



***BID AND CONTRACT DOCUMENTS
AND SPECIFICATIONS
FOR***

**LAKOTA MIDDLE SCHOOL SAFE ROUTES TO SCHOOL
SW DASH POINT ROAD (21ST AVE SW TO SW 312TH STREET)**

***PROJECT # 36204
RFB # 21-003
FEDERAL AID FUNDING #: SRTS-9917(033)
TIB FUNDING #: P-P-113(P02)-1***

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

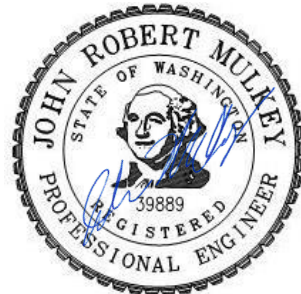
**BID AND CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR**

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SW DASH POINT ROAD (21ST AVE SW TO SW 312TH STREET)**

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RFB # 21-003
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TIB FUNDING #: P-P-113(P02)-1**

Bids Accepted Until 3:00 p.m., December 3, 2021 at
City of Federal Way
33325 8th Avenue South
Federal Way, WA 98003

Prepared By:
City of Federal Way
Public Works Department



11-10-2021

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

A handwritten signature in blue ink that reads "Jenni S. Wilson".

Public Works Director / Deputy Public Works Director

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ADVERTISEMENT FOR BIDS

LAKOTA MIDDLE SCHOOL SAFE ROUTES TO SCHOOL SW DASH POINT ROAD (21ST AVE SW TO SW 312TH STREET)

SUBMITTAL OF SEALED BIDS: Notice is hereby given that the City of Federal Way will receive sealed bids through December 3, 2021, at 3:00 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 via Zoom at the following meeting id and link:

<https://cityoffederalway.zoom.us/j/93488465184?pwd=MkJ3UmY4NzFwOERZbTZmRlpNQ2pxUT09>

Meeting ID: 934 8846 5184

Passcode: 976148

One tap mobile

+12063379723,,93488465184# US (Seattle)

+12532158782,,93488465184# US (Tacoma)

Dial by your location

+1 206 337 9723 US (Seattle)

+1 253 215 8782 US (Tacoma)

+1 213 338 8477 US (Los Angeles)

Meeting ID: 934 8846 5184

3:05 p.m. on December 3, 2021.

This project shall consist of: improvements for the Lakota Middle School Safe Route to School project - SW Dash Point Road (21st Ave SW to SW 312th St.), including but not limited to the following: New asphalt concrete pavement, curb & gutters, sidewalks, drainage improvements, illumination, landscaping, signing, signal modifications, channelization, water main replacement and other work.

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 110 working days.

BID DOCUMENTS: Plans, Specifications, Addenda, and plan holders list are available online 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 Mulkey, Senior Capital Engineer, by email at john.mulkey@cityoffederalway.com, or by letter addressed to the same. Questions must be received by the City no later than 5:00 p.m. three business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of bids.

OTHER PROVISIONS: All bids and this Project shall be governed by the Contract, as defined by the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction 2021 (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.

CITY OF FEDERAL WAY

RFB-3
CFW RFB VERSION 2020-JUN

LAKOTA SRTS
PROJECT #204 / RFB #21-003

The City, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49 C.F.R., Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award. The City encourages minority and women-owned firms to submit bids consistent with the City's policy to ensure that such firms are afforded the maximum practicable opportunity to compete for and obtain public contracts.

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

DATES OF PUBLICATION:

Daily Journal of Commerce
Federal Way Mirror

Publish November 12, 2021 and November 19, 2021
Publish November 12, 2021 and November 19, 2021

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, publicly 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 Mulkey, Senior Capital Engineer, by email at john.mulkey@cityoffederalway.com, or by letter addressed to same. The questions must be received by the City no later than 5:00 p.m. three business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their bids. Any interpretation deemed necessary by the City will be in the form of an Addendum to the bid documents and when issued will be sent as promptly as is practical to all parties to whom the bid documents have been issued. All such Addenda shall become part of the bid.

(4) BID PRICE

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

(5) POSTPONEMENT OF BID OPENING

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

(6) REJECTION OF BIDS

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

(7) RECYCLED PRODUCTS

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

(8) BIDDER'S CHECKLIST

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

- Bid Proposal**: The Bid Proposal shall be completed and fully executed, including filling in the total bid amount.
- Bid Bond**: This form is to be executed by the bidder (and the surety company as appropriate, depending upon the option selected by the bidder).
- Subcontractor List**: The Subcontractor List shall be filled in by the bidder.
- Contractor Certification – Wage Law Compliance**: This form shall be filled in and fully executed by the bidder.
- Proposal for Incorporating Recycled Materials**: This form shall be filled in and executed by the bidder.
- UDBE Utilization Certification**: This form shall be filled in by the bidder.
- UDBE Written Confirmation**: Part A of this form shall be filled in by the bidder and Part B shall be signed by UDBE firm.
- Apprenticeship Plan**: This form shall be filled in by the bidder.

(9) CONTRACT CHECKLIST

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

- Public Works Contract**: The successful bidder will fully execute and deliver to the City the Public Works Contract ("Contract") from these Bid Documents.
- Certificate of Insurance**: The successful bidder will provide a Certificate of Insurance evidencing the insurance requirement set forth in the Contract.
- Performance/Payment Bond**: The successful bidder will provide a fully executed Performance/Payment Bond as appropriate.
- 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.

BID PROPOSAL

LAKOTA MIDDLE SCHOOL SAFE ROUTES TO SCHOOL SW DASH POINT ROAD (21ST AVE SW TO SW 312TH STREET)

PROPOSAL SUBMITTED TO:

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

PROPOSAL SUBMITTED BY:

Bidder: _____
Full Legal Name of Firm

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

Address: _____
Street Address

City, State Zip

Phone: _____

E-Mail: _____

Select One of the Following: Corporation
 Partnership.
 Individual
 Other

State Contractor's License No.: _____

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

State UBI No.: _____

State Worker's Comp. Account No.: _____

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

| SCHEDULE A: ROADWAY IMPROVEMENTS | | | | | | |
|--|-------------------|--|-------------|-----------------|-------------------|---------------|
| <i>All unit prices shall include applicable sales tax (Roadway Improvements)</i> | | | | | | |
| Item No. | Spec. Div. | Bid Item Description | Unit | Plan Qty | Unit Price | Amount |
| A01 | 1-04 | MINOR CHANGE | FA | 1 | \$5,000.00 | \$5,000.00 |
| A02 | 1-05 | ROADWAY SURVEYING | LS | 1 | \$ | \$ |
| A03 | 1-05 | ADA FEATURES SURVEYING | LS | 1 | \$ | \$ |
| A04 | 1-05 | AS-BUILT SURVEY AND RECORD DRAWINGS | LS | 1 | \$ | \$ |
| A05 | 1-07 | SPCC PLAN | LS | 1 | \$ | \$ |
| A06 | 1-09 | MOBILIZATION | LS | 1 | \$ | \$ |
| A07 | 1-10 | TRAFFIC CONTROL SUPERVISOR | LS | 1 | \$ | \$ |
| A08 | 1-10 | FLAGGERS | HR | 1000 | \$ | \$ |
| A09 | 1-10 | OTHER TRAFFIC CONTROL LABOR | HR | 1000 | \$ | \$ |
| A10 | 1-10 | CONSTRUCTION SIGNS CLASS A | SF | 100 | \$ | \$ |
| A11 | 1-10 | SEQUENTIAL ARROW SIGN | HR | 1280 | \$ | \$ |
| A12 | 1-10 | PORTABLE CHANGEABLE MESSAGE SIGN | HR | 3840 | \$ | \$ |
| A13 | 1-10 | PROJECT TEMPORARY TRAFFIC CONTROL | LS | 1 | \$ | \$ |
| A14 | 2-01 | CLEARING AND GRUBBING | 1 | LS | \$ | \$ |
| A15 | 2-01 | ROADSIDE CLEANUP | 1 | FA | \$5,000.00 | \$5,000.00 |
| A16 | 2-02 | REMOVAL OF STRUCTURES AND OBSTRUCTIONS | 1 | LS | \$ | \$ |
| A17 | 2-02 | SAWCUTTING | 1575 | LF | \$ | \$ |

CITY OF FEDERAL WAY

RFB-8
CFW RFB VERSION 2020-JUN

LAKOTA SRTS
PROJECT #204 / RFB #21-003

| | | | | | | |
|-----|------|--|------|-----|----|----|
| A18 | 2-02 | REMOVE DRAINAGE STRUCTURE | 6 | EA | \$ | \$ |
| A19 | 2-02 | REMOVE STORM SEWER PIPE | 950 | LF | \$ | \$ |
| A20 | 2-03 | ROADWAY EXCAVATION INCL. HAUL | 725 | CY | \$ | \$ |
| A21 | 2-03 | GRAVEL BORROW INCL. HAUL | 725 | TN | \$ | \$ |
| A22 | 2-09 | SHORING OR EXTRA EXCAVATION CLASS B | 4550 | SF | \$ | \$ |
| A23 | 2-09 | STRUCTURE EXCAVATION CLASS B FOR RELOCATION OF UTILITIES | 210 | CY | | |
| A24 | 4-04 | CRUSHED SURFACING TOP COURSE | 140 | TN | \$ | \$ |
| A25 | 4-04 | CRUSHED SURFACING BASE COURSE | 425 | TN | \$ | \$ |
| A26 | 5-04 | HMA CL. 1/2 IN PG 58H-22 | 550 | TN | \$ | \$ |
| A27 | 5-04 | TEMPORARY PAVEMENT | 25 | TN | \$ | \$ |
| A28 | 7-04 | HIGH DENSITY POLYETHYLENE (HDPE) PIPE 24 IN. DIAM. | 568 | LF | \$ | \$ |
| A29 | 7-04 | DUCTILE IRON PIPE 24 IN. DIAM. | 235 | LF | \$ | \$ |
| A30 | 7-04 | HIGH DENSITY POLYETHYLENE (HDPE) PIPE 12 IN. DIAM. | 6 | LF | \$ | \$ |
| A31 | 7-04 | TESTING STORM SEWER PIPE | 809 | LF | \$ | \$ |
| A32 | 7-05 | CATCH BASIN TYPE 1 | 1 | EA | \$ | \$ |
| A33 | 7-05 | CATCH BASIN TYPE 2 - 48 IN. DIAM. | 9 | EA | \$ | \$ |
| A34 | 7-05 | ADJUST MANHOLE | 3 | EA | \$ | \$ |
| A35 | 7-05 | INSTALL CONVERSION RISER AND ROUND SOLID COVER ON EXISTING TYPE 1 CB AND ADJUST TO GRADE | 1 | EA | \$ | \$ |
| A36 | 7-05 | CONNECTION TO DRAINAGE STRUCTURE | 4 | EA | \$ | \$ |
| A37 | 8-01 | ESC LEAD | 110 | DAY | \$ | \$ |
| A38 | 8-01 | STORM WATER POLLUTION PREVENTION PLAN | 1 | LS | \$ | \$ |
| A39 | 8-01 | EROSION CONTROL AND WATER POLLUTION PREVENTION | 1 | LS | \$ | \$ |

CITY OF FEDERAL WAY

RFB-9
CFW RFB VERSION 2020-JUN

LAKOTA SRTS
PROJECT #204 / RFB #21-003

| | | | | | | |
|-----|------|--|------|------|------------|------------|
| A40 | 8-01 | INLET PROTECTION | 22 | EA | \$ | \$ |
| A41 | 8-01 | SILT FENCE | 850 | LF | \$ | \$ |
| A42 | 8-02 | TOPSOIL TYPE A | 140 | CY | \$ | \$ |
| A43 | 8-02 | SOD INSTALLATION | 470 | SY | \$ | \$ |
| A44 | 8-02 | SEEDED LAWN INSTALLATION | 215 | SY | \$ | \$ |
| A45 | 8-02 | BARK MULCH | 20 | CY | \$ | \$ |
| A46 | 8-02 | ROOT BARRIER | 576 | LF | \$ | \$ |
| A47 | 8-02 | PSIPE ACER X FREEMANII 'JEFFERSRED'/AUTUMN BLAZE MAPLE; 2.5" CAL., 12'-14' HT. | 24 | EA | \$ | \$ |
| A48 | 8-02 | PROPERTY RESTORATION | 1 | FA | \$2,000.00 | \$2,000.00 |
| A49 | 8-03 | CONTRACTOR DESIGNED AUTOMATIC IRRIGATION SYSTEM, COMPLETE | 1 | LS | \$ | \$ |
| A50 | 8-04 | CEMENT CONC. CURB & GUTTER | 1180 | LF | \$ | \$ |
| A51 | 8-04 | BARRIER CURB | 55 | LF | \$ | \$ |
| A52 | 8-04 | EXTRUDED CURB, TYPE 6 | 20 | LF | \$ | \$ |
| A53 | 8-07 | PRECAST SLOPED MOUNTABLE CURB | 10 | LF | \$ | \$ |
| A54 | 8-07 | PRECAST DUAL FACED SLOPED MOUNTABLE CURB | 195 | LF | \$ | \$ |
| A55 | 8-09 | RAISED PAVEMENT MARKER, TYPE 2 | 1.5 | HUND | \$ | \$ |
| A56 | 8-09 | RAISED PAVEMENT MARKER, TYPE 2B | 1 | EA | \$ | \$ |
| A56 | 8-14 | CEMENT CONC SIDEWALK | 915 | SY | \$ | \$ |
| A58 | 8-14 | CEMENT CONC CURB RAMP TYPE PARALLEL | 6 | EA | \$ | \$ |
| A59 | 8-14 | CEMENT CONC CURB RAMP TYPE SINGLE DIRECTION | 3 | EA | \$ | \$ |
| A60 | 8-20 | ILLUMINATION SYSTEM, COMPLETE | 1 | LS | \$ | \$ |

CITY OF FEDERAL WAY

RFB-10
CFW RFB VERSION 2020-JUN

LAKOTA SRTS
PROJECT #204 / RFB #21-003

| | | | | | | |
|---------------------------|------|--|------|----|------------|------------|
| A61 | 8-20 | SCHOOL ZONE FLASHING BEACONS, COMPLETE | 1 | LS | \$ | \$ |
| A62 | 8-20 | VARIABLE SPEED LIMIT SIGNS, COMPLETE | 1 | LS | \$ | \$ |
| A63 | 8-20 | SIGNAL MODIFICATION, COMPLETE | 1 | LS | \$ | \$ |
| A64 | 8-20 | VIDEO CAMERA DETECTORS, COMPLETE | 1 | LS | \$ | \$ |
| A65 | 8-21 | PERMANENT SIGNING | 1 | LS | \$ | \$ |
| A66 | 8-22 | PLASTIC LINE | 1880 | LF | \$ | \$ |
| A67 | 8-22 | PROFILED PLASTIC LINE | 1815 | LF | \$ | \$ |
| A68 | 8-22 | PROFILED PLASTIC WIDE LINE | 93 | LF | \$ | \$ |
| A69 | 8-22 | PLASTIC CROSSWALK LINE | 320 | SF | \$ | \$ |
| A70 | 8-22 | PLASTIC STOP LINE | 75 | LF | \$ | \$ |
| A71 | 8-22 | PAINTED BICYCLE LANE SYMBOL | 4 | EA | \$ | \$ |
| A72 | 8-22 | PLASTIC TRAFFIC ARROW | 5 | EA | \$ | \$ |
| A73 | 8-22 | REMOVING PAVEMENT MARKINGS | 1 | LS | \$ | \$ |
| A74 | 8-30 | POTHOLING | 1 | FA | \$5,000.00 | \$5,000.00 |
| A75 | 8-31 | RESOLUTION OF UTILITY CONFLICTS | 1 | FA | \$5,000.00 | \$5,000.00 |
| A76 | 8-32 | PIT RUN SAND | 60 | CY | \$ | \$ |
| A77 | 8-32 | PROVIDE AND INSTALL 2 IN. CONDUIT | 940 | LF | \$ | \$ |
| A78 | 8-32 | JOINT TRENCH PROVIDE AND INSTALL WSDOT TYPE 1 JUNCTION BOX | 5 | EA | \$ | \$ |
| TOTAL – SCHEDULE A | | | | | | \$ |

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. | Bid Item Description | Unit | Plan Qty | Unit Price | Amount |
|----------|------------|----------------------|------|----------|------------|--------|
|----------|------------|----------------------|------|----------|------------|--------|

CITY OF FEDERAL WAY

RFB-11
CFW RFB VERSION 2020-JUN

LAKOTA SRTS
PROJECT #204 / RFB #21-003

| | | | | | | |
|-----|------|---|-----|-------|-------------|-------------|
| B01 | 1-07 | PERMITS | LS | 1 | \$ | \$ |
| B02 | 1-07 | COVID 19 HEALTH AND SAFETY PLAN (CHSP) | LS | 1 | \$ | \$ |
| B03 | 1-07 | COVID 19 ADDED MEASURES (WITHOUT OVERHEAD AND PROFIT) | EST | 1 | \$1,500.00 | \$1,500.00 |
| B04 | 2-01 | SITE RESTORATION | LS | 1 | \$ | \$ |
| B05 | 2-01 | REMOVAL OF STRUCTURES AND OBSTRUCTIONS | LS | 1 | \$ | \$ |
| B06 | 2-02 | REMOVE WATER VALVE (8 IN., 12 IN.) | EA | 3 | \$ | \$ |
| B07 | 2-02 | REMOVE AC WATER MAIN (8 IN., 12 IN.) | LF | 1,070 | \$ | \$ |
| B08 | 2-02 | REMOVE DUCTILE IRON / CAST IRON WATER MAIN (8 IN.) | LF | 10 | | |
| B09 | 2-02 | REMOVE HYDRANT ASSEMBLY | EA | 1 | \$ | \$ |
| B10 | 2-09 | TRENCH SAFETY SYSTEMS | LS | 1 | \$ | \$ |
| B11 | 2-09 | SHORING OR EXTRA EXCAVATION CLASS B | SF | 6,500 | \$ | \$ |
| B12 | 5-04 | TEMPORARY PAVEMENT | TN | 20 | \$ | \$ |
| B13 | 7-09 | MINOR CHANGE FOR WATER IMPROVEMENTS | EST | 1 | \$14,000.00 | \$14,000.00 |
| B14 | 7-09 | DUCTILE IRON PIPE FOR WATER MAIN, 8 IN. DIAM. | LF | 35 | \$ | \$ |
| B15 | 7-09 | DUCTILE IRON PIPE FOR WATER MAIN, 12 IN. DIAM. | LF | 1,050 | \$ | \$ |
| B16 | 7-09 | ADDITIONAL DUCTILE IRON FITTINGS | LB | 225 | \$ | \$ |
| B17 | 7-09 | CONNECT TO EXISTING WATER MAIN, 8 IN. DIAM. | EA | 2 | \$ | \$ |
| B18 | 7-09 | CONNECT TO EXISTING WATER MAIN, 12 IN. DIAM. | EA | 2 | \$ | \$ |
| B19 | 7-09 | REMOVAL AND REPLACEMENT OF UNSUITABLE FOUNDATION MATERIAL | CY | 10 | \$ | \$ |
| B20 | 7-09 | CRUSHED SURFACING TOP COURSE FOR TRENCH BACKFILL | CY | 500 | \$ | \$ |
| B21 | 710 | CONSTRUCTION SEQUENCING | LS | 1 | \$ | \$ |
| B22 | 7-12 | GATE VALVE, 8 IN. | EA | 2 | \$ | \$ |

CITY OF FEDERAL WAY

RFB-12
CFW RFB VERSION 2020-JUN

LAKOTA SRTS
PROJECT #204 / RFB #21-003

| | | | | | | |
|------------------------------|------|---|----|----|------------|------------|
| B23 | 7-12 | GATE VALVE, 12 IN. | EA | 5 | \$ | \$ |
| B24 | 7-14 | HYDRANT ASSEMBLY | EA | 2 | \$ | \$ |
| B25 | 7-15 | SERVICE REPLACEMENT (METER, 1.5 IN.) | EA | 1 | \$ | \$ |
| B26 | 7-15 | SERVICE REPLACEMENT (IRRIGATION, 2 IN.) | EA | 1 | \$ | \$ |
| B27 | 8-31 | UTILITY POTHOLE | EA | 13 | \$ | \$ |
| B28 | 8-31 | RESOLUTION OF UTILITY CONFLICTS | FA | 1 | \$5,000.00 | \$5,000.00 |
| SUBTOTAL – SCHEDULE B | | | | | | \$ |
| SALES TAX (10.1%) | | | | | | \$ |
| TOTAL – SCHEDULE B | | | | | | \$ |

| SCHEDULE C: PARK IMPROVEMENTS | | | | | | |
|---|-------------------|--|-------------|-----------------|-------------------|---------------|
| <i>All unit prices shall NOT include applicable sales tax. Sales tax should be applied to the subtotal for this bid schedule.</i> | | | | | | |
| Item No. | Spec. Div. | Bid Item Description | Unit | Plan Qty | Unit Price | Amount |
| C01 | 1-04 | UNEXPECTED SITE CHANGES | FA | 1 | \$5,000.00 | \$5,000.00 |
| C02 | 2-01 | CONSTRUCTION SURVEYING | LS | 1 | \$ | \$ |
| C03 | 2-02 | REMOVAL OF STRUCTURES AND OBSTRUCTIONS | LS | 1 | \$ | \$ |
| C04 | 2-02 | REMOVE STORM SEWER PIPE | LF | 58 | \$ | \$ |
| C05 | 2-02 | SAWCUTTING | LF | 275 | \$ | \$ |
| C06 | 4-04 | CRUSHED SURFACING TOP COURSE | TN | 55 | \$ | \$ |
| C07 | 5-04 | ROADWAY EXCAVATION INCL. HAUL | CY | 30 | \$ | \$ |
| C08 | 5-04 | PLANING BITUMINOUS PAVEMENT | SY | 1,750 | \$ | \$ |
| C09 | 5-04 | HMA CL. 1/2 IN PG 58H-22 | TN | 200 | \$ | \$ |
| C10 | 7-04 | HIGH DENSITY POLYETHYLENE (HDPE) PIPE 12 IN. DIAM. | LF | 134 | \$ | \$ |

CITY OF FEDERAL WAY

RFB-13
CFW RFB VERSION 2020-JUN

LAKOTA SRTS
PROJECT #204 / RFB #21-003

| | | | | | | |
|------------------------------|------|-------------------------------------|----|-------|----|----|
| C11 | 7-04 | TESTING STORM SEWER PIPE | LF | 134 | \$ | \$ |
| C12 | 7-04 | CATCH BASIN TYPE 1 | EA | 3 | \$ | \$ |
| C13 | 8-07 | WHEEL STOP | EA | 39 | \$ | \$ |
| C14 | 8-22 | PAINT LINE | LF | 1,100 | \$ | \$ |
| C15 | 8-22 | PLASTIC ACCESS PARKING SPACE SYMBOL | EA | 2 | \$ | \$ |
| C16 | 8-30 | BOLLARDS | EA | 8 | \$ | \$ |
| SUBTOTAL – SCHEDULE C | | | | | | \$ |
| SALES TAX (10.1%) | | | | | | \$ |
| TOTAL – SCHEDULE C | | | | | | \$ |

| SCHEDULE D: VERIZON RELOCATION | | | | | | |
|--|------------|---|------|----------|------------|------------|
| <i>All unit prices shall include applicable sales tax (Roadway Improvements)</i> | | | | | | |
| Item No. | Spec. Div. | Bid Item Description | Unit | Plan Qty | Unit Price | Amount |
| D01 | 1-04 | MINOR CHANGES | FA | 1 | \$1,000.00 | \$1,000.00 |
| D02 | 8-32 | INSTALL CONDUIT 2 IN. | LF | 400 | \$ | \$ |
| D03 | 8-32 | RELOCATE VAULT | LS | 1 | \$ | \$ |
| D04 | 8-32 | EXCAVATION FOR INTERCEPTING VERIZON CONDUIT | FA | 1 | \$2,000.00 | \$2,000.00 |
| TOTAL – SCHEDULE D | | | | | | \$ |

| BID SUMMARY | |
|---|------------|
| ITEM | BID AMOUNT |
| SCHEDULE A: ROADWAY IMPROVEMENTS | \$ |
| SCHEDULE B: LAKEHAVEN WATER IMPROVEMENTS | \$ |

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| | |
|---|----|
| | |
| SCHEDULE C: PARK IMPROVEMENTS | \$ |
| SCHEDULE D: VERIZON RELOCATION | \$ |
| TOTAL BID AMOUNT <i>(including Washington State sales tax, all other government taxes, assessments and charges)</i> | \$ |

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

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

NON-COLLUSION AFFIDAVIT

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

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

CONFLICTS OF INTEREST, GRATUITIES, & NON-COMPETITIVE PRACTICES

By signing this proposal, the undersigned agrees as follows:

- (1) That it has no direct or indirect pecuniary or proprietary interest, that it shall not acquire any interest which conflicts in any manner or degree with the work, services, equipment or materials required to be performed and/or provided under this contract and that it shall not employ any person or agent having any such interests. In the event that the Contractor or its agents, employees or representatives hereafter acquires such a conflict of interest, it shall immediately disclose such interest to the City and take action immediately to eliminate the conflict or to withdraw from this contract, as the City may require; and
- (2) That no person or selling agency except bona fide employees or designated agents or representatives of the Contractor have been employed or retained to solicit or secure this contract with an agreement or understanding that a commission, percentage, brokerage, or contingent fee would be paid; and
- (3) That no gratuities in the form of entertainment, gifts or otherwise, were offered or given by the Contractor or any of its agents, employees or representatives, to any official, member or employee of the City or other governmental agency with a view toward securing this contract or securing favorable

treatment with respect to the awarding or amending, or the making of any determination with respect to the performance of this contract.

AFFIDAVIT OF ELIGIBILITY

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

CERTIFICATION OF LAWFUL EMPLOYMENT

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

Receipt of the following Addendums is hereby acknowledged:

Addendum No. ____ Date Issued: _____
Addendum No. ____ Date Issued: _____
Addendum No. ____ Date Issued: _____

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

By: _____
Signature

Printed Name

Title

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

Signature of Notary

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

SUBCONTRACTOR LIST



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 271-015
Revised 06/2020

CONTRACTOR WAGE LAW COMPLIANCE CERTIFICATION

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

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

Bidder Name: _____
Print Full Legal Name of Firm

By: _____
Signature of Authorized Person

Print Name of Person Making Certifications for Firm

Title: _____
Title of Person Signing Certificate

Place: _____
Print City and State Where Signed

Date: _____

PROPOSAL FOR INCORPORATING RECYCLED MATERIALS



APWA-WA Division 1 Committee

rev. 1/8/2016

Proposal for Incorporating Recycled Materials into the Project

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

Proposed total percentage: _____ percent.

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

Bidder: _____

Signature of Authorized Official: _____

Date: _____

UDBE WRITTEN CONFIRMATION DOCUMENT



Underutilized Disadvantaged Business Enterprise (UDBE) Written Confirmation Document

*See Contract Provisions: UDBE Document Submittal Requirements
Disadvantaged Business Enterprise Participation*

THIS FORM SHALL ONLY BE SUBMITTED TO A UDBE THAT IS LISTED ON THE CONTRACTOR'S UNDERUTILIZED DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION CERTIFICATION.

THE CONTRACTOR SHALL COMPLETE PART A PRIOR TO SENDING TO THE UDBE.

PART A: To be completed by the bidder

The entries below shall be consistent with what is shown on the Bidder's Underutilized Disadvantaged Business Enterprise Utilization Certification. Failure to do so will result in Bid rejection.

Contract Title: _____

Bidder's Business Name: _____

UDBE's Business Name: _____

Description of UDBE's Work: _____

Dollar Amount to be Applied Towards UDBE Goal: _____

Dollar Amount to be Subcontracted to UDBE*: _____
*Optional Field

PART B: To be completed by the Underutilized Disadvantaged Business Enterprise

As an authorized representative of the Underutilized Disadvantaged Business Enterprise, I confirm that we have been contacted by the Bidder with regard to the referenced project for the purpose of performing the Work described above. If the Bidder is awarded the Contract, we will enter into an agreement with the Bidder to participate in the project consistent with the information provided in Part A of this form.

Name (printed): _____

Signature: _____

Title: _____

Address: _____ Date: _____

DOT Form 422-031U
Revised 02/2018

CITY OF FEDERAL WAY

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LAKOTA SRTS
PROJECT #204 / RFB #21-003

UDBE BID ITEM BREAKDOWN



**Washington State
Department of Transportation**

Underutilized Disadvantaged Business Enterprise (UDBE) Bid Item Breakdown Form

| | |
|---|--|
| 1. Contract Number | 2. Contract Name |
| 3. Prime Contractor | 4. Prime Contractor Representative Name |
| 5. Prime Contractor Representative Phone Number | 6. Prime Contractor Representative Email |

| Column 1 Name of UDBE <small>(See Instructions)</small> | Column 2 Bid Item # <small>(See Instructions)</small> | Column 3 Full/Partial <small>(See Instructions)</small> | Column 4 Quantity <small>(See Instructions)</small> | Column 5 Description <small>(See Instructions)</small> | Column 6 Unit Price <small>(See Instructions)</small> | Column 7 Total Unit Cost <small>(See Instructions)</small> | Column 8 Dollar Amount to be Applied Towards Goal <small>(See Instructions)</small> |
|---|---|---|---|--|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Subtotal: | | | | | | \$ 0.00 | \$ 0.00 |
| Name of UDBE | Bid Item # | Full/Partial | Quantity | Description | Unit Price | Total Unit Cost | Dollar Amount to be Applied Towards Goal |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Subtotal: | | | | | | \$ 0.00 | \$ 0.00 |
| Name of UDBE | Bid Item # | Full/Partial | Quantity | Description | Unit Price | Total Unit Cost | Dollar Amount to be Applied Towards Goal |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Subtotal: | | | | | | \$ 0.00 | \$ 0.00 |
| Name of UDBE | Bid Item # | Full/Partial | Quantity | Description | Unit Price | Total Unit Cost | Dollar Amount to be Applied Towards Goal |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Subtotal: | | | | | | \$ 0.00 | \$ 0.00 |
| TOTAL UDBE Dollar Amount: | | | | | | \$ 0.00 | \$ 0.00 |

DOT Form 272-054
Revised 01/2020

CITY OF FEDERAL WAY

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LAKOTA SRTS
PROJECT #204 / RFB #21-003

UDBE BID ITEM TRUCKING CREDIT



Underutilized Disadvantaged Business Enterprise (UDBE) Trucking Credit Form

PART A: TO BE COMPLETED BY THE BIDDER

This form is in support of the trucking commitment identified on the UDBE Utilization Certification Form submitted with the proposal. Please note that UDBE's must be certified prior to time of submittal.

| | | |
|---|------------------|--------------|
| Federal Aid # | Contract # | Project Name |
| If listing items by hours, or by lump sum amounts, please provide calculations to substantiate the quantities listed. | | |
| Bid Item | Item Description | |
| | | |
| | | |
| | | |
| | | |

Use additional sheets as necessary.

| | | |
|---------|------|--|
| Bidder | | Name/Title (please print) |
| Phone | Fax | Signature |
| Address | | |
| | | I certify that the above information is complete and accurate. |
| Email | Date | |

PART B: TO BE COMPLETED BY THE UDBE TRUCKING FIRM

Note: DBE/UDBE trucking firm participation may only be credited as DBE/UDBE participation for the value of the hauling services, not for the materials being hauled unless the trucking firm is also recognized as a supplier of the materials used on the project and approved for this project as a regular dealer.

1. Type of Material expected to be hauled? _____
2. Number of fully operational trucks expected to be used on this project? _____ Tractor/trailers: _____ Dump trucks: _____
3. Number of trucks and trailers owned by the UDBE that will be used on this project? _____ Tractor/trailers: _____ Dump trucks: _____
4. Number of trucks and trailers leased by the UDBE that will be used on this project? _____ Tractor/trailers: _____ Dump trucks: _____

| | | |
|----------------------|------|--|
| UDBE Firm Name | | Name/Title (please print) |
| Certification Number | | |
| Phone | Fax | Signature |
| Address | | |
| | | I certify that the above information is complete and accurate. |
| Email | Date | |

DOT Form 272-058
Revised 05/2019

CITY OF FEDERAL WAY

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LAKOTA SRTS
PROJECT #204 / RFB #21-003

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 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.

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

4. INDEPENDENT CONTRACTOR

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

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

5. INDEMNIFICATION

5.1 Contractor Indemnification.

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

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

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

provisions of this paragraph extends only to claims against the Contractor by any Indemnified party, and does not include, or extend to, any claims by the Contractor's employee directly against the Contractor. The Contractor recognizes that this waiver was specifically entered into.

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

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

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

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

6. OWNERSHIP OF DOCUMENTS

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

7. PATENTS, COPYRIGHTS, AND RIGHTS IN DATA

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

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

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

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

8. GENERAL PROVISIONS

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

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

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

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

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

8.6 Warranties and Guarantees. In addition to the requirements of the Contract Documents, the Contractor warrants that all portions of the Work that will be covered by a manufacturer's or supplier's guarantee or warranty shall be performed in such a manner so as to preserve all rights under such guarantees or warranties. If the City attempts to enforce a claim based upon a manufacturer's or supplier's guarantee or warranty and such manufacturer or supplier refuses to honor such guarantee or warranty based, in whole or in part, on a claim of defective installation by the Contractor or a Subcontractor, the Contractor shall be responsible for any resulting loss or damage, and repairs, incurred by the City as a result of the manufacturer's or supplier's refusal to honor such guarantee or warranty. This obligation survives termination of this Contract.

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

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

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

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

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

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

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

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

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

The Engineer for this Project is designated as: John Mulkey, P.E., Senior Capital Engineer]

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

CONTRACTOR: Company
Attn: Individual to receive notices
Street Address
City, State, Zip

ENGINEER: CM Company OR City of Federal Way
Attn: Project Engineer Attn: Project Engineer
Street Address 33325 8th Ave S
City, State, Zip 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.

[SIGNATURE PAGE TO FOLLOW]

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:

| <u>ITEM NO.</u> | <u>ITEM</u> | <u>QTY</u> | <u>PREVIOUS UNIT PRICE</u> | <u>REVISED UNIT PRICE</u> | <u>ADD OR DELETE</u> |
|-----------------|-------------|------------|----------------------------|---------------------------|----------------------|
|-----------------|-------------|------------|----------------------------|---------------------------|----------------------|

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

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

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.*

CERTIFICATE OF INSURANCE

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

PERFORMANCE AND PAYMENT BOND
PROJECT TITLE

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

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

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

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

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

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

PRINCIPAL:

SURETY:

Principal Signature *Date*

Surety Signature *Date*

Printed Name

Printed Name

Title

Title

LOCAL OFFICE/AGENT OF SURETY:

Name

Street Address

City, State, Zip

Telephone

BOND NO.: _____

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

INTRODUCTION TO THE SPECIAL PROVISIONS

(December 10, 2020 APWA GSP)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2021 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 project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

(March 8, 2013 APWA GSP)

(April 1, 2013 WSDOT GSP)

(April 12, 2018 CFW GSP)

*(***PROJECT-SPECIFIC SPECIAL PROVISION***)*

Also incorporated into the Contract Documents by reference are:

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

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**LAKOTA MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL
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DIVISION 1 GENERAL REQUIREMENTS

DESCRIPTION OF WORK

(March 13, 1995 WSDOT GSP)

This Contract provides for the improvement of the Lakota Middle School Safe Routes to School Project Improvements and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

1-01.3 Definitions

(January 4, 2016 APWA GSP)

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

Dates

Bid Opening Date

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

Award Date

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

Contract Execution Date

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

Notice to Proceed Date

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

Substantial Completion Date

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

Physical Completion Date

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

Completion Date

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

Final Acceptance Date

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

Supplement this Section with the following:

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

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

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

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

Additive

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

Alternate

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

Business Day

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

Contract Bond

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

Contract Documents

See definition for “Contract.”

Contract Time

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

Notice of Award

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

Notice to Proceed

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

Traffic

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

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder

(January 24, 2011 APWA GSP)

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

1-02.2 Plans and Specifications

(June 27, 2011 APWA GSP)

Delete this section and replace it with the following:

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

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

| To Prime Contractor | No. of Sets | Basis of Distribution |
|-------------------------------|--------------------|-------------------------------------|
| Reduced Plans (11" x 17") | 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(1) General

(June 24, 2021 APWA GSP Option B)

The first sentence of the seventh paragraph, beginning with "Any prospective Bidder desiring...", is revised to read:

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

1-02.4(2) Subsurface Information

(March 8, 2013 APWA GSP)

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

The Summary of Geotechnical Conditions and the boring logs, if and when included as an appendix to the Special Provisions, shall be considered as part of the Contract.

1-02.5 Proposal Forms

(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

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

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

1-02.6 Preparation of Proposal

(Dec 10, 2020 APWA GSP, OPTION A) Supplement this section with the following:

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

WSDOT Form 422 031 (Disadvantaged Business Enterprise Written Confirmation Document) is to be used for this purpose. Bidder must submit good faith effort documentation only in the event the bidder's efforts to solicit sufficient DBE participation have been unsuccessful.

The Bidder shall submit a DBE Bid Item Breakdown form defining the scope of work to be performed by each DBE listed on the DBE Utilization Certification.

If the Bidder lists a DBE Trucking firm on the DBE Utilization Certification, then the Bidder must also submit a DBE Trucking Credit Form (WSDOT Form 272-058) documenting how the DBE Trucking firm will be able to perform the scope of work subcontracted to them.

Directions for delivery of the Disadvantaged Business Enterprise Written Confirmation Documents, Disadvantaged Business Enterprise Good Faith Effort documentation, DBE Bid Item Breakdown Form and the DBE Trucking Credit Form are included in Section 1-02.9.

(December 10, 2020 APWA GSP, OPTION B)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.
5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

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Delete the last two paragraphs, and replace them with the following:

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form, provided by the Contracting Agency. Failure to return this certification as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

(November 9, 2020 WSDOT GSP, OPTION 2)

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

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

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.

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1-02.7 Bid Deposit

(March 8, 2013 APWA GSP)

Supplement this section with the following:

Bid bonds shall contain the following:

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

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

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

1-02.9 Delivery of Proposal

(June 17, 2021 APWA GSP Option B)

Delete this section and replace it with the following:

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Call for Bids clearly marked on the outside of the envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery.

To be considered responsive on a FHWA-funded project, the Bidder may be required to submit the following items, as required by Section 1-02.6:

- DBE Utilization Certification
- DBE Written Confirmation Document from each DBE firm listed on the Bidder's completed DBE Utilization Certification (WSDOT 272-056);
- Good Faith Effort (GFE) Documentation
- DBE Bid Item Breakdown (WSDOT 272-054)
- DBE Trucking Credit Form (WSDOT 272-058)

DBE Utilization Certification

The DBE Utilization Certification shall be received at the same location and no later than the time required for delivery of the Proposal. The Contracting Agency will not open or consider any Proposal when the DBE Utilization Certification is received after the time specified for receipt of Proposals or received in a location other than that specified for receipt of

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Proposals. The DBE Utilization Certification may be submitted in the same envelope as the Bid deposit.

DBE Written Confirmation and/or GFE Documentation

The DBE Written Confirmation Documents and/or GFE Documents are not required to be submitted with the Proposal. The DBE Written Confirmation Document(s) and/or GFE (if any) shall be received either with the Bid Proposal or as a Supplement to the Bid. The documents shall be received no later than 48 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Proposal. To be considered responsive, Bidders shall submit Written Confirmation Documentation from each DBE firm listed on the Bidder's completed DBE Utilization Certification and/or the GFE as required by Section 1-02.6.

DBE Bid Item Breakdown and DBE Trucking Credit Form

The DBE Bid Item Breakdown and the DBE Trucking Credit Forms (if applicable) shall be received either with the Bid Proposal or as a Supplement to the Bid. The documents shall be received no later than 48 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Proposal. To be considered responsive, Bidders shall submit a completed DBE Bid Item Breakdown and a DBE Trucking Credit Form for each DBE Trucking firm listed on the DBE Utilization Certification, however, minor errors and corrections to DBE Bid Item Breakdown or DBE Trucking Credit Forms will be returned for correction for a period up to five calendar days (not including Saturdays, Sundays and Holidays) after the time for delivery of the Proposal. A DBE Bid Item Breakdown or DBE Trucking Credit Forms that are still incorrect after the correction period will be determined to be non-responsive.

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: 253-835-2709, or
3. By e-mail to the following e-mail address: john.mulkey@cityoffederalway.com

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" (DBE confirmations or GFE documentation) that is received after the time specified above, or received in a location other than that specified in the Call for Bids.

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.

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

Delete this section, and replace it with the following:

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

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

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

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

1-02.13 Irregular Proposals
(October 1, 2020 APWA GSP)

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
 - a. The Bidder is not prequalified when so required;
 - b. The authorized Proposal form furnished by the Contracting Agency is not used or is altered;
 - c. The completed Proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
 - d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
 - e. A price per unit cannot be determined from the Bid Proposal;
 - f. The Proposal form is not properly executed;
 - g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
 - h. The Bidder fails to submit or properly complete an Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
 - i. The Bidder fails to submit written confirmation from each DBE firm listed on the Bidder's completed DBE Utilization Certification that they are in agreement with the bidder's DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
 - j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;

- k. The Bidder fails to submit a DBE Bid Item Breakdown form, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
 - l. The Bidder fails to submit DBE Trucking Credit Forms, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
 - m. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
 - n. More than one Proposal is submitted for the same project from a Bidder under the same or different names.
2. A Proposal may be considered irregular and may be rejected if:
- a. The Proposal does not include a unit price for every Bid item;
 - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
 - c. Receipt of Addenda is not acknowledged;
 - d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
 - e. If Proposal form entries are not made in ink.

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

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria 1-7 listed in this Section.

Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1), and Supplemental Criteria 1-2. Evidence that the Bidder meets Supplemental Criteria 3-7 shall be provided by the Bidder as stated later in this Section.

1. Delinquent State Taxes

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

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

2. Federal Debarment

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

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

3. **Subcontractor Responsibility**

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

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

4. **Claims Against Retainage and Bonds**

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

B. Documentation: The Bidder, if and when required as detailed below, shall submit a list of the public works projects completed in the three years prior to the bid submittal date that have had claims against retainage and bonds and include for each project the following information:

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

5. **Public Bidding Crime**

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

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

6. **Termination for Cause / Termination for Default**

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

7. **Lawsuits**

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

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

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

enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

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

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

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids ***(January 23, 2006 APWA GSP)***

Revise the first paragraph to read:

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

1-03.1(1) Identical Bid Totals ***(January 4, 2016 APWA GSP)***

Revise this section to read:

After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the highest percentage of recycled materials in the Project, per the form submitted with the Bid Proposal. If those percentages are also exactly equal, then the tie-breaker will be determined by drawing as follows: Two or more slips of paper will be marked as follows: one marked "Winner" and the other(s) marked "unsuccessful." The slips will be folded to

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make the marking unseen. The slips will be placed inside a box. One authorized representative of each Bidder shall draw a slip from the box. Bidders shall draw in alphabetic order by the name of the firm as registered with the Washington State Department of Licensing. The slips shall be unfolded and the firm with the slip marked "Winner" will be determined to be the successful Bidder and eligible for Award of the Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest responsive Bid, and with a proposed recycled materials percentage that is exactly equal to the highest proposed recycled materials amount, are eligible to draw.

1-03.3 Execution of Contract
(October 1, 2005 APWA GSP)

Revise this section to read:

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

Within 20 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

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

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of 5 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond
(July 23, 2015 APWA GSP)

Delete the first paragraph and replace it with the following:

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

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
 - a. Is registered with the Washington State Insurance Commissioner, and
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,

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

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

Revise this section to read:

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

1-04 SCOPE OF THE WORK

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

(December 10, 2020 APWA GSP)

Revise the second paragraph to read:

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

1. Addenda,
2. Proposal Form,

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

1-04.4 Changes

(April 30, 2020 WSDOT GSP, OPTION 1)

Section 1-04.4 is supplemented with the following:

Change Orders will be transmitted electronically to the Contractor for signature. The Contractor shall apply all signatures electronically using the software provided by the Contracting Agency. Within 21 days of execution of the Contract, the Contractor shall submit a Type 1 Working Drawing consisting of the names, email addresses, and text-message capable phone numbers for the authorized change order signers and shall bear the name, phone number and email of the officer providing this authorization. Delegation of authority to sign Change Orders shall be by the officer authorized to sign the Contract in accordance with Section 1-02.1

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.

