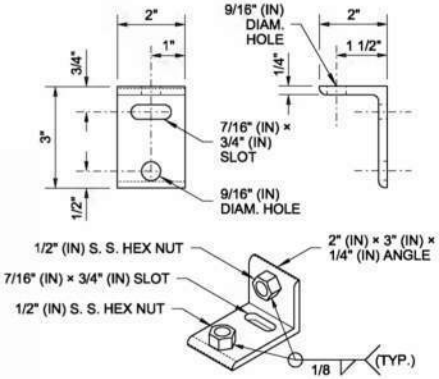
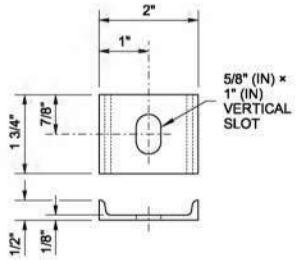
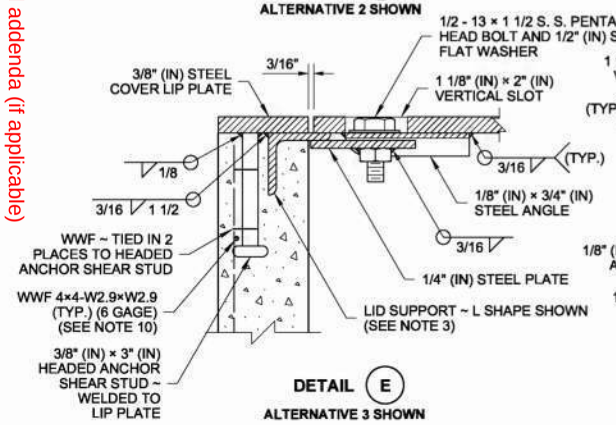
PERSPECTIVE VIEW



ALTERNATIVE 2
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)



BOLT PLATE CHANNEL



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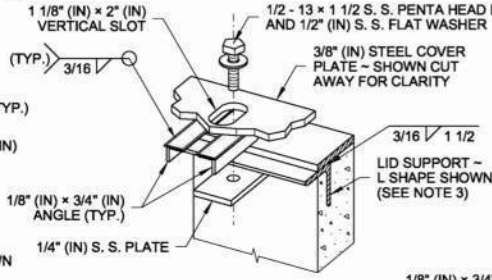
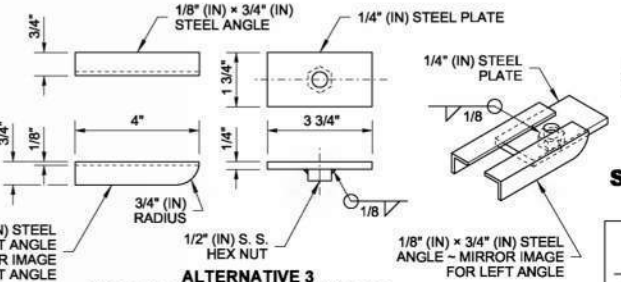
ALTERNATIVE 3 SHOWN



DETAIL F
ALTERNATIVE 3 SHOWN
PERSPECTIVE VIEW



ALTERNATIVE 3
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

Bailey, Ted
Apr 25 2016 9:33 AM

LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2
STANDARD PLAN J-40.10-04

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
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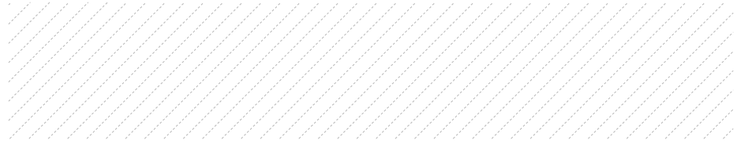
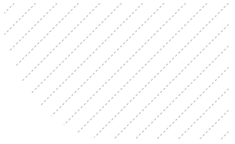
Apr 28 2016 3:12 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation