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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
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

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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:

| | <u>Vertical</u> | <u>Horizontal</u> |
|--|-----------------|--|
| 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) |
| 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 A10.10. 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 2, 2018, WSDOT GSP, OPTION 4)

Section 1-05.4 is supplemented with the following:

Contractor Surveying - ADA Features

ADA Feature Staking Requirements

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, and grades necessary for the construction of the ADA features. Calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. The Contractor shall build the ADA features within the specifications in the Standard Plans and contract documents.

ADA Feature As-Built Measurements

The Contractor shall be responsible for providing electronic As-Built records of all ADA feature improvements completed in the Contract.

The survey work shall include but not be limited to completing the measurements, recording the required measurements and completing other data fill-ins found on the ADA Measurement Forms, and transmitting the electronic Forms to the Engineer. The ADA Measurement Forms are found at the following website location:

<http://www.wsdot.wa.gov/Design/ADAGuidance.htm>

In the instance where an ADA Feature does not meet accessibility requirements, all work to replace non-conforming work and then to measure, record the as-built measurements, and transmit the electronic Forms to the Engineer shall be completed at no additional cost to the Contracting Agency, as ordered by the Engineer.

Payment

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

"ADA Features Surveying", lump sum.

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

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

Supplement this section with the following:

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

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

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

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

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

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

Delete this section and replace it with the following:

1-05.11 Final Inspections and Operational Testing

1-05.11(1) Substantial Completion Date

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the work is substantially complete and ready for its intended use, the Engineer, by written notice to the Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer does not consider the work substantially complete and ready for its intended

use, the Engineer will, by written notice, so notify the Contractor giving the reasons therefore.

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

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

1-05.11(2) Final Inspection and Physical Completion Date

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

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

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

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

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any

items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

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

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

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

Delete the sixth and seventh paragraphs of this section.

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

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

Add the following new section:

1-05.16 Water and Power
(October 1, 2005 APWA GSP)

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

1-05.17 As-Built Survey and Record Drawings
(December 2, 2019 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 and provide the information (including point files) in a format compatible with AutoCAD 2019 or later version file to the Engineer.

The applicable tolerance limits for the as-built survey include, but are not limited to the following:

Vertical Horizontal

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| | | |
|---|--------------|--------------|
| As-built sanitary & storm invert and grate elevations | ± 0.01 foot | ± 0.01 foot |
| As-built monumentation | ± 0.001 foot | ± 0.001 foot |
| As-built waterlines, inverts, valves, hydrants | ± 0.10 foot | ± 0.10 foot |
| As-built ponds/swales/water features | ± 0.10 foot | ± 0.10 foot |
| As-built buildings (fin. Floor elev.) | ± 0.01 foot | ± 0.10 foot |
| As-built gas lines, power, TV, Tel, Com | ± 0.10 foot | ± 0.10 foot |
| As-built signs, signals, etc. | N/A | ± 0.10 foot |

This as-built survey shall consist of the following:

- Survey of rim elevation, sump elevations, and invert elevations of all storm drainage structures installed, modified or left in place within the limits of this contract. Storm pipe diameter and material; drainage structure type, size, lid type (solid cover or grate, standard or heavy duty), and lid shape; model No. of CB water quality treatment inserts installed, flowline of open channel conveyance systems at 50-foot max. intervals, and retaining wall footing drains, including cleanouts.
- Finished grade shots on all utility appurtenances within the limits of this contract, including, but not limited to vaults, handholes, valves, fire hydrants, water meters, junction boxes, signal poles, etc. 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. Utility handholes and boxes shall have two shots on opposite corners of the cover.
- Final curb elevations, 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.
- Final wall elevations at the face and top of all walls installed in this contract.
- Shots of all signs, trees, illumination and signal equipment installed as part of this contract.
- Shots to delineate all channelization installed in this contract.

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 in a comprehensive manner on one set of full size Plans. These Record Drawing shall be kept separate from other Plan sheets, and shall be clearly marked as Record Drawings. The Record Drawings shall be kept on site, and shall be available for review by the Contracting Agency at all times. The Contractor shall bring the Record Drawings to each progress meeting for review.

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Upon completion of construction, the Contractor shall submit to the City a clean set of marked-up drawings in electronic 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. City acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

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. As-built survey information shall be used to confirm information shown on record drawings.
- 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

Payment will be made in accordance with Section 1-04.1 for the following bid item(s) when included in the proposal:

"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.

1-06 CONTROL OF MATERIAL

(August 6, 2012, WSDOT GSP, OPTION 1(A))

Section 1-06 is supplemented with the following:

Buy America

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

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

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

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

Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.

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

The following are considered to be steel manufacturing processes:

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

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

1-06.6 Recycled Materials
(January 4, 2016 APWA GSP)

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

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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.

A. x

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

(October 1, 2005 APWA GSP)

Supplement this section with the following:

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

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

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

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

Section 1-07.1 is supplemented with the following:

(April 3, 2006 WSDOT GSP, OPTION 3)

Confined Space

Confined spaces are known to exist at the following locations:

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

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

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

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

Section 1-07.1 is supplemented with the following:

(May 13, 2020 WSDOT GSP, OPTION 4)

In response to COVID-19, the Contractor shall prepare a project specific COVID-19 health and safety plan (CHSP) in conformance with Section 1-07.4(2) as supplemented in these specifications, COVID-19 Health and Safety Plan (CHSP).

1-07.2 State Taxes

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

1-07.2 State Sales Tax

(June 27, 2011 APWA GSP)

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

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

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

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1-07.2(1) State Sales Tax — Rule 171

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

1-07.2(2) State Sales Tax — Rule 170

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

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full Contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit Bid item prices, or in any other Contract amount subject to Rule 170, with the following exception.

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

1-07.2(3) Services

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

1-07.4 Sanitation

Section 1-07.4(2) is supplemented with the following:

1-07.4(2) Health Hazards
(May 13, 2020, WSDOT GSP, OPTION 2)
COVID-19 Health & Safety Plan (CHSP)

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The Contractor shall prepare a project specific COVID-19 health and safety plan (CHSP). The CHSP shall be prepared and submitted as a Type 2 working drawing prior to beginning physical Work. The CHSP shall be based on the most current State and Federal requirements. If the State or Federal requirements are revised, the CHSP shall be updated as necessary to conform to the current requirements.

The Contractor shall update and resubmit the CHSP as the work progresses and new activities appear on the look ahead schedule required under Section 1-08.3(2)D. If the conditions change on the project, or a particular activity, the Contractor shall update and resubmit the CHSP. Work on any activity shall cease if conditions prevent full compliance with the CHSP.

The CHSP shall address the health and safety of all people associated with the project including State workers in the field, Contractor personnel, consultants, project staff, subcontractors, suppliers and anyone on the project site, staging areas, or yards.

COVID-19 Health and Safety Plan (CHSP) Inspection

The Contractor shall grant full and unrestricted access to the Engineer for CHSP Inspections. The Engineer (or designee) will conduct periodic compliance inspections on the project site, staging areas, or yards to verify that any ongoing work activity is following the CHSP plan. If the Engineer becomes aware of a noncompliance incident either through a site inspection or other means, the Contractor will be notified immediately (within 1 hour). The contractor shall immediately remedy the noncompliance incident or suspend all or part of the associated work activity. The Contractor shall satisfy the Engineer that the noncompliance incident has been corrected before the suspension will end.

1-07.5 Environmental Regulations

Section 1-07.5 is supplemented with the following:
(September 20, 2010, WSDOT GSP, OPTION 1)

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. DAHP Inadvertent Discovery Plan (IDP) is included in the appendices. The IDP outlines procedures to perform in the event of a discovery of archaeological materials or human remains, in accordance with applicable state and federal laws.

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

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.

(February 25, 2021, WSDOT GSP, OPTION 3)

10. Comply with WAC 173-160 Minimum Standards for Construction and 3 Maintenance of Wells.

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(January 2, 2018 WSDOT GSP, OPTION 1)

Section 1-07.6 is supplemented with the following:

The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the permit(s) is attached 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 to obtain and comply with additional permits shall be included in the applicable Bid items for the Work involved.

- Construction Stormwater General Permit

1-07.7 Load Limits

(March 13, 1995 WSDOT GSP, OPTION 6)

Section 1-07.7 is supplemented with the following:

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

1-07.9 Wages

1-07.9(1) General

(January 13, 2021 WSDOT GSP, OPTION 1)

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

The Federal wage rates incorporated in this contract have been established by the Secretary of Labor under United States Department of Labor General Decision No. WA20201001.

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

(April 2, 2007 WSDOT GSP, OPTION 4)

Application of Wage Rates For The Occupation Of Landscape Construction

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

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

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

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Laborers with the occupation description, Landscaping or Planting, or

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

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

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

1-07.9(5) Required Documents

(January 3, 2020 APWA GSP)

Delete this section and replace it with the following:

General

All "Statements of Intent to Pay Prevailing Wages", "Affidavits of Wages Paid" and Certified Payrolls, including a signed Statement of Compliance for Federal-aid projects, shall be submitted to the Engineer using the State L&I online Prevailing Wage Intent & Affidavit (PWIA) system.

Intentions and Affidavits

On forms provided by the Industrial Statistician of State L&I, the Contractor shall submit to the Engineer the following for themselves and for each firm covered under RCW 39.12 that will or has provided Work and materials for the Contract:

1. The approved "Statement of Intent to Pay Prevailing Wages" State L&I's form number F700-029-000. The Contracting Agency will make no payment under this Contract until this statement has been approved by State L&I and reviewed by the Engineer.
2. The approved "Affidavit of Prevailing Wages Paid", State L&I's form F700-007-000. The Contracting Agency will not grant Completion until all approved Affidavit of Wages paid for the Contractor and all Subcontractors have been received by the Engineer. The Contracting Agency will not release to the Contractor any funds retained under RCW 60.28.011 until "Affidavit of Prevailing Wages Paid" forms have been approved by State L&I and all of the approved forms have been submitted to the Engineer for every firm that worked on the Contract.

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The Contractor is responsible for requesting these forms from State L&I and for paying any fees required by State L&I.

Certified Payrolls

Certified payrolls are required to be submitted by the Contractor for themselves, all Subcontractors and all lower tier subcontractors. The payrolls shall be submitted weekly on all Federal-aid projects and no less than monthly on State funded projects.

Penalties for Noncompliance

The Contractor is advised, if these payrolls are not supplied within the prescribed deadlines, any or all payments may be withheld until compliance is achieved. In addition, failure to provide these payrolls may result in other sanctions as provided by State laws (RCW 39.12.050) and/or Federal regulations (29 CFR 5.12).

1-07.11 Requirements for Nondiscrimination

(September 3, 2019 WSDOT GSP, OPTION 1)

Section 1-07.11 is supplemented with the following:

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

1. The Contractor's attention is called to the Equal Opportunity Clause and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth herein.
2. The goals and timetables for minority and female participation set by the Office of Federal Contract Compliance Programs, expressed in percentage terms for the Contractor's aggregate work force in each construction craft and in each trade on all construction work in the covered area, are as follows:

Women - Statewide

| <u>Timetable</u> | <u>Goal</u> |
|----------------------|-------------|
| Until further notice | 6.9% |

Minorities - by Standard Metropolitan Statistical Area (SMSA)

Spokane, WA:

SMSA Counties:

| | |
|-------------|-----|
| Spokane, WA | 2.8 |
| WA Spokane. | |

| | |
|-------------------|-----|
| Non-SMSA Counties | 3.0 |
|-------------------|-----|

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

Richland, WA:

SMSA Counties:

| | |
|-------------------------|-----|
| Richland Kennewick, WA | 5.4 |
| WA Benton; WA Franklin. | |

| | |
|-------------------|-----|
| Non-SMSA Counties | 3.6 |
|-------------------|-----|

WA Walla Walla.

Yakima, WA:

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| | |
|--|-----|
| SMSA Counties: | |
| Yakima, WA | 9.7 |
| WA Yakima. | |
| Non-SMSA Counties | 7.2 |
| WA Chelan; WA Douglas; WA Grant; WA Kittitas; WA Okanogan. | |
| Seattle, WA: | |
| SMSA Counties: | |
| Seattle Everett, WA | 7.2 |
| WA King; WA Snohomish. | |
| Tacoma, WA | 6.2 |
| WA Pierce. | |
| Non-SMSA Counties | 6.1 |
| WA Clallam; WA Grays Harbor; WA Island; WA Jefferson; WA Kitsap; | |
| WA Lewis; WA Mason; WA Pacific; WA San Juan; WA Skagit; WA | |
| Thurston; WA Whatcom. | |
| Portland, OR: | |
| SMSA Counties: | |
| Portland, OR-WA | 4.5 |
| WA Clark. | |
| Non-SMSA Counties | 3.8 |
| WA Cowlitz; WA Klickitat; WA Skamania; WA Wahkiakum. | |

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

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

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

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

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

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

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

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

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

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and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith effort to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of this Special Provision. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its action. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the

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Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunity and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the U.S. Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items

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with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

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8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of the obligations under 7a through 7p of this Special Provision provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensure that the concrete benefits of the program are reflected in the Contractor's minority and female work-force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrate the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspensions, terminations and cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of this Special Provision, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be

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required by the government and to keep records. Records shall at least include, for each employee, their name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, the Contractors will not be required to maintain separate records.

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

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

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

(October 1, 2020, APWA GSP, OPTION B)

Supplement this section with the following:

Disadvantaged Business Enterprise Participation

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 and USDOT's official interpretations (i.e., Questions & Answers) apply to this Contract. Demonstrating compliance with these Specifications is a Condition of Award (COA) of this Contract. Failure to comply with the requirements of this Specification may result in your Bid being found to be nonresponsive resulting in rejection or other sanctions as provided by Contract.

DBE Abbreviations and Definitions

Broker – A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the Contract; or, persons/companies who arrange or expedite transactions.

Certified Business Description – Specific descriptions of work the DBE is certified to perform, as identified in the Certified Firm Directory, under the Vendor Information page.

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Certified Firm Directory – A database of all Minority, Women, and Disadvantaged Business Enterprises currently certified by Washington State. The on-line Directory is available to Contractors for their use in identifying and soliciting interest from DBE firms. The database is located under the Firm Certification section of the Diversity Management and Compliance System web page at: <https://omwbe.diversitycompliance.com>.

Commercially Useful Function (CUF) – 49 CFR 26.55(c)(1) defines commercially useful function as: “A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.”

Disadvantaged Business Enterprise (DBE) – A business firm certified by the Washington State Office of Minority and Women’s Business Enterprises, as meeting the criteria outlined in 49 CFR 26 regarding DBE certification.

Force Account Work – Work measured and paid in accordance with Section 1-09.6.

Good Faith Efforts – Efforts to achieve the DBE COA Goal or other requirements of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Manufacturer (DBE) – A DBE firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract. A DBE Manufacturer shall produce finished goods or products from raw or unfinished material or purchase and substantially alters goods and materials to make them suitable for construction use before reselling them.

Reasonable Fee (DBE) – For purposes of Brokers or service providers a reasonable fee shall not exceed 5% of the total cost of the goods or services brokered.

Regular Dealer (DBE) – A DBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of a Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a Regular Dealer, the DBE firm must be an established regular business that engages in as its principal business and in its own name the purchase and sale of the products in question. A Regular Dealer in such items as steel, cement, gravel, stone, and petroleum products

need not own, operate or maintain a place of business if it both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by long-term formal lease agreements and not on an ad-hoc basis. Brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions shall not be regarded as Regular Dealers within the meaning of this definition.

DBE Commitment – The dollar amount the Bidder indicates they will be subcontracting to be applied towards the DBE Condition of Award Goal as shown on the DBE Utilization Certification Form for each DBE Subcontractor. This DBE Commitment amount will be incorporated into the Contract and shall be considered a Contract requirement. The Contractor shall utilize the COA DBEs to perform the work and supply the materials for which they are committed. Any changes to the DBE Commitment require the Engineer's prior written approval.

DBE Condition of Award (COA) Goal – An assigned numerical amount specified as a percentage of the Contract. Initially, this is the minimum amount that the Bidder must commit to by submission of the Utilization Certification Form and/or by Good Faith Effort (GFE).

DBE COA Goal

The Contracting Agency has established a DBE COA Goal for this Contract in the amount of: *** \$\$15.0% ***

Crediting DBE Participation

Subcontractors proposed as COA must be certified prior to the due date for bids on the Contract. All non-COA DBE Subcontractors shall be certified before the subcontract on which they are participating is executed.

DBE participation is only credited upon payment to the DBE.

The following are some definitions of what may be counted as DBE participation.

DBE Prime Contractor

Only take credit for that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE Prime Contractor performs with its own forces and is certified to perform.

DBE Subcontractor

Only take credit for that portion of the total dollar value of the subcontract that is equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces and is certified to perform. The value of work performed by the DBE includes the cost of supplies and materials purchased by the DBE and equipment leased by the DBE, for its work on the contract. Supplies, materials or equipment obtained by a DBE that are not utilized or incorporated in the contract work by the DBE will not be eligible for DBE credit.

The supplies, materials, and equipment purchased or leased from the Contractor or its affiliate, including any Contractor's resources available to DBE subcontractors at no cost, shall not be credited.

DBE credit will not be given in instances where the equipment lease includes the operator. The DBE is expected to operate the equipment used in the performance of its work under the contract with its own forces. Situations where equipment is leased and used by the DBE, but payment is deducted from the Contractor's payment to the DBE is not allowed.

When the subcontractor is part of a DBE Commitment, the following apply:

1. If a DBE subcontracts a portion of the Work of its contract to another firm, the value of the subcontracted Work may be counted toward the DBE COA Goal only if the Lower-Tier Subcontractor is also a DBE.
2. Work subcontracted to a Lower-Tier Subcontractor that is a DBE, may be counted toward the DBE COA Goal.
3. Work subcontracted to a non-DBE does not count towards the DBE COA Goal.

DBE Subcontract and Lower Tier Subcontract Documents

There must be a subcontract agreement that complies with 49 CFR Part 26 and fully describes the distinct elements of Work committed to be performed by the DBE.

DBE Service Provider

The value of fees or commissions charged by a DBE firm behaving in a manner of a Broker, or another service provider for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance specifically required for the performance of the contract will only be credited as DBE participation, if the fee/commission is determined by the Contracting Agency to be reasonable and the firm has performed a CUF.

Force Account Work

When the Bidder elects to utilize force account Work to meet the DBE COA Goal, as demonstrated by listing this force account Work on the DBE Utilization Certification Form, for the purposes of meeting the DBE COA Goal, only 50% of the Proposal amount shall be credited toward the Bidder's Commitment to meet the DBE COA Goal.

One hundred percent of the actual amounts paid to the DBE for the force account Work shall be credited towards the DBE COA Goal or DBE participation.

Temporary Traffic Control

If the DBE firm only provides "Flagging", the DBE firm must provide a Traffic Control Supervisor (TCS) and flagger, which are under the direct control of the DBE. The DBE firm shall also provide all flagging equipment for its employees (e.g. paddles, hard hats, and vests).

If the DBE firm provides “Traffic Control Services”, the DBE firm must provide a TCS, flaggers, and traffic control items (e.g., cones, barrels, signs, etc.) and be in total control of all items in implementing the traffic control for the project.

Trucking

DBE trucking firm participation may only be credited as DBE participation for the value of the hauling services, not for the materials being hauled unless the trucking firm is also certified as a supplier of those materials. In situations where the DBE’s work is priced per ton, the value of the hauling service must be calculated separately from the value of the materials in order to determine DBE credit for hauling

The DBE trucking firm must own and operate at least one licensed, insured and operational truck on the contract. The truck must be of the type that is necessary to perform the hauling duties required under the contract. The DBE receives credit for the value of the transportation services it provides on the Contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

The DBE may lease additional trucks from another DBE firm. The DBE who leases additional trucks from another DBE firm receives credit for the value of the transportation services the lessee DBE provides on the Contract.

The trucking Work subcontracted to any non-DBE trucking firm will not receive credit for Work done on the project.

The DBE may lease trucks from a truck leasing company (recognized truck rental center), but can only receive credit towards DBE participation if the DBE uses its own employees as drivers.

DBE Manufacturer and DBE Regular Dealer

One hundred percent (100%) of the cost of the manufactured product obtained from a DBE manufacturer may count towards the DBE COA Goal.

Sixty percent (60%) of the cost of materials or supplies purchased from a DBE Regular Dealer may be credited towards the DBE Goal. If the role of the DBE Regular Dealer is determined to be that of a Broker, then DBE credit shall be limited to the fee or commission it receives for its services. Regular Dealer status and the amount of credit is determined on a Contract-by-Contract basis.

DBE firms proposed to be used as a Regular Dealer must be approved before being listed as a COA/used on a project. The WSDOT Approved Regular Dealer list published on WSDOT’s Office of Equal Opportunity (OEO) web site must include the specific project for which approval is being requested. For purposes of the DBE COA Goal participation, the Regular Dealer must submit the Regular Dealer Status Request form a minimum of five calendar days prior to bid opening.

Purchase of materials or supplies from a DBE which is neither a manufacturer nor a regular dealer, (i.e. Broker) only the fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or

transportation charges for the delivery of materials or supplies required on a job site, may count towards the DBE COA goal provided the fees are not excessive as compared with fees customarily allowed for similar services. Documentation will be required to support the fee/commission charged by the DBE. The cost of the materials and supplies themselves cannot be counted toward the DBE COA Goal.

Note: Requests to be listed as a Regular Dealer will only be processed if the requesting firm is a material supplier certified by the Office of Minority and Women's Business Enterprises in a NAICS code that falls within the 42XXXX NAICS Wholesale code section.

Disadvantaged Business Enterprise Utilization

To be eligible for award of the Contract, the Bidder shall properly complete and submit a Disadvantaged Business Enterprise (DBE) Utilization Certification with the Bidder's sealed Bid Proposal, as specified in Section 1-02.9 Delivery of Proposal. The Bidder's DBE Utilization Certification must clearly demonstrate how the Bidder intends to meet the DBE COA Goal. A DBE Utilization Certification (WSDOT Form 272-056) is included in the Proposal package for this purpose as well as instructions on how to properly fill out the form.

The Bidder is advised that the items listed below when listed in the Utilization Certification must have their amounts reduced to the percentages shown and those reduced amounts will be the amount applied towards meeting the DBE COA Goal.

- Force account at 50%
- Regular dealer at 60%

In the event of arithmetic errors in completing the DBE Utilization Certification, the amount listed to be applied towards the DBE COA Goal for each DBE shall govern and the DBE total amount shall be adjusted accordingly.

Note: The Contracting Agency shall consider as non-responsive and shall reject any Bid Proposal submitted that does not contain a DBE Utilization Certification Form that accurately demonstrates how the Bidder intends to meet the DBE COA Goal.

Disadvantaged Business Enterprise Written Confirmation Document(s)

The Bidder shall submit an Disadvantaged Business Enterprise (DBE) Written Confirmation Document (completed and signed by the DBE) for each DBE firm listed in the Bidder's completed DBE Utilization Certification submitted with the Bid. Failure to do so will result in the associated participation being disallowed, which may cause the Bid to be determined to be nonresponsive resulting in Bid rejection.

The Confirmation Documents provide confirmation from the DBEs that they are participating in the Contract as provided in the Bidder's Commitment. The Confirmation Documents must be consistent with the Utilization Certification.

A DBE Written Confirmation Document (form No. 422-031) is included in the Proposal package for this purpose.

The form(s) shall be received as specified in the special provisions for Section 1-02.9 Delivery of Proposal.

It is prohibited for the Bidder to require a DBE to submit a Written Confirmation Document with any part of the form left blank. Should the Contracting Agency determine that an incomplete Written Confirmation Document was signed by a DBE, the validity of the document comes into question. The associated DBE participation may not receive credit.

Selection of Successful Bidder/Good Faith Efforts (GFE)

The successful Bidder shall be selected on the basis of having submitted the lowest responsive Bid, which demonstrates a good faith effort to achieve the DBE COA Goal. The Contracting Agency, at any time during the selection process, may request a breakdown of the bid items and amounts that are counted towards the overall contract goal for any of the DBEs listed on the DBE Utilization Certification.

Achieving the DBE COA Goal may be accomplished in one of two ways:

1. By meeting the DBE COA Goal
Submission of the DBE Utilization Certification, supporting DBE Written Confirmation Document(s) showing the Bidder has obtained enough DBE participation to meet or exceed the DBE COA Goal, the DBE Bid Item Breakdown and the DBE Trucking Credit Form, if applicable.
2. By documentation that the Bidder made adequate GFE to meet the DBE COA Goal
The Bidder may demonstrate a GFE in whole or part through GFE documentation ONLY IN THE EVENT a Bidder's efforts to solicit sufficient DBE participation have been unsuccessful. The Bidder must supply GFE documentation in addition to the DBE Utilization Certification, supporting DBE Written Confirmation Document(s), the DBE Bid Item Breakdown form and the DBE Trucking Credit Form, if applicable.

Note: In the case where a Bidder is awarded the contract based on demonstrating adequate GFE, the advertised DBE COA Goal will not be reduced. The Bidder shall demonstrate a GFE during the life of the Contract to attain the advertised DBE COA Goal.

GFE documentation, the DBE Bid Item Breakdown form, and the DBE Trucking Credit Form, if applicable, shall be submitted as specified in Section 1-02.9.

The Contracting Agency will review the GFE documentation and will determine if the Bidder made an adequate good faith effort.

Good Faith Effort (GFE) Documentation

GFE is evaluated when:

1. Determining award of a Contract that has COA goal,
2. When a COA DBE is terminated and substitution is required, and

3. Prior to Physical Completion when determining whether the Contractor has satisfied its DBE commitments.

49 CFR Part 26, Appendix A is intended as general guidance and does not, in itself, demonstrate adequate good faith efforts. The following is a list of types of actions, which would be considered as part of the Bidder's GFE to achieve DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

1. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the Work of the Contract. The Bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The Bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
2. Selecting portions of the Work to be performed by DBEs in order to increase the likelihood that the DBE COA Goal will be achieved. This includes, where appropriate, breaking out contract Work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these Work items with its own forces.
3. Providing interested DBEs with adequate information about the Plans, Specifications, and requirements of the Contract in a timely manner to assist them in responding to a solicitation.
 - a. Negotiating in good faith with interested DBEs. It is the Bidder's responsibility to make a portion of the Work available to DBE subcontractors and suppliers and to select those portions of the Work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the Plans and Specifications for the Work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the Work.
 - b. A Bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as the DBE COA Goal into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a Bidder's failure to meet the DBE COA Goal, as long as such costs are reasonable. Also, the ability or desire of a Bidder to perform the Work of a Contract with its own organization does not relieve the Bidder of the responsibility to make Good Faith Efforts. Bidders are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

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4. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the Bidder's efforts to meet the DBE COA Goal.
5. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Bidder.
6. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
7. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
8. Documentation of GFE must include copies of each DBE and non-DBE subcontractor quotes submitted to the Bidder when a non-DBE subcontractor is selected over a DBE for Work on the Contract. (ref. updated DBE regulations – 26.53(b)(2)(vi) & App. A)

Administrative Reconsideration of GFE Documentation

A Bidder has the right to request reconsideration if the GFE documentation submitted with their Bid was determined to be inadequate.

- The Bidder must request within 48 hours of notification of being nonresponsive or forfeit the right to reconsideration.
- The reconsideration decision on the adequacy of the Bidder's GFE documentation shall be made by an official who did not take part in the original determination.
- Only original GFE documentation submitted as a supplement to the Bid shall be considered. The Bidder shall not introduce new documentation at the reconsideration hearing.
- The Bidder shall have the opportunity to meet in person with the official for the purpose of setting forth the Bidder's position as to why the GFE documentation demonstrates a sufficient effort.
- The reconsideration official shall provide the Bidder with a written decision on reconsideration within five working days of the hearing explaining the basis for their finding.

DBE Bid Item Breakdown

The Bidder shall submit a DBE Bid Item Breakdown Form (WSDOT Form 272-054) as specified in the Special Provisions for Section 1-02.9, Delivery of Proposal.

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DBE Trucking Credit Form

The Bidder shall submit a DBE Trucking Credit Form (WSDOT Form 272-058), as specified in the Special Provisions for Section 1-02.9, Delivery of Proposal.

Note: The DBE Trucking Credit Form is only required for a DBE Firm listed on the DBE Utilization Certification as a subcontractor for "Trucking" or "Hauling" and are performing a part of a bid item. For example, if the item of Work is Structure Excavation including Haul, and another firm is doing the excavation and the DBE Trucking firm is doing the haul, the form is required. For a DBE subcontractor that is responsible for an entire item of work that may require some use of trucks, the form is not required.

Procedures between Award and Execution

After Award and prior to Execution, the Contractor shall provide the additional information described below. Failure to comply shall result in the forfeiture of the Bidder's Proposal bond or deposit.

1. A list of all firms who submitted a bid or quote in attempt to participate in this project whether they were successful or not. Include the business name and mailing address.

Note: The firms identified by the Contractor may be contacted by the Contracting Agency to solicit general information as follows: age of the firm and average of its gross annual receipts over the past three-years.

Procedures after Execution

Commercially Useful Function (CUF)

The Contractor may only take credit for the payments made for Work performed by a DBE that is determined to be performing a CUF. Payment must be commensurate with the work actually performed by the DBE. This applies to all DBEs performing Work on a project, whether or not the DBEs are COA, if the Contractor wants to receive credit for their participation. The Engineer will conduct CUF reviews to ascertain whether DBEs are performing a CUF. A DBE performs a CUF when it is carrying out its responsibilities of its contract by actually performing, managing, and supervising the Work involved. The DBE must be responsible for negotiating price; determining quality and quantity; ordering the material, installing (where applicable); and paying for the material itself. If a DBE does not perform "all" of these functions on a furnish-and-install contract, it has not performed a CUF and the cost of materials cannot be counted toward DBE COA Goal. Leasing of equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Contractor is not allowed. Lease agreements shall be provided prior to the Subcontractor beginning Work. Any use of the Contractor's equipment by a DBE may not be credited as countable participation.

The DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of DBE participation.

In order for a DBE traffic control company to be considered to be performing a CUF, the DBE must be in control of its work inclusive of supervision. The DBE shall employ a Traffic Control Supervisor who is directly involved in the management and supervision of the traffic control employees and services.

The following are some of the factors that the Engineer will use in determining whether a DBE trucking company is performing a CUF:

- The DBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on the contract. The owner demonstrates business related knowledge, shows up on site and is determined to be actively running the business.
- The DBE shall own and operate at least one fully licensed, insured, and operational truck used on the Contract. The drivers of the trucks owned and leased by the DBE must be exclusively employed by the DBE and reflected on the DBE's payroll.
- Lease agreements for trucks shall indicate that the DBE has exclusive use of and control over the truck(s). This does not preclude the leased truck from working for others provided it is with the consent of the DBE and the lease provides the DBE absolute priority for use of the leased truck.
- Leased trucks shall display the name and identification number of the DBE.

UDBE/DBE/FSBE Truck Unit Listing Log

In addition to the subcontracting requirements of Section 1-08.1, each DBE trucking firm shall submit supplemental information consisting of a completed Primary UDBE/DBE/FSBE Truck Unit Listing Log (WSDOT Form 350-077), copy of vehicle registrations, and all Rental/Lease agreements (if applicable). The supplemental information shall be submitted to the Engineer prior to any trucking services being performed for DBE credit. Incomplete or incorrect supplemental information will be returned for correction. The corrected Primary UDBE/DBE/FSBE Truck Unit Listing Log and any Updated Primary UDBE/DBE/FSBE Truck Unit Listing Logs shall be submitted and accepted by the Engineer no later than ten calendar days of utilizing applicable trucks. Failure to submit or update the DBE Truck Unit Listing Log may result in trucks not being credited as DBE participation.

Each DBE trucking firm shall complete a Daily UDBE/DBE/FSBE Trucking Unit Listing Log for each day that the DBE performs trucking services for DBE credit. The Daily UDBE/DBE/FSBE Trucking Unit Listing Log forms shall be submitted to the Engineer by Friday of the week after the work was performed.

Joint Checking

A joint check is a check between a Subcontractor and the Contractor to the supplier of materials/supplies. The check is issued by the Contractor as payer to the Subcontractor and the material supplier jointly for items to be incorporated

into the project. The DBE must release the check to the supplier, while the Contractor acts solely as the guarantor.

A joint check agreement must be approved by the Engineer and requested by the DBE involved using the DBE Joint Check Request Form (form # 272-053) prior to its use. The form must accompany the DBE Joint Check Agreement between the parties involved, including the conditions of the arrangement and expected use of the joint checks.

The approval to use joint checks and the use will be closely monitored by the Engineer. To receive DBE credit for performing a CUF with respect to obtaining materials and supplies, a DBE must "be responsible for negotiating price, determining quality and quantity, ordering the material, installing and paying for the material itself." The Contractor shall submit DBE Joint Check Request Form to the Engineer and be in receipt of written approval prior to using a joint check.

Material costs paid by the Contractor directly to the material supplier are not allowed. If proper procedures are not followed or the Engineer determines that the arrangement results in lack of independence for the DBE involved, no DBE credit will be given for the DBE's participation as it relates to the material cost.

Prompt Payment

Prompt payment to all subcontractors shall be in accordance with Section 1-08.1. Prompt payment requirements apply to progress payments as well as return of retainage.

Subcontracts

Prior to a DBE performing Work on the Contract, an executed subcontract between the DBE and the Contractor shall be submitted to the Engineer. The executed subcontracts shall be submitted by email to the following email address

NWRegionOEO@wsdot.wa.gov

The prime contractor shall notify the Engineer in writing within five calendar days of contract submittal.

Reporting

The Contractor and all subcontractors/suppliers/service providers that utilize DBEs to perform work on the project, shall maintain appropriate records that will enable the Engineer to verify DBE participation throughout the life of the project.

Refer to Section 1-08.1 for additional reporting requirements associated with this contract.

Changes in COA Work Committed to DBE

The Contractor shall utilize the COA DBEs to perform the work and supply the materials for which each is committed unless prior written approval by the Engineer is received by the Contractor. The Contractor shall not be entitled to any payment for work or material completed by the Contractor or subcontractors that was committed to be completed by the COA DBEs in the DBE Utilization Certification form.

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Owner Initiated Changes

In instances where the Engineer makes changes that result in changes to Work that was committed to a COA DBE the Contractor may be directed to substitute for the Work.

Contractor Initiated Changes

The Contractor cannot change the scope or reduce the amount of work committed to a COA DBE without good cause. Reducing DBE Commitment is viewed as partial DBE termination, and therefore subject to the termination procedures below.

Original Quantity Underruns

In the event that Work committed to a DBE firm as part of the COA underruns the original planned quantities the Contractor may be required to substitute other remaining Work to another DBE.

Contractor Proposed DBE Substitutions

Requests to substitute a COA DBE must be for good cause (see DBE termination process below), and requires prior written approval of the Engineer. After receiving a termination with good cause approval, the Contractor may only replace a DBE with another certified DBE. When any changes between Contract Award and Execution result in a substitution of COA DBE, the substitute DBE shall be certified prior to the bid opening on the Contract.

DBE Termination

Termination of a COA DBE (or an approved substitute DBE) is only allowed in whole or in part for good cause and with prior written approval of the Engineer. If the Contractor terminates a COA DBE without the prior written approval of the Engineer, the Contractor shall not be entitled to payment for work or material committed to, but not performed/supplied by the COA DBE. In addition, sanctions may apply as described elsewhere in this specification.

Prior to requesting approval to terminate a COA DBE, the Contractor shall give notice in writing to the DBE with a copy to the Engineer of its intent to request to terminate DBE Work and the reasons for doing so. The DBE shall have five (5) days to respond to the Contractor's notice. The DBE's response shall either support the termination or advise the Engineer and the Contractor of the reasons it objects to the termination of its subcontract.

If the request for termination is approved, the Contractor is required to substitute with another DBE to perform at least the same amount of work as the DBE that was terminated (or provide documentation of GFE). A plan to replace the COA DBE Commitment amount shall be submitted to the Engineer within 2 days of the approval of termination. The plan to replace the Commitment shall provide the same detail as that required in the DBE Utilization Certification.

The Contractor must have good cause to terminate a COA DBE.

Good cause typically includes situations where the DBE Subcontractor is unable or unwilling to perform the work of its subcontract. Good cause may exist if:

- The DBE fails or refuses to execute a written contract.
- The DBE fails or refuses to perform the Work of its subcontract in a way consistent with normal industry standards.
- The DBE fails or refuses to meet the Contractor's reasonable nondiscriminatory bond requirements.
- The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to federal law or applicable State law.
- The DBE is ineligible to receive DBE credit for the type of work involved.
- The DBE voluntarily withdraws from the project, and provides written notice of its withdrawal.
- The DBE's work is deemed unsatisfactory by the Engineer and not in compliance with the Contract.
- The DBE's owner dies or becomes disabled with the result that the DBE is unable to complete its Work on the Contract.

Good cause does not exist if:

- The Contractor seeks to terminate a COA DBE so that the Contractor can self-perform the Work.
- The Contractor seeks to terminate a COA DBE so the Contractor can substitute another DBE contractor or non-DBE contractor after Contract Award.
- The failure or refusal of the COA DBE to perform its Work on the subcontract results from the bad faith or discriminatory action of the Contractor (e.g., the failure of the Contractor to make timely payments or the unnecessary placing of obstacles in the path of the DBE's Work).

Decertification

When a DBE is "decertified" from the DBE program during the course of the Contract, the participation of that DBE shall continue to count as DBE participation as long as the subcontract with the DBE was executed prior to the decertification notice. The Contractor is obligated to substitute when a DBE does not have an executed subcontract agreement at the time of decertification.

Consequences of Non-Compliance

Breach of Contract

Each contract with a Contractor (and each subcontract the Contractor signs with a Subcontractor) must include the following assurance clause:

The Contractor, subrecipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the Contractor from future bidding as non-responsible.

Notice

If the Contractor or any Subcontractor, Consultant, Regular Dealer, or service provider is deemed to be in non-compliance, the Contractor will be informed in writing, by certified mail by the Engineer that sanctions will be imposed for failure to meet the DBE COA Commitment and/or submit documentation of good faith efforts. The notice will state the specific sanctions to be imposed which may include impacting a Contractor or other entity's ability to participate in future contracts.

Sanctions

If it is determined that the Contractor's failure to meet all or part of the DBE COA Commitment is due to the Contractor's inadequate good faith efforts throughout the life of the Contract, including failure to submit timely, required Good Faith Efforts information and documentation, the Contractor may be required to pay DBE penalty equal to the amount of the unmet Commitment, in addition to the sanctions outlined in Section 1-07.11(5).

Payment

Compensation for all costs involved with complying with the conditions of this Specification and any other associated DBE requirements is included in payment for the associated Contract items of Work, except otherwise provided in the Specifications.

1-07.12 Federal Agency Inspection

(January 25, 2016 WSDOT GSP)

Section 1-07.12 is supplemented with the following:

Required Federal Aid Provisions

The Required Contract Provisions Federal Aid Construction Contracts (FHWA 1273) Revised May 1, 2012 and the amendments thereto supersede any conflicting provisions of the Standard Specifications and are made a part of this Contract; provided, however,

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that if any of the provisions of FHWA 1273, as amended, are less restrictive than Washington State Law, then the Washington State Law shall prevail.

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

1-07.13 Contractor's Responsibility for Work

1-07.13(4) Repair of Damage ***(August 6, 2001 WSDOT GSP)***

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

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

1-07.16 Protection and Restoration of Property

1-07.16(2) Vegetation Protection and Restoration ***(August 2, 2010 WSDOT GSP)***

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

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

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

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

1-07.17 Utilities and Similar Facilities ***(April 2, 2007 WSDOT GSP, OPTION 1)***

Section 1-07.17 is supplemented with the following:

Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

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

UTILITY CONTACTS

Puget Sound Energy

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

Century Link

Attn: Tanaiya Anderson
23315 66th Ave S
Kent, WA 98032
Telephone: (253) 313-8961

Lakehaven Water & Sewer District

Attn: Andrew Weygandt
31627 1st Avenue S
Federal Way, WA 98003
Telephone: (253)945-1624

Comcast

Attn: Aaron Cantrell
4020 Auburn Way North
Auburn, WA 98002
Telephone: (253) 864-4281

King County Traffic Operations

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

AT&T

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

Zayo

Attn: Jason Tesdal
4905 Pacific Hwy E, Suite 4
Fife, WA 98424
Telephone: (253) 221-7585

City of FW IT Dept (City Fiber)

Attn: Thomas Fichtner
33325 8th Ave S
Federal Way, WA 98003
Telephone: (253) 835-2547

ADDITIONAL CONTACTS

King County METRO Transit

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

South King Fire & Rescue

31617 1st Ave S
Federal Way, WA 98003
Telephone: (253) 946-7253

City of Federal Way Police

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

Federal Way School District

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

(April 2, 2007 WSDOT GSP, OPTION 2)

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.

Public and private utilities, or their Contractors, will furnish all work necessary to adjust, relocate, replace, or construct their facilities unless otherwise provided for in the Plans or these Special Provisions. Such adjustment, relocation, replacement, or construction will be done during the prosecution of the work for this project. It is anticipated that utility

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adjustment, relocation, replacement or construction within the project limits will be completed as follows:

- Any other relocations, replacements, or adjustments as necessary

The Contractor shall attend a mandatory utility preconstruction meeting with the Engineer, all affected Subcontractors, and all utility owners and their Contractors prior to beginning onsite work.

The following addresses and telephone numbers of utility companies or their Contractors that will be adjusting, relocating, replacing or constructing utilities within the project limits are supplied for the Contractor's use:

- See contact info listed in Section 1-07.17, Option 1

The Contractor shall:

- Provide franchise utilities with a minimum two-week advance notice to facilitate scheduling for their crews. Work will be completed by utilities after the area has been prepared by the City's contractor, including excavation and staking of appurtenant facilities such as right-of-way & back of sidewalk (line & grade).
- The Contractor shall coordinate scheduling of utility work with the utility companies involved and incorporate that work into the project schedule.

1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance

(January 4, 2016 APWA GSP)

1-07.18(1) General Requirements

- A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.
- B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.
- C. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.
- D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as

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respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.

- E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.
- F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency
- G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.
- H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

1-07.18(2) Additional Insured

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

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

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each Subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors.

The Contractor shall ensure that all Subcontractors of every tier add all entities listed in 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each Subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
3. Any other amendatory endorsements to show the coverage required herein.
4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Contractor's maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

| | |
|-------------|---|
| \$1,000,000 | Each Occurrence |
| \$2,000,000 | General Aggregate |
| \$2,000,000 | Products & Completed Operations Aggregate |
| \$1,000,000 | Personal & Advertising Injury each offense |
| \$1,000,000 | Stop Gap / Employers' Liability each Accident |

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

| | |
|-------------|-------------------------------------|
| \$1,000,000 | Combined single limit each accident |
|-------------|-------------------------------------|

1-07.18(5)C Workers' Compensation

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

1-07.18(5)D Excess or Umbrella Liability

(January 4, 2016 APWA GSP)

The Contractor shall provide Excess or Umbrella Liability insurance with limits of not less than \$3,000,000 each occurrence and annual aggregate. This excess or umbrella liability coverage shall be excess over and as least as broad in coverage as the Contractor's Commercial General and Auto Liability insurance.

All entities listed under 1-07.18(2) of these Special Provisions shall be named as additional insureds on the Contractor's Excess or Umbrella Liability insurance policy.

This requirement may be satisfied instead through the Contractor's primary Commercial General and Automobile Liability coverages, or any combination thereof that achieves the overall required limits of insurance.

1-07.18(5)J Pollution Liability

(January 4, 2016 APWA GSP)

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

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

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

Such Pollution Liability policy shall provide the following minimum limits:

\$1,000,000 each loss and annual aggregate

1-07.23 Public Convenience and Safety

1-07.23(1) Construction under Traffic

(February 3, 2020 WSDOT GSP, OPTION 2)

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

Work Zone Clear Zone

The Work Zone Clear Zone (WZCZ) applies during working and nonworking hours. The WZCZ applies only to temporary roadside objects introduced by the Contractor's operations and does not apply to preexisting conditions or permanent Work. Those work operations that are actively in progress shall be in accordance with adopted and approved Traffic Control Plans, and other contract requirements.

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

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

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

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

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

| Regulatory Posted Speed | Distance From Traveled Way (Feet) |
|--------------------------------|--|
| 35 mph or less | 10 |
| 40 mph | 15 |
| 45 to 50 mph | 20 |
| 55 to 60 mph | 30 |
| 60 mph or greater | 35 |

Minimum Work Zone Clear Zone Distance

(January 5, 2015 WSDOT GSP, OPTION 5)

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

Lane closures are subject to the following restrictions:

- Only one lane of traffic (eastbound or westbound) may be closed to traffic between the hours of 7:00AM and 3:30PM. Approval to close both one eastbound and one westbound lane at the same time will require prior approval by the Project Engineer.
- Left turns may be restricted (by the Contractor) within the project limits at the discretion of the Project Engineer.
- Closure of one lane at a time may occur between the hours of 7AM to 7PM. Any closures between 7PM to 7AM require prior approval by the City
- If a lane closure is required, at least one lane of traffic (alternating directions / flagger controlled) shall be maintained at all times.
- Unless otherwise approved or shown on plans, the Contractor shall maintain two-way traffic during construction. The Contractor shall maintain continuous two-way traffic along streets throughout the project site. The Contractor shall have the option, with the approval of the Engineer, of momentarily interrupting the continuous two-way traffic to allow one-way traffic. Such interruptions shall utilize qualified flaggers placed in strategic locations to insure the public safety and minimize driver confusion. A momentary interruption shall be defined as a period of time not to exceed two (2) minutes. Regardless of the period of time no queue greater than ten (10) cars in length will be allowed.
- Working at night (8pm to 7am weekdays, 8 pm-9am weekends & holidays) is not mandated by the City. Should the contractor schedule project work during nighttime hours, it shall be the Contractor's responsibility to obtain any required noise variance or exemption for such work.
- For approved night work, the Contractor shall, at no additional cost to the City, make all arrangements for operations during hours of darkness.

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Flagger stations shall be illuminated using a minimum 150-watt floodlight. Lighting used for nighttime work shall, whenever possible, be directed away from or shielded from residences and oncoming traffic. Signs and barricades shall be supplemented by Type C steady burn lights to delineate edge of roadway during the hours of darkness.

- The Contractor shall keep all pedestrian routes & access points (including, but not limited to, sidewalks, and crosswalks when located within the project limits) open and clear at all times unless permitted otherwise by the Engineer in an approved traffic control plan. An ADA accessible route must be provided through the project site at all times.
- Pedestrians must have access to pedestrian push buttons at all times.
- The Contractor shall provide flaggers, signs, and other traffic control devices. The Contractor shall erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage as a result of the Contractor's operations which may occur on highways, roads, streets, sidewalks, or paths. No work shall be done on or adjacent to any traveled way until all necessary signs and traffic control devices are in place.
- All signs and traffic control devices for the permitted closures shall only be installed during the specified hours. Construction signs, if placed earlier than the specified hours of closure, shall be turned or covered so as not to be visible to motorists
- The Contractor shall be responsible for notifying all affected property owners and tenants prior to commencing the barricading of streets, alleys, sidewalks and driveways. Notifications should be at least 48 hours in advance of closures, if possible.
- The Contractor shall, at all times throughout the project, conduct the work in such a manner as will obstruct and inconvenience vehicular and pedestrian traffic as little as possible. The streets, sidewalks and private driveways shall be kept open by the Contractor except for the brief periods when actual work is being done. The Contractor shall so conduct his operations so as to have under construction no greater length or amount of work than he can prosecute vigorously and he shall not open up sections of the work and leave them in an unfinished condition.
- Lane closures shall not impact business accesses. All business accesses will remain open during business hours.
- Lane closures shall not restrict vehicular access for buses through the project site. Bus stops shall remain ADA accessible to pedestrians at all times throughout the project

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

Lane closures are not allowed on any of the following:

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

Lane closures are not allowed 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:

Northern boundary: S 312th Street
Southern boundary: S 324th Street
Eastern boundary: Interstate 5
Western boundary: 14th Ave S (future extension) / west of 320th Public Library / 11th PI S

(September 30, 2020 WSDOT GSP, OPTION 7)

The last paragraph of Section 1-07.23(1) is revised to read:

The Contractor shall conduct all operations to minimize any drop-offs (abrupt changes in roadway elevation) left exposed to traffic during nonworking hours. Unless otherwise specified in the Traffic Control Plan, drop-offs left exposed to traffic during nonworking hours shall be protected as follows with an accepted traffic control plan submittal in accordance with Section 1-10.2(2):

1. Drop-offs up to 0.20 foot, unless otherwise ordered by the Engineer, may remain exposed with appropriate warning signs alerting motorists of the condition.
2. Drop-offs more than 0.20 foot that are in the Traveled Way or Auxiliary Lane will not be allowed unless protected with appropriate warning signs and further protected as indicated in 3b or 3c below.
3. Drop-offs more than 0.20 foot, but no more than 0.50 foot, that are not within the Traveled Way shall be protected with appropriate warning signs and further protected by having one of the following:
 - a. A wedge of compacted stable material placed at a slope of 4:1 or flatter.
 - b. Channelizing devices (Type 1 barricades, plastic safety drums, or other devices 36 inches or more in height) placed along the traffic side of the drop-off and a new edge of pavement stripes placed a minimum

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of 3 feet from the drop-off. The maximum spacing between the devices in feet shall be the posted speed in miles per hour. Pavement drop-off warning signs shall be placed in advance and throughout the drop-off treatment.

- c. A temporary concrete barrier, temporary steel barrier, or other approved traffic barrier installed on the traffic side of a drop-off with a new edge line placed a minimum of 2-feet from the traffic face of the barrier. The barrier shall have a lateral offset from the edge of the drop-off to the back of the barrier as follows:
 - i. A minimum offset of 3-feet for temporary Type F or Type 2 concrete barrier when not anchored.
 - ii. A minimum offset of 1-foot for temporary Type F or Type 2 concrete barrier when anchored on hot mix asphalt pavement as shown on WSDOT Standard Plans C-60.10 or K-80.35.
 - iii. A minimum offset of 1-foot for temporary Type F concrete barrier when anchored on cement concrete pavement as shown on WSDOT Standard Plans C-60.10.
 - iv. A minimum offset of 9-inches for temporary Type F or Type 2 concrete barrier when anchored on cement concrete pavement and/or concrete bridge decks as shown on WSDOT Standard Plan K-80.35.
 - v. A minimum offset of 6-inches or 9-inches for temporary Type F or Type 2 narrow base concrete barrier when anchored on cement concrete pavement and concrete bridge decks as shown on WSDOT Standard Plan K-80.37.
 - vi. A minimum offset following manufacturer recommendations for temporary steel barrier when no anchored; or when anchored on hot mix asphalt pavement, cement concrete pavement, or concrete bridge decks.
 - vii. A minimum offset as directed by the Engineer for any barrier type or configuration not shown in this Section.

An approved terminal, flare, or impact attenuator is required at the approach end of the barrier run, and is required at the trailing end of a barrier run in two-way operations when shown in the plans or as directed by the Engineer.

4. Drop-offs more than 0.50 foot not within the Traveled Way or Auxiliary Lane shall be protected with appropriate warning signs and further protected as indicated in 3a, 3b, or 3c if all of the following conditions are met:
 - a. The drop-off is less than 2 feet;

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- b. The total length throughout the project is less than 1 mile;
 - c. The drop-off does not remain for more than 3 working days;
 - d. The drop-off is not present on any of the holidays listed in Section 1-08.5; and
 - e. The drop-off is only on one side of the Roadway.
5. Drop-offs more than 0.50 foot that are not within the Traveled Way or Auxiliary Lane and are not otherwise covered by No. 4 above shall be protected with appropriate warning signs and further protected as indicated in 3a or 3c.
 6. Open trenches within the Traveled Way or Auxiliary Lane shall have a steel-plate cover placed and anchored over them. A wedge of suitable material, if required, shall be placed for a smooth transition between the pavement and the steel plate. Warning signs shall be used to alert motorists of the presence of the steel plates.

1-07.24 Rights of Way
(July 23, 2015 APWA GSP)

Delete this section and replace it with the following:

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

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

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

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

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

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

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters ***(May 25, 2006 APWA GSP)***

1-08.0(1) Preconstruction Conference ***(October 10, 2008 APWA GSP)***

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

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

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

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

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1-08.0(2) Hours of Work
(December 8, 2014 APWA GSP)

Add the following new section:

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

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

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

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

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

(August 14, 2020 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

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will require Portable Changeable Message Signs to be placed a minimum of 2 business days prior to the paving day. Payment for Portable Changeable Message Sign will be per Section 1-10.5 of the Standard Specifications. ~~Payment for VMS boards shall be considered incidental to the Contractor's operations, unless there is a specific bid item for VMS boards.~~

1-08.1 Subcontracting

(December 19, 2019 APWA GSP, OPTION A)

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

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

1. Request to Sublet Work (Form 421-012), and
2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (Form 420-004).

The Contractor shall submit to the Engineer a completed Monthly Retainage Report (WSDOT Form 272-065) within 15 calendar days after receipt of every monthly progress payment until every Subcontractor and lower tier Subcontractor's retainage has been released.

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

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

1-08.3 Progress Schedule

1-08.3(2)A Type A Progress Schedule

(March 13, 2012 APWA GSP)

Revise this section to read:

The Contractor shall submit 3 copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A

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Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

1-08.4 Prosecution of Work

Delete this section and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work

(July 23, 2015 APWA GSP)

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

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

1-08.5 Time for Completion

(November 30, 2018 APWA GSP, OPTION A)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and any partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

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

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
 - a. Certified Payrolls (per Section 1-07.9(5)).
 - b. Material Acceptance Certification Documents
 - c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
 - d. Final Contract Voucher Certification
 - e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
 - f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
 - g. Property owner releases per Section 1-07.24

(March 13, 1995 WSDOT GSP, OPTION 7)

Section 1-08.5 is supplemented with the following:

This project shall be physically complete within 110 working days.

1-08.6 Suspension of Work

(January 2, 2018 WSDOT GSP, OPTION 2)

Section 1-08.6 is supplemented with the following:

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

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

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***Variable speed Limit Signs ***
School Zone Flashing Beacons
*** PPB Poles ***

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

1-08.9 Liquidated Damages
(September 8, 2020 WSDOT GSP, OPTION 3)

Section 1-08.9 is supplemented with the following:

Liquidated damages in the amount of ***\$2,450.00*** per working day will be assessed for failure to physically complete the Contract within the physical completion time specified.

1-09 MEASUREMENT AND PAYMENT

1-09.2(1) General Requirements for Weighing Equipment
(January 13, 2021, WSDOT GSP, OPTION 2)

Section 1-09.2(1) is revised to read as follows:

Unless specified otherwise, any Highway or Bridge construction materials to be proportioned or measured and paid for by weight shall be weighed on a scale.

Scales – Scales shall:

1. Be accurate to within 0.5 percent of the correct weight throughout the range of use;
2. Not include spring balances;
3. Include beams, dials, or other reliable readout equipment;
4. Be built to prevent scale parts from binding, vibrating, or being displaced and to protect all working parts from falling material, wind, and weather; and
5. Be carefully maintained, with bunkers and platforms kept clear of accumulated materials that could cause errors and with knife edges given extra care and protection.

Scale Operations – “Contractor-provided scale operations” are defined as operations where a Scale is set up by the Contractor specifically for the project and most, if not all, material weighed on the scale is utilized for Contract Work. In this situation, the Contractor shall provide a person to operate the project scale, generate E-Tickets, perform scale checks, and prepare reports.

“Commercial scale operations” include the use of established scales used to sell materials to the public on a regular basis. In addition, for the purposes of this Specification, all batch, hopper, and belt scale are considered to be commercial scales. When a commercial scale is used as the project scale, the Contractor may utilize a commercial scale operator provided it is at no additional cost to the Contracting Agency.

In addition, the Contractor shall ensure that:

1. The Engineer is allowed to observe the weighing operation and check the daily scale weight record;
2. Scale verification checks are performed at the direction of the Contracting Agency (see Section 1-09.2(5));
3. Several times each day, the scale operator records and makes certain the platform scale balances and returns to zero when the load is removed; and
4. Test results and Daily Summary Reports for each day’s hauling operations are provided to the Engineer daily.

Trucks and E-Tickets – Each truck to be weighed shall bear a unique identification number. This number shall be legible and in plain view of the scale operator. The contractor shall provide E-tickets for all weighed materials. All E-tickets shall, at a minimum, contain the following information:

1. Date of haul;
2. Contract number;
3. Contract unit Bid item;
4. Unit of measure;
5. Identification number of hauling vehicle; and
6. Weight delivered:
 - a. Net weight in the case of batch and hopper scales.
 - b. Gross weight, tare weight (am and pm minimum), and net weight in the case of platform scales.

- c. Approximate load out weight in the case of belt conveyor scales.

The E-Ticket shall be uploaded to a designated site so that it can be accessed by the material receiver at the material delivery point. The material delivery point is defined as the location where the material is incorporated into the permanent Work. The Contractor's representative shall make report summaries available to the Engineer's designated receiver, not later than the end of shift, for reconciliation. E-tickets for loads not verified as delivered will receive no pay.

Electronic Delivery Management System (E-Ticketing)

No fewer than 30 days prior to delivery or placement activities, the Contractor shall submit a Type 2 Working Drawing to the Engineer detailing all E-Ticketing Systems used to provide the required information. It is recognized that multiple systems may be used to accommodate individual Contractors and Material supplier capabilities. The Working Drawings shall explain how partial loads will be tracked, and include contingency plans for lost internet connectivity and/or phone reception. The Contractor shall provide on-site technical assistance and training during the initial setup to all parties requiring access to the e-ticket information. The Contractor shall provide ETS support as necessary during the Work to ensure effective ongoing utilization.

Equipment

The Contractor shall demonstrate that the ETS can provide the following:

1. The ETS shall be fully integrated with the Contractor's Load Read-Out scale system at the material source site. In the absence of a fully integrated system, digital data can be captured by a photo of the ticket (pdf ticket) generated at the scale at load out. The information shall be immediately uploaded to a designated site so the information can be accessed by the Inspector located at the material delivery site.
2. The ETS shall be accessible by real-time monitoring with a mobile communication device such as a tablet, smartphone, etc.

The Material Source site (point of load out) shall have a reliable, stable internet connection, with a local Wi-Fi device (hot spot) in areas with poor or no cell service. The Contractor shall install and operate equipment in accordance with their accepted ETS. The Type 2 Working Drawing shall identify an alternative method for manually capturing and electronically delivering data if internet access and/or cell phone service is temporarily unavailable at the load out site.

E-Tickets

The E-Tickets must provide at a minimum, the information required in Section 1-09.2(1) for truck weight measurement and Section 6-02.3(5)B for concrete delivery.

Daily Summary Report

The Contractor shall provide to the Engineer a means in which to gather report summaries using mobile communication devices. The following summary of information shall be provided to the Engineer electronically, in a file format that cannot be edited, at the end of the days hauling operation or as agreed to by the Project Engineer. The summary report shall include:

1. For each Material:
 - a. List of Individual Loads including;
 - i. Contractor Name and Material Producer
 - ii. Project Number and County
 - iii. Truck Number
 - iv. Net Weight for Payment (nearest 0.1 tons) or volume for payment
 - v. Date Placed
 - vi. Time Loaded
2. For each Bid Item:
 - a. Total Quantity for Payment (weight or volume)

Payment

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

“Electronic Ticketing System”, lump sum.

The lump sum contract price for “Electronic Ticketing System” shall be full pay for all costs related to providing all equipment, information, and reporting. All quality control procedures including technical support and on-site training shall be included in the Contract lump sum price.

(July 23, 2015 APWA GSP, OPTION 2)

Revise item 4 of the fifth paragraph to read:

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

1-09.2(5) Measurement

(May 2, 2017 APWA GSP)

Revise the first paragraph to read:

Scale Verification Checks – At the Engineer’s discretion, the Engineer may perform verification checks on the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

1-09.6 Force Account

(October 10, 2008 APWA GSP)

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders.

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All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by Engineer.

1-09.7 Mobilization

1-09.9 Payments

(April 30, 2020 WSDOT GSP, OPTION 2)

Section 1-09.9 is supplemented with the following:

The Contractor shall sign electronically using the software provided by the Contracting Agency and return the Final Contract Voucher Certification (FCVC) as indicated in this section. Within 21 days of execution, the Contractor shall submit a Type 1 Working Drawing designating who will sign the FCVC, including their full name, email address, and text-message capable phone number. The designee shall be an authorized signer in accordance with Section 1-02.1

(March 13, 2012 APWA GSP)

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

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

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

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

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

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

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

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4. Change Orders — entitlement for approved extra cost or completed extra work as determined by the Engineer.

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

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

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

1-09.9(1) Retainage

(June 27, 2011 WSDOT GSP, OPTION 1)

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

Vacant

1-09.11(3) Time Limitation and Jurisdiction

(November 30, 2018 APWA GSP)

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that any claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that any such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to any such claims or causes of action. It is further mutually agreed by the parties that when any claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to any records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13 Claim Resolution

1-09.13(3) Claims \$250,000 or Less

(October 1, 2005 APWA GSP)

Delete this Section and replace it with the following:

The Contractor and the Contracting Agency mutually agree that those claims that total \$250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding ADR processes, shall be resolved through litigation

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unless the parties mutually agree in writing to resolve the claim through binding arbitration.

1-09.13(3)A Administration of Arbitration

(November 30, 2018 APWA GSP)

Revise the third paragraph to read:

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

1-10 TEMPORARY TRAFFIC CONTROL

1-10.1 General

1-10.1(2) Description

(April 12, 2018 CFW GSP)

Section 1-10.1(2) is supplemented with the following:

City of Federal Way Project Signs

City of Federal Way Project signs shall be considered Construction Signs Class A. The Contractor shall provide two (2) project signs (4' x 8') per the detail available from the City.

1-10.2 Traffic Control Management

1-10.2(1) General

(January 3, 2017 WSDOT GSP, OPTION 1)

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

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

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
<https://www.nwlett.edu>

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

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

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Phone: (540) 368-1701
<https://altssa.com/training>

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

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

1. x

1-10.4 Measurement

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

(August 2, 2004 WSDOT GSP, OPTION 1)

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

The proposal does not contain the item "Project Temporary Traffic Control", lump sum. The provisions of Section 1-10.4(2) shall apply.

END OF DIVISION 1

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DIVISION 2 EARTHWORK

2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

2-01.1 Description

(March 13, 1995 WSDOT GSP, OPTION 1)

Section 2-01.1 is supplemented with the following:

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

Limits for clearing & grubbing shall be as shown on the plans. Clearing shall include removal of trees as noted on the plans or as directed by the Engineer to accommodate the improvements. Tree removal shall include removal of stumps and/or grinding of stumps to a depth at least two feet below finish grade.

2-01.3 Construction Requirements

2-01.3(3) Clearing Limit Fence

(April 12, 2018 CFW GSP)

Section 2-01.3(3) is a new section:

Clearing limit fence shall be 4-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.

2-01.3(4) Roadside Cleanup

(January 5, 1998 WSDOT GSP, OPTION 1)

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

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

2-01.4 Measurement

(April 12, 2018 CFW GSP)

Section 2-01.4 is supplemented with the following:

"Clearing and Grubbing" will be measured on a lump sum basis. Installation, maintenance, and removal of the Clearing Limit Fence shall be included in the Clearing and Grubbing bid item.

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“Roadside Cleanup”, will be measured by force account.

2-01.5 Payment

(April 12, 2018 CFW GSP)

Section 2-01.5 is supplemented with the following:

“Clearing and Grubbing”, lump sum.

“Roadside Cleanup”, force account.

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.1 Description

(September 30, 1996 WSDOT GSP, OPTION 4)

Section 2-02.1 is supplemented with the following:

The Contractor is advised that asbestos may be present on this project.

2-02.3 Construction Requirements

(February 17, 1998 WSDOT GSP, OPTION 1)

Section 2-02.3 is supplemented with the following:

Removal of Obstructions

The Contractor shall remove and dispose of all items shown on the plans and other minor items necessary to complete the work. The following partial 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.

Items to be removed include, but is not limited to, the following:

| ITEMS TO BE REMOVED INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING: | | |
|--|--------------------------------------|-----------------|
| STATION / OFFSET | ITEM DESCRIPTION | QUANTITY |
| SCHEDULE A | | |
| 12+20 to 13+90, 35'-50" RT | Remove Wooden Guardrail and Posts | 190 LF |
| 9+13, 40' RT | Remove Park Sign | 1 EA |
| 6+05 to 8+55, 34'-40' RT | Remove Wheel Stop | 18 EA |
| 15+15, 37' RT | Remove Luminaire Pole and Base | 1 EA |
| SCHEDULE C | | |
| 8+68 to 8+79, 50'-92' RT | Remove Bollards | 7 EA |
| 12+20 to 13+85, 55'-65' RT | Remove Trees | 6 EA |
| ITEMS TO BE SALVAGED TO THE CITY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING: | | |
| | | |
| | | |

Removal of pavements, curbs, sidewalks, concrete, and driveway approaches are included in the "Roadway Excavation Incl. Haul" bid item.

2-02.3 Construction Requirements

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

(April 12, 2018 CFW GSP)

Section 2-02.3(3) is supplemented with the following:

Prior to removal of pavement, 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 approve the equipment and procedures used to make the full-depth sawcut. No wastewater from the sawcutting operation shall be released directly to any stream or storm sewer system. Removal of pavement, curbs, gutters, and sidewalks within the entire project limits shall be measured and paid as "Roadway Excavation incl. Haul" in accordance with Section 2-03.

2-02.3(4) Removal of Drainage Structures

(April 12, 2018 CFW GSP)

Section 2-02.3(4) 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 Section 2-02 of 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 Section 2-02 of the Standard Specifications. All undamaged frames, grates, and solid covers in a re-useable condition shall become 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 2-02 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.

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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 2-09.3(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.

2-02.3(5) Adjust Existing Utility to Grade

(April 12, 2018 CFW GSP)

2-02.3(5) is a new section:

As shown in the Plans, existing utilities such as monuments, manholes, catch basin frames and grates, water valves, and meter boxes shall be adjusted to finished grade. The Contractor shall, prior to the beginning of any work, familiarize himself with the existing utility locations. The Contractor shall adjust City-owned utilities. Final adjustment shall be smooth and flush with finished grade. The Contractor shall mark the location of all utilities prior to paving the new surface. Unless otherwise provided for in the Special Provisions and Proposal, costs for adjusting utilities to grade, including coordinating the work with other utilities, shall be incidental to the various items of work and no additional compensation will be allowed.

Existing facilities shall be adjusted to the finished grade as shown in the Drawings and as further specified herein. Existing box, ring, grate, and cover shall be reset in a careful and workmanlike manner to conform to the new grade. Special care shall be exercised in all operations. Any damage occurring to the manholes, concrete inlets, monument cases, valve boxes, or water mains, due to the Contractor's operations, shall be repaired at the Contractor's own expense. Adjustments shall be made using bricks, concrete blocks, or cement, and the interior of the manhole adjustment shall be mortared smoothly. All covers and frames shall be thoroughly cleaned. The Contractor shall be responsible for referencing and keeping a record of such references of all manholes, catch basins, monument cases, meter boxes, and valve boxes encountered, and shall submit a copy of these references to the Engineer.

The manholes, catch basins, monument cases, meter boxes, and valve boxes shall be adjusted to grade in accordance with Section 1-05.3(1). Final restoration of finished grade surfaces shall be performed in the following manner:

1. Within a Gravel Surface: Provide a 6-inch-deep and 6-inch-wide concrete collar installed and restored with 3 inches of crushed surfacing top course.
2. Within a Grass Surface: Provide crushed surfacing top course backfill and 3 inches of Topsoil Type A, and seed.
3. Within an Asphalt Cement Concrete Paved Surface: See City standard detail for Utility Adjustment.

2-02.3(6) Existing Utilities to Remain

(April 12, 2018 CFW GSP)

2-02.3(6) is a new section:

Utilities indicated in the Plans to remain shall be protected and supported in place in such a manner that they remain functional and undamaged. Utilities indicated to remain that are damaged as a result of Contractor's activity shall be repaired or replaced to the satisfaction of the Contracting Agency at no additional cost.

2-02.4 Vacant

(April 12, 2018 CFW GSP)

Section 2-02.4 Vacant shall be deleted and replaced with the following:

2-02.4 Measurement

"Sawcutting" will be measured by the linear foot for pavement removal.

"Remove Drainage Structure" will be measured per each.

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

2-02.5 Payment

(April 12, 2018 CFW GSP)

Section 2-02.5 is supplemented with the following:

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

"Removal of Structure and Obstruction", lump sum. Structure Excavation Class B for the removal of items shall be considered included in this bid item.

"Sawcutting", per linear foot. Sawcutting necessary for utility and stormwater installation are incidental to the measurement and payment of those contract items.

"Remove Drainage Structure", per each.

"Remove Storm Sewer Pipe", per linear foot.

2-03 ROADWAY EXCAVATION AND EMBANKMENT

2-03.2 Pavement Removal

(April 12, 2018 CFW GSP)

Section 2-03.2 is replaced with the following:

Where shown in the Plans or where designated by the Engineer, the Contractor shall remove asphalt, concrete, Portland cement concrete pavement, sidewalks and curbs.

Prior to 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 approve the equipment and procedures used to make the full-depth sawcut. No wastewater from the sawcutting operation shall be released directly to any stream or storm sewer system. Alternatively, the Contractor may elect grinding for pavement removal, where appropriate.

The removed pavement shall become the property of the Contractor and shall be removed from the project. Damage caused to portions of the pavement to remain, due to the Contractor's operation, shall be repaired by the Contractor at the Contractor's expense and to the satisfaction of the Engineer.

Removal of pavement, sidewalks, curbs, and gutters throughout the project shall be measured and paid as "Roadway Excavation Incl. Haul" and no additional payment will be made.

2-03.3 Construction Requirements

Section 2-03.3(10) Selected Material

(April 12, 2018 CFW GSP)

Section 2-03.3(10) is supplemented with the following:

Selected Material when specified or required by the Engineer for use on the project shall meet the requirements of specified in Section 9-03.14(3) for Common Borrow.

Section 2-03.3(14)G Backfilling

(April 12, 2018 CFW GSP)

Section 2-03.3(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. Place native soils or provide import Gravel Borrow as required to complete the work. Backfill all embankments in accordance with 2-03.3(14)C, Compacting Earth Embankments, Method C.

Section 2-03.3(14)N Wet Weather Earthwork

(April 12, 2018 CFW GSP)

Section 2-03.3(14)N is a new section:

Earthwork 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 soil and placement of backfill can be accomplished on the same day. No soil shall be left uncompacted 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.

2-03.4 Measurement

(March 13, 1995 WSDOT GSP, OPTION 2)

Section 2-03.4 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.

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.

Copies of the ground cross-section notes will be available for the bidder's inspection, before the opening of bids, at the Engineer's office and at the Region office.

Upon award of the contract, copies of the original ground cross-sections will be furnished to the successful bidder on request to the Engineer.

(April 12, 2018 CFW GSP)

Section 2-03.4 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 shall be included in the cost of other Bid Items.

2-03.5 Payment

(April 12, 2018 CFW GSP)

Section 2-03.5 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:

"Roadway Excavation Incl. Haul", per cubic yard.

(March 13, 1995 WSDOT GSP, OPTION 2)

Section 2-03.5 is supplemented with the following:

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

2-09 STRUCTURE EXCAVATION

2-09.3 Construction Requirements

2-09.3(1) General Requirements

(March 17, 2020 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 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

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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.

2-09.3(1)D Disposal of Excavated Material

(March 17, 2020 CFW GSP)

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 unit contract price shall include all costs for loading and hauling excavated materials to a permitted disposal site, or to and from a temporary stockpile. Any such stockpiled materials, either suitable or designated for incorporation into the project, shall be handled in accordance with Section 2-09.3(1)E.

2-09.3(1)E Backfilling

(April 12, 2018 CFW GSP)

The first paragraph of Section 2-09.3(1) 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.

2-09.3(3) Construction Requirements, Structure Excavation, Class A

2-09.3(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.

2-09.3(2) Classification of Structure Excavation

*(**PROJECT-SPECIFIC SPECIAL PROVISION**)*

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

3: Class B for Relocation of Utilities. Excavation and backfilling required for relocation of utilities including trench excavations for utility conduit, utility vaults and utility handholes.

2-09.4 Measurement

(March 17, 2020 CFW GSP)

Section 2-09.4 is supplemented with the following:

Shoring or Extra Excavation Class B will be measured for payment only when the excavation is four-feet (4') or deeper.

*(**PROJECT-SPECIFIC SPECIAL PROVISION**)*

Structure Excavation Class B Incl. Haul for Relocation of Utilities shall be measured by the cubic yard. No measurement of material excavated beyond the limits indicated below will be made.

For underground utility conduits the limits shall be as follows:

Horizontal: Duct Bank Width + Minimum Separation + 6 inches

Lower: Three inches below the bottom of the lowest duct bank within the trench.

Upper: The top surface of the ground when the structure excavation work begins.

A duct bank shall be defined as an array of closely spaced conduits.

For vaults and handholes the limits shall be as follows:

Horizontal: 18 inches outside the perimeter of the vault or handhole.

Lower: 6 inches below the bottom of the vault

Upper: The top surface of the ground when the structure excavation begins.

Shoring or Extra Excavation Cl. A will not be measured.

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

2-09.5 Payment

(March 17, 2020 CFW GSP)

Replace the fourteenth paragraph with the following:

The unit contract price per square foot for "Shoring or Extra Excavation Class B" shall be full pay for furnishing, placing, moving, and removing temporary shoring, or equivalent trench stabilization and worker protection system, and for all excavation, backfill, compact, and other work required when extra excavation is used in lieu of such temporary shoring or equivalent trench safety system. If select backfill material is required for backfilling within the limits of the excavation, it shall also be required as backfill material for the extra excavation at the Contractor's expense.

*(***PROJECT-SPECIFIC SPECIAL PROVISION***)*

Section 2-09.5 is supplemented with the following:

"Structure Excavation Class B Incl. Haul for Relocation of Utilities", per cubic yard.

The unit contract price per cubic yard for Structure Excavation Class B Incl. Haul for Relocation of Utilities shall be full pay for all labor, materials, tools, equipment required to sawcut, excavate, dewater, backfill with native materials, and compact trenches for installation of utility conduits, utility vaults, and utility handholes.

END OF DIVISION 2

CITY OF FEDERAL WAY

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**LAKOTA MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL
PROJECT #204**

CFW SPECIAL PROVISIONS VER. 2021.01B

**DIVISION 3
AGGREGATE PRODUCTION AND ACCEPTANCE**

3-01 PRODUCTION FROM QUARRY AND PIT SITES

3-01.4 Contractor Furnished Material Sources

3-01.4(1) Acquisition and Development

(April 12, 2018 CFW GSP)

Section 3-01.4(1) is supplemented with the following:

No source has been provided for any materials necessary for the construction of these improvements.

If the source of material provided by the Contractor necessitates hauling over roads other than City streets, the Contractor shall, at his own cost and expense, make all arrangements for the use of haul routes.

END OF DIVISION 3

DIVISION 4 BASES

4-04 BALLAST AND CRUSHED SURFACING

4-04.3 Construction Requirements

4-04.3(3) Mixing

(April 12, 2018 CFW GSP)

Item 2 of Section 4-04.3(3), is replaced with the following:

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

4-04.3(4) Placing and Spreading

(April 12, 2018 CFW GSP)

Item 2 of Section 4-04(4), is replaced with the following:

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

4-04.5 Payment

(April 12, 2018 CFW GSP)

Section 4-04.5 is supplemented with the following:

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

END OF DIVISION 4

DIVISION 5 SURFACE TREATMENTS AND PAVEMENTS

5-04 HOT MIX ASPHALT ***(July 18, 2018 APWA GSP)***

Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the following:

5-04.1 Description

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

5-04.2 Materials

Materials shall meet the requirements of the following sections:

| | |
|--|------------|
| Asphalt Binder | 9-02.1(4) |
| Cationic Emulsified Asphalt | 9-02.1(6) |
| Anti-Stripping Additive | 9-02.4 |
| HMA Additive | 9-02.5 |
| Aggregates | 9-03.8 |
| Recycled Asphalt Pavement | 9-03.8(3)B |
| Mineral Filler | 9-03.8(5) |
| Recycled Material | 9-03.21 |
| Portland Cement | 9-01 |
| Sand | 9-03.1(2) |
| (As noted in 5-04.3(5)C for crack sealing) | |
| Joint Sealant | 9-04.2 |
| Foam Backer Rod | 9-04.2(3)A |

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP. The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced and not less than ten samples per project. The asphalt content and gradation test data shall be reported to the Contracting Agency when submitting the mix design for approval on the QPL. The Contractor shall include the RAP as part of the mix design as defined in these Specifications.

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

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01.

Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

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

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

5-04.2(1)A Vacant

5-04.2(2) Mix Design – Obtaining Project Approval

No paving shall begin prior to the approval of the mix design by the Engineer.

Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

Nonstatistical Mix Design. Fifteen days prior to the first day of paving the contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.**

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Approval of a mix design for “Commercial Evaluation” will be based on a review of the Contractor’s submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL’s) appropriate for the required use.

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

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

- Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.
- Before using additives, obtain the Engineer’s approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Minimum Surface Temperature for Paving

| Compacted Thickness (Feet) | Wearing Course | Other Courses |
|----------------------------|----------------|---------------|
| Less than 0.10 | 55°F | 45°F |

| | | |
|----------------|------|------|
| 0.10 to .20 | 45°F | 35°F |
| More than 0.20 | 35°F | 35°F |

5-04.3(2) Paving Under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

Plants used for the preparation of HMA shall conform to the following requirements:

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.
2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.

3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.
4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).
5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:
 - a. A mechanical sampling device attached to the HMA plant.
 - b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

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

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

5-04.3(3)C Pavers

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

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

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting

Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

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

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

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

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

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

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

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4) Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be

applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A Crack Sealing

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks ¼ inch in width and greater.

Cleaning: Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material when filling with crack sealant material. Use a hot compressed air lance to dry and warm the pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do not overheat pavement. Do not use direct flame dryers. Routing cracks is not required.

Sand Slurry: For cracks that are to be filled with sand slurry, thoroughly mix the components and pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off cracks that were not completely filled with additional sand slurry. Do not place the HMA overlay until the slurry has fully cured.

The sand slurry shall consist of approximately 20 percent CSS-1 emulsified asphalt, approximately 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). The components shall be thoroughly mixed and then poured into the cracks and joints until full. The following day, any cracks or joints that are not completely filled shall be topped off with additional sand slurry. After the sand slurry is placed, the filler shall be struck off flush with the existing pavement surface and allowed to cure. The HMA overlay shall not be placed until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland cement and sand used in the sand slurry.

In areas where HMA will be placed, use sand slurry to fill the cracks.

In areas where HMA will not be placed, fill the cracks as follows:

1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
2. Cracks greater than 1 inch in width – fill with sand slurry.

Hot Poured Sealant: For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product information and recommendations to the Engineer prior to the start of work, including the manufacturer's recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor's method of sealing the cracks with hot poured sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material.

5-04.3(4)A2 Crack Sealing Areas Prior to Paving

In areas where HMA will be placed, use sand slurry to fill the cracks.

5-04.3(4)A3 Crack Sealing Areas Not to be Paved

In areas where HMA will not be placed, fill the cracks as follows:

- A. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
- B. Cracks greater than 1 inch in width – fill with sand slurry.

5-04.3(4)B Vacant

5-04.3(4)C Pavement Repair

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

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

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished

with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

5-04.3(5) Producing/Stockpiling Aggregates and RAP

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

5-04.3(5)A Vacant

5-04.3(6) Mixing

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

5-04.3(7) Spreading and Finishing

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used

to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

| | |
|-------------------------------|-----------|
| HMA Class 1" | 0.35 feet |
| HMA Class ¾" and HMA Class ½" | |
| wearing course | 0.30 feet |
| other courses | 0.35 feet |
| HMA Class ⅜" | 0.15 feet |

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

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

For HMA accepted by nonstatistical evaluation the aggregate properties of sand equivalent, uncompacted void content and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the option of the Engineer.

5-04.3(9) HMA Mixture Acceptance

Acceptance of HMA shall be as provided under nonstatistical, or commercial evaluation.

Nonstatistical evaluation will be used for the acceptance of HMA unless Commercial Evaluation is specified.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Engineer.

The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the approval of the Engineer and may be made in accordance with this section.

HMA Tolerances and Adjustments

1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows:

For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2

| Property | Non-Statistical Evaluation | Commercial Evaluation |
|----------------|----------------------------|-----------------------|
| Asphalt Binder | +/- 0.5% | +/- 0.7% |
| Air Voids, Va | 2.5% min. and 5.5% max | N/A |

For Aggregates in the mixture:

- a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

| Aggregate Passing | Percent | Non-Statistical Evaluation | Commercial Evaluation |
|-----------------------------|---------|----------------------------|-----------------------|
| 1", ¾", ½", and 3/8" sieves | | +/- 6% | +/- 8% |
| No. 4 sieve | | +/-6% | +/- 8% |
| No. 8 Sieve | | +/- 6% | +/-8% |
| No. 200 sieve | | +/- 2.0% | +/- 3.0% |

- b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.
2. Job Mix Formula Adjustments – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.
- a. **Aggregates** –2 percent for the aggregate passing the 1½", 1", ¾", ½", ⅜", and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).
- b. **Asphalt Binder Content** – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent

5-04.3(9)A Vacant

5-04.3(9)B Vacant

5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 800 tons, whichever is less except that the final subplot will be a minimum of 400 tons and may be increased to 1200 tons.

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

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

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

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

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the dis-cretion of the Engineer.

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

- If the test results are found to be within specification requirements, additional testing will be at the Engineer’s discretion.
- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

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

Testing of HMA for compliance of Va will at the option of the Contracting Agency. If tested, compliance of Va will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

| Table of Price Adjustment Factors | |
|--|-----------------------|
| Constituent | Factor “F” |
| All aggregate passing: 1½", 1", ¾", ½", ⅜" and No.4 sieves | 2 |
| All aggregate passing No. 8 sieve | 15 |
| All aggregate passing No. 200 sieve | 20 |
| Asphalt binder | 40 |

| | |
|-----------------------------------|----|
| Air Voids (Va) (where applicable) | 20 |
|-----------------------------------|----|

Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

5-04.3(9)C5 Vacant

5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

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

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

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

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the commercial tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product

of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(10) HMA Compaction Acceptance

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a Composite Pay Factor (CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item "Roadway Core" the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at locations designated by the Engineer. If the Contract does not include the Bid item "Roadway Core" the Contracting Agency will obtain the cores.

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

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

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

Test Results

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

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

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

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

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

5-04.3(10)B HMA Compaction – Cyclic Density

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733. A \$500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

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

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

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

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

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

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

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

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

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

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a subplot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

For compaction below the required 92% a Non-Conforming Compaction Factor (NCCF) will be determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the

product of CPF, the quantity of HMA in the compaction control lot in tons, and the unit Contract price per ton of mix.

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

Work that is defective or does not conform to Contract requirements shall be rejected. The Contractor may propose, in writing, alternatives to removal and replacement of rejected material. Acceptability of such alternative proposals will be determined at the sole discretion of the Engineer. HMA that has been rejected is subject to the requirements in Section 1-06.2(2) and this specification, and the Contractor shall submit a corrective action proposal to the Engineer for approval.

5-04.3(11)B Rejection by Contractor

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

5-04.3(11)C Rejection Without Testing (Mixture or Compaction)

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Material rejected before placement shall not be incorporated into the pavement. Any rejected section of Roadway shall be removed.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples will be obtained and tested. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

5-04.3(11)D Rejection - A Partial Sublot

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)E Rejection - An Entire Sublot

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this sublot will be obtained. These additional samples and the original sublot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)F Rejection - A Lot in Progress

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

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

5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

An entire lot with a CPF of less than 0.75 will be rejected.

5-04.3(12) Joints

5-04.3(12)A HMA Joints

5-04.3(12)A1 Transverse Joints

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

5-04.3(12)A2 Longitudinal Joints

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the maximum aggregate size or more than $\frac{1}{2}$ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

5-04.3(12)B Bridge Paving Joint Seals

5-04.3(12)B1 HMA Sawcut and Seal

Prior to placing HMA on the bridge deck, establish sawcut alignment points at both ends of the bridge paving joint seals to be placed at the bridge ends, and at interior joints within the bridge deck when and where shown in the Plans. Establish the sawcut alignment points in a manner that they remain functional for use in aligning the sawcut after placing the overlay.

Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.

Construct the bridge paving joint seal as specified on the Plans and in accordance with the detail shown in the Standard Plans. Construct the sawcut in accordance with the detail shown in the Standard Plan. Construct the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's application procedure.

5-04.3(12)B2 Paved Panel Joint Seal

Construct the paved panel joint seal in accordance with the requirements specified in section 5-04.3(12)B1 and the following requirement:

1. Clean and seal the existing joint between concrete panels in accordance with Section 5-01.3(8) and the details shown in the Standard Plans.

5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than $\frac{1}{8}$ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than $\frac{1}{4}$ inch in 10 feet from the rate of transverse slope shown in the Plans.

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

1. Removal of material from high places by grinding with an approved grinding machine, or
2. Removal and replacement of the wearing course of HMA, or
3. By other method approved by the Engineer.

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

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of \$500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing (Milling) Bituminous Pavement

The planing plan must be approved by the Engineer and a pre planing meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planning submittals.

Locations of existing surfacing to be planed are as shown in the Drawings.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. Intersections:
 - a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure, must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).
 - b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.
 - c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.
 - d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.
 - e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.

2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.
3. Permanent pavement marking must comply with Section 8-22.

5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic control plan must show where peace officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.
2. A copy of each intersection's traffic control plan.
3. Haul routes from Supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.
4. Names and locations of HMA Supplier facilities to be used.
5. List of all equipment to be used for paving.
6. List of personnel and associated job classification assigned to each piece of paving equipment.
7. Description (geometric or narrative) of the scheduled sequence of planing and of paving, and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.

8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
9. A copy of the approved Mix Designs.
10. Tonnage of HMA to be placed each day.
11. Approximate times and days for starting and ending daily operations.

5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, Metro transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both Paving Plan and for Planing Plan:
 - a. The actual times of starting and ending daily operations.
 - b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
 - c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, to public convenience and safety, and to other contractors who may operate in the Project Site.
 - d. Notifications required of Contractor activities, and coordinating with other entities and the public as necessary.
 - e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and to paving.
 - f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed
 - g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, see Section 5-04.3(14)B2.
 - h. Description of how flaggers will be coordinated with the planing, paving, and related operations.
 - i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.
 - j. Other items the Engineer deems necessary to address.
2. Paving – additional topics:
 - a. When to start applying tack and coordinating with paving.
 - b. Types of equipment and numbers of each type equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type equipment as it relates to meeting Specification requirements.
 - c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are

distinguished if more than one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.

- d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.
- e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

5-04.3(16) HMA Road Approaches

HMA approaches shall be constructed at the locations shown in the Plans or where staked by the Engineer. The Work shall be performed in accordance with Section 5-04.

5-04.3(17) Temporary Asphalt Pavement
(April 12, 2018 CFW GSP)

Section 5-04.3(17) is a new section:

Temporary asphalt pavement shall be placed by the Contractor immediately upon the request of the Engineer for the maintenance of traffic during construction. These areas include: voids created by the removal of existing improvements (i.e. Traffic islands, curbs), providing paved access to private properties, and ramps for property access during cement concrete driveway approach construction. All temporary paving shall be approved by the Engineer before placement. Any areas of temporary pavement to be removed and replaced shall be approved by the Engineer beforehand. This work shall also include the removal of temporary asphalt concrete pavement in its entirety prior to final paving.

Hot Mix Asphalt Temporary Pavement: Hot mix asphalt will be used for any trench restoration within the traveled way. Whether temporary or permanent, saw cut and treat edges with CSS-1 asphalt emulsion and apply a minimum 3-inch pavement depth or match existing, whichever is greater. Also, fill voids created by the removal of existing traffic islands and curbing, paving over excavated roadway to temporary access to adjacent properties, and ramps for property access during concrete approach construction.

Cold Mix Asphalt Temporary Pavement: Cold mix asphalt is allowed for temporary paving outside the traveled way. The cold mix shall be approved by the Engineer and placed in a 2-inch minimum thickness. Placement of temporary pavement without prior approval of the Engineer shall be considered as a benefit of the Contractor and no cost to the owner. Any areas of temporary pavement to be removed and replaced require prior approval by the Engineer. This work shall include the removal of the temporary pavement prior to paving of final asphalt concrete pavement.

5-04.4 Measurement

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being

made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Planing bituminous pavement will be measured by the square yard.

Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.