UNOFFICIAL COPY Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com



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APPENDIX M-3

CITY OF FEDERAL WAY
STANDARD DETAILS

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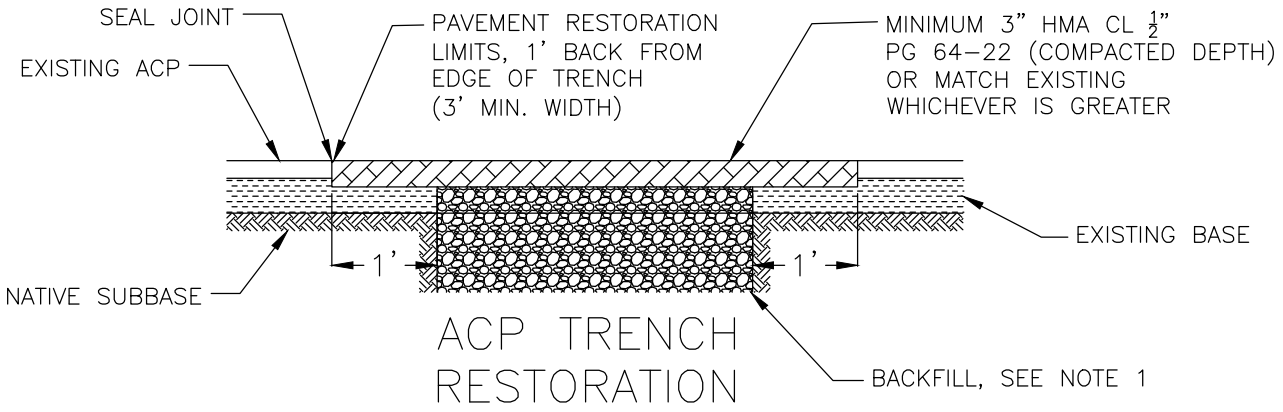
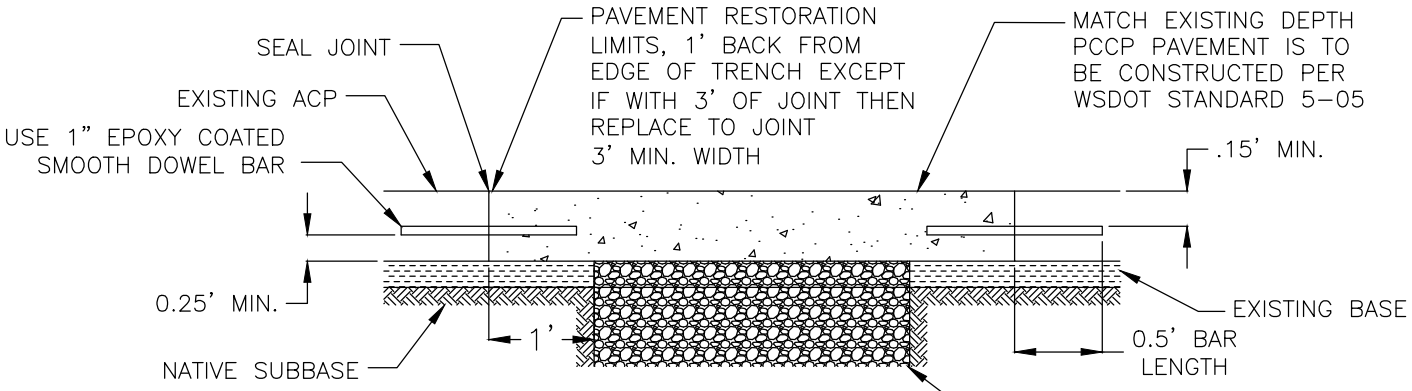
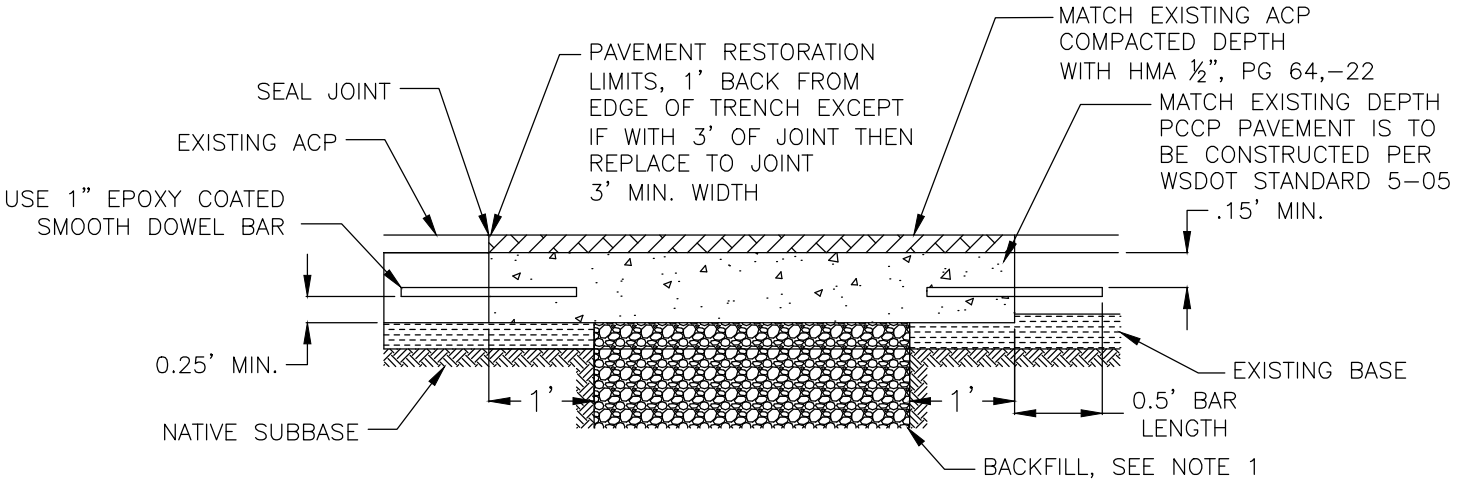


ACP TRENCH RESTORATION



PCCP TRENCH RESTORATION



ACP OVER PCCP TRENCH RESTORATION

NOTES:

1) BACKFILL SHALL BE IN ACCORDANCE WITH STANDARD DETAIL FW.B55.20-A.
2) THIS DETAIL IS APPLICABLE TO TRANSVERSE AND LONGITUDINAL TRENCHES.
3) THIS DETAIL DOES NOT APPLY TO WSDOT DESIGNATED STATE ROUTES. FOR TRENCHES ON WSDOT DESIGNATED STATE ROUTES, SEE STANDARD DETAIL FW.B55.20-E.

REV: JUN 2024

CITY OF Federal Way PUBLIC WORKS

TRENCH RESTORATION

STD. DETAIL FW.B55.20-D

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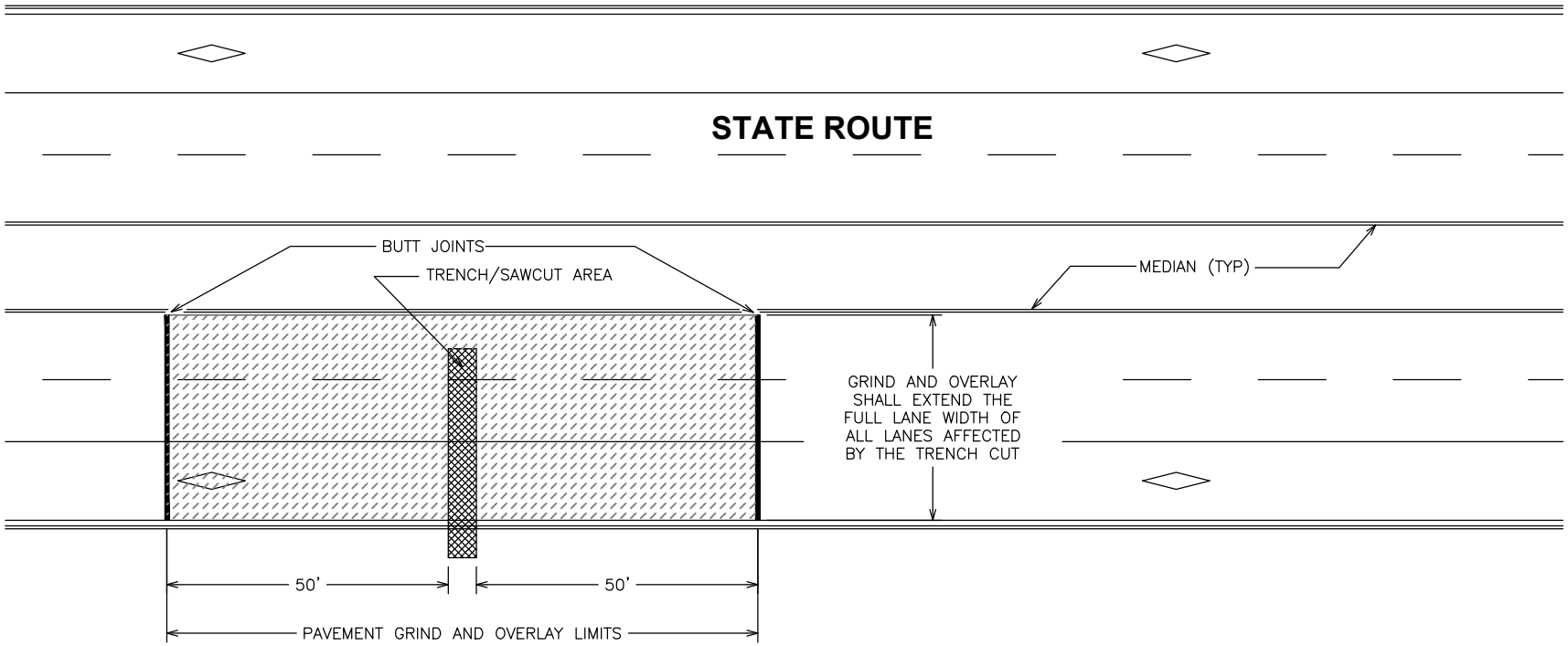
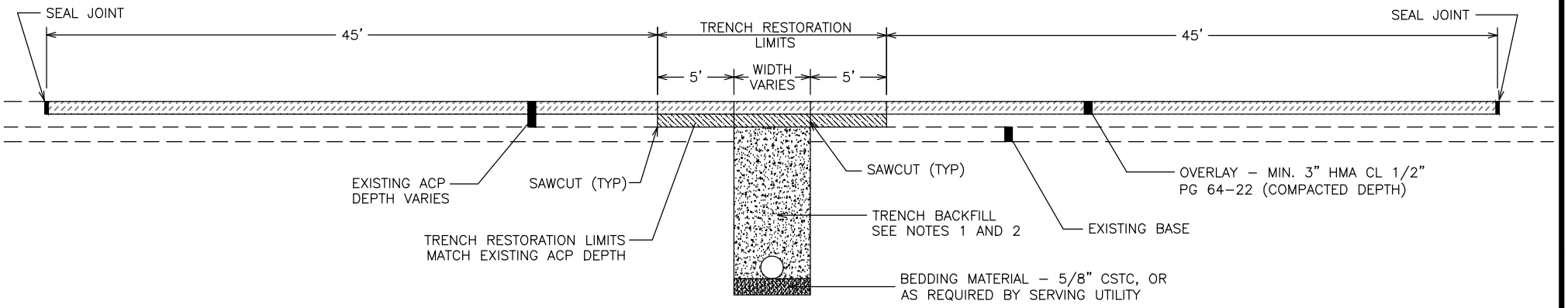