(April 12, 2018 CFW GSP)

Section 5-04.4 is supplemented with the following:

Hot Mix Asphalt Temporary Pavement shall be measured by the ton of material actually placed, with no deduction being made for the weight of liquid asphalt, blending sand, mineral filler, or any other component of the mixture. Hot Mix Asphalt Temporary Pavement shall be paid under the "Temporary Pavement" bid item and shall include placement and compaction of hot mix asphalt, removal and disposal of temporary pavement.

Cold Mix Asphalt Temporary Pavement will not be measured and shall be considered incidental to other bid items.

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"HMA Cl. ___ PG ___", per ton.

"Commercial HMA", per ton.

The unit Contract price per ton for "HMA Cl. ___ PG ___", "HMA for Approach Cl. ___ PG ___", "HMA for Preleveling Cl. ___ PG ___", "HMA for Pavement Repair Cl. ___ PG ___", and "Commercial HMA" shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

"Planing Bituminous Pavement", per square yard.

The unit Contract price per square yard for "Planing Bituminous Pavement" shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14).

"Temporary Pavement Marking", per linear foot.

Payment for "Temporary Pavement Marking" is described in Section 8-23.5.

(April 12, 2018 CFW GSP)

Section 5-04.5 is supplemented with the following:
“Temporary Pavement”, per ton.

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

7-04 STORM SEWERS

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
(June 12, 2020 CFW GSP)

Section 7-04.5 is supplemented with the following:

"Ductile Iron Storm Sewer Pipe ___ In. Diam.", per linear foot.

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, pavement removal, trench excavation, dewatering (if required), temporary flow bypass, laying pipe, pipe bedding, imported or native 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. 90% of payment will be made once the storm sewer pipe is installed. The remaining 10% will be paid once pipe testing has been completed with satisfactory results. The engineer will have the discretion to adjust these payment percentages as may be appropriate. Payment percentages may be adjusted for any reason the engineer deems necessary, including but not limited to, a high number of unsatisfactory test results.

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

Heavy-Duty Hinged Style Frame and Cover shall be one of the following:

ERGO Assembly, Product Number 00104040L01, Manufactured by EJ Group, Inc., 301 Spring Street, PO Box 439, East Jordan, MI 49727 (800) 626-4653, www.ejco.com.

High Impact Adjustment Riser shall be Infra-Riser® Multi-purpose Rubber Composite Adjustment Riser, EJ Group, Inc., 301 Spring Street, PO Box 439, East Jordan, MI 49727 (800) 626-4653, www.ejco.com.

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7-05.3 Construction Requirements

(April 12, 2018 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 on 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 are:

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

Where the exposed portion of the frame is 1/2 inch wide or less the slip-resistant treatment may be omitted on that portion of the frame.

The slip-resistant lid shall be identified with permanent marking on the underside indicating the type of surface treatment ("M1" for Mebac 1; "S3" for SlipNOT Grade 3-coarse; or "ST" for Safrax TH604) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a mild steel weld bead.

The following requirements shall be applicable to both existing and proposed structures, as shown on 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 on 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, Valve Boxes and Catch Basins to Grade

(April 12, 2018 CFW GSP)

Section 7-05.3 is supplemented with the following:

Manholes, valve boxes, catch basins, and other structures shall not be adjusted to final grade until the adjacent pavement is completed, at which time the center of each structure shall be carefully relocated from references previously established by the Contractor. The asphalt concrete pavement shall be removed to a neat circular shape for circular grates and covers and a neat rectangular shape for rectangular grates and covers. The edge of the cut shall be 1.5 feet from the outside edge of the cast iron frame of the structure. The base materials and crushed rock shall be removed to the full depth of adjustment plus 2 inches. The manhole and catch basin frames shall be lifted and reset to the final grade, plumb to the roadway, and shall remain operational and accessible. (Reference City of Federal Way Standard Drawing 3-55 for Utility Adjustment).

The Contractor shall adjust manholes and catch basins with pre-cast grade rings, and mortar and high impact adjustment risers with a maximum 2-inch thickness where required for heavy-duty frames and covers within the travelled roadway. Metal adjustment rings shall not be used. If more than three grade rings are required to adjust a manhole or Type 2 catch basin to final grade, including existing grade rings, the Contractor shall remove the existing cone section or top slab, install a pre-cast manhole section of sufficient height to limit the number of grade rings to a maximum of three, and reinstall the cone section or top slab prior to paving operations. Grade adjustment rings and high impact riser installation shall be inspected by the Engineer prior to frame installation. Cover and grate frames shall be securely grouted to the structure.

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

Following frame installation, the edges of the removed asphalt pavement and the outer edge of the reset frame shall be painted with asphalt for tack coat. The entire void around the adjustment shall then be filled with Commercial HMA, placed and compacted in maximum 3-inch lifts, to match the adjacent pavement surface. The joint between the patch and existing pavement shall then be painted with asphalt for tack coat and immediately covered with dry paving sand before the asphalt for tack coat solidifies.

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.

7-05.3(7) Heavy Duty Frame and Cover with High Impact Riser

Section 7-05.3(6) is added:

Heavy duty hinged style frame and covers with high-impact adjustment risers, shall be installed in accordance with the requirements of Section 7-05.3(1) and manufacturer installation instructions, for all solid-lid drainage structures located within the traveled roadway as noted in the plans.

Install a rectangular to round conversion riser per Section 7-05.3(8) of these Special Provisions and City of Federal Way Standard Drawing 4-18 for existing or proposed Type 1 or Type 1L catch basins where required by the plans.

High impact adjustment risers with a maximum 2-inch thickness shall be used for all heavy-duty frames and covers within the travelled roadway.

7-05.3(7) Conversion Risers

(Special Provision)

Section 7-05.3(7) is added:

Where indicated on the Plans, retrofit existing Type 1 and Type 1L catch basins with a round solid cover by removing existing rectangular frame, removing existing adjustment risers and installing a conversion riser per City of Federal Way Standard Drawing 4-18. If the catch basin will be located within the traveled roadway, install heavy duty frame and cover with high impact riser in accordance with Section 7-05.3(6) of these Special Provisions. Final adjustment to grade shall be in accordance with Section 7-05.3(1) of the Standard Plans and these Special Provisions.

7-05.4 Measurement

Section 7-05.4 is supplemented with the following:

“Connection to Drainage Structure”, will be measured per each.

“Install Conversion Riser and Round Solid Cover on Existing Type 1 CB and Adjust to Grade”, will be measured per each.

7-05.5 Pay

(June 12, 2020 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, dewatering (if required), temporary flow bypass, connections to existing and new pipe, foundation material, bedding, imported or native 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 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 and frame/grate is installed.

The unit contract price for “Adjust Manhole” and/or “Adjust Catch Basin” and/or “Adjust Inlet” applies to existing storm drainage catch basins, inlets, and manholes that require adjustment to grade by addition or removal of adjustment risers. The unit contract price includes all labor, tools, equipment, and materials necessary to adjust drainage structures to finished grade, sawcutting, temporary patching hot mix to allow for the passage of traffic, restoration of the area around the adjusted structure, and providing new rings and covers or frames and grates. Grade rings and adjustment risers (concrete or high-impact) shall be considered incidental to this bid item and will not be measured for separate payment. Payment will be made once the adjustment is fully complete and grouted. Partial payment will not be made if risers have been added, but the grouting has not been completed to the satisfaction of the City.

The unit contract price for “Connection to Drainage Structure” applies to connecting new storm drain pipe to existing storm drainage catch basins and manholes and includes all labor, tools, equipment, and materials necessary to core drill the existing drainage structure and provide the necessary pipe connection. Any associated sawcutting, pavement removal and disposal, excavation, imported or native backfill, compaction, and pavement restoration are incidental to this bid item.

“Connection to Drainage Structure”, per each.

The unit contract price for “Connection to Existing Drainage Structure”, per each, applies to connecting new storm drain pipe to existing storm drainage catch basins and manholes and includes all labor, tools, equipment, and materials necessary to core drill the existing drainage structure and provide the necessary pipe connection.

“Install Conversion Riser and Round Solid Cover on Existing Type 1 Catch Basin and Adjust to Grade”, per each.

The unit contract price for “Install Conversion Riser and Round Solid Cover on Existing Type 1 Catch Basin and Adjust to Grade”, per each, includes all labor, tools, equipment, and materials necessary to install a new frame with solid cover on an existing drainage structure. Heavy-duty hinged style rings and covers, high-impact risers, and conversion risers required for installing a round cover on a Type 1 catch basin, and adjustment to grade, shall be considered incidental to this bid item and will not be measured for separate payment.

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.

7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

7-08.3(1)A Trenches

(April 12, 2018 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 on 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

(April 12, 2018 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, it shall be used at other locations on the project as directed by the Engineer. 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.

END OF DIVISION 7

DIVISION 8 MISCELLANEOUS CONSTRUCTION

8-01. EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.1 Description 8-01.1(1) Definitions (February 25, 2021 WSDOT GSP, OPTION 1)

8-01.1(1)_Item 1C of Section 8-01.1(1) is revised to read:

May be neutralized and discharged to surface waters or neutralized and infiltrated.

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

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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.

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 turbidity 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
(February 25, 2021 WSDOT GSP, OPTION 2)

The second sentence of the first paragraph of Section 8-01.3(1)B is revised to read:

The ESC Lead shall have, for the life of the Contract, a current Certificate of Training in Construction Site Erosion and Sediment Control from a course approved by the Washington State Department of Ecology.

(February 25, 2021 WSDOT GSP, OPTION 3)

The second sentence of the second paragraph of Section 8-01.3(1)B (excluding the numbered list) is revised to read:

Implementation shall include, but is not limited to:

8-01.3(1)C1 Disposal of Dewatering Water
(February 25, 2021 WSDOT GSP, OPTION 3)

Section 8-01.3(1)C1 is revised to read:

When uncontaminated turbid dewatering water is encountered onsite, it must pass through BMPs to reduce sedimentation prior to discharging to a sediment trap or sediment pond. Turbid uncontaminated dewatering water disposal options may include sheet flow dispersion and infiltration within vegetation onsite not designated as sensitive areas, transport in a vehicle for off-site legal disposal, Ecology-approved on-site chemical treatment, sanitary or combined sewer discharge with local sewer district approval, or use of a sedimentation bag that discharges to a ditch or swale for small volumes of localized dewatering. Highly turbid or contaminated dewatering water must be handled separately from stormwater.

Clean and non -turbid dewatering water may be discharged to systems tributary to or directly into sur-face waters of the state provided it does not cause erosion or flooding of receiving waters, in accordance with the CSWGP and water quality standards in WAC 173 -201A.

8-01.3(2) Seeding, Fertilizing, and Mulching

8-01.3(2)B Seeding and Fertilizing
(September 3, 2019 WSDOT GSP, OPTION 3)

Section 8-01.3(2)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 approved by the Engineer. The application rate shall be two pounds per 1000 square feet. 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.

8-02 ROADSIDE RESTORATION

8-02.1 Description

(April 12, 2018 CFW GSP)

The first paragraph of Section 8-02.1 is revised to read:

All plant materials required by the Bid Documents shall be plant species including plant establishment (PSIPE) per the Standard Specifications.

8-02.2 Materials

(April 12, 2018 CFW GSP)

The first paragraph of Section 8-02.2 is revised to read:

Root Barrier: 18-inch high, minimum thickness 0.090-inch, interlocking root barrier panels constructed of high-impact polypropylene with 1/2-inch reinforcing tabs.

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.

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.

8-02.3(8) Planting

(April 12, 2018 CFW GSP)

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

All Topsoil Type A required to pit plant trees and bark mulch for topdressing, as specified on the plans, shall be considered incidental to and included in the unit contract price of the trees.

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 on 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 on the Plans. Water trees immediately after planting.

The contractor shall apply 3 inches of pea gravel flush with bottom of tree grates in tree wells per City Standard Detail 3-31.

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 shall be two pounds per 1000 square feet.

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
(April 12, 2018 CFW GSP)

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

Bark Mulch shall be placed over all tree planting pits to a depth no less than two (2) inches, or as detailed on 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(13) Plant Establishment
(April 12, 2018 CFW GSP)

Section 8-02.3(13) is supplemented with the following:

Plant establishment shall consist of insuring resumption and continued growth of all planted materials including trees, shrubs, ground cover, and seeded areas for a period of one (1) year. This shall include, but is not limited to, labor and materials necessary or removal and replacement of any rejected plant material planted under this contract.

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

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

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

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

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

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

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

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

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

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

8-02.4 Measurement

(April 12, 2018 CFW GSP)

Section 8-02.4 is supplemented with the following:

Topsoil, bark mulch, compost, and/or soil amendments will be measured by the cubic yard in the haul conveyance at the point of delivery.

Root barrier will be measured per linear foot of installed root barrier.

"PSIPE, Pyrus Calleryana var. 'Capital' or 'Redspire', 2-1/2" Cal" shall be measured per each.

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

Fertilizer shall be incidental to other bid items unless specifically listed as a bid item.

8-02.5 Payment

(April 12, 2018 CFW GSP)

Section 8-02.5 is supplemented with the following:

"PSIPE, Acer X Freemanii 'Jeffersred/Autumn Blaze Maple', 2-1/2" Cal", per each. The unit contract price per each shall also include all fertilizer, tree stakes, and establishment as shown in the plans and called for in the specifications.

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“Root Barrier” per linear foot.

“Bark Mulch” per cubic yard. The unit contract price shall be full pay for furnishing and spreading the mulch.

“Property Restoration” per force account.

(February 25, 2021)

The Bid item “Seeding, Fertilizing and Mulching”, per acre in Section 8-02.5 is revised to read:
“Seeding, Fertilizing and Mulching”, per acre or per square yard.

8-03 IRRIGATION SYSTEMS

8-03.1 Description

(April 12, 2018 CFW GSP)

Section 8-03.1 is supplemented with the following:

The work shall consist of installing a fully functioning and complete landscape irrigation system.

Some private irrigation systems exist within the project limits which may be impacted by the project improvements. The Contractor shall minimize the impacts to these facilities to the maximum extent possible. In the event that irrigation systems are found to encroach within the limits of the project improvements, they shall be modified as necessary per Engineer directed force accounts to ensure satisfactory operation upon completion of the improvements.

The Contractor is responsible to coordinate with affected property owners to ensure their existing sprinkler systems are fully functional before they are disturbed.

8-03.2 Materials

(April 12, 2018 CFW GSP)

Section 8-03.2 is supplemented with the following:

The materials for the irrigation system, where applicable, shall conform with the following manufacturers in order to be compatible with other systems located throughout the City.

Rainbird 1804 sprinkler bodies and MPR spray nozzles

Rainbird PEB Automatic Control Valve

Rainbird ESPLXBASIC Controller and Cabinet

Buckner Quick Coupling Valve

Febco 850 Double Check Valve

Legend Bronze Valve

Superior 3100 Master Control Valve

8-03.3 Construction Requirements

(April 12, 2018 CFW GSP)

Section 8-03.3 is supplemented with the following:

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All work shall be in strict conformance with the Lakehaven Utility District Water System and Sewer Standards, together with the plans, details and manufacturer's written information regarding recommended installation procedures. References to the use of galvanized pipe in the Standard Specifications and Amendments shall be replaced with Schedule 80 PVC or other Engineer accepted pipe material.

Private sprinkler irrigation systems found to encroach within the limits of improvements shall be modified as necessary to remove the encroachment and to ensure satisfactory operation of the remaining system. The Contractor shall ensure that existing private systems remain in operation during the construction of this project. The Contractor shall furnish temporary water to disconnected existing irrigation systems. Private irrigation systems that have been damaged during construction activities shall be repaired within 5 working days. The Contractor shall be liable for any damage due to irrigation facilities damaged by his operations and shall repair such damaged facilities to an "equal or better than" original condition. This work will include, but not be limited to, cutting and capping existing pipe, relocating existing risers and sprinkler heads new pipe heads and connections, and testing of the system. Payment will be by Force Account for Property Restoration.

8-03.3(1) Layout of Irrigation System

(April 12, 2018 CFW GSP)

Section 8-03.3(1) is supplemented with the following:

A Contractor-designed plan of the proposed irrigation system shall be submitted to the City for approval prior to completing the work.

8-03.3(7) Flushing and Testing

(April 12, 2018 CFW GSP)

Section 8-03.3(7) is supplemented with the following:

The Contractor shall pretest and prove functional then advise the Engineer at least 48 hours before pressure and coverage tests are to be conducted and shall have the approval of the Engineer before backfilling. Mainlines shall be tested at 140 PSI and PVC lateral lines at 50 PSI. Before the sprinkler system will be accepted, the Contractor, in the presence of the Engineer, shall perform a sprinkler head water coverage test to determine if the water coverage and operation of the system is complete and satisfactory. If any part of the system is inadequate it shall be repaired or replaced at the Contractor's expense and the test repeated until accepted.

All backfilled trenches shall be repaired by the Contractor at his expense, including restoration of plant materials.

8-03.4 Measurement

(April 12, 2018 CFW GSP)

Section 8-03.4 is supplemented with the following:

"Automatic Irrigation System, Complete" will be measured by lump sum for the design and installation of the new irrigation system within the City's right-of-way outlined in the contract documents, complete, tested, and in full operating condition.

8-03.5 Payment

(April 12, 2018 CFW GSP)

Section 8-03.5 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:

“Automatic Irrigation System Complete”, per lump sum. The lump sum price shall be full compensation for furnishing all labor, materials, tools, electrical services connection costs, and equipment necessary or incidental to the construction of the complete and operable sprinkler irrigation system shown in the Plans or as directed by the Engineer.

All costs for furnishing and installing controller, pads, enclosures, conduit, wiring, irrigation controller, all control wiring, backflow preventer, vault enclosures, valves, piping, 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 Automatic Irrigation System.

All costs for design of the irrigation system are included in the lump sum price for the irrigation system.

8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements

(April 12, 2018 CFW GSP)

Section 8-04.3 is supplemented with the following:

The sub-base for curb and gutter sections shall be compacted to 95 percent density at or below optimum moisture content, as per Section 2-03.3(14)D revised, before placing the curb and gutter.

White-pigmented curing compounds will not be allowed.

The top of the finished concrete shall not deviate more than one-eighth (1/8”) in ten feet (10’) or the alignment one-fourth (1/4”) in ten feet (10’).

Where shown on the Plans, the concrete curb will be ramped for wheel chairs as shown in the City Standard Plan Details.

Where shown on the plans, the Contractor shall paint the curbs with 2-coats of yellow paint. Paint and application shall conform to the Standard Specifications for traffic paint striping.

8-04.4 Measurement

(April 12, 2018 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.

“Barrier Curb”, Per linear foot

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8-04.5 Payment

(April 12, 2018 CFW GSP)

Section 8-04.5 is supplemented with the following:

“Extruded Curb, Type 6”, per linear foot.

“Barrier Curb”, per linear foot.

8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES

8-06.3 Construction Requirements

(April 12, 2018 CFW GSP)

Section 8-06.3 is supplemented with the following:

All driveways shall remain open except as necessary to permit curing of construction materials or for short periods of time as required for excavations. However, at least one (1) driveway per parcel shall remain open to vehicular traffic at all times unless otherwise approved by the Engineer and affected property owner in writing. If a parcel has only one driveway, then that driveway must be constructed one-half at a time to allow the passage of vehicles. The amount of time that a driveway can be closed will be limited. To meet these requirements, the Contractor may use a quick setting concrete. The Engineer shall approve the quick-setting mix prior to use.

Property owners shall be notified in writing at least 48 hours in advance of any planned driveway closures

Crushed rock may be used, with Engineer approval, to maintain a driving surface.

8-06.5 Payment

(April 12, 2018 CFW GSP)

Section 8-06.5 is supplemented with the following:

If the Contractor chooses to use a quick-setting concrete mix for driveway construction, any additional costs to use such mix shall be incidental to the bid item for “Cement Conc. Driveway” and no additional payment will be made.

If the Contractor chooses to use crushed rock to maintain a driveway surface, it shall be incidental to the bid item for “Cement Conc. Driveway” and no additional payment shall be made.

8-07 PRECAST TRAFFIC CURB

8-07.1 Description

(December 12, 2012 CFW GSP)

Section 8-07.1 is deleted and replaced with the following:

This Work consists of furnishing and installing precast traffic curb, block traffic curb, sloped mountable curb, or dual faced sloped mountable curb of the design and type specified in the Plans in accordance with these Specifications and the Standard Plans, in the locations indicated in the Plans or as identified by the Engineer.

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8-09 RAISED PAVEMENT MARKERS

8-09.1 Description

(December 12, 2012 CFW GSP)

Section 8-09.1 is supplemented with the following:

RPM's shall be installed per City of Federal Way Standard Details.

8-09.2 Materials

(December 12, 2012 CFW GSP)

Section 8-09.2 is supplemented with the following:

RPM's shall not be ceramic.

8-09.4 Measurement

(PROJECT-SPECIFIC SPECIAL PROVISION***)***

Section 8-09.4 is supplemented with the following:

"Raised Pavement Marker, Type 2B", shall be measured per each.

8-09.5 Payment

(PROJECT-SPECIFIC SPECIAL PROVISION***)***

Section 8-09.5 is supplemented with the following:

"Raised Pavement Marker, Type 2B", per each.

8-14 CEMENT CONCRETE SIDEWALKS

8-14.3 Construction Requirements

(April 3, 2017 WSDOT GSP, OPTION 1)

Section 8-14.3 is supplemented with the following :

The Contractor shall request a pre-meeting with the Engineer to be held 2 to 5 working days before any work can start on cement concrete sidewalks, curb ramps or other pedestrian access routes to discuss construction requirements. Those attending shall include:

1. The Contractor and Subcontractor in charge of constructing forms, and placing, and finishing the cement concrete.
2. Engineer (or representative) and Project Inspectors for the cement concrete sidewalk, curb ramp or pedestrian access route Work.

Items to be discussed in this meeting shall include, at a minimum, the following:

1. Slopes shown on the Plans
2. Inspection
3. Traffic control

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4. Pedestrian control, access routes and delineation
5. Accommodating utilities
6. Form work
7. Installation of detectable warning surfaces
8. Contractor ADA survey and ADA Feature as-built requirements
9. Cold Weather Protection

(January 7, 2019 WSDOT GSP, OPTION 2)

Section 8-14.3 is supplemented with the following:

Timing Restrictions

Curb ramps shall be constructed on one leg of the intersection at a time. The curb ramps shall be completed and open to traffic within five calendar days before construction can begin on another leg of the intersection unless otherwise allowed by the Engineer.

Unless otherwise allowed by the Engineer, the five calendar day time restriction begins when an existing curb ramp for the quadrant or traffic island/median is closed to pedestrian use and ends when the quadrant or traffic island/median is fully functional and open for pedestrian access.

(January 7, 2019 WSDOT GSP, OPTION 3)

Section 8-14.3 is supplemented with the following:

Layout and Conformance to Grades

Using the information provided in the Contract documents, the Contractor shall layout, grade, and form each new curb ramp, sidewalk, and curb and gutter.

(April 12, 2018 CFW GSP)

Section 8-14.3 is supplemented with the following :

Cement concrete sidewalk thickness shall be as shown on the Plans. Score joints shall be constructed at a maximum distance of 5 feet from each full depth expansion joint, except where specific dimensions are detailed on the Plans. Asphalt mastic joint fillers in the sidewalk shall be 3/8" x 4" and of the same material as that used in the curb, and shall be placed in the same location as that in the curb.

No concrete for sidewalk shall be poured against dry forms or dry subgrade.

The Contractor may provide suitable vibrating finishers for use in finishing concrete sidewalks. The type of vibrator and its method of use shall be subject to the approval of the City.

All completed work shall be so barricaded as to prevent damage. Any damaged sections shall be removed and replaced at the Contractor's expense. Landscaped areas disturbed during construction shall be restored to original condition at the Contractor's expense.

Scored Cement Concrete Sidewalk shall be broom finished and scored as detailed on the Plans.

8-14.3(5) Detectable Warning Surface
(January 13, 2021 WSDOT GSP, OPT 1)

The first paragraph of Section 8-14.3(5) is revised to read :

The detectable warning surface shall be located as shown in the Contract Plans or Standard Plans. Placement of the detectable warning surface shall be in accordance with the manufacturer's recommendation for placement in fresh concrete, before the concrete has reached initial set, or on a hardened cement concrete surface. Glued or stick down Detectable Warning Surfaces are allowed on asphalt surfaces only for temporary work zone applications.

8-14.4 Measurement
(April 12, 2018 CFW GSP)

Section 8-14.4 is supplemented with the following:

8-14.5 Payment
(April 12, 2018 CFW GSP)

Section 8-14.5 is supplemented with the following:

Payment for "Cement Conc. Curb Ramp Type ____" will not be made until the City has verified that the ramp(s) meet ADA requirements.

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

8-20.1 Description

8-20.1(1) Regulations and Code
(March 13, 2012 CFW GSP)

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

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

8-20.1(2) Industry Codes and Standards
(March 13, 2012 CFW GSP)

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

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

8-20.1(3) Permitting and Inspections
(April 12, 2018 CFW GSP)

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

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

8-20.2 Materials

Section 8-20.2 is supplemented with the following:

(March 13, 2012 CFW GSP)

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

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

(September 3, 2019 WSDOT GSP, OPTION 1)

Slip-Resistant Surfacing for Junction Boxes, Cable Vaults, and Pull Boxes

Where slip-resistant junction boxes, cable vaults, or pull boxes are required, each box or vault shall have slip-resistant surfacing material applied to the steel lid and frame of the box or vault. Where the exposed portion of the frame is 1/2 inch wide or less, slip resistant surfacing material may be omitted from that portion of the frame.

Slip-resistant surfacing material shall be identified with a permanent marking on the underside of each box or vault lid where it is applied. The permanent marking shall be formed with a mild steel weld bead, with a line thickness of at least 1/8 inch. The marking shall include a two character identification code for the type of material used and the year of manufacture or application. The following materials are approved for application as slip-resistant material, and shall use the associated identification codes:

- 1) Harsco Industrial IKG, Mebac #1 – Steel: M1
- 2) W.S. Molnar Co., SlipNOT Grade 3 – Coarse: S3
- 3) Thermion, SafTrax TH604 Grade #1 – Coarse: T1

8-20.2(1) Equipment List And Drawings

(January 26, 2012 CFW GSP)

The first paragraph is deleted and replaced with the following:

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

(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(1) General

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

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

Fiber Optic Cable Installation

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

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

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

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

Energized Equipment

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

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

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

Construction Core Installation

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

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

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

Electrical Equipment Removals

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

(January 26, 2012 CFW GSP)

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

Contractor Owned Removals

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

The Contractor shall:

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

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

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

Remove foundations entirely, unless the Plans state otherwise.

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

(January 26, 2012 CFW GSP)

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

Signal System Changeover

The Contractor shall provide a detailed work plan for the signal system changeover to be approved by the Engineer. They shall not deviate from the work plan without prior written approval from the Engineer. The work plan shall show the exact date of the signal system changeover.

The changeover of the signal equipment shall commence after 8:30 AM and be completed by 3:00 PM on the same day (unless as noted below). Changeovers must take place on Tuesday, Wednesday, or Thursday, unless otherwise approved by the Engineer. During changeover, traffic control shall be provided. The exact work plan and schedule for changeover shall be pre-approved by the Engineer.

Certain intersections may require a night-time changeover due to traffic volumes. If the City determines a night-time switchover is required, they will provide direction as to the allowable hours of work. No additional payment will be made to the Contractor for a night-time switchover.

(November 14, 2014 CFW GSP)

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

Delivery of Removed Items

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

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

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

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

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

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

(December 17, 2012 CFW GSP)

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

Fiber Optic Cable Service Outage Duration & Notification

The maximum allowable interruption to the operation of the existing fiber optic cable service is three days, including testing. Outages of fiber optic cable may affect multiple parties, including but not limited to, the City, King County, and/or WSDOT. Proposed outage dates shall be reviewed and approved by the City. The City shall coordinate the outage with WSDOT. The Contractor shall coordinate the outage with King County Metro and King County Traffic at least two (2) weeks in advance of the proposed outage. The notification shall include description of work, location, duration of outage including start and ending date/time and emergency contact information. Notification in writing shall be sent to the following:

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

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

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

8-20.3(2) Excavating and Backfilling

(January 8, 2013 CFW GSP)

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

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

1. In paved areas, edges of the trench shall be sawcut the full depth of the pavement and sawcuts shall be parallel. All trenches for placement of conduit shall be straight and as narrow in width as practical to provide a minimum of pavement disturbance. The existing pavement shall be removed in an approved manner. The trench bottom shall be graded to provide a uniform grade.
2. Trenches located under existing traveled ways shall provide a minimum of 24 inches cover over conduits and shall be backfilled with 21 inches of controlled density fill, vibrated in place, followed by either 3 inches minimum of HMA CI 1/2" PG 58 -22 , or a surface matching the existing pavement section, whichever is greatest. The asphalt concrete surface

cuts shall be given a tack coat of asphalt emulsion (CSS-1) or approved equal immediately before resurfacing, applied to the entire edge and full depth of the pavement cut. Immediately after compacting the new asphalt surface to conform to the adjacent paved surface, all joints between new and original pavement shall be filled with joint sealant meeting the requirements of Section 9-04.2.

3. Trenches for Schedule 40 PVC conduits to be located under existing sidewalks shall be installed to conform with the City of Federal Way Luminaire Electrical Trench Detail. Such trenches shall be backfilled with bedding material two inches (2") above and below the conduit, with the remaining depth of trench backfilled with native material. If the Engineer determines that the native material is unsuitable, Gravel Borrow shall be used. Sidewalks and driveways shall be removed and replaced as specified.
4. Trenches for Schedule 40 PVC conduits to be located within the right-of-way and outside the traveled way shall have a minimum of twenty-four inches (24") cover over conduits. Such trenches shall be backfilled with bedding material two inches (2") above and below the conduit, with the remaining depth of trench backfilled with bank run gravel unless the Engineer determines that spoils from the trench excavation are suitable for backfill.
5. When trenches are not to be placed under sidewalks or driveways, the backfill shall match the elevation of the surrounding ground, including a matching depth of top soil, mulch and/or sod if necessary to restore the trench area to its prior condition.
6. Contractor shall use joint trench where possible.

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

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

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

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

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

(April 12, 2018 CFW GSP)

CITY OF FEDERAL WAY

SP-143

**LAKOTA MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL
PROJECT #204**

CFW SPECIAL PROVISIONS VER. 2021.01B

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

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

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

The Contractor shall be responsible for potholing for conflicts with underground utility locations prior to determining exact locations of signal and luminaire pole foundations, underground vaults and directional boring operations. Prior to construction, if any conflicts are expected, it shall be brought to the attention of the Engineer for resolution.

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

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

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

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

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

8-20.3(4) Foundations
(November 2, 2020 CFW GSP)

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

CITY OF FEDERAL WAY

SP-144

**LAKOTA MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL
PROJECT #204**

CFW SPECIAL PROVISIONS VER. 2021.01B

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

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

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

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

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

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

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

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

8-20.3(5) Conduit

8-20.3(5)A General ***(March 16, 2011 CFW GSP)***

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

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

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

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

All conduits shall be clearly labeled at each junction box, handhole, vault or other utility appurtenance. Labeling shall be permanent and shall consist of the owner/type name and a unique conduit number or color. The owner name shall

be approved by the Engineer prior to starting work. The recommended owner/type abbreviations are:

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

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

8-20.3(5)A1 Fiber Optic Conduit

(June 24, 2013 WSDOT NWR – OPTION 1)

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

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

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

8-20.3(5)A2 ITS and Cabinet Outer and Inner Duct Conduit

(June 24, 2013 WSDOT NWR – OPTION 1)

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

Conduit Seal

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

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

8-20.3(5)B Conduit Type

(March 16, 2011 CFW GSP)

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

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

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

8-20.3(5)E3 Boring

(October 16, 2006 WSDOT NWR, OPTION 1)

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

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

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

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

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

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

8-20.3(6) Junction Boxes, Cable Vaults, and Pull Boxes
(November 2, 2020 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, wheelchair ramps, or driveways, or interfere with any other previous or relocated installation. The lid of the junction box shall be flush with the surrounding area and be adequately supported by abutting pavements or soils.

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

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

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

Wiring shall not be pulled into any conduit until all associated junction boxes have been adjusted to, or installed in, their final grade and location, unless installation is necessary to maintain system operation. If wire is installed for this reason, sufficient slack shall be left to allow for future adjustment.

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

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

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

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

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

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

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

Fiber vaults shall be installed in accordance with the following:

1. All openings around conduits shall be sealed and filled with grout to prevent water and debris from entering the vaults or pull boxes. The grout shall meet the specifications of the fiber vault manufacturers.
2. Backfilling around the work shall not be allowed until the concrete or mortar has set.
3. Upon acceptance of work, fiber vaults shall be free of debris and ready for cable installation. All grounding requirements shall be met prior to cable installation.

4. Fiber vaults shall be adjusted to final grade using risers or rings manufactured by the fiber vault and pull box manufacturer. Fiber vaults with traffic bearing lids shall be raised to final grade using ring risers to raise the cover only. All voids created in and around the vault while adjusting it to grade shall be filled with grout.
5. Fiber vaults shall be installed at the approximate location shown in the Drawings. Final location to be approved by the Engineer.
6. All existing conduits will need to be open and exposed for access within the vault. Care shall be taken to identify which conduits have existing cables. All conduits will extend 2 inches within the vault walls. At the 2-inch mark the excess conduit on the existing structure will need to be removed and all cables exposed.
7. Once the conduits are located, excavate a hole large enough to install the fiber vault. The vault shall have a concrete floor as indicated on the Drawings. The floor shall be installed on 6 inches of crushed surfacing top course. If a fiber vault is installed outside a paved area, an asphalt pad shall be constructed surrounding the junction box. Ensure that the existing conduits are at a minimum of 4 inches above the top of the floor. If the existing conduits contain existing cables, the new vault will need to be bottomless to allow the existing conduit and cable to be routed into the new vault.

8-20.3(8) Wiring

(March 13, 1995 WSDOT NWR, OPTION 2)

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

Wire Splices

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

(May 1, 2006 WSDOT NWR, OPTION 3)

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

Illumination Circuit Splices

Temporary splices shall be the heat shrink type.

(March 6, 2012 CFW GSP)

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

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

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

(March 6, 2012 CFW GSP)

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

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

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

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

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

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

Field Wiring Chart (IMSA Standards)

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

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

8-20.3(8)A Copper Interconnect Cable Installation
(June 6, 2012 CFW GSP)

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

Copper interconnect cable shall be 12 pair No. 19 AWG communications cable meeting IMSA Specification No. 40-20-1984. A 12 position terminal block shall be

mounted on a panel on the rack on the interior side of the controller cabinet. Interconnect cables shall not be spliced or terminated except inside the traffic signal controller cabinet at terminal panel locations. Termination of copper interconnect cable shall be performed by a King County Signal technician. The contractor shall notify King County when cable is ready for terminations with a minimum of two working day's notice.

8-20.3(8)B Fiber Optic Cable Installation
(March 14, 2012 CFW GSP)

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

The fiber optic cable shall be singlemode cable conforming to the requirements of Section 9-29.3(1) Fiber Optic Cable and Section 9-29.3(1)A Singlemode Fiber Optic Cable. Fiber Optic Cable shall be Corning ALTOS All-Dielectric Cable or approved equal.

8-20.3(8)B1 Fiber Optic Cable Submittals

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

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

- A. A material staging plan, should the Contractor propose City owned property as a staging area.
- B. detailed fiber optic installation procedure including the following:
 - Fiber optic cable cutting lengths reflecting the cable order and reel allocations.
 - Cable pulling plan which shall state the exact operational procedures to be utilized and which identifies the physical locations for equipment placement, proposed equipment setup at each location, pulling tension on all cables for each pull, staffing, and the pulling methodology for each type of cable.
 - Exact splice points as provided for herein.
- C. Product Data:
 1. Catalog sheets, specifications and installation instructions for all products.
 2. Complete manufacturer's construction details and specifications for the cables.Include for each type of cable:
 - a. Physical and optical characteristics of the optical fibers including cable manufacturer's certified test data (attenuation, bandwidth).
 - b. Physical characteristics of strength members, and jackets.
 - c. Maximum pulling strain allowed.
 - d. Crush resistance.
 - e. Overall dimension of cable.
- D. Splicing and termination data, including the following:
 1. List of materials.
 2. Method of connecting cables.

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

E. Cable Installer's Qualifications Data:

The persons installing the Work of this Section and their Supervisor shall be personally experienced in optical fiber cable systems and shall have been engaged in the installation of optical fiber cable systems for a minimum of 3 years. Qualifications shall be submitted to the Engineer at least 30 calendar days prior to the start of fiber installation for approval of qualifications.

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

F. Cable Splicer's Qualifications Data:

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

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

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

8-20.3(8)B2 Fiber Optic Cable Installation

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

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

The fiber optic cable shall not be installed prior to the installation of vaults, cabinets or pull points/junction boxes. Installation procedures shall be in

conformance with the procedures specified by the cable manufacturer for the specific cable being installed.

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

The Contractor shall make a physical survey of the project site for the purpose of establishing the exact cable routing and cutting lengths prior to the commencement of any fiber optic work or committing any fiber optic materials. Unless otherwise directed by the Engineer, underground splicing of fiber optic cable in junction boxes or vaults will not be permitted. All termination splicing will take place in the traffic signal controller cabinets.

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

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

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

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

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

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

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

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

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

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

Patch cords placed between pad mounted cabinets shall be protected by plastic spiral wrapping. Spiral wrap shall cover the entire length of the patch cord(s) to within 12 inches of end. The spiral wrap shall be installed before the patch cords are pulled into the conduit(s) and be rated for use in electrical installations.

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

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

8-20.3(8)B3 Fiber Optic Cable Splicing

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

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

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

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

All fusions shall be labeled with the fiber number using a pre-printed vinyl number tag. All splice trays shall be labeled with the range of fibers spliced in the tray.

Cables at each location shall be designated with the next termination point at the other end of the cable.

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

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

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

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

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

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

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

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

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

The unprotected fiber exposed for splicing within the enclosure shall be protected from mechanical damage using the fiber support tubes and shall be secured

within the splice enclosure. The fibers shall be labeled with vinyl markers as directed by the City.

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

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

8-20.3(8)B4 Fiber Optic Cable Terminations

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

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

Terminated fiber optic cable shall be installed in the signal controller cabinet utilizing patch panels. Patch panel(s) shall be Corning model Single-Panel Housing (SPH-01P) or approved equal. Panel(s) shall be wall mountable. Mounting location shall be as directed by the Engineer.

8-20.3(8)B6 Fiber Optic Cable Labeling

All fiber optic cable and patch cords shall be identified whenever entering or leaving a cabinet, vault, pull point/box or enclosure and at all terminals.

Permanent plastic marking tags fastened securely to the cables shall be used for identification.

Cable designation shall consistently conform to the overall scheme approved by the City to indicate location, circuit, device, cable number, terminal branch, position etc. Letters and numbers shall be used. Identification shall be made with a clear, machine produced, indelible marking.

All conduits shall be numbered and documented on the site plan as-built drawings.

Splice cases will be labeled at each entry point with nomenclature that includes the cable origination point, strand count, and destination. Fiber splice cases will be labeled as "F-xxxx", where xxxx = the service cabinet location number based upon a City defined coordinate system.

All termination panels shall be labeled at each termination point for each fiber. Termination labels shall conform to the overall scheme approved by the City to

indicate location, device and next access point. Identification shall be made with a clear, machine produced, indelible marking.

8-20.3(8)B7 Fiber Optic As-Built Records

The Contractor shall provide the Engineer with a cable route diagram indicating the actual cable route and “meter marks” for all intersections, directional change points in the cable mounting, and all termination points. The Contractor shall record these points during cable installation. The Contractor shall provide Cable system “as-built” drawings showing the exact cable route to the Engineer. Information such as the location of slack cable and its quantity shall also be recorded in the cable route diagram.

8-20.3(8)B8 Fiber Optic Cable Testing

The contractor is responsible for demonstrating the functionality of the installed optical fiber system through testing for compliance with the transmission requirements of this specification, the cable and hardware manufacturer’s specifications, and prescribed industry standards and practices. The contractor shall, at its cost, provide suitable test equipment, instruments and labor for the purpose of tests.

The Contractor shall provide sufficient notice consistent with section 8-20.3(1) – Fiber Optic Service Outage Duration and Notification prior to the commencement of the first test. The Contractor shall submit with this notice a schedule of all tests covered by this notice.

8-20.3(8)B9 Type of Testing

The types or acceptance testing for optical fiber cable system certification are:

1. Attenuation testing
2. Optical Time Domain Reflectometer (OTDR) testing

8-20.3(8)B10 Attenuation Testing

Insertion loss testing shall be used to measure end-to-end attenuation on each new fiber installed between a field device and a fiber termination cabinet. Insertion loss testing shall be performed at the 1310 nanometer wavelength in both directions.

Prior to commencing testing, the Contractor shall submit the manufacturer and model number of the test equipment along with certification that it has been calibrated within 6 months of the proposed test dates.

The following information shall be documented for each fiber test measurement:

1. Wavelength
2. Fiber type
3. Cable, tube and fiber IDs
4. Near end and far end test locations
5. End-to-end attenuation
6. Date, time and operator

8-20.3(8)B11 Optical Time Domain Reflectometer (OTDR Testing)

An optical time domain reflectometer (OTDR) with recording capability shall be utilized to test the end-to-end transmission quality of each optical fiber. Quality tests shall consider both attenuation and discontinuities. The OTDR shall be equipped with 1310 nanometer and 1550 nanometer light sources for singlemode optical fibers.

The OTDR shall be capable of providing electronic and hard copy records of each test measurement.

The OTDR shall be equipped with sufficient internal masking to allow the entire cable section to be tested. This may be achieved by using an optical fiber pigtail of sufficient length to display the required cable section or by using an ODTR with sufficient normalization to display the required cable section.

Prior to commencing testing, the Contractor shall submit the manufacturer and model number of the OTDR test unit along with certification that it has been calibrated within the 6 months of the proposed test dates.

Each new mainline and lateral fiber shall be tested in both directions at the 1310 and 1550 nanometer wavelengths. Existing mainline and lateral fibers that are spliced to or re-spliced as part of this contract shall also be tested in both directions and at both wavelengths.

The following information shall be documented for each fiber test measurement:

1. X-Y scatter plot for fiber length
2. Wavelength
3. Refraction index
4. Fiber type
5. Averaging time
6. Pulse width
7. Cable and fiber IDs
8. Near end and far end test locations
9. Date, time, and operator
10. Event table that includes: event ID, type, location, loss and reflection

8-20.3(8)B12 Fiber Optic Cable Testing Documentation

The Contractor shall submit on hard copy and one electronic copy of the fiber test results to the Engineer for approval. The Contractor shall take corrective actions on portions of the fiber installation determined to be out of compliance with these specifications.

Upon acceptance of the cable installation and test results, the Contractor shall submit three (3) hard copies and one electronic copy of the fiber test results to the Engineer.

Hard copy submittals shall be bound in 3-ring binders. The electronic submittal shall be on a compact disk and include one licensed copy of the applicable OTDR reader program.

The following information shall be included in each test result submittal:

1. Contract number, contract name, Contractor name and address.
2. Dates of cable manufacture, installation and testing.

3. Cable specifications.
4. Locations of all splices.
5. OTDR test results.
6. Attenuation test results.

8-20.3(8)B13 Racking in Fiber Vaults

The Contractor shall rack the cable in vertical figure eight loops, which shall permit pulling slack from the vault without introducing twist to the cable. The splice closures shall also be racked.

Cables shall be racked and secured with nylon ties. Nylon ties shall not be over-tightened. Identification or warning tags shall be securely attached to the cables in at least two locations in each fiber vault.

All coiled cable shall be protected to prevent damage to the cable and fibers. Racking shall include securing cables to brackets (racking hardware) that extend from the sidewalls of the fiber vault.

8-20.3(8)B14 Documentation

Documentation for each system element shall consist of the manufacturer's name and model number, serial number when available, materials and operating specifications, wiring schematic and parts list, owners manuals, factory service manuals, and procedures for factory testing and system acceptance testing specified elsewhere herein. The Contractor shall submit three (3) copies of the documentation specified above prior to installation of the cable or components described in the submittal. In addition, the Contractor shall submit three (3) copies of an overall system wiring schematic and termination chart for the installed elements (operation and maintenance manuals). All documentation for each individual element shall be neatly bound in a way for the information is secured together and is totally legible without removing the information from the binding. This documentation shall be in addition to any other data, shop drawings, etc. required to be submitted as specified in these Special Provisions.