NOTES:

1) FOR TRENCHES LESS THAN 18" WIDE, USE 100% CDF FOR TRENCH BACKFILL.
2) FOR TRENCHES GREATER THAN 18" WIDE, USE 5/8" CSTC.
3) COMPACTION TESTING REQUIRED AS DIRECTED.
4) PROVIDE DELIVERY TICKET(S) AND/OR SOURCE FOR ALL MATERIALS.
5) THIS DETAIL IS APPLICABLE TO TRANSVERSE AND LONGITUDINAL TRENCHES.
6) FOR TRENCHES NOT ON WSDOT DESIGNATED STATE ROUTES, SEE STANDARD DETAIL FW.B55.20-A.

REV: JUN 2024

CITY OF Federal Way

PUBLIC WORKS

TRENCH RESTORATION AND OVERLAY LIMITS FOR WSDOT DESIGNATED STATE ROUTES

STD. DETAIL FW.B55.20-E

NOTES

LONGITUDINAL STRIPING

1. LONGITUDINAL STRIPING PATTERNS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD PLAN M-20.10. FOR DOUBLE CENTER LINE STRIPING, THE DISTANCE BETWEEN THE LINES SHALL BE 4 INCHES.

2. LONGITUDINAL STRIPING MATERIAL
   - ARTERIALS SHALL BE PLASTIC TYPE D METHYLMETHACRYLATE (MMA).
   - COLLECTORS AND LOCAL STREETS SHALL BE PAINT; EXCEPTIONS ARE BELOW.
   - ROUNDABOUTS SHALL BE PLASTIC TYPE D ON ARTERIALS AND PRINCIPAL COLLECTORS. MINOR COLLECTORS AND LOCAL STREETS MAY BE PAINT. THIS INCLUDES LONGITUDINAL STRIPING TO THE END OF THE STRIPING TAPER AT EACH SPLITTER ISLAND.
   - STRIPING WITHIN INTERSECTIONS, REGARDLESS OF STREET CLASSIFICATION, SHALL BE PLASTIC TYPE A OR D. THIS REFERS TO DOTTED EXTENSION LINE OR OTHER STRIPING LOCATED WITHIN THE INTERSECTION ITSELF ONLY.

3. LONGITUDINAL STRIPING - PLASTIC TYPE D - PROFILE USE
   - SHALL PROFILE:
     -- CENTER LINE (ALL PATTERNS).
     -- LANE LINE (STANDARD, REVERSIBLE, AND WIDE (SOLID, DOTTED, AND HOV)).
     -- YELLOW EDGE LINE.
     -- DOTTED EXTENSION LINE.
   - SHALL NOT PROFILE:
     -- WHITE EDGE LINE.
   - FOR ALL OTHER LONGITUDINAL STRIPING PATTERNS, COORDINATE WITH THE TRAFFIC DIVISION.

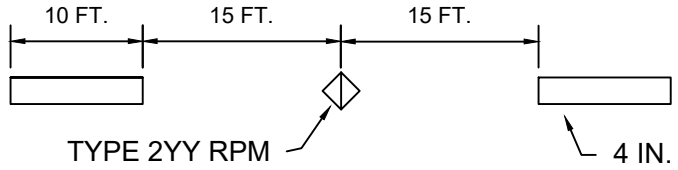
TRANSVERSE MARKINGS

4. TRANSVERSE MARKING DIMENSIONS SHALL BE IN ACCORDANCE WITH STANDARD DETAIL FW.M15.10.
   - TRANSVERSE MARKINGS FOR MOTORIZED VEHICLES SHALL INCLUDE STOP LINE, CROSSWALK LINE, YIELD LINE, ARROWS, HOV MARKINGS, SPEED BUMP SYMBOLS.
   - OTHER TRANSVERSE MARKINGS INCLUDE BICYCLE LANE MARKINGS AND SHARROWS.
   - FOR ANY MARKING NOT LISTED HERE, COORDINATE WITH THE TRAFFIC DIVISION.