8-20.3(9) Bonding, Grounding ***(August 21, 2006 WSDOT NWR)***

Section 8-20.3(9) is supplemented with the following:

Where shown in the Plans or where designated by the Engineer, the metal frame and lid of existing junction boxes shall be grounded to the existing equipment grounding system. The existing equipment grounding system shall be derived from the service serving the raceway system of which the existing junction box is a part.

(March 13, 2012 CFW GSP)

Section 8-20.3(9) is supplemented with the following:

Contractor shall provide and install bonding and grounding wires as described in Standard Specifications and the National Electric Code for any new metallic junction boxes and any modified existing junction boxes. For the purposes of this

section, a box shall be considered “modified” if new current-carrying conductors are installed, including low-voltage conductors.

At points where shields of shielded conductors are grounded, the shields shall be neatly wired and terminated on suitable grounding lugs.

Junction box lids and frames shall be grounded in accordance with Department of Labor and Industries standards, and shall be grounded so that the ground will not break when the lid is removed and laid on the ground next to the junction box.

All conduits which are not galvanized steel shall have bonding wires between junction boxes.

Ground rods shall be copper clad steel, ¾-inch in diameter by 10-feet long, connections shall be made with termite welds.

At points where wiring shields of shielded conductors are grounded, the shields shall be neatly wired and terminated on suitable grounding lugs.

8-20.3(11) Testing

(April 12, 2018 CFW GSP)

Section 8-20.3(11) is supplemented with the following:

After power switch over, the signal system shall be put into operation by King County personnel. The Contractor shall be present during the turn-on with adequate equipment to repair any deficiencies in operation. The Contractor shall notify King County five working days in advance of power switch over.

8-20.3(13) Illumination Systems

(April 12, 2018 CFW GSP)

Section 8-20.3(13) is supplemented with the following:

The existing lighting systems shall remain operational until the new systems are functioning. The Engineer may approve partial interruptions required because of staging.

8-20.3(13)A Light Standards

(January 11, 2019 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 per City of Federal Way Development Standard Drawing number 3-39B.

Section 8-20.3(13)A is supplemented with the following:

Each roadway luminaire shall be installed with a CIMCON control node on each individual luminaire fixture.

8-20.3(14) Signal Systems

(August 10, 2009 WSDOT NWR – OPTION 1)

Section 8-20.3(14) is supplemented with the following:

Temporary Video Detection System

Temporary video detection systems shall be completely installed and made operational prior to any associated induction loop being disabled.

8-20.3(14)C Induction Loop Vehicle Detectors

(January 31, 2014 CFW GSP)

Item 2 and the last two sentences of Item 4 are deleted.

Item 5 of this section is deleted and replaced with the following:

- 5) Each loop shall have 3 turns of loop wire.

Item 11 of this section is deleted and replaced with the following:

- 11) The detector loop sealant shall be a flexible traffic loop wire encapsulment. Encapsulment shall be designated to enable vehicular traffic to pass over the properly filled sawcut within five minutes after installation without cracking of material. The encapsulment shall form a surface skin allowing exposure to vehicular traffic within 30 minutes at 75 degrees F. and completely cure to a tough rubber-like consistency within two to seven days after installation. Properly installed and cured encapsulment shall exhibit resistance to defects of weather, vehicle abrasion, motor oil, gasoline, antifreeze solutions, brake fluid, deicing chemicals and salt normally encountered in such a manner that the performance of the vehicle detector loop wire is not adversely affected.

Section 8-20.3(14)C is supplemented with the following:

One-quarter-inch (1/4") saw cuts shall be cleared of debris with compressed air before installing three turns of loop wire. All detector loops shall be 6-foot-diameter circle with diagonal mini-cut corners (no 90 degree corners) of not more than 1-inch on the diagonal. From the loops to the junction box, the loop wires shall be twisted two turns per foot and labeled at the junction box in accordance with the loop schematics included in these Plans. A 3/8-inch saw cut will be required for the twisted pair. No saw cut will be within 3 feet of any manhole or utility risers located in the street. Loops and lead-ins will not be installed in broken or fractured pavement. Where such pavement exists it will be replaced in kind with minimum 12-foot sections. Loops will also not be sawed across transverse joints in the road. Loops to be placed in concrete will be located in full panels, a minimum 18 inches from any expansion joint.

Existing Traffic Loops

The Contractor shall notify the City of Federal Way Traffic Engineer a minimum of five working days in advance of pavement removal in the loop areas. The Contractor shall install and maintain interim video detection until the permanent systems are in place. The interim video detection shall be operational simultaneously with decommission of the existing pavement loops.

If the Engineer suspects that damage to any loop, not identified in the Plans as being replaced, may have resulted from Contractor's operations, the Engineer may order the Contractor to perform the field tests specified in Section 8 20.3(14)D. The test results shall be recorded and submitted to the Engineer. Loops that fail any of these tests shall be replaced.

Loops that fail the tests, as described above, and are replaced shall be installed in accordance with current City of Federal Way design standards and Standard Plans, as determined by the Engineer.

If traffic signal loops that fail the tests, as described above, are not replaced and operational within 48 hours, the Contractor shall install and maintain interim video detection until the replacement loops are operational. The type of interim video detection furnished shall be approved by the Engineer prior to installation.

8-20.3(14)D Test for Induction Loops and Lead-in Cable
(October 5, 2009 WSDOT NWR – OPTION 3)

Section 8-20.3(14)D is supplemented with the following:

Existing Lead-in Cable Test

When new induction loops are scheduled to be installed and spliced to an existing two-conductor shielded detector lead-in cable, the Contractor shall perform the following:

1. Disconnect the existing detector lead-in cable in the controller cabinet and at the loop splice.
2. Megger test both detector lead-in cable conductors. A resistance reading of less than 100-megohms is considered a failure.
3. Detector lead-in cables that fail the test shall be replaced and then retested.
4. After final testing of the detector lead-in cable, the loop installation shall be completed and the loop system tested according to Tests A, C and D.
Connect the detector lead-in cables in the controller cabinet.

(October 5, 2009 WSDOT NWR – OPTION 4)

Section 8-20.3(14)D is supplemented with the following:

Existing Loop Test

When two-conductor shielded detector lead-in cable is scheduled to be installed and spliced to an existing loop, the Contractor shall perform the following:

1. Disconnect the existing loop from the detector lead-in splice.
2. Megger test the existing loop wire. A resistance reading of less than 100-megohms is considered a failure.
3. Loops that fail the test shall be replaced and then retested.
4. After the final testing of the loops, the detector lead-in cable installation shall be completed and the loop system tested according to Tests A, C and D.

(March 31, 2012 CFW GSP)

Section 8-20.3(14)D is supplemented with the following:

Test A – The resistance shall not exceed values calculated using the given formula.

Resistance per 1000 ft of 14 AWG, $R = 3.26 \text{ ohms} / 1000 \text{ ft}$

$$R = \frac{3.26 \times \text{distance of lead-in cable (ft)}}{1000 \text{ ft}}$$

Test B and Test C in this section are deleted and replaced with the following:

Megger readings of the detection wire to ground shall read 200 megohms at the amplifier connection. The 200 megohms or more shall be maintained after the splices are tested by submerging them in detergent water for at least 24 hours. The tests will be conducted with County personnel at the request of the Contractor. All costs incurred to meet this minimum standard will be the responsibility of the Contractor.

8-20.3(14)E Signal Standards
(December 18, 2009 CFW GSP)

Section 8-20.3(14)E is supplemented with the following:

Traffic signal 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.

After delivering the poles or arms to the job site and before they are installed, they shall be stored in a place that will not inconvenience the public. All poles and arms shall be installed in compliance with Washington State Utility and Electrical Codes.

Terminal cabinet(s) shall be installed on all Type II and Type III signal poles or where designated on the wiring diagrams in the Plans in accordance with the material requirements of Section 9-29.25 of the Standard Specifications. Terminal cabinets shall be installed at a height not to impede pedestrians.

8-20.3(14)F Opticom Detectors
(December 18, 2009 CFW GSP)

Section 8-20.3(14)F is a new section:

Opticom detectors shall be installed in a drilled and tapped hole in the top of the mast arm unless otherwise shown in the Plans. They shall be tightly fitted to point in the direction shown in the plan view. Lead-in cable back to the controller shall be 6TT detector 138 cable, or equivalent, and shall have no splices. All lead-in cables shall be connected to terminals in the controller cabinet as shown in the wiring diagram. The shields shall be grounded to the grounding bar.

8-20.3(14)G Video Camera Detectors
(December 18, 2009 CFW GSP)

Section 8-20.3(14)G is a new section:

The video camera shall be installed consistent with the manufacturer recommendations. Controller cabinet equipment shall be installed in the cabinet when cabinet testing is performed.

8-20.3(17) "As Built" Plans
(December 18, 2009 CFW GSP)

Section 8-21.3(17) is deleted and replaced with the following:

Upon completion of the project, the Contractor shall furnish an "as-built" drawing of the intersection showing all signal heads, pole locations, detectors, junction boxes, illumination system showing luminaire locations, miscellaneous equipment, conductors, cable wires up to the signal controller cabinet, and with a special symbol identifying those items that have been changed from the original contract drawings. All items shall be located to within one foot (1') horizontally and six inches (6") vertically above or below the finished surface grade.

8-20.3(18) Removal of Existing Signal Equipment

(April 12, 2018 CFW GSP)

Section 8-21.3(18) is a new section:

Where noted on the Plans, existing signal, illumination, Safe City Cameras and relate equipment, and interconnect equipment shall be removed by the Contractor. The Engineer shall decide the ownership of all salvaged signal, illumination, Safe City Cameras and related equipment, and interconnect equipment materials. All salvaged signal materials not directed by the Engineer to remain property of the City shall be the property of the Contractor, except that any existing controllers and UPS cabinets and all contents shall be delivered to the King County Signal Shop at 155 Monroe Avenue NE, Renton, Washington 98056. All other material removed shall become the property of the Contractor and shall be disposed of off-site at a legal disposal site.

All pole foundations and anchor bolts shall be removed to 6 feet below new subgrade, and the resulting hole shall be backfilled with compacted gravel borrow meeting the requirements of Section 9-03.14(1), unless the Engineer has approved the use of native material.

Where junction boxes are removed, the conduit and wire shall also be removed to the bottom of the trench and the resulting hole backfilled with gravel borrow meeting the requirements of Section 9-03.14(1), unless the Engineer has approved the use of native material.

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

8-20.4 Measurement

(April 12, 2018 CFW GSP)

Section 8-20.4 is replaced with the following:

"School Zone Flashing Beacons, Complete", shall be measured per lump sum.

"Variable Speed Limit Signs, Complete, shall be measured per lump sum.

"Signal Modification, Complete" shall be measured per lump sum.

"Illumination System, Complete", shall be measured per lump sum.

"Video Camera Detectors, Complete" shall be measured per lump sum.

8-20.5 Payment

(April 12, 2018 CFW GSP)

Section 8-20.5 is deleted and replaced with the following:

Payment will be made in accordance with the following:

"School Zone Flashing Beacons, Complete", shall be measured per lump sum.

"Variable Speed Limit Signs, Complete, shall be measured per lump sum.

"Signal Modification, Complete" shall be measured per lump sum.

"Illumination System, Complete", shall be measured per lump sum.

"Video Camera Detectors, Complete" shall be measured per lump sum.

The lump sum price for "School Zone Flashing Beacons, Complete" shall be full pay for furnishing all labor, equipment and supplies necessary to complete the work as specified. All items and labor necessary to supply, install and test the system including

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but not limited to, conduit, junction boxes, connections with existing conduit and junction boxes, restoring facilities destroyed or damaged during construction, removing and salvaging existing signal equipment, and all other components necessary to make a complete School Zone Flashing Beacon in four locations complete and operational shall be included with the lump sum measurement. Removal of conflicting existing electrical components shall be included within the lump sum measurement.

The lump sum price for "Variable Speed Limit Signs, Complete" shall be full pay for furnishing all labor, equipment and supplies necessary to complete the work as specified. All items and labor necessary to supply, install and test the system including but not limited to, conduit, junction boxes, connections with existing conduit and junction boxes, restoring facilities destroyed or damaged during construction, removing and salvaging existing signal equipment, and all other components necessary to make a complete Variable Speed Limit Sign in four locations complete and operational shall be included with the lump sum measurement. Removal of conflicting existing electrical components shall be included within the lump sum measurement.

The lump sum price for "Signal Modification, Complete" shall be full pay for furnishing all labor, equipment, materials and supplies necessary to complete the work as specified. All items and labor necessary to supply, install, and test the system including, but not limited to, conduit, junction boxes, service circuit breaker and connections, pedestrian pushbuttons, adjusting junction boxes to grade, connections with existing conduit and junction boxes, restoring facilities destroyed or damaged during construction, removing and salvaging existing signal equipment, and all other components necessary to make a complete traffic signal system shall be included within the lump sum measurement. All costs for installing signing on signal mast arms or temporary signal installations shall be incidental to the bid item(s) in this section and no additional compensation will be made. Removal of existing conflicting signal components shall be included within the lump sum measurement.

The lump sum price for "Illumination System, Complete" 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 conduit, junction boxes, service circuit breaker and connections, photocell 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, and all other components necessary to make a complete system shall be included within the lump sum measurement.

The lump sum price for "Video Camera Detectors, Complete" shall be full pay for furnishing all labor, equipment, materials and supplies necessary to complete the work as specified. All items and labor necessary to supply, install, and test the system including, but not limited to, conduit, junction boxes, service circuit breaker and connections, restoring facilities destroyed or damaged during construction, removing and salvaging existing signal detection equipment, relocation of temporary signal equipment (vehicle heads, pre-emption, pedestrian heads, pedestrian push buttons, video detection) to accommodate construction phasing throughout the project, and all other components necessary to make a complete traffic signal system shall be included within

the lump sum measurement. Removal of an existing signal system or existing signal components shall be included within the lump sum measurement. After construction is complete, it is Contractor's responsibility to adjust, relocate, and reposition all traffic signal heads to their final position as shown on the Contract Documents, and shall be considered incidental to the lump sum measurement.

Sawcutting, pavement removal, excavation, trenching, bedding and backfill materials, backfilling of trenches, pavement restoration of trenches and conduit/junction box installations shall be incidental to the bid items included in this section and no additional compensation will be made.

Coordination of service connections with Puget Sound Energy and any necessary permits and fees associated with the service connections shall be considered incidental to the bid items included in this section and no additional compensation will be made.

Coordination with communication connections with Comcast, Lumen, or other communication provider affected by this project, and any necessary permits and fees associated with the communications connections shall be considered incidental to the bid items included in this section and no additional compensation will be made.

All costs for installing junction boxes and conduit containing traffic signal system, illumination system, decorative illumination system, festival outlet system and/or interconnect system wiring shall be incidental to the bid item(s) of this section and no additional compensation will be made.

All costs for painting shall be incidental and included in the bid items included in this section and no additional compensation will be made.

Adjustment of junction boxes shall be incidental and included in the bid items included in this section and no additional compensation will be made.

Restoration of facilities destroyed or damaged during construction shall be considered incidental to the bid items included in this section and no additional compensation will be made.

SECTION 8-21 PERMANENT SIGNING

8-21.1 Description

(November 3, 2020 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, in accordance with the Plans, these Specifications, the Standard Plans, MUTCD, and the City of Federal Way Standard Details at the locations shown in the Plans or where designated by the Engineer. Signs to be removed as shown on the Plans, shall be returned to the Owner.

Colors of all permanent signs shall be submitted to the City for approval prior to installation in the field. Installed signs that do not have color approved by the City may be required to be removed and replaced in an acceptable color at the Contractor's expense.

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8-21.3 Construction Requirements

8-21.3(2) Placement of Signs

(December 18, 2009 CFW GSP)

Section 8-21.3(2) is supplemented with the following:

The City of Federal Way, 253-835-2744, shall be contacted within 2 working days of completion of the permanent signing installation to inspect, inventory, and log all new and relocated signs.

Other Signs: Refer to the currently adopted version of the Manual on Uniform Traffic Control Devices (MUTCD) with Washington State Supplements.

8-21.3(5) Sign Relocation

(December 18, 2009 CFW GSP)

Section 8-21.3(5) is supplemented with the following:

King County METRO and/or Pierce Transit personnel will remove and reinstall all existing bus stop signs and supports within the project limits. The Contractor shall contact King County METRO at (206)684-2732 or Pierce Transit at (253)581-8130 to coordinate sign work 2 weeks prior to the required sign removal or installation. A copy of the record of communication shall be forwarded to the City of Federal Way.

8-21.4 Measurement

(April 12, 2018 CFW GSP)

Section 8-21.4 is deleted and replaced with the following:

“Permanent signing” is measured on a lump sum basis

8-21.5 Payment

(April 12, 2018 CFW GSP)

Section 8-21.5 is deleted and replaced with the following:

The lump sum price for “Permanent Signing” shall include all labor, materials, tools, and equipment necessary to furnish and install permanent signing, sign removal, and sign relocation. Sign covering shall be incidental and shall not be measured.

All costs for furnishing and installing signs on traffic signal mast arms poles shall be included in the lump sum price for “Traffic Signal System – Complete”.

SECTION 8-22 PAVEMENT MARKING

8-22.1 Description

(November 2, 2020 CFW GSP)

Section 8-22.1 is supplemented with the following:

Pavement markings shall conform to City of Federal Way Standard Details. Profiled and plastic lines shall conform to the pattern as shown on WSDOT Standard Plan M-20.20.

8-22.2 Materials

(October 23, 2014 CFW GSP)

Section 8-22.2 Sentence #3 is deleted and replaced with the following:

Glass beads for Type A plastic shall be as recommended by the manufacturer.

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Section 8-22.2 is supplemented with the following:

Glass beads for Type D plastic and Bonded Core Elements shall be as shown in Section 9-34.4.

8-22.3 Construction Requirements

(April 12, 2018 CFW GSP)

Section 8-22.3 is supplemented with the following:

Temporary Pavement Marking

Temporary pavement markings shall be installed and maintained by the Contractor whenever permanent pavement markings are included in the Contract and traffic is released onto public streets or roadways prior to installation of permanent pavement markings. The Contractor shall perform preliminary layout work to the satisfaction of the Engineer prior to installation of temporary pavement markings. After approval of permanent lane markings, the Contractor shall remove the temporary lane markings to the satisfaction of the Engineer.

The Contractor shall install and remove approved 4-inch-wide reflective traffic tape, paint line, RPMs and pavement markings per City of Federal Way Standard Details Dwg 3-17, Dwy 3-18, and Dwg 3-19, as shown on the Plans, specified in the Special Provisions for this Contract, or as directed by the Engineer.

Appropriately colored 4-inch-wide reflective traffic tape shall be installed with a skip pattern based on a 10-foot unit consisting of a 1-foot line of tape and a 9-foot gap, unless otherwise specified on the Plans or in the Special Provisions. Reflective traffic tape markings shall generally follow the alignment for the permanent pavement markings and double lines shall be used when specified for the permanent pavement markings.

Reflective tape shall not be used when the temporary pavement markings are to be exposed to traffic for more than two weeks without the written approval of the Engineer.

Paint lines shall be provided for temporary pavement marking conditions not applicable for reflective tape.

All costs in connection with the use of (placement and removal) reflective traffic tape as temporary pavement markings shall be incidental to other bid items. All costs for paint lines and reflective pavement markers used for temporary traffic control will be paid under those respective bid items.

8-22.3(3) Marking Application

8-22.3(3)E Installation

(November 2, 2020 CFW GSP)

Section 8-22.3(3)E is supplemented with the following:

Profiled Type D lines shall be installed per WSDOT Standard Plan M20.20.

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 eight (8) to ten (10) pounds per one hundred square feet.

Bonded core elements shall be applied to Type D markings at a rate of ten (10) grams per four (4) inch wide by one (1) linear foot of marking.

8-22.3(6) Removal of Pavement Markings

(April 12, 2018 CFW GSP)

Section 8-22.3(6) is supplemented with the following:

As indicated on the plans, the Contractor shall remove existing pavement markings that may consist of paint, plastic and raised pavement markings.

8-22.4 Measurement

(December 13, 2012 CFW GSP)

Section 8-22.4 is supplemented with the following:

Measurement for the removal of all pavement markings will be per lump sum.

8-22.5 Payment

(April 12, 2018 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 is a new bid item:

- “Removing Pavement Markings”, per lump sum.

8-30 POTHOLING AND RESOLUTION OF UTILITY CONFLICTS

(April 12, 2018 CFW GSP)

Section 8-30 and it’s subsections are new sections as follows:

8-30.1 Description

(April 12, 2018 CFW GSP)

Section 8-30.1 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 had performed the work with the authority of and due notice to the Engineer.

8-30.3 Construction Requirements

(April 12, 2018 CFW GSP)

Section 8-30.3 is a new section:

The City may direct the Contractor to pothole existing utilities to verify the field location and depth. 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.

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 his work schedule and/or reassign his 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.
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 unit contract prices shall not be identified as force account work. This work includes but is not limited to:
 - a. Storm drainage manhole, pipe, vault, and conduit realignments of line and/or grade for the storm drain and undergrounding of overhead utilities, to avoid existing utility conflicts.
 - b. Additional storm drainage manholes, pipe, vaults, and conduit required by a change in alignment, and/or grade, not exceeding the limits set in section 1-04.4 of the Standard Specifications.

8-30.4 Measurement

(April 12, 2018 CFW GSP)

Section 8-30.4 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.

8-30.5 Payment

(April 12, 2018 CFW GSP)

Section 8-30.5 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.

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8-32 UTILITY RELOCATION

(*****PROJECT-SPECIFIC SPECIAL PROVISION*****)Section 8-32 is a new section:

8-32.1 Description

The work to be performed shall consist of installation of conduit and vaults for the relocation of underground utilities to new underground facilities. Using the information shown in the Plans the Contractor will coordinate closely with each utility company to develop a detailed trenching plan and sequence of construction to perform the following:

1. Excavate trenches for underground facilities for Verizon and City Fiber.
2. Install conduit, conduit bends, connections and vaults provided by Verizon. Verizon will furnish and install cables for their systems.
3. Furnish and install vaults and conduits for City fiber system.
4. Furnish, place, and compact conduit bedding.
5. Furnish and install identification tape.
6. Furnish, place, and compact backfill, surface restoration for trenches associated with relocation of underground utilities (Gravel Borrow, Gravel Base Course, or Controlled Density Fill).
7. Connecting conduits to existing vaults, including all bends and fittings required.
8. Cutting and capping conduit.
9. Clearing of structures and testing of conduit.
10. Proof conduits and install fish line.
11. Other work indicated on the Plans and in the Specifications and Special Provisions.

The individual utility companies will be responsible for furnishing and installing all cables, and for the removal of poles, and other equipment no longer needed.

8-32.1(1) Regulations and Code

Installation of all electrical and telecommunication equipment shall conform to the appropriate sections of the National Electrical Code, the City of Federal Way Building Code, utility company standards and these Special Provisions. The Contractor shall install a complete and operable system in compliance with the plans and specifications as set forth and to the satisfaction of the Engineer. All work shall conform to the provisions of the current National Electric Code (NEC). Service customers shall be provided a minimum 48 hour notice of any planned service interruptions. The Contractor is advised that minor scheduling adjustments may be necessary to minimize impacts to service customers.

8-32.2 Materials

Materials shall conform to the requirements of Division 9 of the Standard Specifications and these Special Provisions and the standards of the utility agencies (Verizon) as indicated in these Special Provisions, and on the Plans and details.

Verizon will provide all materials required for a bare conduit and vault system, including conduits and vaults and handholes if needed.

The Contractor shall furnish and install all materials for the City fiber conduit system per Standard Specification 8-20 and these Special Provisions.

Vaults and Handholes

Verizon will utilize their existing vault

City vaults shall be WSDOT Type 1 Junction Boxes per WSDOT Standard Plan J-40.10-04.

Identification Tape

Polyethylene, 5 Mil Tape, 1/2 mil Aluminum Center Core

Telecommunication—Six inch (6") wide, orange in color, with non-ferrous metal conductor sandwiched in the tape for detection purposes imprinted with black lettering "CAUTION - COMMUNICATION LINE BELOW".

8-32.3 Construction Requirements

8-32.3(1) Excavating and Backfilling

Excavations shall conform to the requirements of Section 2-09 Structure Excavation. In areas of congested underground utilities the Contractor shall make provisions within the project schedule for less than optimal production rates.

The excavations required for the installation of conduit, vaults, and other appurtenances shall be performed in a manner to cause the least possible disturbance to the streets, sidewalks, and other improvements. The trenches shall not be excavated wider and/or deeper than necessary for the proper installation of the conduit, vaults, handholes, and other necessary appurtenances. Excavation shall not be performed until immediately before installation of conduit and other appurtenances. The material from the excavation shall be placed where the least interference to vehicular and pedestrian traffic, and to surface drainage, will occur.

Locations of conduit ducts and vaults shown in the plans are approximate. The Engineer, utility company representatives, and the Contractor will coordinate actual location of vaults, handholes and conduits as necessary to avoid conflicts with the existing and proposed utilities and appurtenances. The Contracting Agency reserves the right to adjust these locations as necessary to accommodate existing or newly installed utilities at no additional cost to the Contracting Agency.

Adjustments to the utility trench depth and width will be required when crossing utilities shown in the Plans as existing or proposed, and that the changes in depth will be done with field bends in the conduit, not conduit fittings.

If the Engineer determines that the native material is unsuitable for use as backfill, gravel borrow conforming to Section 9-03.14(1) of the Standard Specifications shall be used to backfill the trench.

All surplus excavated material shall be removed and disposed of by the Contractor in accordance with Section 2-03, or as directed by the Engineer.

Excavations after backfilling shall be kept well filled and maintained in a smooth and well drained condition until permanent repairs are made.

At the end of each day's work and at all other times when construction operations are suspended, all equipment and other obstructions shall be removed from that portion of the roadway open for use by public traffic.

Excavations in the street or highway shall be performed in such a manner that not more than one traffic lane is restricted in either direction at any time.

Pipe Zone Bedding within the "pipe zone" shall conform to Section 9-03.12(6). Trench backfill material, above the pipe zone, in non-pavement areas, shall be Gravel Borrow Including Haul conforming to Section 9-03.14(1) of the Standard Specifications. Backfill material in areas where full-depth pavement replacement is not occurring and inside the roadway area or where trenches cross the roadway shall be Controlled Density Fill. Backfill material above the pipe zone in full depth pavement reconstruction areas shall be Crushed Surfacing Base Course.

8-32.3(2) Removing and Replacing Improvements

Improvements such as sidewalks, curbs, gutters, Portland cement concrete and asphalt concrete pavement, bituminous surfacing, base material, and any other improvements removed, broken, or damaged by the Contractor, shall be replaced or reconstructed with the same kind of materials as found on the work or with other materials satisfactory to the Engineer.

Whenever a part of a square or slab of existing concrete sidewalk or driveway is broken or damaged, the entire square or slab shall be removed and the concrete reconstructed as above specified.

The outline of all areas to be removed in Portland cement concrete sidewalks and pavements and asphalt concrete pavements shall be cut to a minimum depth of 3 inches with a saw prior to removing the sidewalk and pavement material. The cut for the remainder of the required depth may be made by a method satisfactory to the Engineer. Cuts shall be neat and true with no shatter outside the removal area.

8-32.3(3) Conduit

Installation of conduit shall conform to appropriate articles of the NEC and these Specifications. The size of conduit used shall be as shown in the Plans.

The ends of all conduits shall be well reamed to remove burrs and rough edges. Field cuts shall be made square and true.

Conduit stubs from bases shall extend at least 6 inches from the vertical face of foundations and at least 18 inches below grade. All conduit stubs shall be capped.

Nonmetallic conduit bends, where allowed, shall conform to Article 347-13 of the NEC.

Conduit shall be laid to the depth required by each respective utility company standard but not less than 36 inches below finish grade.

Where new construction occurs, conduit shall be placed prior to placement of base course pavement. Conduit terminating in foundations shall extend a maximum of 2 inches above the foundation vertically.

Suitable marker stakes shall be set at the ends of conduits which are buried so that they can be easily located.

All conduits installed shall be prepared as follows:

After final assembly in place, the conduit shall be blown clean with compressed air. Then, in the presence of the Engineer, a cleaning mandrel correctly sized for each size of conduit shall be pulled through to ensure that the conduit has not been deformed. As soon as the mandrel has been pulled through, both ends of the conduit shall be sealed with conduit caps. Conduits noted as "spare" shall have a pull string installed and have a removable plug installed.

Existing conduit in place scheduled to receive new conductors shall have any existing conductors removed and a cleaning mandrel sized for the conduit shall be pulled through.

8-32.3(4) Vaults, Handholes and Appurtenances

Vaults, handholes, and other appurtenances shall be installed at the locations shown in the Plans. Vault and handhole installation shall conform to the respective utility companies standards. Vaults and handholes shall be adjusted to be flush with the finished grade.

8-32.3(5) Existing Utilities

The Contractor is alerted to the presence of existing underground utilities within the project area. The Project plans indicate approximate locations of those utilities, however it is the responsibility of the Contractor to verify those locations prior to excavation.

The Contractor shall prepare and submit to the Engineer a written trench excavation plan that indicates the location of existing utilities within the trench and vault excavation areas. Depth to existing utilities based on pothole data provided, and potholing information obtained by the Contractor shall be shown.

Conflicts between existing utilities, new conduit, new vaults, handholes, and appurtenances shall be shown. The Contractor will identify those conflicts requiring immediate resolution based on the CPM schedule and request in writing to the Engineer authorization to resolve unforeseen conflicts per 8-31 Resolution of Existing Utility Conflicts. Upon authorization, the Contractor shall diligently and without delay perform such work as necessary to resolve the conflicts.

The Contractor shall protect and support all existing utilities not identified to be removed, relocated, or abandoned. The existing telecommunication and electrical system shall remain operational during the installation of the underground utility system. The respective utility companies will furnish and install all conductors and make all final connections necessary to energize the system.

Verizon or their contractors will require approximately 10 working days of construction crew time to complete and energize the new underground distribution system. The Contractor shall coordinate the installation of conduits and vaults to accommodate the utility company requirements in the total number of working days allowed. The Contractor is responsible for coordinating and planning adjacent work with the appropriate utility to avoid impacts and delays to the project schedule. The Contractor will be responsible for coordinating with all the utility companies and incorporating time allowances into the project schedule for these work elements.

8-32.4 Measurement

Excavation of the trench will be measured as "Structure Excavation Class B Incl. Haul for Under grounding Overhead Utilities", by the cubic yard as specified in Section 2-09. When excavation below grade is necessary, excavation will be measured to the limits ordered by the Engineer.

"Pitrun Sand", will be measured by the cubic yard.

"Install Conduit ____In." will be measured by the linear foot for the actual neat line length in place.

"Install Vault, Type __" will be measured per each, installed complete in place.

"Provide and Install Conduit 2 In. " will be measured per linear foot in place.

"Joint Trench Provide and Install WSDOT Type 1 Junction Box" will be measured per each, complete in place.

8-32.5 Payment

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

"Pitrun Sand", per cubic yard. The unit contract price will be full pay for all labor, materials, tools and equipment necessary to furnish, haul, place and compact Pitrun Sand required for utility trench bedding.

"Provide and Install Conduit, 2 In.", per linear foot.

"Joint Trench Provide and Install WSDOT Type 1 Junction Box", per each.

"Install Conduit ____ In.", per linear foot. The unit contract price will be full pay for complete installation including connection to existing vaults, pole risers, testing and other items in accordance with the Plans and these Special Provisions.

"Relocate Vault", per each. The unit contract price will be full pay for complete relocation with lid in accordance with the Plans and these Special Provisions.

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“Excavation for Intercepting Verizon conduit”, per force account.

Payment for excavation for retraining PSE conduit will be as provided in Section 1-09.6, unless such work is explicitly included as a part of another pay item in the contract. Payment will only be made under this item for excavation work required to intercept and retrain existing underground services as directed by the Engineer or Engineer authorized PSE representative.

END OF DIVISION 8

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DIVISION 9 MATERIALS

9-03 AGGREGATES

9-03.12 Gravel Backfill

9-03.12(6) Pit Run Sand

(April 12, 2018 CFW GSP)

Section 9-03.12(6) is a new section:

| <u>Sieve Size</u> | <u>Percent Passing</u> |
|-------------------|------------------------|
| 3/8" square | 100 |
| U.S. No. 4 | 90 |
| Sand Equivalent | 30 minimum |

9-03.14(3) Common Borrow

(April 12, 2018 CFW GSP)

Section 9-03.14(3) is modified with the following requirements:

Material from on-site excavations meeting the requirements for Common Borrow shall be used to the extent practicable. Material for common borrow shall consist of granular soil and/or aggregate which is free of trash, wood, debris, and other deleterious material.

Common Borrow material shall be at the proper moisture content for compaction. This material is generally moisture sensitive. The natural moisture content shall range from not more than 1 percent wet of optimum to not more than 3 percent dry of optimum as determined in accordance with Section 2-03.3(14)D. The material shall not pump or yield under the weight of compaction equipment and construction traffic. The Contractor is responsible for protecting the material from excess moisture wherever/whenever possible. To the extent practicable, this material should be handled only during non-rainy periods and should be removed, hauled, placed, and compacted into final embankments without intermediate handling or stockpiling. Surfaces should be graded and sloped to drain and should not be left uncompacted.

Common Borrow shall meet the following gradation limits:

| Sieve Size | Percent Passing (by weight) |
|------------------------|------------------------------------|
| 6" square ¹ | 100 |
| 4" square | 90 – 100 |
| 2" square | 75 - 100 |
| U.S. No. 4 | 50 - 80 |
| U.S. No. 40 | 50 max. |
| U.S. No 200 | 25 max. |

¹ For geosynthetic reinforced walls or slopes, 100percent passing 1¼-inch square sieve and 90 to 100 percent passing the 1-inch square sieve.

Common Borrow shall contain sufficient fines for compaction and to bind the compacted soil mass together to form a stable surface when heavy construction equipment is operated on its surface.

9-05 DRAINAGE STRUCTURES AND CULVERTS

9-05.15 Metal Castings

9-05.15(4) Heavy Duty Hinged Style Ductile Iron Frame and Cover (December 2, 2019 CFW GSP)

Section 9-05.15(4) is a new section:

Heavy-Duty hinged style ductile iron frame and covers shall meet the requirements for metal castings found in Section 9-05.15. The covers shall be hinged and incorporate a 90-degree blocking system to prevent accidental closure. The cover shall be operable by one person using standard tools and shall allow for the cover to open to 120-degrees where it can either remain open in a secure position or be removed if needed. The cover pick slot shall provide a solid point of removal for most removal tools and be designed to eliminate surface water inflow. The covers shall be lockable with a cam lock assembly and have a cap or cover to prevent debris from entering and preventing access to the lock assembly. Keys for all lock assemblies will be provided to the City. The frame and cover assembly shall be capable of withstanding a test load of 100,000 lbs and include a "T" shaped durable gasket to cushion traffic shock and resist water infiltration. The frame and cover assembly shall be circular, compatible with City of Federal Way standard top slab openings, and available in a 24-inch clear opening. The frame and cover depth shall not exceed 4 inches and the flange shall incorporate bedding slots and bolt holes. The cover shall be installed with the hinge facing oncoming traffic so the lid will open towards traffic.

Heavy-Duty Hinged Style Frame & Cover shall be ERGO Assembly: Product Number 00104040L01, Manufactured by EJ Group, Inc., 301 Spring Street, PO Box 439, East Jordan, MI 49727, (800)626-4653, www.ejco.com

9-05.15(5) High Impact Multi-Purpose Rubber Composite Adjustment Risers (December 2, 2019 CFW GSP)

Section 9-05.15(5) is a new section:

Risers shall be minimum 80% by weight recycled rubber and minimum 10% by volume recycled RFL fiber. Adjustment risers shall be of uniform quality and free from cracks, holes, and any other surface defects. Adjustment risers shall be designed for heavy duty street traffic and shall meet or exceed minimum load capacity requirements of AASHTO. Adjustment risers shall be installed as a single unit and shall not be cut into pieces or used as shims. Manufacturer certification shall be furnished upon request stating that the product meets the requirements of this specification. Risers shall be available in standard thicknesses from 1/2-inch to 3-inches; available flat or tapered; and in round, square, and rectangular shapes.

High Impact Adjustment Riser shall be Infra-Riser Multi-Purpose Rubber Composite Adjustment Riser, EJ Group, Inc., 301 Spring Street, PO Box 439, East Jordan, MI, 49727, (800)626-4653, www.ejco.com

9-14 EROSION CONTROL AND ROADSIDE PLANTING

9-14.2 Topsoil

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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 comprised 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 |

9-14.3 Seed
(June 12, 2020 CFW GSP)

Section 9-14.3 is supplemented 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. Seed shall be applied at manufacturer's recommended rate. Hydroseed shall be composed of the following varieties mixed in the proportions indicated, or approved equal:

| SEEDED LAWN MIXTURE | | | |
|---|---------------------------|--------------------------|-------------------------------|
| NAME | BY WEIG HT | % PURI TY | % GERMINATI ON |
| Tall Fescue / Festuca arundinacea | 40% | 98% | 90% |
| Creeping Red Fescue / Festuca rubra | 25% | 98% | 90% |
| Highland Colonial Bentgrass / Agrostis capillaris var. 'Highland' | 5% | 98% | 90% |
| Perennial Rye / Lolium perenne (blend of two: 'Fiesta II', 'Prelude II', 'Commander') | 30% | 95% | 90% |

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.

9-14.5 Mulch and Amendments

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.

9-14.7 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:

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.

9-15 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 stem, 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.

SECTION 9-21 RAISED PAVEMENT MARKERS (RPM)

9-21.2(1) Physical Properties

(March 13, 2012 CFW GSP)

Section 9-21.2(1) is supplemented with the following:

Type 2 raised pavement markers shall NOT be ceramic.

SECTION 9-28 SIGNING MATERIALS AND FABRICATION

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CFW SPECIAL PROVISIONS VER. 2021.01B

9-28.1 General

(January 8, 2013 CFW GSP)

Paragraph three is deleted and replaced with the following:

All regulatory (R series), school (S series), and warning (W and X series) signs, except for parking regulation, parking prohibition signing and signs of fluorescent yellow color shall be constructed with Type III Glass Bead Retroreflective Element Material sheeting in accordance with Section 9-28.12 of the Standard Specifications. This sheeting has a retro reflection rating of 250 candelas/foot candle/square foot for white-silver sheeting with a divergence angle of 0.2 degrees and an incidence angle of minus 4 degrees. This high intensity sheeting shall be Type III sheeting or greater. All street name (D-3) sign sheeting shall meet this specification. The reflectivity standard of supplemental plaques shall match that of the primary sign.

All overhead signing, all regulatory (R series) of fluorescent yellow color and all school (S series) of fluorescent yellow color shall meet the specifications of Type IX Micro Prismatic Retroreflective Element Material sheeting in accordance with Section 9-28.12 of the Standard Specifications. This standard applies to all signs mounted above the roadway, on span wire or signal mast arms and all regulatory (R series) and school (S series) signs of fluorescent yellow color. The reflectivity standard of supplemental plaques shall match that of the primary sign.

Motorist information and parking signing shall be constructed with Type I Glass Bead Retroreflective Element Material sheeting in accordance with Section 9-28.12 of the Standard Specifications. The reflectivity standard of supplemental plaques shall match that of the primary sign.

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

(January 8, 2013 CFW GSP)

Section 9-28.8 table is deleted and replaced with the following:

| <u>Maximum Dimension</u> | <u>Blank Thickness</u> |
|---|------------------------|
| Less than 30 inches | 0.080 inches |
| Greater than 30 inches, less than 48 inches | 0.100 inches |
| Greater than 48 inches | 0.125 inches |

Section 9-28.8 is supplemented with the following:

All permanent signs shall be constructed from aluminum sign blanks unless otherwise approved by the Engineer. Sign-blank minimum thicknesses, based on maximum dimensions, shall be as follows:

All D-3 street-name signs shall be constructed with 0.100-inch-thick blanks. The Contractor shall install permanent signs which meet or exceed the minimum

reflectivity standards. All sign face sheeting shall be applied to sign blanks with pressure sensitive adhesives.

9-28.9 Fiberglass Reinforced Plastic Signs

(December 18, 2009 CFW GSP)

Section 9-28.9 is deleted in its entirety.

9-28.14 Sign Support Structures

(January 8, 2021 CFW GSP)

Section 9-28.14 is supplemented with the following:

Unless otherwise noted on the plans or approved by the engineer, all sign posts shall be steel sign posts.

SECTION 9-29 ILLUMINATION, SIGNAL, ELECTRICAL

9-29.1 Conduit, Innerduct, and Outerduct

(June 5, 2000 WSDOT NWR)

Section 9-29.1 is supplemented with the following:

Conduit Coatings

Conduit fittings for steel conduit shall be coated with galvanizing repair paint in the same manner as conduit couplings. Electroplated fittings are not allowed.

Steel conduit entering concrete shall be wrapped in 2-inch-wide pipe wrap tape with a minimum 1-inch overlap for 12 inches on each side of the concrete face. Pipe wrap tape shall be installed per the manufacturer's recommendations.

(October 23, 2014 CFW GSP)

Fiber optic cable conduit shall be supplied as a system from a single manufacturer providing all of the conduit, all required fittings, termination and other installation accessories; all in accordance with the Contract Documents.

9-29.1(1) Rigid Metal Conduit, Galvanized Steel Outerduct, and Fittings

(August 10, 2009 WSDOT NWR)

Section 9-29.1(1) is supplemented with the following:

Conduit Sealing

Mechanical plugs for cabinet conduit sealing shall be one of the following:

1. Tyco Electronics - TDUX
2. Jackmoon – Triplex Duct Plugs
3. O-Z Gedney – Conduit Sealing Bushings

The mechanical plug shall withstand a minimum of 5 psi of pressure.

9-29.1(2) Rigid Metal Conduit Fittings and Appurtenances

(August 10, 2009 WSDOT NWR)

Section 9-29.1(2) is supplemented with the following:

Conduit Coatings

Electroplated couplings are not allowed.

(March 4, 2009 WSDOT NWR)

Surface Mounting Conduit Attachment Components

Channel supports and all fastening hardware components shall be Type 304 stainless steel.

9-29.1(11) Foam Conduit Sealant

(January 7, 2019 WSDOT Option 1)

Section 9-29.1(11) is supplemented with the following:

The following products are accepted for use as foam conduit sealant:

- CRC Minimal Expansion Foam (No. 14077)
- Polywater FST Foam Duct Sealant
- Superior Industries Foam Seal
- Todol Duo Fill 400

9-29.2 Junction Boxes, Cable Vaults and Pull Boxes

9-29.2(1)A Standard Duty Junction Boxes

(April 12, 2018 CFW GSP)

Section 9-29.2(1) is supplemented with the following:

Concrete Junction Boxes

For junction boxes located within the sidewalk, along an ADA pedestrian route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, both the lid and frame shall be treated with one of the following slip-resistance products:

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

Where the exposed portion of the frame is 1/2 inch wide or less the slip-resistant treatment may be omitted on that portion of the frame.

The slip-resistant lid shall be identified with permanent marking on the underside indicating the type of surface treatment ("M1" for Mebac 1; "S3" for SlipNOT Grade 3-coarse; or "ST" for Safrax TH604) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a mild steel weld bead.

9-29.2(1)A2 Non-Concrete Junction Boxes

(February 3, 2020 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)A Standard Duty Cable Vaults and Pull Boxes

(April 12, 2018 CFW GSP)

Section 9-29.2(2)A is supplemented with the following:

For cable vaults and pull boxes located within the sidewalk, along an ADA pedestrian route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, both the lid and frame shall be treated with one of the following slip-resistance products:

4. Mebac1 manufactured by IKG Industries.
5. SlipNOT Grade 3-coarse manufactured by W.S. Molnar Company.
6. Safrax TH604 Non-Skid manufactured by Thermion.

Where the exposed portion of the frame is 1/2 inch wide or less the slip-resistant treatment may be omitted on that portion of the frame.

The slip-resistant lid shall be identified with permanent marking on the underside indicating the type of surface treatment ("M1" for Mebac 1; "S3" for SlipNOT Grade 3-coarse; or "ST" for Safrax TH604) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a mild steel weld bead.

9-29.2(5)E Fiber Vaults
(March 15, 2012 CFW GSP)

Section 9-20.2(5)E is a new section:

Where fiber vaults are called for on the Drawings, the Contractor shall provide pre-cast utility vaults meeting ASTM C 478 with twenty-eight (28) day 5500 psi minimum compressive strength concrete and designed for H-20 loading unless otherwise indicated on the Drawings.

The communications/fibers vault, shall be a type 444-LA manufactured by Oldcastle Precast, Inc. or approved equivalent, or a WSDOT Pull Box or cable vault per WSDOT Standard Plan J.90.10 and J.90.20. The fiber vaults are to be provided with a racking hardware package for cable storage and mounting of the splice case. The vault cover shall have a bolt-down, non-skid surface and a ground strap.

For fiber vaults located within the sidewalk, along an ADA pedestrian route, or in other accessible surfaces within the public right-of-way or on publicly owned properties, both the lid and frame shall be treated with one of the following slip-resistance products:

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

Where the exposed portion of the frame is 1/2 inch wide or less the slip-resistant treatment may be omitted on that portion of the frame.

The slip-resistant lid shall be identified with permanent marking on the underside indicating the type of surface treatment ("M1" for Mebac 1; "S3" for SlipNOT Grade 3-coarse; or "ST" for Safrax TH604) and the year manufactured. The permanent marking shall be 1/8 inch line thickness formed with a mild steel weld bead.

Fiber vaults shall contain a splice enclosure.

Fiber Optic Splice Closure shall be a Coyote Closure manufactured by Preformed Line Products or equivalent, shall be suitable for both vault and aerial applications, and shall meet the following requirements:

1. Be made of two injection-molded high-density thermoplastic shells, be 22 inches in length and 6 inches in diameter, and have capacity to store up to four splice trays.
2. Each splice case shall have two end plates; one end plate shall have no ports, the other endplate shall consist of a three section end plate with six ports - two 3/4-inch ports and four 7/8-inch ports. Each unused port shall have a grommet installed. The end plates shall be durable glass-filled high-density thermoplastic shells.
3. The splice enclosure shall be suitable for outdoor applications with a temperature range of -10°C to 60°C.
4. The splice enclosure shall provide sufficient space to allow entry of fiber optic cable without exceeding the cable minimum bending radius.
5. The enclosure shall protect the splices from moisture and mechanical damage and shall be resistant to corrosion.
6. The enclosure shall be waterproof, re-enterable and shall have a neoprene gasket sealing system to prevent water from entering.
7. The enclosure shall permit selective splicing to allow one or more fibers to be cut and spliced without disrupting other fibers.
8. The enclosure shall have strain relief for the cable to prevent accidental tension from disturbing the splices.
9. Each splice tray will be able to store 36 splices securely. Each splice shall be individually mounted and mechanically protected on the splice tray. Vinyl markers shall be supplied to identify each fiber spliced within the enclosure.

9-29.3 Fiber Optic Cable, Electrical Conductors and Cable
(December 13, 2012 CFW GSP)

Section 9-29.3 is supplemented with the following:

Video cable from the camera (sensor) to the controller cabinet shall conform to the video detection manufacturer's recommendations.

9-29.3(2)F Detector Loop Wire
(April 12, 2018 CFW GSP)

Section 9-29.3(2)F is modified as follows:

Detector loop wire shall use 14 AWG stranded copper conductors, and shall conform to IMSA Specification 51-7, with cross-linked polyethylene (XLPE) insulation encased in a polyethylene outer jacket (PE tube).

9-29.3(2)H Three-Conductor Shielded Cable
(March 13, 2012 CFW GSP)

Section 9-29.3(2)H is supplemented with the following:

Lead-in cable back to the controller for pre-emption units shall be 6TT detector 138 cable or equivalent.

9-29.3(2)I Twisted Pair Communications Cable

(October 23, 2014 CFW GSP)

Section 9-29.3(2) is deleted in its entirety. See Section 8-20.3(8)A.

9-29.5 Vacant

(*****PROJECT-SPECIFIC SPECIAL PROVISION*****)

Section 9-29.5 is deleted and replaced with the following new section:

9-29.5 School Zone Beacon, Variable Speed Limit Sign & Rectangular Rapid Flashing Beacon (RRFB) Standards

Pole Foundations: Shall be as indicated on the plans.

Sign Poles, Bases, and Caps:

Sign poles shall be 4" – 8 NPT Schedule 40, galvanized steel meeting the following minimum requirements:

| | |
|-------------------------------|----------------------|
| Standard 4" Sch 40 | ASTM A53 Grade B ERW |
| Tensile Strength, KSI | 60 |
| Yield Strength, KSI | 35 |
| Weight Per Foot | 10.79 lb. |
| Standard Wall Thickness | 0.237" |
| Outside Diameter | 4.5" |

Threading and deburring of the Pedestal Pole shall be in accordance with the basic dimensions of American National Standard Taper Pipe Threads, NPT (ANSI B1.2).

The pole shall be pre-galvanized or galvanized after fabrication meeting the requirements below:

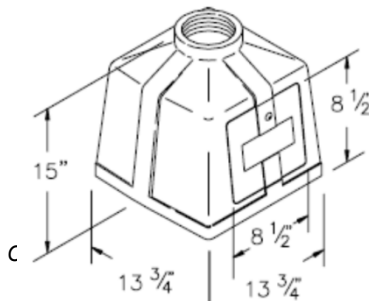
1. Pre-Galvanized: Pipe shall have clean square saw cuts and free of burrs. After threading threads shall be sprayed with a rust-protective zinc-rich coating. Galvanizing shall be a minimum of 1.6 oz./ft.².
2. Galvanized After Fabrication: Pipe shall have clean square saw cuts and free of burrs. Pole shall be hot dipped galvanized to comply with ASTM A-123 with a minimum of 1.6 oz./ft² after fabrication. Threads shall be heated and brushed to remove excess zinc.
3. MILL CERTIFICATION: Mill test reports to be maintained and supplied on request.

PACKAGING: Threaded end shall have protective cap to prevent thread damage. Cardboard sleeve shall cover the entire length of shaft to protect surface finish during storage and shipment.

Pole caps shall be Dome Type, aluminum, fitting a 4 ½-inch OD pole, with a stainless steel set screw, sq hd, ¼"-20 X ½ ".

The pole base shall be square aluminum pedestal base with aluminum door meeting the following minimum requirements:

1. Square cast aluminum with natural finish, minimum weight of 21 lbs. with dimensions as shown in the Figure below.



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2. Upper end shall be threaded to receive a 4" NPT pipe shaft. Base threads shall be tapped to allow full pole engagement w/o exposed threads on the pole.
3. Shall be of such design that it may be fastened to a foundation with four (4) 3/4" anchor bolts located 90 degrees apart on the bottom of the base.
4. There shall be slots in the bottom of the base 1½" wide and 2½" long measured along the circumference of the bolt circle, allowing a proper fit even if the bolts are placed slightly off center.
5. Shall accommodate bolt circles of a minimum of 12" through a maximum of 14½" and anchor bolts with a minimum of 5/8" through 1" diameter.
6. Shall be equipped with a removable aluminum door. Door opening shall be free of burrs and sharp edges and be no less than 8½" square. The door shall be attached to the base using one stainless steel socket button head screw to prevent unauthorized entry.
7. Shall be fabricated free of voids, pits, dents, molding sand and excessive foundry grinding marks. All design radii shall be smooth and intact. Exterior surface finish shall be smooth and cosmetically acceptable by being free of molding fins, cracks and other exterior blemishes.
8. Shall be fabricated from new aluminum ingot. No scrap materials shall be used. Minimum requirements as follows:
 - a. Aluminum Alloy319 Elongation (% in 2")2
 - b. Tensile Strength, KSI.....27 Brinell Hardness.....70-100
 - c. Yield Strength, KSI18

FRANGIBILITY: The base shall meet or exceed 1985 AASHTO breakaway requirements. Test reports from an FHWA approved independent laboratory shall be provided certifying that the base has been tested and meets all applicable requirements. In addition, a statement of certification from the FHWA stating such tests have been accepted and approved shall be supplied.

STRUCTURAL INTEGRITY: In order to prove structural soundness a certification from a recognized independent structural laboratory shall be provided certifying that the base will withstand a bending moment of 10,750 ft. lbs. Such test shall be performed in the following manner:

1. A force shall be applied at a distance from the bottom of the base in order to produce a moment. All bases must reach a moment capacity of 10,750 ft. lbs. without breaking, cracking or rupturing in any manner.
2. After force has been removed, the lever arm shall return to within .250" of its original rest position.
3. All tests shall be made using 4" schedule 40 Steel Pipe.

A reinforcing collar shall be installed at the top of the pole base in accordance with manufacturers' instructions. The collar shall be a three segment assembly designed to retrofit onto an existing square cast aluminum or iron pedestal base. The collar shall meet the following minimum requirements:

MATERIAL: Reinforcing collar shall be three-piece cast aluminum with the minimum requirements:

| | |
|------------------------------|--------|
| Aluminum Alloy | 713 |
| Tensile Strength, KSI | 32 |
| Yield Strength, KSI..... | 22 |
| Elongation (% in 2") | 3 |
| Brinell Hardness..... | 70 |
| Minimum Wall Thickness | 5/8" |
| Minimum Overall Height..... | 4-3/8" |

INSTALLATION: The collar shall be clamped around the top of a pedestal base by the use of two (2) 5/16" Socket Head Bolts per segment (Figure 1). Each segment shall have a 5/16" pilot hole for drilling through base. A 5/16" x 3/4" Roll Pin shall be driven through the collar into the base until flush to prevent the collar from walking up the base.

HARDWARE: (6) 5/16"-18 x 1½" Socket Head Capscrews (3) 5/16" Dia. x 3/4" Roll Pins

FINISH: Collar Segment: Alodine 1200

FASTENERS: Zinc w/ Yellow Di-Chromate

In addition to meeting the above requirements, all poles, bases, collars, caps and related hardware shall be fully interchangeable with the following items manufactured by Pelco Products, Inc., Edmond, Oklahoma, such that any individual component can be replaced without requiring replacement of the entire system:

- Pedestal pole, Model No PB-5200
- Square Base Assembly, Model No PB-5334
- Pole Cap, Model No PB-5402
- Pole & Base Collar Assembly, Model No PB-5325

9-29.6 Light and Signal Standards

(December 18, 2009 CFW GSP)

Section 9-29.6 is supplemented with the following:

Light standards shall be tapered round aluminum tube C-wall alloy 6063 satin brushed finish with Davit bracket arm, as shown in Federal Way Standard Detail herein, except that luminaire mounting height shall be as shown on the Illumination Pole Schedule.

(January 13, 2020 WSDOT GSP, OPTION 5)

Section 9-29.6 is supplemented with the following:

Traffic Signal Standards

Traffic signal 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 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.

Hardened washers shall be used with all signal arm connecting bolts instead of lockwashers. All signal arm ASTM F 3125 Grade A325 connecting bolts tightening shall comply with Section 6-03.3(33).

Traffic signal standard types and applicable characteristics are as follows:

Type PPB

Pedestrian push button posts shall conform to Standard Plan J-20.10 or to one of the following pre-approved plans:

| Fabricator | Pre-Approved Drawing No. |
|-------------------------------|--|
| Valmont Ind. Inc. | DB01165 Rev. B (4 sheets) |
| Ameron Pole Products Div. | WA15TR10-1 Rev. C (1 sheet) and WA15TR10-3 Rev. B (1 sheet) |
| Millerbend Manufacturing, Co. | 74514-WA-PED-PPB Rev H (2 sheets) |

Foundations shall be as noted in Standard Plan J-20.10

Type PS, Type I, Type RM, and Type FB

Type PS pedestrian signal standards, Type I vehicle signal standards, Type RM ramp meter signal standards, and Type FB flashing beacon standards shall conform to Standard Plan J-20.16, J-21.15, J-21.16, and J-22.15 respectively, or to one of the following pre-approved plans:

| Fabricator | Pre-Approved Drawing No. |
|-------------------------------|--|
| Valmont Ind. Inc. | DB01165 Rev. B (4 sheets) |
| Ameron Pole Products Div. | WA15TR10-1 Rev. C (1 sheet) and WA15TR10-2 Rev. C (1 sheet) |
| Millerbend Manufacturing, Co. | 74514-WA-PED-FB Rev. H (2 sheets) |
| Millerbend Manufacturing, Co. | 74514-WA-PED-SB Rev H (2 sheets) |

Foundations shall be as noted in Standard Plan J-21.10.

Type II

Type II signal standards are single mast arm signal standards with no luminaire arm or extension. Type II standards shall conform to one of the following pre-approved plans. Maximum arm length (in feet) and wind load (XYZ value, in cubic feet) is noted for each manufacturer.

| Fabricator | Pre-Approved Drawing No. | Max. Arm Length (ft) | Max. Wind Load |
|------------|--------------------------|----------------------|----------------|
|------------|--------------------------|----------------------|----------------|

| | | | (XYZ) (ft ³) |
|-------------------------------|--|----|--------------------------|
| Valmont Ind., Inc. | DB00162 Rev. B (5 sheets) | 65 | 3206 |
| Ameron Pole Products Division | WA15TR3724-1 Rev. C (sheet 1 of 2), and WA15TR3724-2 Rev. D (sheet 2 of 2) | 65 | 2935 |
| Millerbend Manufacturing, Co. | 74516-WA-TS-II Rev. H (3 sheets) | 65 | 3697 |

Foundations shall be as noted in the Plans and Standard Plan J-26.10. Type II signal standards with two mast arms installed 90 degrees apart may use these pre-approved drawings. Standards with two arms at any other angle are Type SD and require special design.

Type III

Type III signal standards are single mast arm signal standards with one Type 1 (radial davit type) luminaire arm. The luminaire arm has a maximum length of 16 feet and a mounting height of 30, 35, 40, or 50 feet, as noted in the Plans. Type III standards shall conform to one of the following pre-approved plans. Maximum arm length (in feet) and wind load (XYZ value, in cubic feet) is noted for each manufacturer. Wind load limit includes a luminaire arm up to 16 feet in length.

| Fabricator | Pre-Approved Drawing No. | Max. Arm Length (ft) | Max. Wind Load (XYZ) (ft ³) |
|-------------------------------|---|----------------------|---|
| Valmont Ind., Inc. | DB00162 Rev. B (5 sheets), with Type "J" luminaire arm | 65 | 3259 |
| Ameron Pole Products Division | WA15TR3724-1 Rev. C (sheet 1 of 2), and WA15TR3724-2 Rev. D (sheet 2 of 2), with Series "J" luminaire arm | 65 | 2988 |
| Millerbend Manufacturing, Co. | 74516-WA-TS-II Rev. H (4 sheets) | 65 | 3750 |

Foundations shall be as noted in the Plans and Standard Plan J-26.10. Type III signal standards with two mast arms installed 90 degrees apart may use these pre-approved drawings. Standards with two arms at any other angle are Type SD and require special design.

Type IV

Type IV strain pole standards shall be consistent with the Plans and Standard Plan J-27.15 or one of the following pre-approved plans:

| Fabricator | Pre-Approved Drawing No. |
|-------------------------------|---------------------------------|
| Valmont Ind. Inc. | DB01167 Rev. B (2 sheets) |
| Ameron Pole Products Div. | WA15TR15 Rev. A (2 sheets) |
| Millerbend Manufacturing, Co. | 74554-WA-SP-IV Rev H (2 sheets) |

Foundations shall be as noted in the Plans and Standard Plan J-27.10.

Type V

Type V strain poles are combination strain pole and light standards, with Type 1 (radial davit type) luminaire arms. Luminaire arms may be up to 16 feet in length, and a mounting height of 40 or 50 feet, as noted in the Plans. Type V strain poles shall be consistent with the Plans and Standard Plan J027.15 or one of the following pre-approved plans:

| Fabricator | Pre-Approved Drawing No. |
|-------------------------------|---------------------------------|
| Valmont Ind. Inc. | DB01167 Rev. B (2 sheets) |
| Ameron Pole Products Div. | WA15TR15 Rev. A (2 sheets) |
| Millerbend Manufacturing, Co. | 74554-WA-SP-V Rev J (3 sheets) |

Foundations shall be as noted in the Plans and Standard Plan J-27.10.

Type CCTV

Type CCTV camera pole standards shall conform to Standard Plan J-29.15 or to one of the following pre-approved plans:

| Fabricator | Pre-Approved Drawing No. |
|-------------------------------|---------------------------------|
| Valmont Ind. Inc. | DB01166 Rev. C (4 sheets) |
| Ameron Pole Products Div. | WA15CCTV01 Rev.BA (2 sheets) |
| Millerbend Manufacturing, Co. | 74577-WA-LC1 Rev H (2 sheets) |
| Millerbend Manufacturing, Co. | 74577-WA-LC2 Rev. H (2 sheets) |
| Millerbend Manufacturing, Co. | 74577-WA-LC3 Rev H (3 sheets) |

Foundations shall be as noted in the Plans and Standard Plan J-29.10.

Type SD

Type SD signal standards are outside the basic requirements of any pre-defined signal standard and require special design. All special design shall be based on the latest AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals and pre-approved plans and as follows:

1. A 115 mph wind loading shall be used.

2. The Mean Recurrence Interval shall be 1700 years.
3. Fatigue category shall be III.

Complete calculations for structural design, including anchor bolt details, shall be prepared by a Professional Engineer, licensed under Title 18 RCW, State of Washington, in the branch of Civil or Structural Engineering or by an individual holding valid registration in another state as a civil or structural Engineer.

All shop drawings and the cover page of all calculation submittals shall carry the Professional Engineer's original signature, date of signature, original seal, registration number, contract title, and sequential index to calculation page numbers. Two copies of the associated design calculations shall be submitted for approval along with shop drawings.

Details for handholes and luminaire arm connections are available from the Bridges and Structures Office.

Foundations for Type SD standards shall be as noted in the Plans.

9-29.6(1) Steel Light and Signal Standards
(December 18, 2009 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 Standard Specifications for Support of Highway Signs, Luminaires, and Traffic Signals. Welding inspection shall comply with Section 6-03.3(25)A, Welding Inspection.

All traffic signal standards and arms shall be round tapered.

After delivering the poles or arms to the job site and before they are installed, they shall be stored in a place that will not inconvenience the public. All poles and arms shall be installed in compliance with Washington State Utility and Electrical Codes.

Terminal cabinet(s) shall be installed on all Type II and Type III signal poles or where designated on the wiring diagrams in the Plans in accordance with the material requirements of Section 9-29.25 of the Standard Specifications. Terminal cabinets shall be installed at a height not to impede pedestrians.

Galvanized steel light and signal standards shall not be painted.

9-29.6(5) Foundation Hardware
(January 13, 2021, WSDOT GSP, OPTION 1)

Section 9-29.6(5) is supplement 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.

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.

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

(March 13, 2012 CFW GSP)

Section 9-29.7(2) is supplemented with the following:

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

9-29.10 Luminaires

(March 7, 2018 CFW GSP)

Section 9-29.10 paragraph 3 and 4 are deleted and replaced with the following:

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

(January 11, 2019 CFW GSP)

Section 9-29.10(1) is supplemented with the following:

New roadway luminaire installations shall be cobra-head style light-emitting diode (LED), wattage per plan, with 7-pin photocell receptacle and shall be supplied and installed by the Contractor. 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.

Conductors serving the luminaires shall be copper of the size shown on the Plans and shall run to the service pole in separate conduit from the signal conductors as shown in the plan view. Fused quick disconnect wye cable connector kits shall be installed at the handhole inside the base of each pole supporting a luminaire. Top conductors from the pole base to the luminaire shall be a minimum No. 12 stranded copper. The grounding conductor shall be connected to the neutral terminal in the luminaire fixture.

Pole type and mounting heights shall be as specified in the Contract Plans and Standard Plans.

9-29.10(2) Vacant

(January 11, 2019 CFW GSP)

Section 9-29.10(2) is deleted and replaced with the following new section:

9-29.10(2) Decorative Luminaires

Section 9-29.10(2) is supplemented with the following:

All new decorative luminaire installations shall be light-emitting diode (LED) luminaires. LED luminaires must meet City standards for average maintained footcandles, uniformity ratio, mounting height, distribution pattern, and spacing as indicated in City of Federal Way Development Standard Drawing 3-42. LED luminaires shall have a correlated color temperature (CCT) of 4000K.

Pole and fixtures shall meet requirements of Special Provision 8-20.3(13)B, Decorative Light Standards.

9-29.10(3) Vacant

(January 11, 2019 CFW GSP)

Section 9-29.10(3) is deleted and replaced with the following new section:

9-29.10(3) L.E.D. Roadway Luminaires

All new roadway luminaire installations shall be Eaton Archeon light-emitting diode (LED) luminaires.

LED luminaires shall be furnished and installed by the Contractor. The units shall meet City standards for wattage, average maintained footcandles, uniformity ratio, mounting height, and distribution pattern, spacing, and model as indicated in City of Federal Way Development Standard Drawings 3-38 and 3-42. 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 Engineer. The Contractor shall provide a photometric plot of the proposed streetlight 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.
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/IEEE C62.41, 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.

Retro-fit Existing luminaires

LED luminaires shall be installed when existing luminaire replacement is required. Replacement LED luminaires shall meet the requirements of this chapter.

9-29.13 Control Cabinet Assemblies

9-29.13(2) Traffic Signal Controller Assembly Testing **(October 23, 2014 CFW GSP)**

Section 9-29.13(2) is supplemented with the following:

Replace all references to "WSDOT Materials Laboratory", "WSDOT facility", and "WSDOT" with "King County Traffic Maintenance".

9-29.13(10)A Auxiliary Equipment for NEMA Controllers
(February 2, 2012 CFW GSP)

Section 9-29.13(10)A is modified as follows:

Paragraph 1, Item 1 is supplemented with the following:

All flasher units shall as a minimum meet NEMA TS-2 1992, Section 6 requirements and shall be EDI Model 810 or approved equal.

Paragraph 1, Item 2 is supplemented with the following:

All load switches shall as a minimum meet NEMA TS-2 1992, Section 6 requirements and shall be EDI Model 510 or approved equal.

Paragraph 1, Item 3a is deleted and replaced with the following:

A 50-amp main breaker shall be supplied. This breaker shall supply power to the controller, MMU, signals, cabinet power supply, and auxiliary panels.

Paragraph 1, Item 3b is deleted and replaced with the following:

A 15-amp auxiliary breaker shall supply power to the fan, light, and GFI outlet.

Paragraph 1, Item 3c is supplemented with the following:

Spare neutral buss bars shall be provided on the bottom left and right of the cabinet.

Paragraph 1, Item 3 is supplemented with the following:

- g. A normally-open, 60-amp, solid-state device, "Crydom CWA 4850 relay", or approved equivalent.
- h. The power panel shall be covered by an easily removable, clear Plexiglas cover.

Paragraph 1, Item 4 is supplemented with the following:

Inside the police door there shall be a flash switch, which shall be the only switch on that panel. The switch shall have two positions, "Auto" and "Flash". The up position shall be "Auto" and result in normal signal operation. The down position shall be "Flash" and will put the signal into flashing operation and apply stop time to the controller. The switch shall be a general-purpose bat style toggle switch with 0.688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.

Paragraph 1, Item 6 is supplemented with the following:

Cabinets shall be equipped with a NEMA TS2 Type 16 Malfunction Management Unit.

Paragraph 1, Item 7, sub-paragraph 1 is deleted and the section is supplemented with the following:

The detector interface panel shall support up to 32 channels of detection and four channels of preemption devices.

Detector Racks

Two vehicle detector amplifier racks and two detector interface panels shall be provided in each cabinet. Each rack shall support up to 16 channels of loop detection, one 4-channel preemption device, and one BIU.

Paragraph 1, Item 8 is supplemented with the following:

There shall be terminal strips for field wiring in the controller cabinet. The terminals shall be numbered in accordance to the field wiring chart included in these Specifications. A common buss bar with a minimum of 15 spare terminals shall be available after the cabinet is fully wired. In addition, a 15 terminal bar shall be provided for the pedestrian common and a terminal shall be provided for each signal head neutral. The buss bars shall be located on the left side wall of the cabinet. Only King County numbers shall be shown, as described in Section 8-20.3(8).

Pedestrian Detector Field Wiring

All pedestrian detectors shall be connected between logic ground and their appropriate field terminal. The terminals shall be grouped together and located in the lower left side panel.

Main Panel and Wire Terminations

All wires terminated behind the main panel and other panels shall be SOLDERED. No pressure or solderless connectors shall be used. Printed circuit boards shall **NOT** be used on main panels.

Field Terminal Locations

Field terminals shall be located at the bottom of the backboard. Their order shall be left to right beginning with phase one and following the order of the load switches. Field terminals shall be of the Screw type per NEMA TS2 5.3.6.

Paragraph 1, Item 9 is supplemented with the following:

The cabinet shall be provided with a thermostatically-controlled (adjustable between 80-150 degrees F) ventilation fan and shall be installed in the top of the cabinet plenum.

Paragraph 1, Item 10 is deleted and replaced with the following:

The cabinet shall have an incandescent lighting fixture that shall be mounted on the inside top of the cabinet near the front edge. An on/off switch that is turned on when the cabinet door is opened and off when it is closed shall activate the incandescent light. The lamp socket shall be placed on the circuit with convenience outlets which shall be protected by a circuit breaker rated at 25 amps. An incandescent 150-watt bulb shall be provided.

Paragraph 1, Item 11 is supplemented with the following:

All Controller and Malfunction Management Unit cables shall be of sufficient length to access any shelf position. All cables shall be encased in a protective sleeve along their entire free length.

Color Coding

All cabinet wiring shall be color coded as follows:

| | | |
|----------------|---|-------------------------|
| Purple | = | MMU Wiring |
| Orange | = | Flash Color Programming |
| Brown | = | Green Signal Wiring |
| Yellow | = | Yellow Signal Wiring |
| Red | = | Red Signal Wiring |
| Blue | = | Controller wiring |
| Gray | = | DC ground |
| AC+ | = | Black |
| AC- | = | White |
| Chassis Ground | = | Green |

Paragraph 1 is supplemented with the following:

13. Main Panel Configuration - The main panel shall be fully wired in the following configuration:
 - a) Sixteen (16) load sockets.
 - b) Six (6) flash-transfer-relay sockets.
 - c) One (1) flasher socket.
 - d) Two (2) main panel rack slots for BIUs 1 and 2. Two rack slots for Terminal and Facilities BIU's 3 and 4 which shall be wired to numbered terminal strips.
 - e) Wiring for 2 detector racks and 1 Type-16 MMU.
14. Lightning Suppression - The cabinet shall be equipped with an Innovative Technologies Model HS-P-SP-120A-60A-RJ or approved equivalent surge arrester.
15. Convenience Outlets - One convenience outlet with a ground fault interrupter and a second convenience outlet without ground fault interrupter shall be furnished in the cabinet(s). The ground fault outlet shall be mounted one on right side of the cabinet, near the top shelf, and the non-ground fault outlet shall be mounted on the left side of the cabinet, near the top shelf. No outlets shall be mounted on the door. The convenience outlets shall be placed on the circuit with the lamp socket which shall be protected by a circuit breaker rated at 25 amps.
16. Loop Detector Units:
 - (a) Cabinets shall be supplied with eight 4-channel loop detectors minimum or sixteen 4-channel loop detectors maximum as shown on the Plans. Loop detectors shall meet TS2 Specifications.
 - (b) Equipment and loop detection for advanced loops shall be as shown in the plans.

17. Telemetry Interface Panel - All cabinets shall be wired with a telemetry interface panel and telemetry connecting cable so as to work with the master cabinet. In addition, every cabinet shall also be wired for transient suppression (Model # EDCO PC642C-00-AD or approved equivalent).
18. Preemption - The cabinet shall be completely wired to accept and service calls from GTT (formerly 3M) Opticom, Model 764 multimode phase-selector modules and their related optical-detector units.
19. Buss Interface Unit - Buss interface units (BIUs) shall meet all TS2-1992 Section 8 requirements. In addition, all BIUs shall provide separate front panel indicator light emitting diode (LEDs) for Valid Data.
20. Cabinet Power Supply - The cabinet power supply shall as a minimum meet all TS2-1992, Section 5.3.5 requirements. All power supplies shall also provide a separate front panel indicator LED for each of the four outputs. Front panel banana jack test points for 24 VDC and logic ground shall also be provided.
21. Fiber Optic Interconnect - The cabinet shall be furnished with equipment to accommodate the fiber optic interconnect cable including an IFS model D9130 fiber to serial modem or approved equal and RuggedCom brand Ethernet switch(s) including RuggedSwitch RS900G (fiber only), RuggedSwitch RS900L (fiber and copper) and/or RuggedSwitch RS930L (copper only) or approved equal(s).
22. Inside Control Panel Switches - Service Panel Switches
 - (a) Power Switches: There shall not be a main power switch inside the cabinet(s) that shall render all control equipment electrically dead when turned off. There shall be a controller power switch that shall render the controller and load switching devices electrically dead while maintaining flashing operation for purposes of changing the controller or load switching devices. The switch shall be a general-purpose bat style toggle switch with .688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.
 - (b) Stop Time Switch: There shall be a 3-position switch located inside the cabinet door identified as the Stop Time switch. Its positions shall be labeled "Normal" (up), "Off" (center), and "On" (down). With the switch in its Normal position, a stop timing command may be applied to the controller by the police flash switch or the conflict monitor unit. When the switch is in its "Off" position, stop-timing commands shall be removed from the controller. The "On" position of the switch shall cause the controller to stop timing. The switch shall be a general-purpose bat style toggle switch with .688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.
 - (c) Technician Flash Switch: There shall be a switch inside the cabinet to place the signal in flashing operation while the controller continues to operate. This flash shall have no effect on the operation of the controller or conflict monitor. The switch shall

be a general-purpose bat style toggle switch with .688-inch-long bat. The switch shall have a protective cover, which must be lifted to operate the switch.

- (d) Detector Test Switches: All eight controller phase inputs shall have push button momentary test switches. Each switch shall be connected to the first channel of each detector card input to the BIU. All eight pedestrian phases shall have push button momentary test switches by phase. These switches shall be located inside the cabinet door and labeled by associated phase number. A see-through Plexiglas cover shall cover all detector disconnect/test switches.
- (e) Preempt Test Switches: All Six preempt inputs shall have disconnect/test switches. These switches shall have three positions labeled "Normal" (up) which shall connect the controller to the Opticom output: "Off" (center) which shall isolate the controller from the Opticom output: and "Test" (down) which shall provide a momentary true input to the controller.
- (f) Switches shall be in groups of eight (8), matching the phase groupings of the intersection.

Section 9-29.13(10)C is supplemented with the following:

"Plug and Play" Cabinets are not acceptable.
"Modular" Main Panels shall not be permitted.

Section 9-29.13(10)C is modified as follows:

Paragraph 1, Item 1 is deleted and replaced with the following:

Cabinet Construction

A complete NEMA TS2 Type 1 eight-phase cabinet shall be supplied and installed by the Contractor. The size of the cabinet shall be Type 6 (P 55"). Cabinets shall meet, as a minimum, all applicable sections of the NEMA Standard Publication No. TS2-1998. Where differences occur, this Specification shall govern. The cabinets shall meet the following criteria:

1. Material shall be 5052-H32 0.125-inch-thick aluminum.
2. The cabinet shall be supplied with a natural finish inside and out, unless otherwise specified.
3. The door hinge shall be of the continuous type with a stainless steel hinge pin.
4. All external fasteners shall be stainless steel.
5. The door handle shall be cast aluminum.
6. All seams shall be sealed with RTV sealant or equivalent material on the interior of the cabinet.

Paragraph 1, Item 2 is deleted and replaced with the following:

The cabinet shall contain shelving, brackets, racks, etc., to support the controller and auxiliary equipment. All equipment shall set squarely on shelves or be mounted in racks and shall be removable without turning, tilting, rotating or relocating one device to remove another.

Shelf Height

The cabinet shall be supplied with two removable shelves manufactured from 5052-H32 aluminum. The shelves must have the ability of being removed and reinstalled WITHOUT the use of hand tools.

Paragraph 1, Item 4 is supplemented with the following:

Air Filter Assembly

The cabinet air filter shall be a one-piece removable, noncorrosive, vermin- and insect-proof air filter and shall be secured to the air entrance of the cabinet.

Paragraph 1 is supplemented with the following:

6. Additional Panel Space - Adequate space shall be left open for the addition of a master interface panel and an AVI interface panel.

9-29.14 Vacant

Section 9-29.14 is deleted and replaced with the following:

9-29.14 School Zone Beacon Control

(March 14, 2012 CFW GSP)

The calendar-activated school zone flashing beacon system shall be an, RTC School Zone Beacon System or approved equal whether solar-powered or hard-wired.

The school zone beacon system user interface shall be quickly and easily accessed . Programming shall be via a push-button keyboard integral to the unit with easy-to-use interface prompts. The controller shall have all calendar data stored locally to ensure timely activations in virtually all circumstances

The School Zone Beacon System shall consist of the following components:

1. Controller: The controller shall be an RTC AP22 time switch, or approved equal, equipped with a GPS receiver capable of accepting the time-of-day reference to update the time-of-day in the time switch for zero time drift to ensure on-time beacon activation.
2. Beacon: The beacon housing and frame shall be made of aluminum, and the beacon bulb shall have at least 150 individual LEDs. The total light emission per beacon shall be greater than 678 candelas. The beacon shall draw attention at distances greater than 1000 feet during the day and greater than 1 mile at night.
3. Redundant Calendar: There shall be no limit for day schedule on-off times. The user shall be able to configure calendars with a minimum of 10 years of scheduling. The controller shall have all calendar data stored locally so that in the event of an interruption, the controller shall be able to maintain scheduled activations.

4. On-Demand Activation, Test and Reports: Each system shall provide on-demand activation of beacons for emergency or any other purposes;, battery health (solar only), Beacon outage, and activation reports through the user interface.
5. Enclosure: The controller shall be housed in a vandal-resistant, aluminum, NEMA 3R pole-mounted aluminum cabinet with a lockable, hinged door. The enclosure shall be mounted at a height consistent with ADA guidelines while not requiring a bucket truck from maintenance.
6. Power Options: The controller unit shall be available in solar 12 VDC, 35 AHr equipped with 90W solar panels, or in 120 VAC, 50W versions. Solar-powered systems shall provide a minimum of 15 days of back-up battery power in the absence of sunlight while operating at full brightness and at standard usage levels.

9-29.18 Vehicle Detector

9-29.18(3) Video Detection System ***(June 12, 2020 CFW GSP)***

Section 9-29.18(3) is a new section:

All video detection system items and materials furnished shall be new, unused, current production models installed and operational in a user environment and shall be items currently in distribution. The products shall have a proven record of field use at other installations for at least two (2) years of service not including prototype field trials prior to installation. Contractor shall provide Econolite AutoScope Vision, Trafficon, GRIDSMART or approved equal video detection system. Approved equal video detection systems shall meet the following:

General

The detection of vehicles passing through the field-of-view of an image sensor shall be made available to a large variety of end user applications as simple contact closure outputs that reflect the current real-time detector or alarm state (on/off) or as summary traffic statistics that are reported locally or remotely. The contact closure outputs shall be provided to a traffic signal controller and comply with the National Electrical Manufacturers Association (NEMA) type C or D detector rack file standards.

The system architecture shall fully support Ethernet networking of system components through a variety of industry standard and commercially available infrastructures that are used in the traffic industry. The data communications shall support direct connect, modem and multi-drop interconnects. Simple, standard Ethernet wiring shall be supported to minimize overall system cost and improve reliability, utilizing existing infrastructure and ease of system installation and maintenance. Both streaming video and data communications shall be capable of being interconnected over long distance through fiber optic, microwave or other commonly used digital communications transport configurations.

In terms of the software application side of the network, the system shall be integrated through a client-server relationship. A communications server application shall provide the data communications interface between as few as one to as many as hundreds of Machine Vision Processors (MVP) sensors (otherwise referred to as video detection cameras with built in processors) and a number of client applications. The client applications shall either be hosted on the same PC as the communications server or may be distributed over a local area network of PC's using the industry standard TCP/IP network protocol. Multiple client applications shall execute simultaneously on the same host or multiple hosts, depending on the network configuration. Additionally, a web-browser interface shall allow use of industry standard internet web browsers to connect to MVP sensors for setup, maintenance and playing digital streaming video.

Approved equal GRIDSMART systems shall track individual vehicles entering the field of vision through detection zones from one camera located in the intersection, collect 24-hour approach volume, turning movement, and vehicle classification count data, and signal performance metrics. Larger intersections may require 2 cameras to include all advanced detection zones.

System Hardware

The video detection system hardware shall consist of the following components:

1. A color, 22x zoom Machine Vision Processor (MVP) sensor.
2. A modular cabinet interface unit.
3. A communication interface panel.
4. Surge suppresser/ lightning protection.
5. A portable color monitor to be permanently placed within the signal controller cabinet.
6. All other necessary equipment for setup, maintenance and operation of the video detection system including but not limited to programming device and specialty tools.

The real-time performance shall be observed by viewing the video output from the sensor with overlaid flashing detectors to indicate current detection state (on/off). The MVP sensor shall be capable of optionally storing cumulative traffic statistics internally in non-volatile memory for later retrieval and analysis.

The MVP shall communicate to the modular cabinet interface unit via the communications interface panel and the software applications using the industry standard TCP/IP network protocol. The MVP shall have a built-in, Ethernet-ready, Internet Protocol (IP) address and shall be addressable with no plug in devices or converters required. The MVP shall provide standard MPEG-4 streaming digital video. Achievable frame rates vary from 5 to 30 frames per second as a function of video quality and available bandwidth.

The modular cabinet interface unit shall communicate directly with up to eight (8) MVP sensors and shall comply with form factor and electrical characteristics to plug directly into a NEMA type C or D detector rack providing up to thirty-two (32) inputs and sixty-four (64) outputs to a traffic signal controller.

The communications interface panel shall provide four (4) sets of three (3) electrical terminations for three wire power cables for up to eight (8) MVP sensors that may be mounted on a pole or mast arm with a traffic signal cabinet or junction box. The communication interface panel shall provide high-energy transient protection to electrically protect the modular cabinet interface unit and connected MVP sensors. The communications interface panel shall provide single-point Ethernet connectivity via RJ45 connector for communication to and between the modular cabinet interface module and the MVP sensors.

The Gridsmart detection system shall consist of the following components and (part numbers):

1. One GRIDSMART ultra-wide angle fisheye camera with sealed enclosure. (GS-3-CAM) A second camera may be required at larger intersections as determined by the City Traffic Engineer.
2. One GRIDSMART GS2 Processing Unit, rack or shelf mount with two camera interface and GRIDSMART software. (GS-3-GS2)
3. One GRIDSMART TS2 Connector Kit for GS-3-GS2, includes SDLC connector to be used for TS2 environments. (GS2-TS2-OPT)
4. One SDLC Patch Cable, 6ft minimum. (WPS-SDLC)
5. One Swivel Bracket Camera Mounting Hardware with junction box and connector. (GS-3-SMC)
6. One Standard Cable Clamp, 66" cable length, natural aluminum finish. (SBC66-SCK)
7. One Video Detection Camera Mounting Arm Pole, 90 degrees, 58". (GS-3-A58)
8. Up to 300 feet of Detection Comm Cable, Ethernet, Cat 5E 350Mhz, outdoor rated, direct burial, CMX, Shielded, Gel. (CAT5)

System Software

The MVP sensor embedded software shall incorporate multiple applications that perform a variety of diagnostic, installation, fault tolerant operations, data communications, digital video streaming and vehicle detection processing. The detection shall be reliable, consistent and perform under all weather, lighting and traffic congestion levels. An embedded web server shall permit standard internet browsers to connect and perform basic configuration, maintenance and video streaming services.

There shall be a suite of client applications that reside on the host client/server PC. The applications shall execute under Microsoft Windows 7, Vista or XP. Client applications shall include:

1. Master network browser: Learn a network of connected modular cabinet interface units and MVP sensors, display basic information and launch applications software to perform operations within that system of sensors.
2. Configuration setup: Create and modify detector configurations to be executed on the MVP sensor and the modular cabinet interface unit.
3. Operation log: Retrieve, display and save field hardware run-time operation logs of special events that have occurred.
4. Streaming video player: Play and record streaming video with flashing detector overlay.

5. Data retrieval: Fetch once or poll for traffic data and alarms and store on PC storage media.
6. Communications server: Provide fault-tolerant, real-time TCP/IP communications to/from all devices and client applications with full logging for systems integration.

The Gridsmart software system shall consist of the following:

1. The latest version of the GRIDSMART Client Software with virtual pan-tilt-zoom functionality. Shall allow the Engineer to configure, view, and manage intersection detection in real time. The system shall be able to automatically email the Engineer reports and alerts.
2. The latest version of the GRIDSMART Performance module which provides counting, classification, turning movements, and signal performance metrics. (GS-3-PFM)

Additional GRIDSMART software modules requested by the City Traffic Engineer may include, but are not limited to the following:

1. Performance Plus module
2. Pedestrian module
3. STREETSMART congestion management technology

Machine Vision Processor (MVP) Sensor

The MVP sensor shall be an integrated imaging color CCD array with zoom lens optics, high-speed, dual-core image processing hardware bundled into a sealed enclosure. The CCD array shall be directly controlled by the dual-core processor, thus providing high-quality video for detection that has virtually no noise to degrade detection performance. It shall be possible to zoom the lens as required for setup and operation. It shall provide JPEG video compression as well as standard MPEG-4 digital streaming video with flashing detector overlay. The MVP shall provide direct real-time iris and shutter speed control. The MVP image sensor shall be equipped with an integrated 22x zoom lens that can be changed using configuration computer software. The digital streaming video output and all data communications shall be transmitted over the three-wire power cable.

The MVP sensor shall operate on 110/220 VAC, 50/60Hz at a maximum of 25 watts. The camera and processor electronics shall consume a maximum of 10 watts and the remaining 15 watts shall support an enclosure heater.

Placement of detection zones shall be by means of a PC with a Windows 7, Vista or XP operating system with a keyboard and mouse. The detection zones shall be superimposed on images of the traffic scenes and viewable as such on the PC monitor. The detection zones shall be created by using a mouse to draw the detection zones on the PC monitor. Using the mouse and keyboard it shall be possible to place, size and orient detection zones to provide optimal road coverage for vehicle detection. It shall be possible to download detector configurations from the PC to the MVP sensor and cabinet interface module, to retrieve the detector configuration that is currently running in the MVP sensor and to back up detector configurations by saving them to a PC storage device.

The video detection system shall optimally detect vehicle passage and presence when the MVP sensor is mounted thirty (30) feet or higher above the roadway, when the image sensor is adjacent to the desired coverage area and when the distance to the farthest detection zone locations are not greater than ten (10) times the mounting height of the MVP. The recommended deployment geometry for optimal detection also requires that there be an unobstructed view of each traveled lane where detection is required. Although optimal detection may be obtained when the MVP is mounted directly above the traveled lanes, the MVP shall not be required to be directly over the roadway. The MVP shall be able to view either approaching or receding traffic or both in the same field of view. The preferred MVP sensor orientation shall be to view approaching traffic since there are more high contrast features on vehicles as viewed from the front rather than the rear. The MVP sensor placed at a mounting height that maximizes vehicle image occlusion shall be able to simultaneously monitor a maximum of six (6) traffic lanes when mounted at the road-side or up to eight (8) traffic lanes when mounted in the center with four lanes on each side.

Modular Cabinet Interface Unit

The modular cabinet interface unit shall provide the hardware and software means for up to eight (8) MVP sensors to communicate real-time detection states and alarms to a local traffic signal controller. It shall comply with the electrical and protocol specifications of the detector rack standards. The card shall have 1500 Vrms isolation between rack logic ground and street wiring.

The modular cabinet interface unit shall be a simple interface card that plugs directly into a NEMA type C or D detector rack. The modular cabinet interface unit shall occupy only two (2) slots of the detector rack. The modular cabinet interface unit shall accept up to sixteen (16) phase inputs and shall provide up to twenty-four (24) detector outputs.

Communications Interface Panel

The communications interface panel shall support up to eight (8) MVP sensors and shall accept 110/220 VAC, 50/60 Hz Power. The communications interface panel shall provide predefined wire termination blocks for MVP sensor power connections, a Broadband-over-Power-Line (BPL) transceiver to support up to 10Mb/s interdevice communications, electrical surge protectors to isolate the modular cabinet interface unit and MVP sensors and an interface connector to cable directly to the modular cabinet interface unit.

The communications interface panel shall provide power for up to eight (8) MVP sensors, taking local line voltage 110/220 VAC, 50/60 Hz and producing 110/220 VAC, 50/60 Hz, at about 30 watts to each MVP sensor. Two 1.25 amp SLO-BLO fuses shall protect the communications interface panel.

Surge Suppressor

An EDCO CX06-BNCY or approved equal transient surge suppressor shall be provided for each MVP sensor.