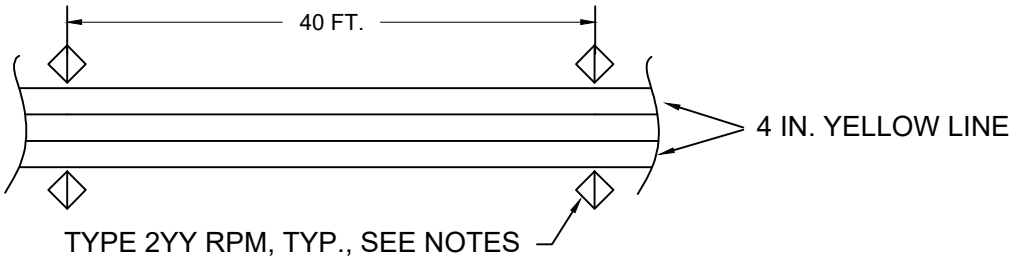
5. TRANSVERSE MARKING MATERIAL
   - TRANSVERSE MARKINGS FOR MOTORIZED VEHICLES SHALL BE PLASTIC TYPE A.
   - TRANSVERSE MARKINGS FOR ROUNDABOUTS SHALL BE PLASTIC TYPE A.
   - OTHER TRANSVERSE MARKINGS SHALL BE PLASTIC TYPE A OR PAINT, AS NOTED BELOW:
     -- BIKE LANE SYMBOLS SHALL BE PAINT, REGARDLESS OF STREET CLASSIFICATION.
     -- SHARROWS SHALL BE PLASTIC TYPE A ON ARTERIALS AND COLLECTORS. ON LOCAL STREETS, SHARROWS SHALL BE PAINT.

REV: MAR 2025

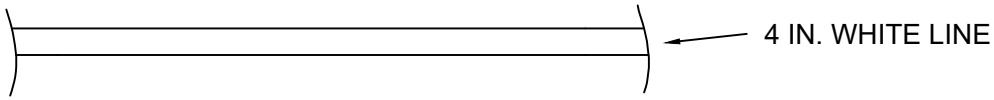
CENTER LINE



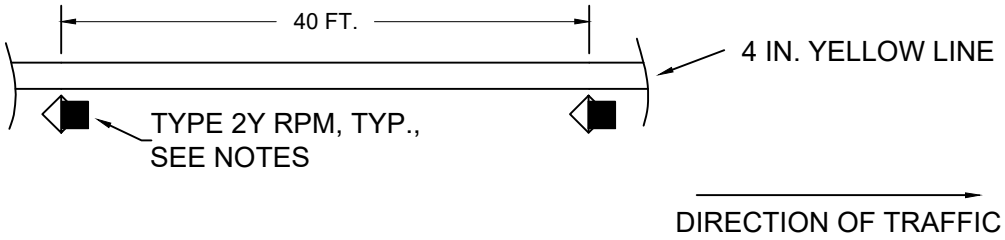
DOUBLE CENTER LINE



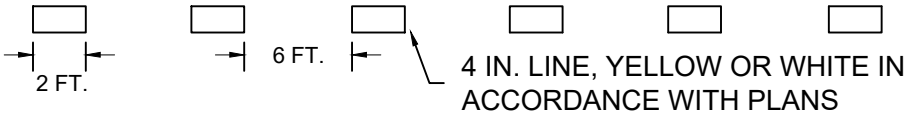
WHITE EDGE LINE



YELLOW EDGE LINE



DOTTED EXTENSION LINE



NOTES

1. FOR PAVEMENT MARKING PATTERNS AND DETAILS, SEE STANDARD DETAIL FW.M20.10.
2. FOR RPM TYPES, SEE STANDARD DETAIL FW.20.40.
3. ALL RPMS SHALL BE LOCATED TO PROVIDE 4 INCHES BETWEEN STRIPING AND RPMS.
4. TYPE 2 RPMS SHALL BE USED ON ALL ARTERIALS AND COLLECTORS, IF STRIPED.
5. WHERE CURBING IS USED IN PLACE OF STRIPING, USE THE RPM PATTERN APPLICABLE TO THE STRIPING BEING REPLACED.
6. WHERE RAISED MEDIAN OR YELLOW CURBING IS USED IN PLACE OF STRIPING, USE TYPE 2YR RPMS, WITH RED FACING OPPOSITE THE DIRECTION OF TRAFFIC.
7. WHERE RAISED MEDIAN OR WHITE CURBING IS USED IN PLACE OF STRIPING, USE TYPE 2WR RPMS, WITH RED FACING OPPOSITE THE DIRECTION OF TRAFFIC.
8. WHERE TYPE 2YR AND TYPE 2WR RPMS ARE USED, THESE ARE REQUIRED FOR EVERY LINE ON EACH SIDE OF THE STREET WHERE THERE IS A MEDIAN OR CENTER CURBING.
9. MARK FIRE HYDRANTS WITH TYPE 2BB RPMS, SEE STANDARD DETAIL FW.M20.42.