Installation and Training

The product supplier of the video detection system shall supervise the installation and the testing of the video equipment. A factory certified representative from the manufacturer shall be on-site during installation. The factory representative shall install, make fully operational, and test the system as indicated on the intersection drawings and this specification.

One day of training shall be provided to personnel of the City of Federal Way and King County in the operation, set-up and maintenance of the video detection system. Instruction and materials shall be produced for a maximum of 7 persons and shall be conducted at the City of Federal Way City Hall or King County signal shop.

Warranty

The video detection system shall be warranted against manufacturing defects in materials and workmanship for a period of no less than three (3) years from date of installation. The video detection supplier shall provide all documentation necessary to maintain and operate the system. The supplier shall maintain a program for technical support and software updates following the expiration of the warranty period.

9-29.19 Pedestrian Push Buttons

(February 15, 2019 CFW GSP)

Section 9-29.19 is deleted and replaced with the following:

The Contractor shall provide and install accessible pedestrian pushbuttons and signs, as shown on the Plans. The position of the pedestrian pushbuttons shall be located in a manner such that the tactile arrow is aligned parallel to the direction of travel for the crosswalk which the pushbutton is intended to serve; however final positioning for the optimum effectiveness shall be approved by the Engineer. Accessible Pedestrian Pushbutton units shall be Campbell Company Guardian Model Advisor Guide Accessible Pedestrian Station (AGPS) or approved equal. The station shall have a black body color and white actuator button and shall meet the following requirements:

Pushbuttons 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 nine (9) inches by fifteen (15) inches. All mounting bolts shall be non-corrosive stainless steel.

The pedestrian pushbutton housing shall be aluminum and shall be painted black. Unit(s) 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 unit(s) shall have automatic volume controls for 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

unit(s) 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 six (6) feet to twelve (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 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 pushbutton 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 pushbutton is intended to serve. The vibrotactile arrow shall activate with the walk cycle.

9-29.23 Vacant

Section 9-29.23 is deleted and replaced with the following new section:

9-29.23 Variable Speed Limit Sign

(PROJECT-SPECIFIC SPECIAL PROVISION***)***

The calendar-activated variable speed limit sign system shall be a, Carmanah Speedcheck Variable Speed Limit Sign with 18-inch digit size or approved equal and fully compliant with the MUTCD.

The variable speed limit signs system user interface shall be quickly and easily accessed . Programming shall be via a push-button keyboard integral to the unit with easy-to-use interface prompts. The controller shall have all calendar data stored locally to ensure timely activations in virtually all circumstances

The Variable Speed Limit Sign System shall consist of the following components:

1. Controller: The controller shall be an RTC AP22 time switch, or approved equal, equipped with a GPS receiver capable of accepting the time-of-day reference to update the time-of-day in the time switch for zero time drift to ensure on-time beacon activation.
2. Sign: The sign housing and frame shall be made of aluminum. Sign sheeting shall be Type III or greater per Section 9-28.12 of the Standard Specifications.

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3. Redundant Calendar: There shall be no limit for day schedule on-off times. The user shall be able to configure calendars with a minimum of 10 years of scheduling. The controller shall have all calendar data stored locally so that in the event of an interruption, the controller shall be able to maintain scheduled activations.
4. On-Demand Activation, Test and Reports: Each system shall provide on-demand activation of beacons for emergency or any other purpose; battery health (solar only), Beacon outage, and activation reports through the user interface.
5. Enclosure: The controller shall be housed in a vandal-resistant, aluminum, NEMA 3R pole-mounted aluminum cabinet with a lockable, hinged door. The enclosure shall be mounted at a height consistent with ADA guidelines while not requiring a bucket truck from maintenance.
6. Power Options: The controller unit shall be available in 120 VAC or 12VDC. If the site location is to be solar-powered, the manufacturer shall conduct a site assessment to properly size and supply the required solar panels.
7. Communication: Communication with the controller shall be capable using Bluetooth and Ethernet.
8. Software: Software shall be provided that allows setup and programming of all display options.
9. Input: All components necessary to provide capability to manage display operation from external devices shall be included.

9-29.24 Service Cabinets

(December 18, 2009 CFW GSP)

Section 9-29.24 is supplemented with the following:

The service cabinet shall be aluminum, and shall conform to Federal Way Drawing Number 3-45 included in the appendices of these Special Provisions. The unit shall be modified as necessary to meet all current requirements of the Department of Labor and Industries and Puget Sound Energy. The service cabinet shall be equipped with a lockable stainless steel handle and a three-point locking system. The service cabinet shall contain one (1) ground fault receptacle. Main breaker, branch breakers, and contactors shall be rated per the Breaker Schedule on the Plans.

The service cabinet shall be equipped with a door-in-door, dead-front assembly, which shall prevent the exposure of circuit breakers and wiring. Wiring shall be arranged so that any piece of apparatus may be removed without disconnecting any wiring, except the lead to that piece of apparatus. All wiring shall be appropriately marked with a permanent, indelibly marked, clip-sleeve wire marker. All wiring shall conform to NEMA Class II C.

The service cabinet shall be aluminum, and shall be a Skyline Electric Type ES-2EU or approved equal with Underwriters Laboratory label on the panel boards.

A copy of the wiring diagram shall be provided in a plastic holder mounted conveniently inside the service cabinet. Nameplates shall be provided for each control component and shall be embossed phenolic with white letters on black background. Nameplates shall be screw-fastened.

9-29.25 Amplifier, Transformer, and Terminal Cabinets

(February 24, 2012 CFW GSP)

Section 9-29.25 is supplemented with the following:

Where noted on the Plans, terminal cabinets shall be furnished and installed on mast arm poles. Terminal cabinets shall be mounted at a minimum height of seven (7) feet to maintain ADA accessible pathways.

Numbered terminal strips shall be installed in each cabinet with sufficient connections to accommodate all necessary wires and specs as shown on the Wiring Diagram.

The unit shall be fastened to the pole shaft with a minimum of three (3) self-tapping galvanized metal screws employing minimum 1-inch-diameter flat washers on the inside of the cabinet.

Following installation, an epoxy sealant shall be used to provide a rain tight seal between the pole shaft and the cabinet back.

SECTION 9-34 PAVEMENT MARKING MATERIAL

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

(PROJECT-SPECIFIC SPECIAL PROVISION***)***

Section 9-34.4 is supplemented with the following:

Methyl Methacrylate Pavement Markings Optics

Glass Beads

Surface-drop glass beads shall be the Swarco Series 3132 bead with a Methacrylate compatible coupling agent approved by the material manufacturer.

Glass beads shall be applied at a rate of eight (8) to ten (10) pounds per one hundred square feet.

Bonded Core Elements

Surface-drop ceramic elements shall be the Series 50M or 70M with a Methacrylate compatible coupling agent approved by the material manufacturer. Elements shall meet or exceed a minimum initial value of 150 mcd for white and 125 mcd for yellow per ASTM 2176.

The bonded core 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 1.8 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 2.30 when tested using the liquid oil immersion method.

There are two gradations for the bonded core elements, standard size and “S” series. “S” series is a slightly finer gradation of elements compared to standard.

| Element Gradations | | | |
|-----------------------------------|--------|-------------------|------------|
| Mass Percent Passing (ASTM D1214) | | | |
| US Mesh | Micron | Standard Elements | “S” Series |
| 12 | 1700 | 80-100 | 85-100 |
| 14 | 1410 | 45-80 | 70-96 |
| 16 | 1180 | 5-40 | 50-90 |
| 18 | 1000 | 0-20 | 5-60 |
| 20 | 850 | 0-7 | 0-25 |
| 30 | 600 | | 0-7 |

A sample of bonded core 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. The 1% acid solution shall be made by adding 5.7 cc of concentrated acid into 1000cc of distilled water. CAUTION: Always add the concentrated acid into the water, not the reverse.

The bonded core 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.

Bonded core elements shall be applied at a rate of ten (10) grams per four (4) inch wide by one (1) linear foot of marking.

Reflectance

Typical initial retro reflectance values are shown in the Table below. Typical retro reflectivity is averaged over many readings. Minimum Retro reflectivity results represent average performance for smooth pavement surfaces. Values represent both standard and "S" Series elements. 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. The initial retro reflectance of a single installation shall be the average value determined by the measurement procedures outlined in ASTM E 1710, using a 30-meter (98.4 feet) retro-reflectometer. RL shall be expressed in units of millicandelas per square foot per foot-candle [mcd(ft-2)(fc-1)].

The optics incorporated into the pavement marking system shall be tested and certified by an independent laboratory to meet ASTM E2177 for wet-recovery and ASTM E2176 for wet-continuous performance levels.

The pavement marking system installed shall meet a minimum Dry reflectance value of 700 MCD/M2/LX for white pavement markings and 500 MCD/M2/LX for yellow pavement markings and wet-recovery (as described by ASTM 2177) reflectance value of 375 MCD/M2/LX for white pavement markings and 280 MCD/M2/LX for yellow pavement markings, and wet-continuous (as described by ASTM 2176 testing) reflectance values of 150 MCD/M2/LX for white pavement markings and 125 MCD/M2/LX for yellow pavement markings as measured with a 30 meter device approved by the Traffic Engineering Division (TED).

The Contractor will be required to take and record readings every 500 feet utilizing a 30 meter device approved by the Traffic Engineering Division. These readings shall be recorded on the daily report and submitted to the project engineer at the end of each work day or shift.

| Minimum Initial Retro Reflectance Values | | |
|--|-------|--------|
| | White | Yellow |
| Dry (ASTM E1710) | 700 | 500 |
| Wet recovery (ASTM E2177) | 375 | 280 |
| Wet continuous (ASTM E2176) | 150 | 125 |

9-34.5 Temporary Pavement Marking Tape
(February 25, 2021 WSDOT GSP)

Temporary Pavement Marking Tape – Short Duration (Non-Removable) Section 9-34.5(1), including title, is revised to read:

Temporary Pavement Marking Tape – Short Duration

Temporary pavement marking tape for short duration (usage is for up to two months) shall conform to ASTM D4592 Type II except that black tape, black mask tape and the black portion of the contrast tape, shall be non-reflective.

(February 25, 2021 WSDOT GSP)

Temporary Pavement Marking Tape – Long Duration (Non-Removable) Section 9-34.5(2), including title, is revised to read:

Temporary Pavement Marking Tape – Long Duration

Temporary pavement marking tape for long duration (usage is for greater than two months and less than one year) shall conform to ASTM D4592 Type I. Temporary pavement marking tape for long duration, except for black tape, shall have a minimum initial coefficient of retroreflective luminance of 200 mcd*m-2*lx-1 when measured in accordance with ASTM E2832. Black tape, black mask tape and the black portion of the contrast tape, shall be non-reflective.

Standard Plans

(January 13, 2021 WSDOT)

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01, effective September 30, 2020 is made a part of this contract.

The Standard Plans are revised as follows:

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A-50.10
DELETED

A-50.20
DELETED

A-50.30
DELETED

A-50.40
DELETED

B-90.40
Valve Detail – DELETED

C-1
DELETED

C-8
Add new Note 5, “5. Type 2 Barrier and Barrier Terminals are allowed in temporary installations only. New Type 2 Barrier and Barrier Terminals are not allowed to be fabricated after December 31, 2019. The plan is provided as a means to verify that any Type 2 barrier and Barrier Terminals fabricated prior to December 31, 2019 meets the plan requirements and cross-sectional dimensions as specified in Standard Specifications 6-10.3(5).”

C-8a
Add new Note 2, “2. Type 4 Barrier and Barrier Transition are allowed in temporary installations only. New Type 4 Barrier and Barrier Transition are not allowed to be fabricated after December 31, 2019. The plan is provided as a means to verify that any Type 4 barrier and Barrier Transition fabricated prior to December 31, 2019 meets the plan requirements and cross-sectional dimensions as specified in Standard Specifications 6-10.3(5).”

C-8b
DELETED

C-8e
DELETED

C-8f
DELETED

C-16a
DELETED

C-20.10
The following table is added:

| |
|---------------------------------|
| SLOPE \ EMBANKMENT TABLE |
|---------------------------------|

| (FOR 8', 9', 11' LONG POSTS) | | |
|-------------------------------------|----------------------|--|
| POST LENGTH | SLOPE | W (FT) |
| 8-FOOT | 1H : 1V OR FLATTER | 2.5 MIN |
| 8-FOOT | 2H : 1V OR FLATTER | 0 (FACE OF BARRIER AT SLOPE BREAK POINT) |
| 9-FOOT | 1.5H : 1V OR FLATTER | 0 (FACE OF BARRIER AT SLOPE BREAK POINT) |
| 11-FOOT | 1H : 1V OR FLATTER | 0 (FACE OF BARRIER AT SLOPE BREAK POINT) |

C-20.11
DELETED

C-20.19
DELETED

C-40.16
DELETED

C-40.18
DELETED

C-80.50
DELETED

C-85.14
DELETED

C85.15
SECTION B detail, the callout reading "ANCHOR BOLT (TYP.) ~ SEE DETAIL, STANDARD PLAN C-8b", is revised to read "ANCHOR BOLT (TYP.) ~ SEE DETAIL IN PLANS".

SECTION B detail, the callout reading "ANCHOR PLATE (TYP.) ~ SEE STANDARD PLAN J-8b", is revised to read "ANCHOR PLATE (TYP.) ~ SEE DETAIL IN PLANS".

D-2.14
DELETED

D-2.16
DELETED

D-2.18
DELETED

D-2.20
DELETED

D-2.42
DELETED

D-2.44
DELETED

D-2.46
DELETED

D-2.48
DELETED

D-2.82
DELETED

D-2.86
DELETED

D-10.10
Wall Type 1 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT Bridge Design Manual (BDM) and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.15
Wall Type 2 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

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
Wall Type 7 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.45
Wall Type 8 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the revisions stated in the 11/3/15 Bridge Design memorandum.

D-15.10

STD Plans D-15 series “Traffic Barrier Details for Reinforced Concrete Retaining Walls” are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.20

STD Plans D-15 series “Traffic Barrier Details for Reinforced Concrete Retaining Walls” are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.30

STD Plans D-15 series “Traffic Barrier Details for Reinforced Concrete Retaining Walls” are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

G-20.10

SIGN INSTALLATION BEHIND TRAFFIC BARRIER detail, dimension callout “3’ MIN.”, is revised to read “5’ MIN.”.

H-70.20

Sheet 2, Spacing Detail, Mailbox Support Type 1, reference to Standard Plan I-70.10 is revised to H-70.10

H-70.30

DELETED

J-10.16

Key Note 14, reads: “Mounting Hole ~ See Standard Plan J-10.30 for mounting Details.” Is revised to read: “Mounting Hole ~ See Standard Plan J-10.14 for mounting Details.”
General Note 12, reads: “See Standard Plan J-10.30 for pole installation details.” Is revised to read: “See Standard Plan J-10.14 for pole installation details.”

J-10.17

Key Note 16, reads: “Mounting Hole ~ See Standard Plan J-10.?? for mounting Details.” Is revised to read: “Mounting Hole ~ See Standard Plan J-10.14 for mounting Details.”
General Note 12, reads: “See Standard Plan J-10.30 for pole installation details.” Is revised to read: “See Standard Plan J-10.14 for pole installation details.”

J-10.18

Key Note 12, reads: “Mounting Hole ~ See Standard Plan J-10.20 for mounting Details.” Is revised to read: “Mounting Hole ~ See Standard Plan J-10.14 for mounting Details.”
General Note 12, reads: “See Standard Plan J-10.30 for pole installation details.” Is revised to read: “See Standard Plan J-10.14 for pole installation details.”

J-20.26

Add Note 1, “1. One accessible pedestrian pushbutton station per pedestrian pushbutton post.”

J-20.16

View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

J-21.10

Sheet 1, Elevation View, Round Concrete Foundation Detail, callout – “ANCHOR BOLTS ~ 3/4” (IN) x 30” (IN) FULL THREAD ~ THREE REQ’D. PER ASSEMBLY” IS REVISED TO READ: “ANCHOR BOLTS ~ 3/4” (IN) x 30” (IN) FULL THREAD ~ FOUR REQ’D. PER ASSEMBLY”

Sheet 1 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3” CLR.. Delete “(TYP.)” from the 2 1/2” CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 1 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3” CLR. Delete “(TYP.)” from the 2 1/2” CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3” CLR. Delete “(TYP.)” from the 2 1/2” CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3” CLR. Delete “(TYP.)” from the 2 1/2” CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Detail F, callout, “Heavy Hex Clamping Bolt (TYP.) ~ 3/4” (IN) Diam. Torque Clamping Bolts (see Note 3)” is revised to read; “Heavy Hex Clamping Bolt (TYP.) ~ 3/4” (IN) Diam. Torque Clamping Bolts (see Note 1)”

Detail F, callout, “3/4” (IN) x 2’ – 6” Anchor Bolt (TYP.) ~ Four Required (See Note 4)” is revised to read; “3/4” (IN) x 2’ – 6” Anchor Bolt (TYP.) ~ Three Required (See Note 2)”

J-21.15

Partial View, callout, was – LOCK NIPPLE ~ 1 1/2” DIAM., is revised to read; CHASE NIPPLE ~ 1 1/2” (IN) DIAM.

J-21.16

Detail A, callout, was – LOCKNIPPLE, is revised to read; CHASE NIPPLE

J-22.15

Ramp Meter Signal Standard, elevation, dimension 4’ - 6” is revised to read; 6’-0” (2x)
Detail A, callout, was – LOCK NIPPLE ~ 1 1/2” DIAM. is revised to read; CHASE NIPPLE ~ 1 1/2” (IN) DIAM.

J-40.10

Sheet 2 of 2, Detail F, callout, “12 – 13 x 1 1/2” S.S. PENTA HEAD BOLT AND 12” S. S. FLAT WASHER” is revised to read; “12 – 13 x 1 1/2” 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-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-81.10

All references to "Type 170 Controller" are replaced with "Controller".

L-40.10

DELETED

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-30.35-00.....10/12/07 | A-60.10-03.....12/23/14 |
| A-10.20-00.....10/5/07 | A-40.00-00.....8/11/09 | A-60.20-03.....12/23/14 |
| A-10.30-00.....10/5/07 | A-40.10-04.....7/31/19 | A-60.30-01.....6/28/18 |
| A-20.10-00.....8/31/07 | A-40.15-00.....8/11/09 | A-60.40-00.....8/31/07 |
| A-30.10-00.....11/8/07 | A-40.20-04.....1/18/17 | |
| A-30.30-01.....6/16/11 | A-40.50-02.....12/23/14 | |
| | | |
| B-5.20-03.....9/9/20 | B-30.50-03.....2/27/18 | B-75.20-02.....2/27/18 |
| B-5.40-02.....1/26/17 | B-30.60-00.....9/9/20 | B-75.50-01.....6/10/08 |
| B-5.60-02.....1/26/17 | B-30.70-04.....2/27/18 | B-75.60-00.....6/8/06 |
| B-10.20-02.....3/2/18 | B-30.80-01.....2/27/18 | B-80.20-00.....6/8/06 |
| B-10.40-01.....1/26/17 | B-30.90-02.....1/26/17 | B-80.40-00.....6/1/06 |
| B-10.70-01.....9/9/20 | B-35.20-00.....6/8/06 | B-85.10-01.....6/10/08 |
| B-15.20-01.....2/7/12 | B-35.40-00.....6/8/06 | B-85.20-00.....6/1/06 |
| B-15.40-01.....2/7/12 | B-40.20-00.....6/1/06 | B-85.30-00.....6/1/06 |
| B-15.60-02.....1/26/17 | B-40.40-02.....1/26/17 | B-85.40-00.....6/8/06 |
| B-20.20-02.....3/16/12 | B-45.20-01.....7/11/17 | B-85.50-01.....6/10/08 |
| B-20.40-04.....2/27/18 | B-45.40-01.....7/21/17 | B-90.10-00.....6/8/06 |
| B-20.60-03.....3/15/12 | B-50.20-00.....6/1/06 | B-90.20-00.....6/8/06 |
| B-25.20-02.....2/27/18 | B-55.20-02.....2/27/18 | B-90.30-00.....6/8/06 |
| B-25.60-02.....2/27/18 | B-60.20-02.....9/9/20 | B-90.40-01.....1/26/17 |
| B-30.05-00.....9/9/20 | B-60.40-01.....2/27/18 | B-90.50-00.....6/8/06 |
| B-30.10-03.....2/27/18 | B-65.20-01.....4/26/12 | B-95.20-01.....2/3/09 |
| B-30.15-00.....2/27/18 | B-65.40-00.....6/1/06 | B-95.40-01.....6/28/18 |
| B-30.20-04.....2/27/18 | B-70.20-00.....6/1/06 | |
| B-30.30-03.....2/27/18 | B-70.60-01.....1/26/17 | |
| B-30.40-03.....2/27/18 | | |
| | | |
| C-1.....9/9/20 | C-20.42-05.....7/14/15 | C-70.10-02.....9/16/20 |

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|-------------------------|------------------------|------------------------|
| C-1b.....9/9/20 | C-20.45.02.....8/12/19 | C-75.10-02.....9/16/20 |
| C-1d.....10/31/03 | C-22.16-07.....9/16/20 | C-75.20-02.....9/16/20 |
| C-2c.....8/12/19 | C-22.40-08.....9/16/20 | C-75.30-02.....9/16/20 |
| C-4f.....8/12/19 | C-22.45-05.....9/16/20 | C-80.10-02.....9/16/20 |
| C-6a.....10/14/09 | C-23.60-04.....7/21/17 | C-80.20-01.....6/11/14 |
| C-7.....6/16/11 | C.24.10-02.....8/12/19 | C-80.30-01.....6/11/14 |
| C-7a.....6/16/11 | C-25.20-06.....7/14/15 | C-80.40-01.....6/11/14 |
| C-8.....2/10/09 | C-25.22-05.....7/14/15 | C-85.10-00.....4/8/12 |
| C-8a.....7/25/97 | C-25.26-04.....8/12/19 | C-85.11-01.....9/16/20 |
| C-20.10-06.....9/16/20 | C-25.30-00.....6/28/18 | C-85.15-01.....6/30/14 |
| C-20.14-04.....8/12/19 | C-25.80-05.....8/12/19 | C-85.16-01.....6/17/14 |
| C-20.15-02.....6/11/14 | C-60.10-01.....9/24/20 | C-85-18-01.....6/11/14 |
| C-20.18-03.....8/12/19 | C-60.20-00.....9/24/20 | C-85.20-01.....6/11/14 |
| C-20.40-07.....8/12/19 | C-60.30-00.....9/24/20 | |
| C-20.41-02.....8/12/19 | C-60.70-00.....9/24/20 | |
| | | |
| D-2.04-00.....11/10/05 | D-2.80-00.....11/10/05 | D-6.....6/19/98 |
| D-2.06-01.....1/6/09 | D-2.84-00.....11/10/05 | D-10.10-01.....12/2/08 |
| D-2.08-00.....11/10/05 | D-2.88-00.....11/10/05 | D-10.15-01.....12/2/08 |
| D-2.32-00.....11/10/05 | D-2.92-00.....11/10/05 | D-10.20-01.....8/7/19 |
| D-2.34-01.....1/6/09 | D-3.09-00.....5/17/12 | D-10.25-01.....8/7/19 |
| D-2.36-03.....6/11/14 | D-3.10-01.....5/29/13 | D-10.30-00.....7/8/08 |
| D-2.60-00.....11/10/05 | D-3.11-03.....6/11/14 | D-10.35-00.....7/8/08 |
| D-2.62-00.....11/10/05 | D-3.15-02.....6/10/13 | D-10.40-01.....12/2/08 |
| D-2.64-01.....1/6/09 | D-3.16-02.....5/29/13 | D-10.45-01.....12/2/08 |
| D-2.66-00.....11/10/05 | D-3.17-02.....5/9/16 | |
| D-2.68-00.....11/10/05 | D-4.....12/11/98 | |
| | | |
| E-1.....2/21/07 | E-4.....8/27/03 | |
| E-2.....5/29/98 | E-4a.....8/27/03 | |
| | | |
| F-10.12-04.....9/24/20 | F-10.62-02.....4/22/14 | F-40.15-04.....9/25/20 |
| F-10.16-00.....12/20/06 | F-10.64-03.....4/22/14 | F-40.16-03.....6/29/16 |
| F-10.18-02.....9/24/20 | F-30.10-04.....9/25/20 | F-45.10-02.....7/15/16 |
| F-10.40-04.....9/24/20 | F-40.12-03.....6/29/16 | F-80.10-04.....7/15/16 |
| F-10.42-00.....1/23/07 | F-40.14-03.....6/29/16 | |
| | | |
| G-10.10-00.....9/20/07 | G-25.10-05.....9/16/20 | G-95.10-02.....6/28/18 |
| G-20.10-02.....6/23/15 | G-26.10-00.....7/31/19 | G-95.20-03.....6/28/18 |
| G-22.10-04.....6/28/18 | G-30.10-04.....6/23/15 | G-95.30-03.....6/28/18 |
| G-24.10-00.....11/8/07 | G-50.10-03.....6/28/18 | |
| G-24.20-01.....2/7/12 | G-90.10-03.....7/11/17 | |
| G-24.30-02.....6/28/18 | G-90.11-00.....4/28/16 | |
| G-24.40-07.....6/28/18 | G-90.20-05.....7/11/17 | |
| G-24.50-05.....8/7/19 | G-90.30-04.....7/11/17 | |
| G-24.60-05.....6/28/18 | G-90.40-02.....4/28/16 | |
| | | |
| H-10.10-00.....7/3/08 | H-32.10-00.....9/20/07 | H-70.10-01.....2/7/12 |
| H-10.15-00.....7/3/08 | H-60.10-01.....7/3/08 | H-70.20-01.....2/16/12 |
| H-30.10-00.....10/12/07 | H-60.20-01.....7/3/08 | |

CITY OF FEDERAL WAY

**LAKOTA MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL
PROJECT #204**

SP-222

CFW SPECIAL PROVISIONS VER. 2021.01B

| | | |
|-------------------------|------------------------|------------------------|
| I-10.10-01.....8/11/09 | I-30.20-00.....9/20/07 | I-40.20-00.....9/20/07 |
| I-30.10-02.....3/22/13 | I-30.30-02.....6/12/19 | I-50.20-01.....6/10/13 |
| I-30.15-02.....3/22/13 | I-30.40-02.....6/12/19 | I-60.10-01.....6/10/13 |
| I-30.16-01.....7/11/19 | I-30.60-02.....6/12/19 | I-60.20-01.....6/10/13 |
| I-30.17-01.....6/12/19 | I-40.10-00.....9/20/07 | I-80.10-02.....7/15/16 |
| J-10.....7/18/97 | J-28.40-02.....6/11/14 | J-60.13-00.....6/16/10 |
| J-10.10-04.....9/16/20 | J-28.42-01.....6/11/14 | J-60.14-01.....7/31/19 |
| J-10.12-00.....9/16/20 | J-28.43-01.....6/28/18 | J-75.10-02.....7/10/15 |
| J-10.14-00.....9/16/20 | J-28.45-03.....7/21/16 | J-75.20-01.....7/10/15 |
| J-10.15-01.....6/11/14 | J-28.50-03.....7/21/16 | J-75.30-02.....7/10/15 |
| J-10.16-01.....9/16/20 | J-28.60-02.....7/21/16 | J-75.40-02.....6/1/16 |
| J-10.17-01.....9/16/20 | J-28.70-03.....7/21/17 | J-75.41-01.....6/29/16 |
| J-10.18-01.....9/16/20 | J-29.10-01.....7/21/16 | J-75.45-02.....6/1/16 |
| J-10.20-03.....9/16/20 | J-29.15-01.....7/21/16 | J-80.10-00.....6/28/18 |
| J-10.21-01.....9/16/20 | J-29.16-02.....7/21/16 | J-80.15-00.....6/28/18 |
| J-10.22-01.....9/16/20 | J-30.10-00.....6/18/15 | J-81.10-01.....9/16/20 |
| J-10.25-00.....7/11/17 | J-40.05-00.....7/21/16 | J-86.10-00.....6/28/18 |
| J-12.15-00.....6/28/18 | J-40.10-04.....4/28/16 | J-90.10-03.....6/28/18 |
| J-12.16-00.....6/28/18 | J-40.20-03.....4/28/16 | J-90.20-03.....6/28/18 |
| J-15.10-01.....6/11/14 | J-40.30-04.....4/28/16 | J-90.21-02.....6/28/18 |
| J-15.15-02.....7/10/15 | J-40.35-01.....5/29/13 | J-90.50-00.....6/28/18 |
| J-20.10-04.....7/31/19 | J-40.36-02.....7/21/17 | |
| J-20.11-03.....7/31/19 | J-40.37-02.....7/21/17 | |
| J-20.15-03.....6/30/14 | J-40.38-01.....5/20/13 | |
| J-20.16-02.....6/30/14 | J-40.39-00.....5/20/13 | |
| J-20.20-02.....5/20/13 | J-40.40-02.....7/31/19 | |
| J-20.26-01.....7/12/12 | J-45.36-00.....7/21/17 | |
| J-21.10-04.....6/30/14 | J-50.05-00.....7/21/17 | |
| J-21.15-01.....6/10/13 | J-50.10-01.....7/31/19 | |
| J-21.16-01.....6/10/13 | J-50.11-02.....7/31/19 | |
| J-21.17-01.....6/10/13 | J-50.12-02.....8/7/19 | |
| J-21.20-01.....6/10/13 | J-50.13-00.....8/22/19 | |
| J-22.15-02.....7/10/15 | J-50.15-01.....7/21/17 | |
| J-22.16-03.....7/10/15 | J-50.16-01.....3/22/13 | |
| J-26.10-03.....7/21/16 | J-50.18-00.....8/7/19 | |
| J-26.15-01.....5/17/12 | J-50.19-00.....8/7/19 | |
| J-26.20-01.....6/28/18 | J-50.20-00.....6/3/11 | |
| J-27.10-01.....7/21/16 | J-50.25-00.....6/3/11 | |
| J-27.15-00.....3/15/12 | J-50.30-00.....6/3/11 | |
| J-28.10-02.....8/7/19 | J-60.05-01.....7/21/16 | |
| J-28.22-00.....8/07/07 | J-60.11-00.....5/20/13 | |
| J-28.24-02.....9/16/20 | J-60.12-00.....5/20/13 | |
| J-28.26-01.....12/02/08 | | |
| J-28.30-03.....6/11/14 | | |
| K-70.20-01.....6/1/16 | | |
| K-80.10-02.....9/25/20 | | |
| K-80.20-00.....12/20/06 | | |

CITY OF FEDERAL WAY

SP-223

**LAKOTA MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL
PROJECT #204**

CFW SPECIAL PROVISIONS VER. 2021.01B

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

K-80.35-01.....9/16/20
K-80.37-01.....9/16/20

L-10.10-02.....6/21/12
L-20.10-03.....7/14/15
L-30.10-02.....6/11/14

M-1.20-04.....9/25/20
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-3.20-03.....9/25/20
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-9.60-00.....2/10/09

L-40.15-01.....6/16/11
L-40.20-02.....6/21/12

M-11.10-03.....8/7/19
M-12.10-02.....9/25/20
M-15.10-01.....2/6/07
M-17.10-02.....7/3/08
M-20.10-03.....9/25/20
M-20.20-02.....4/20/15
M-20.30-04.....2/29/16
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-24.66-00.....7/11/17
M-40.10-03.....6/24/14

L-70.10-01.....5/21/08
L-70.20-01.....5/21/08

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-60.20-02.....6/27/11
M-65.10-02.....5/11/11
M-80.10-01.....6/3/11
M-80.20-00.....6/10/08
M-80.30-00.....6/10/08

END DIVISION 9

CITY OF FEDERAL WAY

SP-224

LAKOTA MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL
PROJECT #204

CFW SPECIAL PROVISIONS VER. 2021.01B

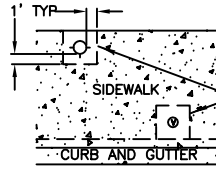
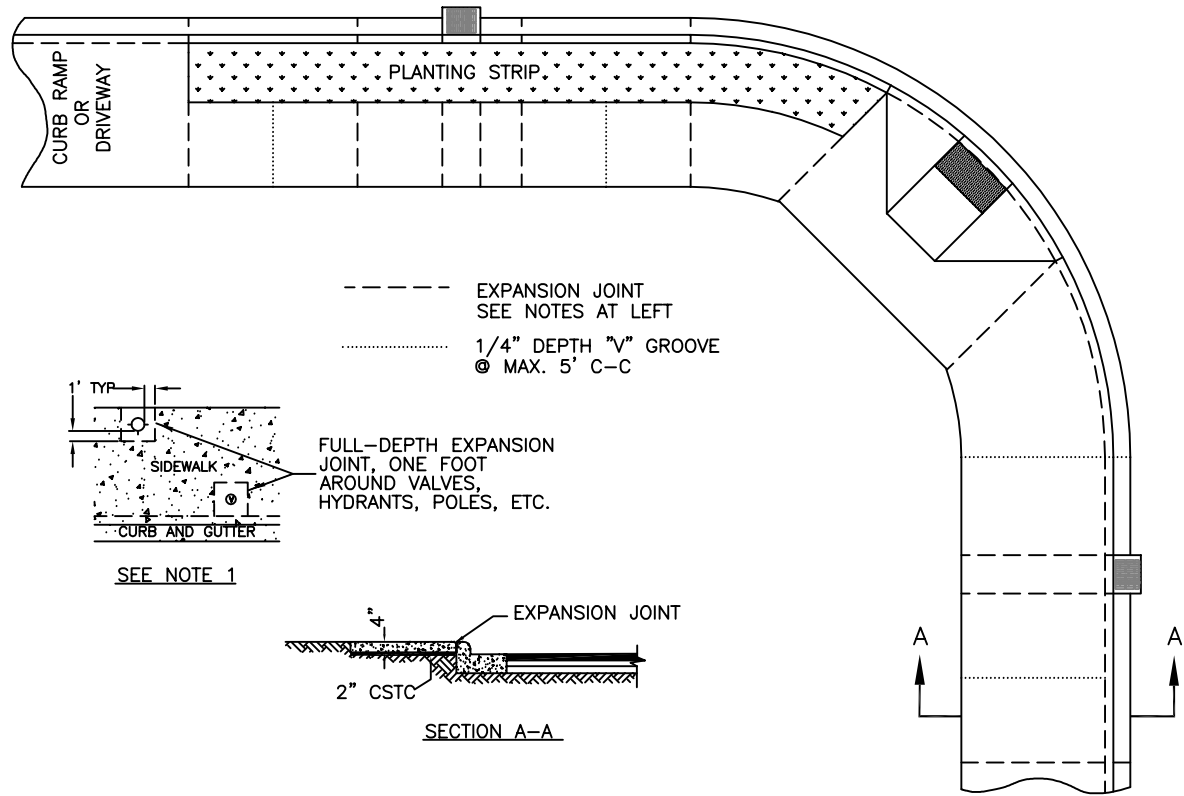
STANDARD PLANS AND DETAILS

CITY OF FEDERAL WAY

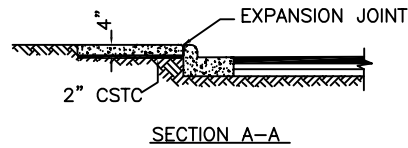
**LAKOTA SRTS
PROJECT #204 / RFB #21-003**

NOTES:

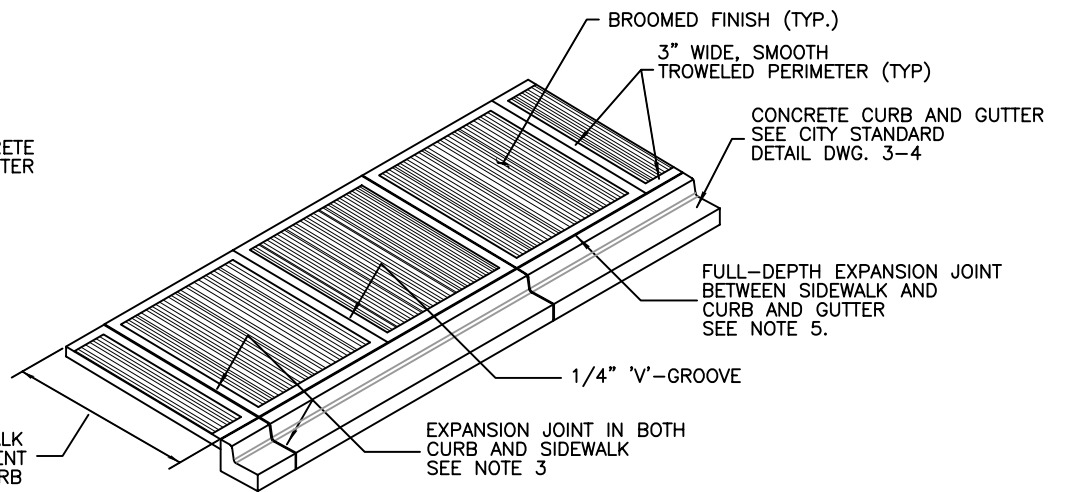
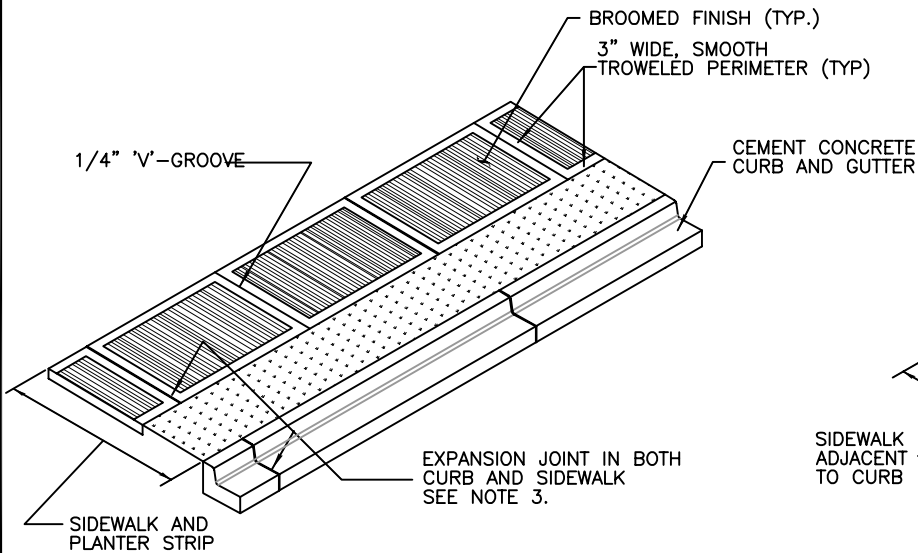
1. AN EXPANSION JOINT CONSISTING OF 3/8" PRE-MOLDED JOINT MATERIAL SHALL BE PLACED FULL DEPTH AROUND HYDRANTS, POLES, POSTS, AND UTILITY CASTINGS. SEE DETAIL AT RIGHT.
2. AN EXPANSION JOINT CONSISTING OF 3/8" PRE-MOLDED JOINT MATERIAL SHALL BE PLACED IN THE UPPER 2 INCHES OF CURBS AND SIDEWALKS AT 10 FOOT INTERVALS AND AT SIDES OF DRAINAGE INLETS. (JOINT MATERIAL OF 2 1/2" DEPTH MAY BE USED IN LIEU OF 2" DEPTH).
3. EXPANSION JOINTS IN SIDEWALK SHALL BE LOCATED SO AS TO MATCH THE JOINTS IN THE CURB AND GUTTER, WHETHER THE SIDEWALK IS ADJACENT TO THE CURB OR SEPARATED BY A PLANTER STRIP.
4. TOOL MARKS, CONSISTING OF 1/4-INCH 'V'-GROOVES SHALL BE MADE IN THE SIDEWALK AT 5 FOOT INTERVALS, INTERMEDIATE TO THE EXPANSION JOINTS.
5. AN EXPANSION JOINT CONSISTING OF 3/8" PRE-MOLDED JOINT MATERIAL SHALL BE PLACED FULL-DEPTH BETWEEN THE CURB AND ADJACENT SIDEWALK.
6. EXPANSION JOINT MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ASTM D1751 (AASHTO M 213).
7. MONOLITHIC POURS OF CURB AND SIDEWALK ARE NOT ALLOWED.
8. ALL UTILITY APPURTENANCES WITHIN THE SIDEWALK SHALL HAVE ADA-COMPLIANT NON-SLID LIDS.



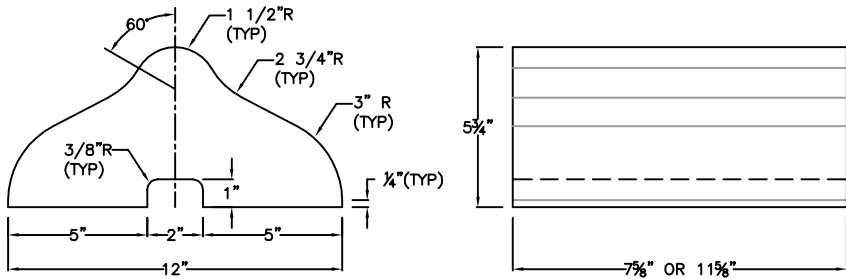
SEE NOTE 1



SECTION A-A

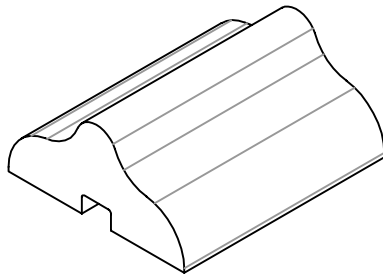


REV JAN 2019



SECTION

ELEVATION

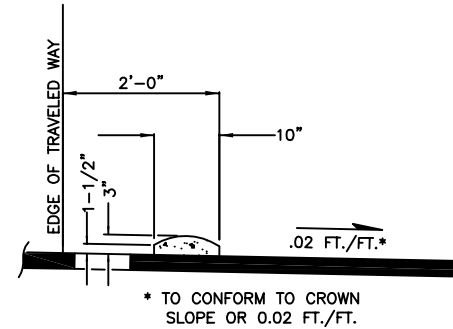


ISOMETRIC

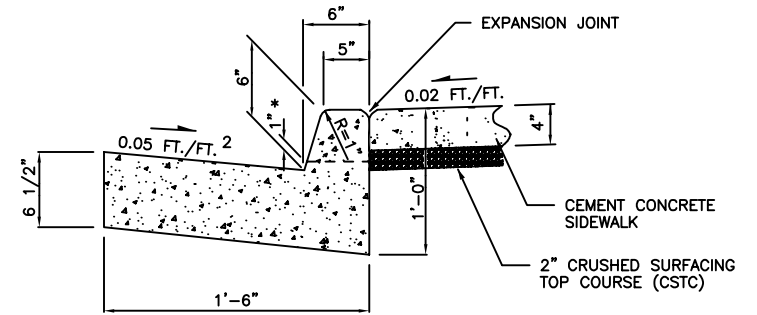
TYPE 'C' BLOCK TRAFFIC CURB

NOTES:

1. SEE DWG. 3-3 FOR JOINT REQUIREMENTS.
2. ROLL GUTTER TO MATCH POSITIVE SUPERELEVATION.
3. TO BE USED ONLY AS APPROVED BY THE PUBLIC WORKS DEPT.

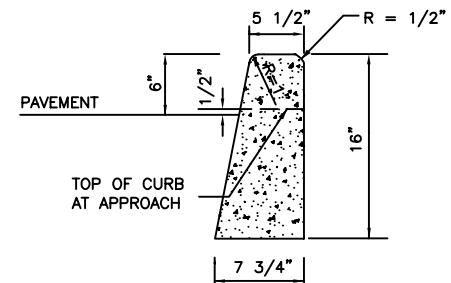


MOUNTABLE CEMENT CONCRETE CURB³



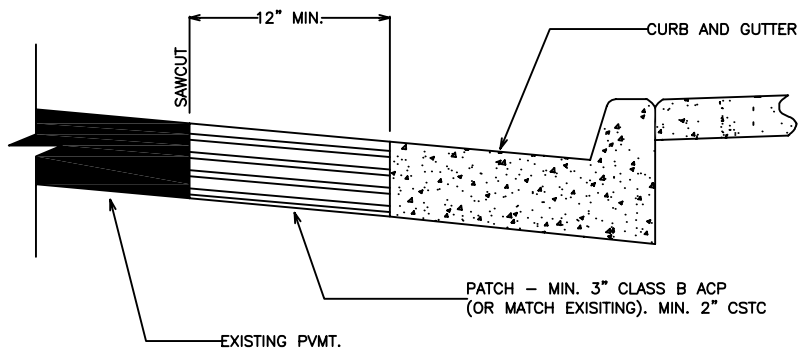
* NOTE: TOP OF LIP AT DRIVEWAYS.