LEGEND

MONO-DIRECTIONAL RPM TYPE 2

BI-DIRECTIONAL RPM TYPE 2

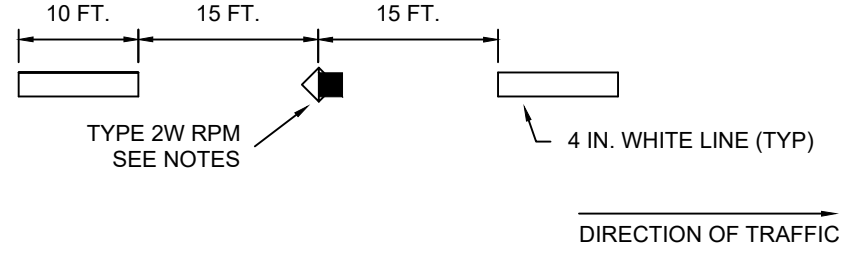
REV: JAN 2026

CITY OF Federal Way PUBLIC WORKS

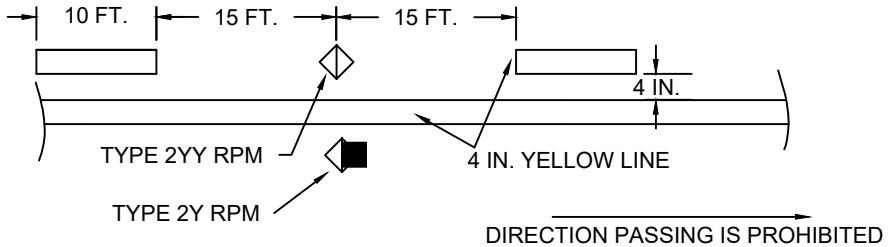
RAISED PAVEMENT MARKERS - SHEET 1 OF 4

STD. DETAIL FW.M20.30

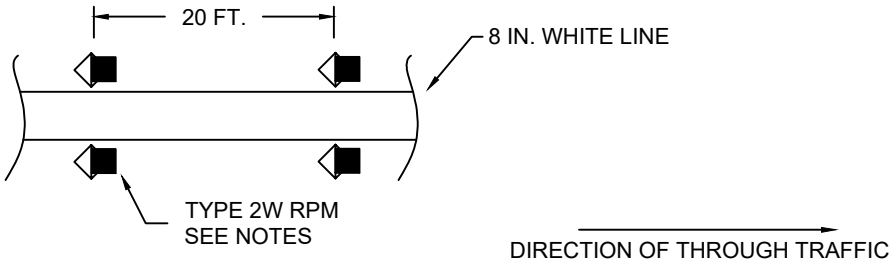
LANE LINE



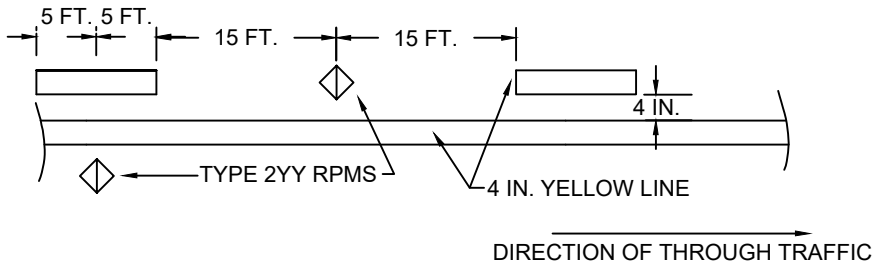
CENTER LINE WITH NO PASS LINE



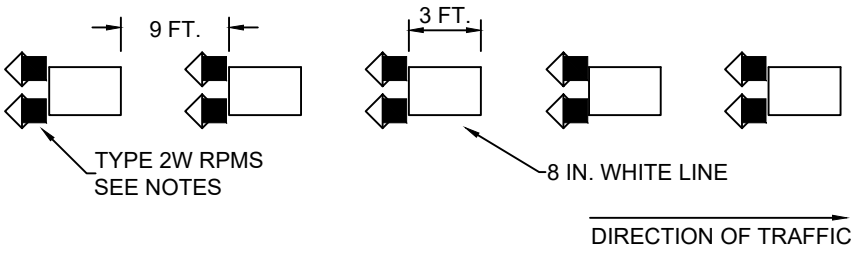
WIDE SOLID LANE LINE



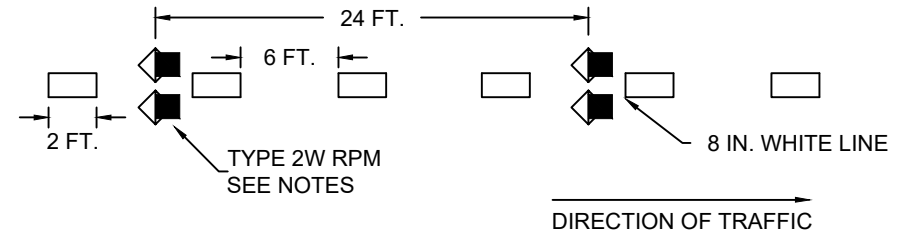
TWO-WAY LEFT-TURN CENTER LINE



WIDE DOTTED LANE LINE



WIDE DOTTED EXTENSION LINE (FOR HOV LANE USE)



RAISED PAVEMENT MARKER (RPM) TYPES

TYPE 1	NON-REFLECTIVE	NOT USED
TYPE 2W	REFLECTIVE FACE ONE SIDE	WHITE
TYPE 2WR	REFLECTIVE FACE BOTH SIDES	WHITE / RED
TYPE 2Y	REFLECTIVE FACE ONE SIDE	YELLOW
TYPE 2YY	REFLECTIVE FACE BOTH SIDES	YELLOW / YELLOW
TYPE 2YR	REFLECTIVE FACE BOTH SIDES	YELLOW / RED
TYPE 2BB	REFLECTIVE FACE BOTH SIDES	BLUE/BLUE

SEE STANDARD DETAIL FW.M20.30 FOR RPM DETAILS AND NOTES.
SEE STANDARD DETAIL FW.M20.10 FOR STRIPING PATTERN NOTES.
SEE STANDARD DETAIL FW.M20.42 FOR TYPE 2BB RPM DETAILS AND NOTES.

REV: JAN 2026

CITY OF FEDERAL WAY
MEMORANDUM

DATE:	November 14, 2022
TO:	EJ Walsh, PE – Public Works Director
VIA:	Desiree Winkler, PE – Deputy PW Director Christine Mullen, PE –Engineering Manager
FROM:	Cole Elliott, PE – Development Services Manager
SUBJECT:	***Revision to Concrete Standards for Work in the Right-of-way***

Overview

As part of development, redevelopment or capital improvement of property and right-of-way within the City of Federal Way, frontage improvements are often required, and in many cases the public improvements include concrete curb, gutter, sidewalks (flat work concrete) or street light bases.

Currently the City's Development Standards only allows Type I/Type II concrete for right-of-way improvements as defined in the 2010 WSDOT *Standard Specifications for Road, Bridge and Municipal Construction* Research with the American Concrete Institute (ACI), Washington Department of Transportation Standard Specifications (Specifications), American Association of State Highway and Transportation Officials (AASHTO), and area concrete suppliers indicated that the industry as a whole is moving to the exclusive use of Blended Hydraulic Cement (specifically Type 1L) conforming to ASTM C595 or AASHTO M240.

It is the intent of this memorandum to provide consistency between public and private development of improvements within the public right-of-way and to provide temporary standards until such time as the City's Development Standards are updated.

As part of the analysis City staff consider the following concrete mixes: 4,000 psi Type 1L; 4,000 psi Type 1L with admixture (AEA, Delvo, Pozzolith, Glenium, MBAE (MasterAir), Xypex, MasterLife SF 100, Penetron); 4,000 psi Type 1P; 4,000 psi Type 1S and 5,000 psi Type 1L.

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Acceptable Concrete Mixes:

City Standard Drawings that call out Type I/II concrete are hereby amended to allow Type 1L subject to the conditions listed below:

	Class 3000 Type 1L	Class 4,000 Type 1L	Class 4,000 Type 1L with crystalline waterproofing and corrosion protection admixture[1]	Class 5,000 Type 1L
Pre-cast luminaire foundations	X	X	X	X
Cast-in-place luminaire foundations		X	X	X
Pre-cast or cast-in-place catch basins and manholes		X	X	X
Roads, curbs, gutters, roundabouts & aprons, sidewalks, ADA ramps, driveway approaches			X	X
Other exposed surfaces (junction box aprons, cabinet bases, etc.)			X	X

[1] Crystalline Waterproofing Admixtures (Penetron or approved equal) shall meet the following specification: ASTM C 494, Type S, hydrophilic, crystalline permeability-reducing admixture for hydrostatic conditions (PRAH) shall form insoluble crystals throughout the concrete matrix, self-healing and sealing all pores, capillaries and cracks up to 0.5mm (1/51 inch). The crystalline waterproofing admixture shall include a colored tracer material so that it is visible when included in the concrete mix.

For all Type 1L concrete mixes, the City will not accept any maleated Rosin (MasterAir AE90) as a supplied Air Entrainment and Waterproofing admixture or any wax based curing compounds.

cc: Project File
Day File

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APPENDIX N

ROADWAY POTHOLES

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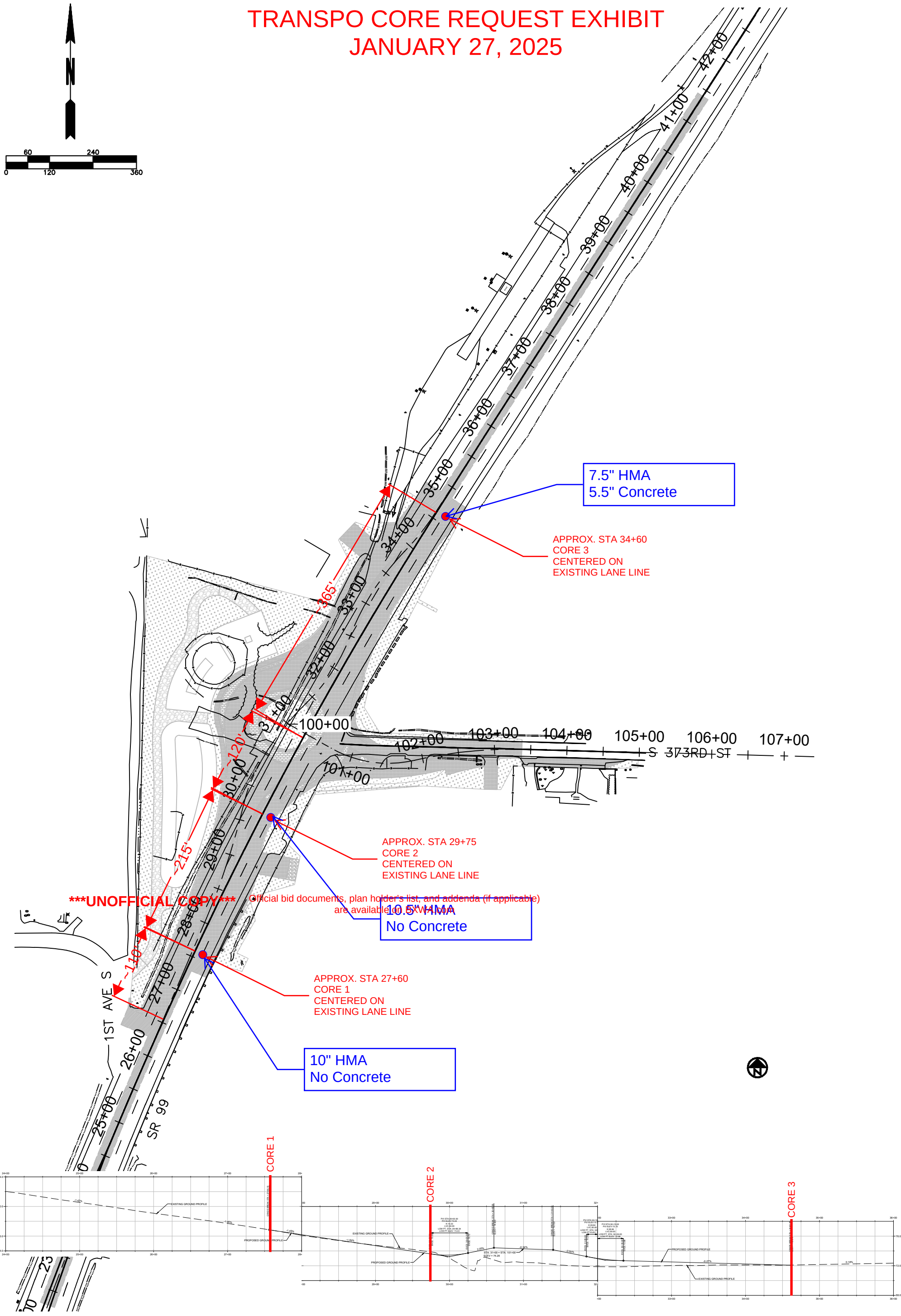
TRANSPO CORE REQUEST EXHIBIT
JANUARY 27, 2025



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SR 99 & S 373rd St - Project Improvements

1.22060.00 - Federal Way SR 99 at S 373rd St RAB

January 27, 2025

FIGURE
1

Jan 27, 2025 - 1:33pm johnk \\srv-dfs-wa\Projects\22\1.22060.00 - Federal Way SR 99 at S 373rd St RAB\Engineering\CAD\Xrefs\22060-TG-CIVIL.dwg Layout: Project Layout

transpogroup
WHAT TRANSPORTATION CAN BE.