NEW CEMENT CONCRETE CURB & GUTTER



CEMENT CONCRETE BARRIER CURB

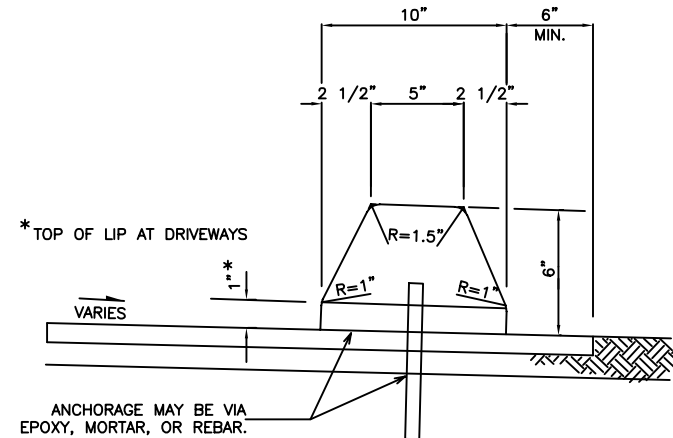
REV: FEB 2011



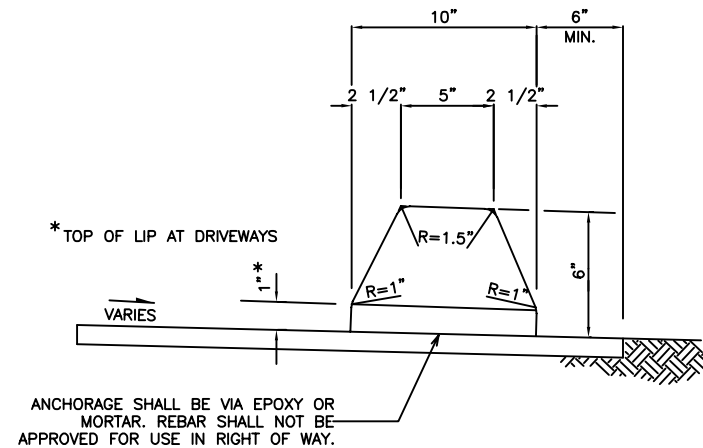
CEMENT CONCRETE CURB & GUTTER REPLACEMENT¹

NOTES:

1. EXISTING CURB REPLACEMENT WILL REQUIRE REMOVAL OF ASPHALT A MINIMUM OF 12" FROM FACE OF GUTTER.

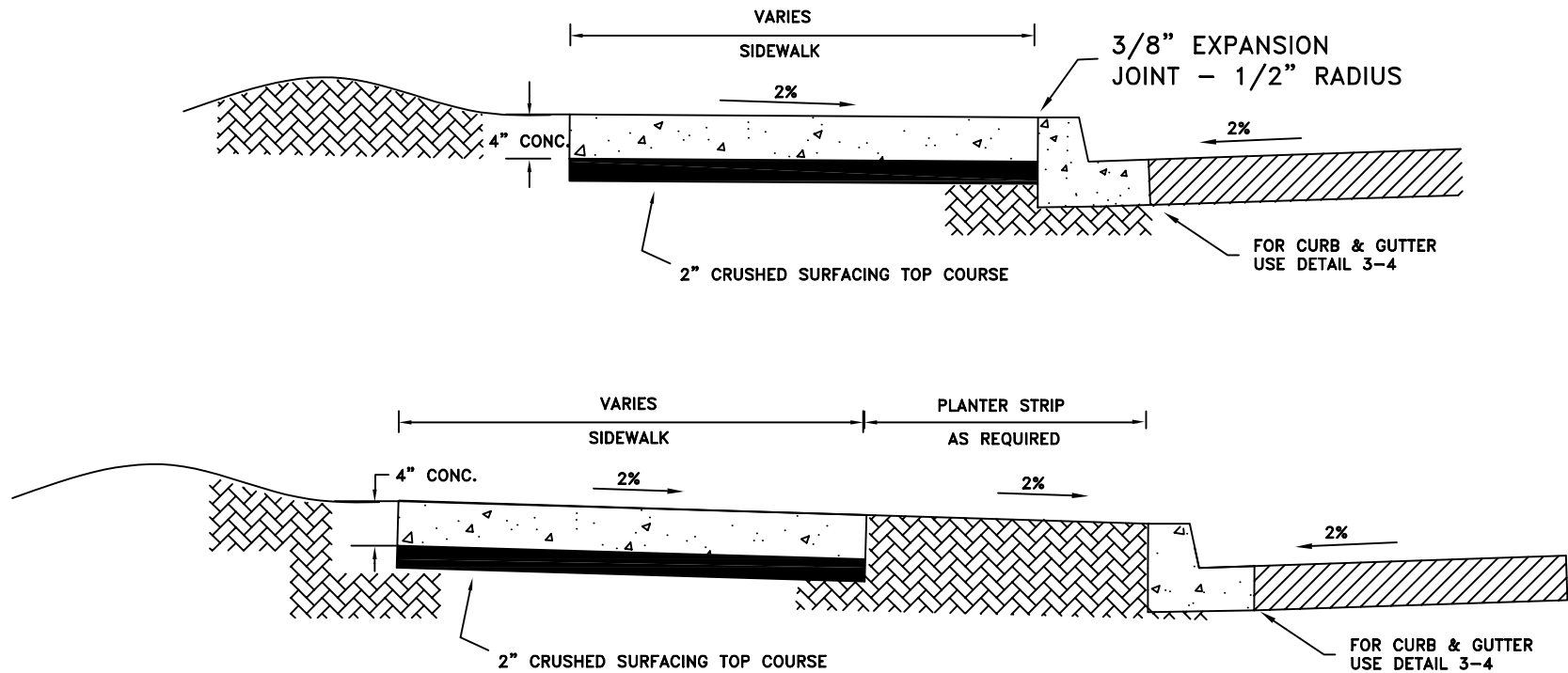


EXTRUDED ASPHALT OR CEMENT CONCRETE CURB
IN PRIVATE PARKING AREAS ONLY



EXTRUDED CEMENT CONCRETE CURB
FOR USE IN PUBLIC RIGHT OF WAY

APRIL 2012

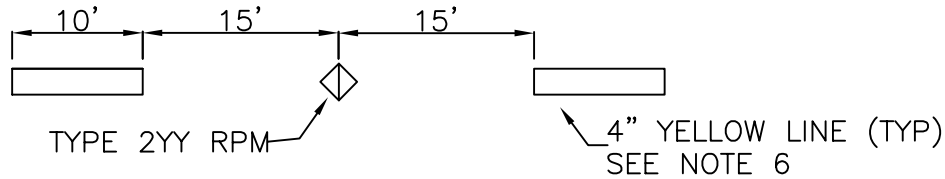


NOTES:

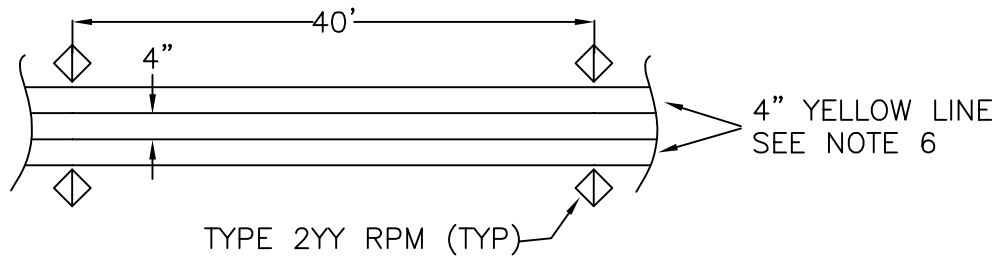
1. FOR JOINTS AND SCORING, SEE FEDERAL WAY STANDARD FOR SIDEWALK SPACING, EXPANSION JOINTS, AND SCORE MARKS.
2. SEE DETAILS 3-6, 3-6A, & 3-7 FOR MINIMUM DEPTH OF CONCRETE THROUGH DRIVEWAY SECTIONS.
3. WHEN CHECKED WITH A 10 FOOT STRAIGHTEDGE, GRADE SHALL NOT DEVIATE MORE THAN 1/8 INCH AND ALIGNMENT SHALL NOT VARY MORE THAN 1/4 INCH.
4. CONCRETE SHALL BE CLASS 3000, WSDOT SPEC. 8-14.

REV. MAR 2011

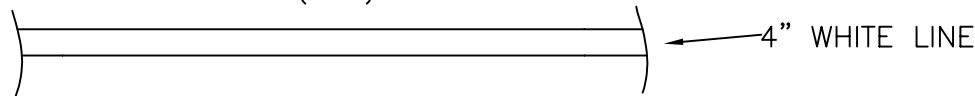
SKIP CENTER LINE (SCL)



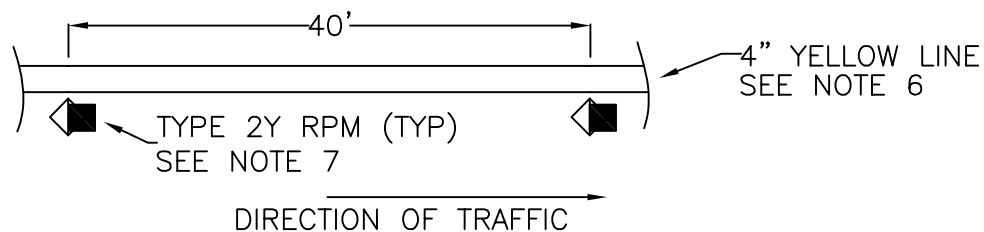
DOUBLE YELLOW CENTER LINE (DYCL)



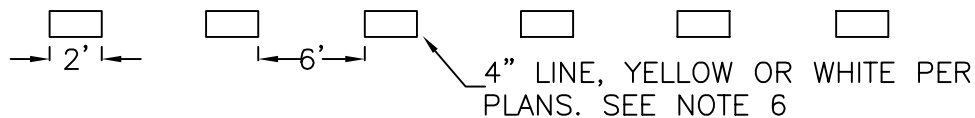
WHITE EDGE LINE (WEL)



YELLOW EDGE LINE (YEL)



DOTTED EXTENSION LINE (WDEL, YDEL)



GENERAL NOTES:

1. LONGITUDINAL STRIPING ON ARTERIALS SHALL BE PLASTIC TYPE D METHYLMETHACRYLATE (MMA). TRANSVERSE MARKINGS SHALL BE PLASTIC TYPE A. ALL OTHER STRIPING SHALL BE PAINT.
2. ALL STRIPING WITHIN INTERSECTIONS SHALL BE PLASTIC TYPE A OR D.
3. ALL RPM'S SHALL BE LOCATED TO PROVIDE 4 INCHES BETWEEN STRIPING AND RPM'S.
4. TYPE 2 RPM'S SHALL BE USED ON ALL ARTERIALS AND COLLECTORS, IF STRIPED
5. WHERE TYPE C CURB IS USED IN PLACE OF STRIPING, USE RPM PATTERN APPLICABLE TO THE STRIPING BEING REPLACED.

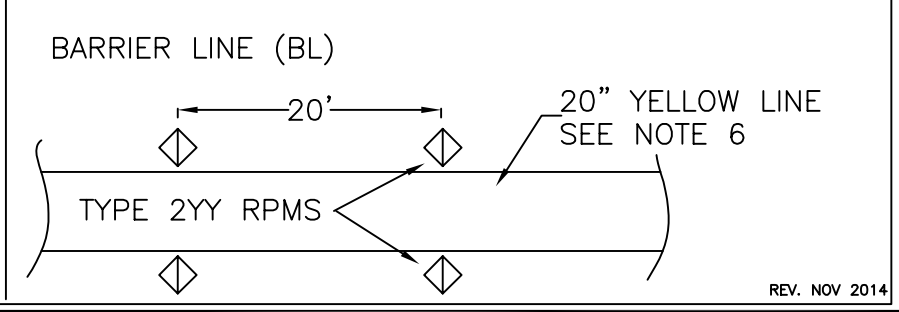
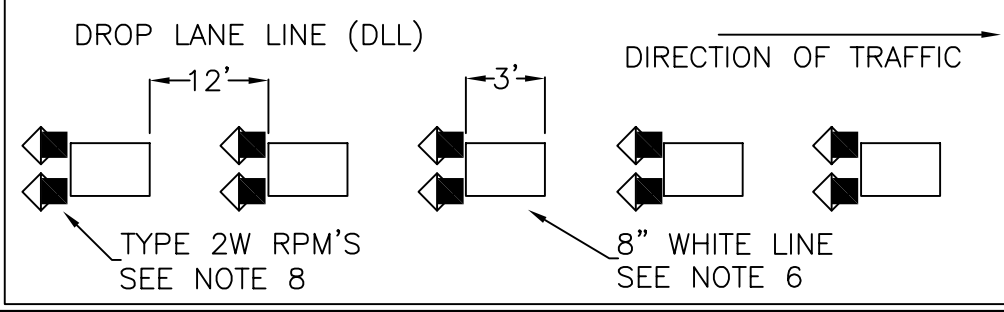
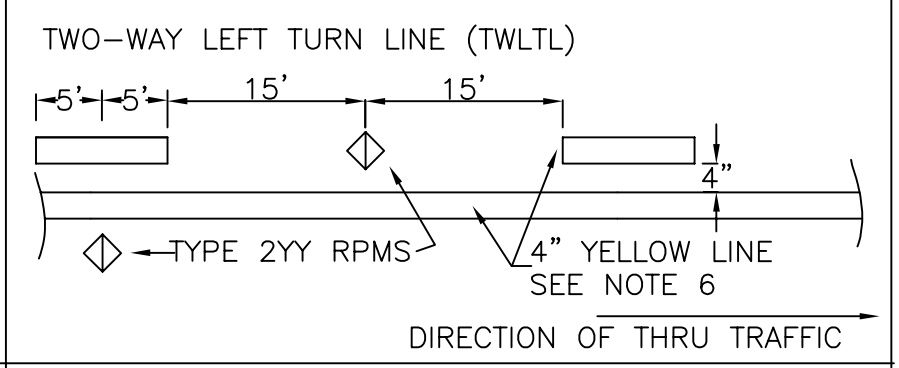
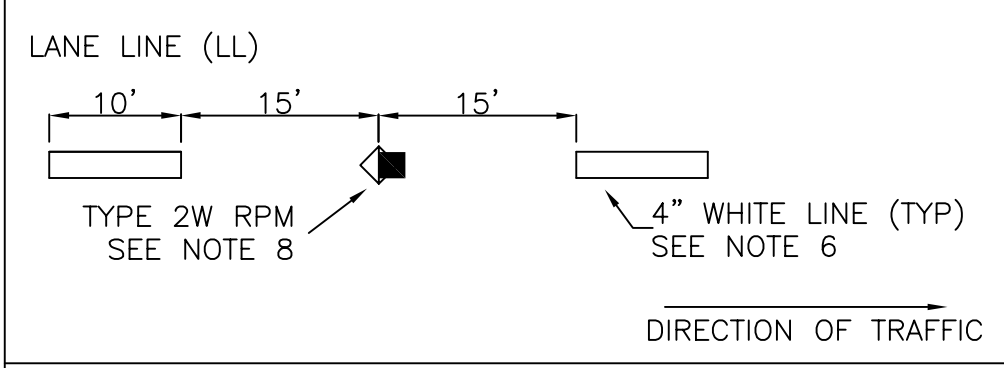
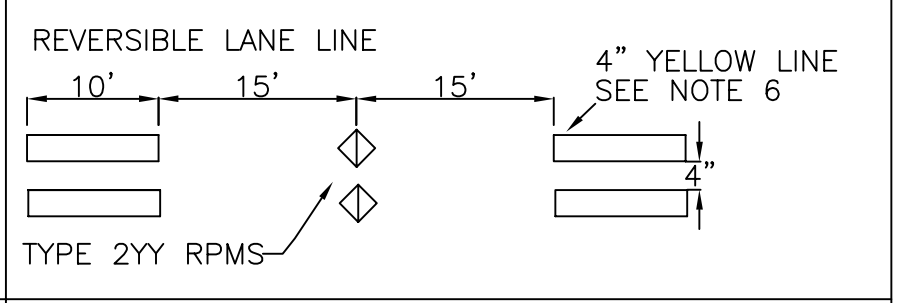
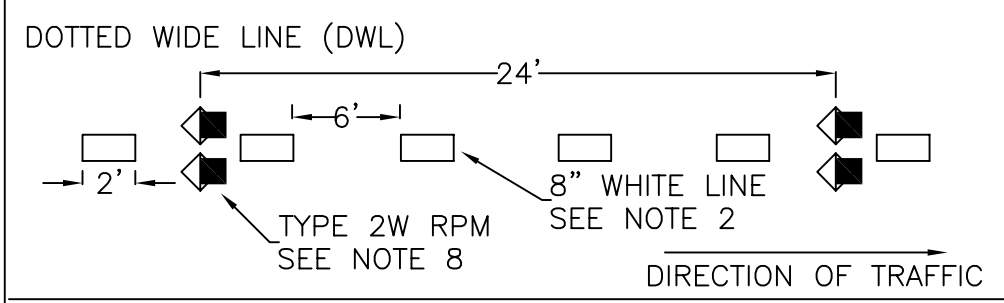
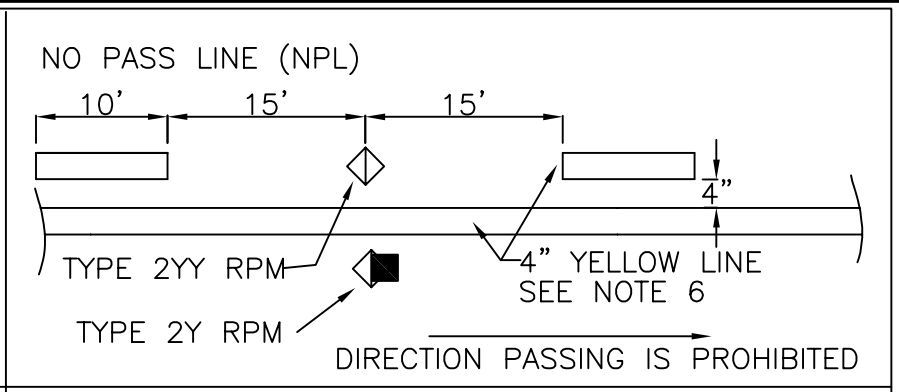
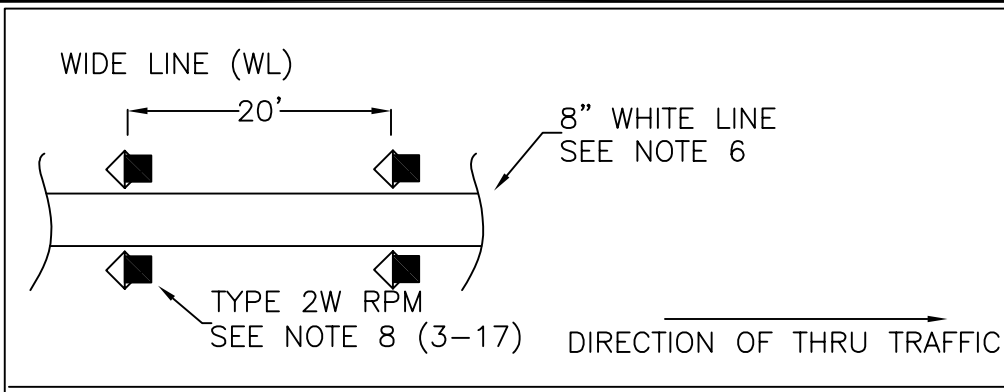
SPECIFIC NOTES:

6. IF MMA IS USED, MMA SHALL BE PROFILED.
7. WHERE RAISED MEDIAN OR TYPE C CURBING IS USED, USE TYPE 2YR RPM'S, WITH RED FACING OPPOSITE THE DIRECTION OF TRAFFIC.
8. WHERE RAISED MEDIAN OR TYPE C CURBING IS USED, USE TYPE 2WR RPM'S, WITH RED FACING OPPOSITE THE DIRECTION OF TRAFFIC.

LEGEND:

- ◀■ MONO-DIRECTIONAL RPM TYPE 2
- ◊ BI-DIRECTIONAL RPM TYPE 2

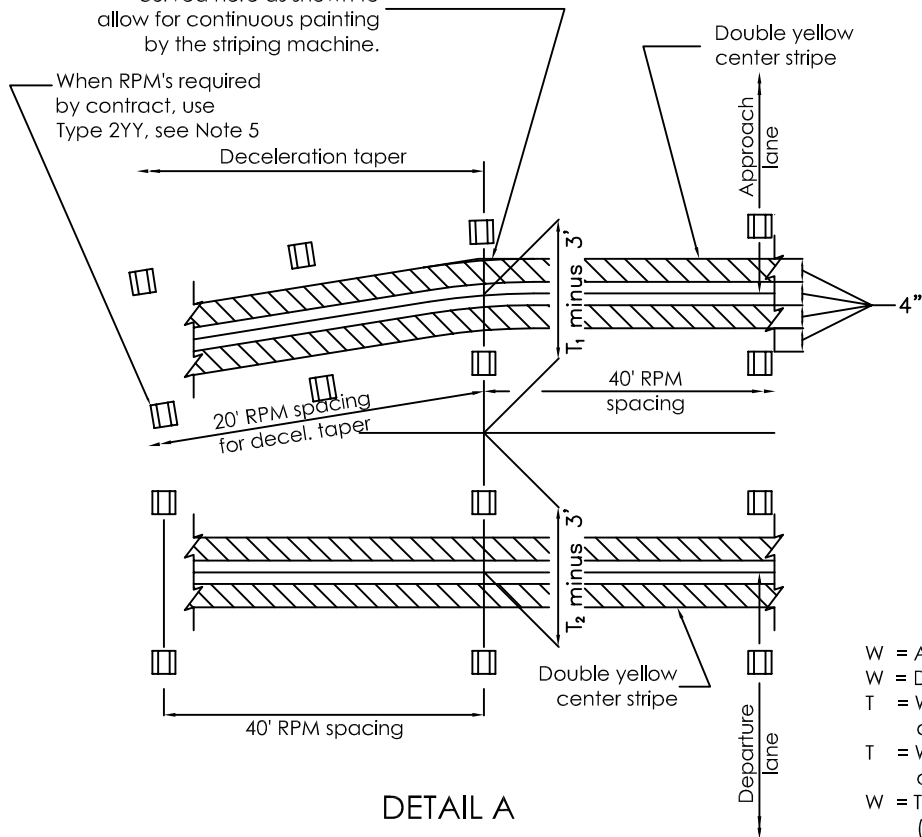
Rev. NOV 2014



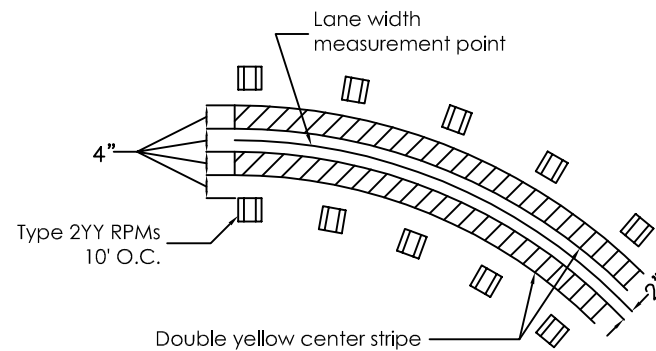
REV. NOV 2014

Pavement markings may be curved here as shown to allow for continuous painting by the striping machine.

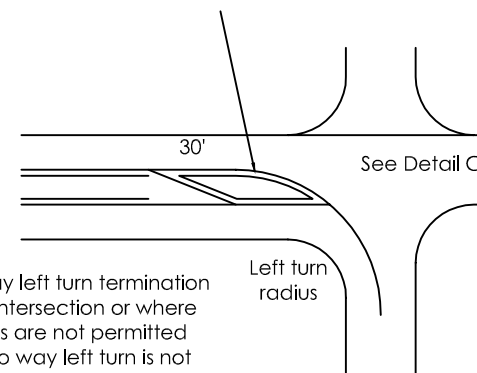
When RPM's required by contract, use Type 2YY, see Note 5



DETAIL A



DETAIL B

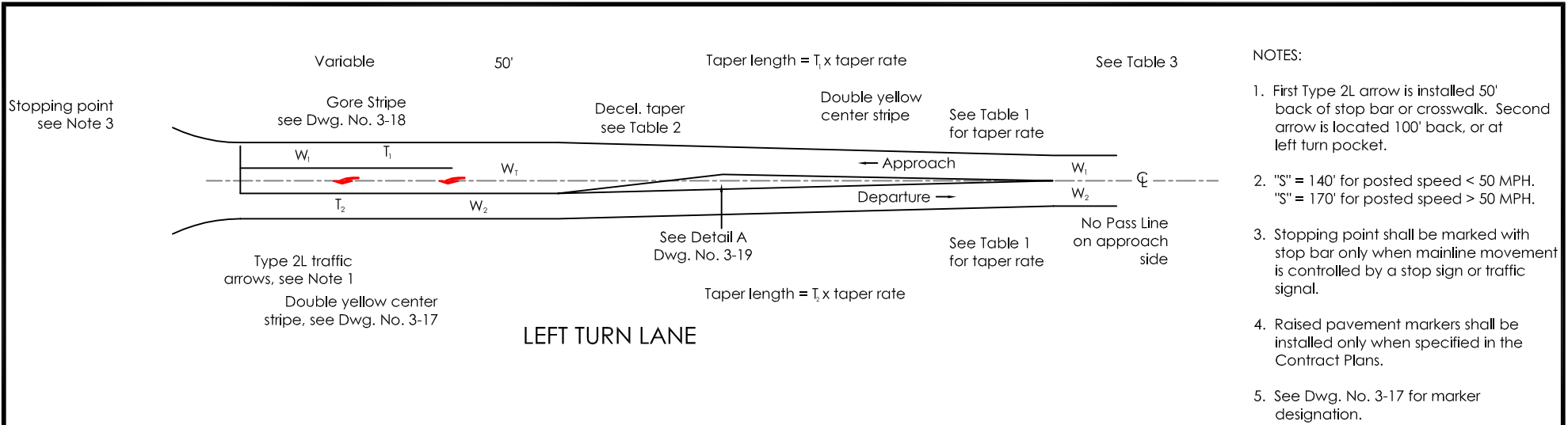


Two way left turn termination at tee intersection or where left turns are not permitted and two way left turn is not continued beyond intersection.

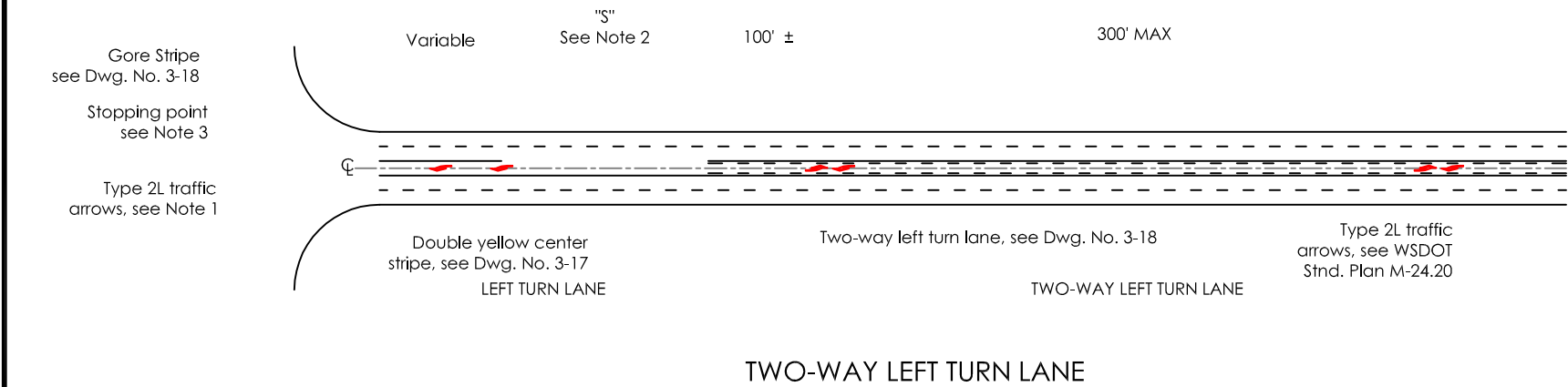
END TWO-WAY LEFT TURN LANE

- W = Approaching through lane
- W = Departing Lane
- T = Width of left turn lane on approach side of
- T = Width of left turn lane on departure side of
- W = Total width of channelization (W + W + T + T)

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- NOTES:**
1. First Type 2L arrow is installed 50' back of stop bar or crosswalk. Second arrow is located 100' back, or at left turn pocket.
 2. "S" = 140' for posted speed < 50 MPH.
"S" = 170' for posted speed > 50 MPH.
 3. Stopping point shall be marked with stop bar only when mainline movement is controlled by a stop sign or traffic signal.
 4. Raised pavement markers shall be installed only when specified in the Contract Plans.
 5. See Dwg. No. 3-17 for marker designation.



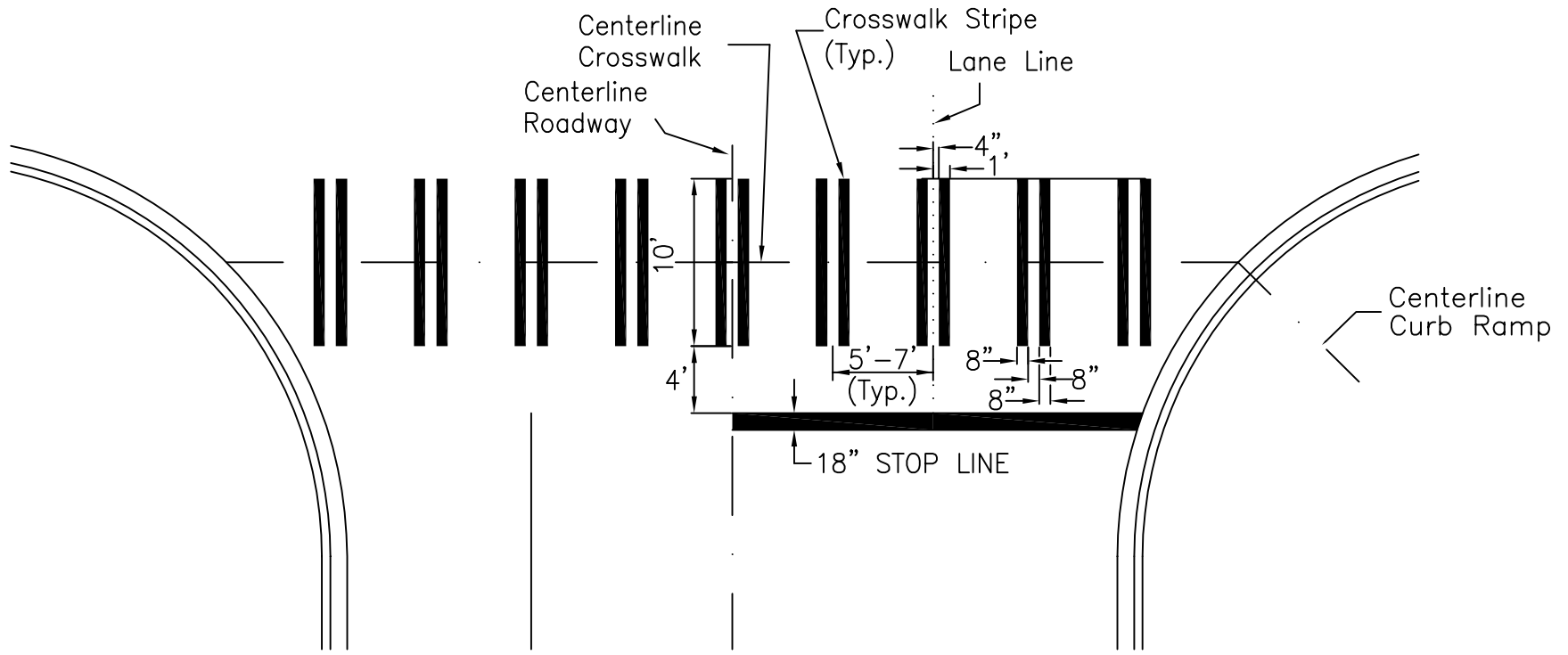
| Posted Speed | Taper Rate |
|--------------|------------|
| 55 mph | 55 : 1 |
| 50 mph | 50 : 1 |
| 45 mph | 45 : 1 |
| 40 mph | 40 : 1 |
| 35 mph | 35 : 1 |
| 30 mph | 30 : 1 |
| 25 mph | 25 : 1 |

| Posted Speed | Decel. Taper Length |
|--------------|---------------------|
| 55 mph | 165' |
| 50 mph | 150' |
| 45 mph | 135' |
| 40 mph | 120' |
| 35 mph | 105' |
| 30 mph | 90' |
| 25 mph | 75' |

| Posted Speed | No pass length (Minimum) |
|--------------|--------------------------|
| 55 mph | 725' |
| 50 mph | 660' |
| 45 mph | 590' |
| 40 mph | 360' |
| 35 mph | 260' |
| 30 mph | 200' |
| 25 mph | 150' |

W_1 = Approaching through lane
 W_2 = Departing Lane
 T_1 = Width of left turn lane on approach side of
 T_2 = Width of left turn lane on departure side of
 W_T = Total width of channelization ($W_1 + W_2 + T_1 + T_2$)

Rev. NOV 2014



CROSSWALK STRIPE DETAIL

TRAFFIC ARROWS TYPE 1S, 2SL, 2SR, 3SL, 3SR, 4S, AND 5S – SEE WSDOT STANDARD PLAN M-24.40

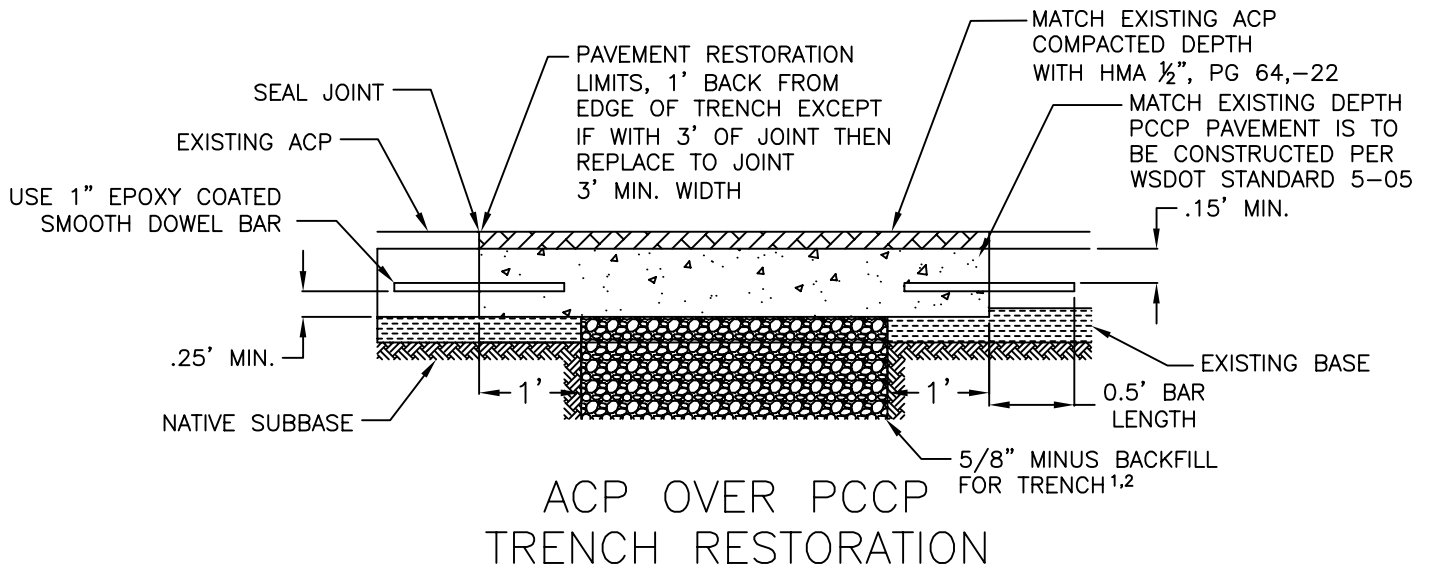
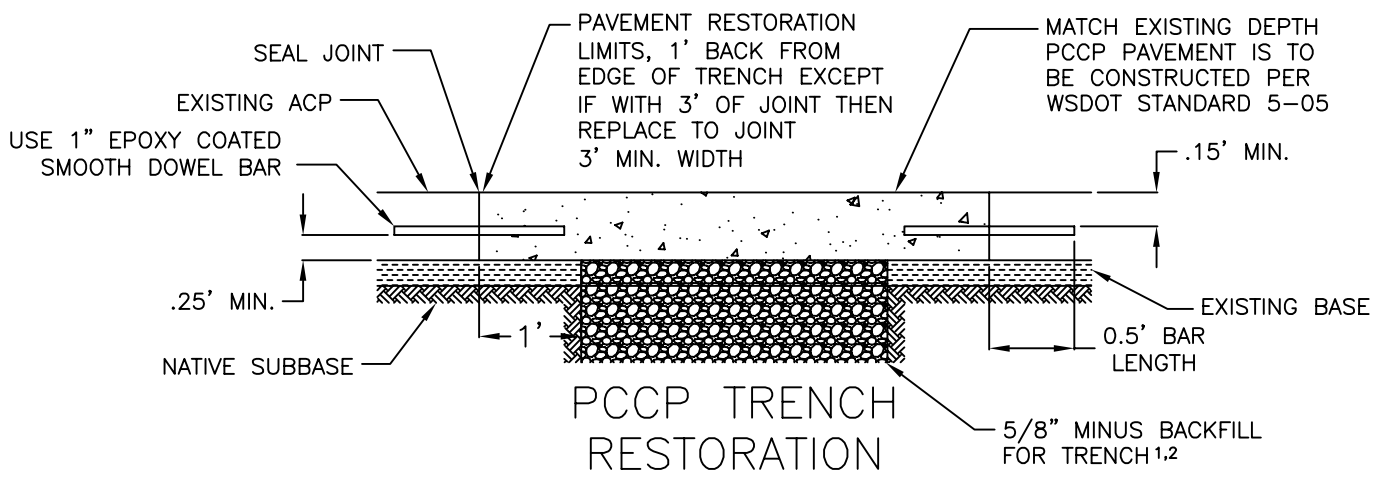
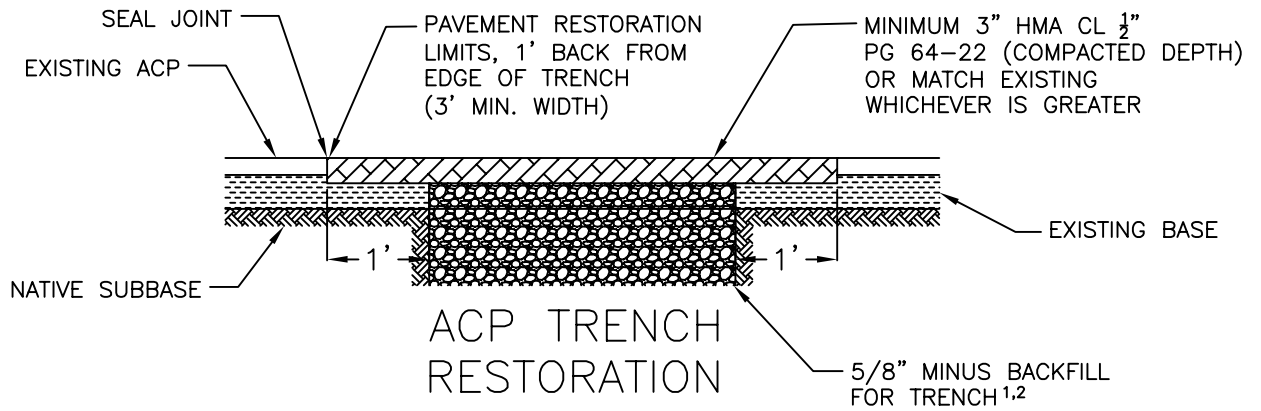
"SHARKS TOOTH" YIELD LINE SYMBOL – SEE WSDOT STANDARD PLAN M-24.60

HANDICAPPED PARKING STALL SYMBOL – SEE WSDOT STANDARD PLAN M-24.60

BIKE LANE SYMBOL – SEE WSDOT STANDARD PLAN M-9.50

PREFERENTIAL LANE SYMBOL – SEE WSDOT STANDARD PLAN M-7.50

Rev. NOV 2014

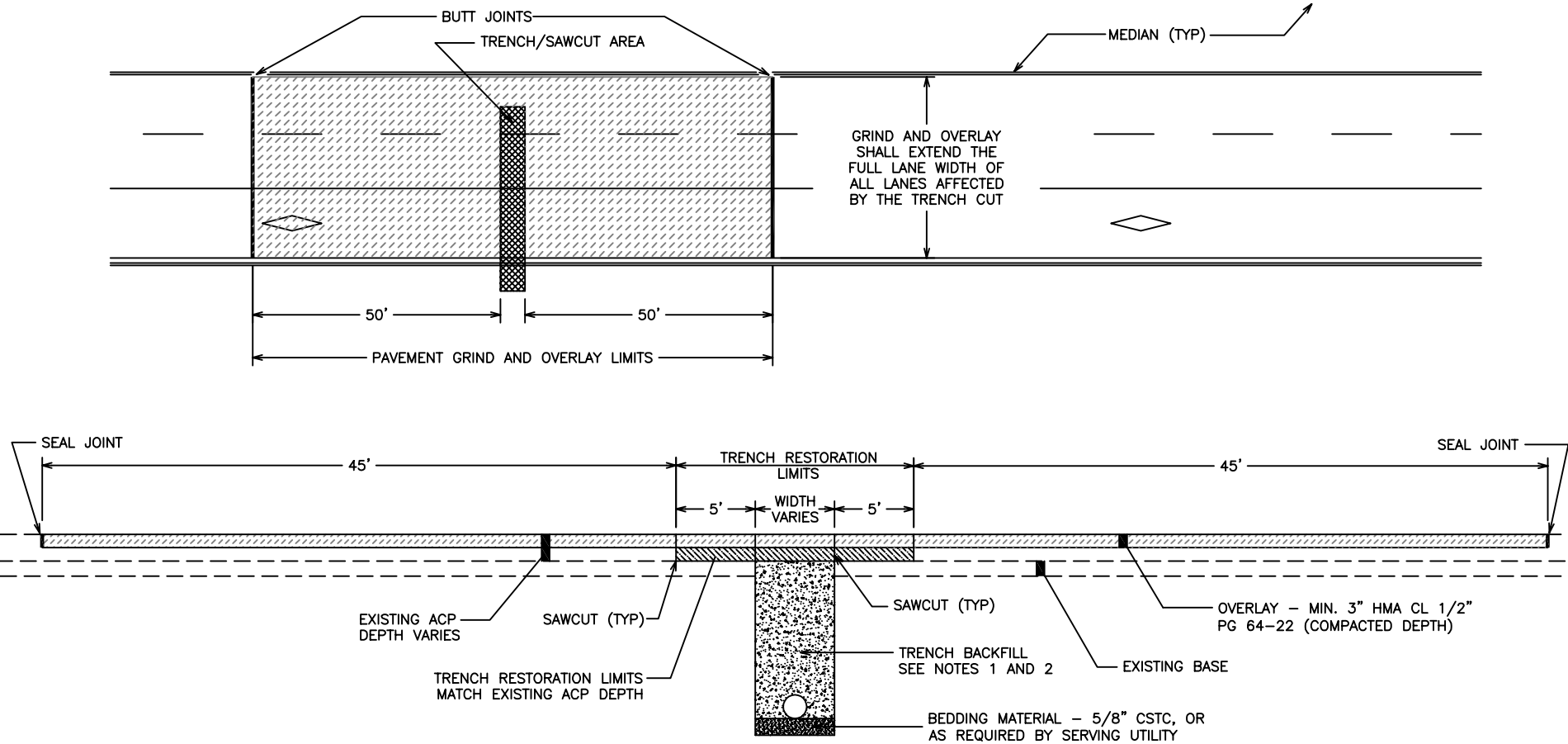


NOTES:

- 1) FOR TRENCHES LESS THAN 18" WIDE, USE 100% CDF FOR TRENCH BACKFILL.
- 2) FOR TRENCHES GREATER THAN 18" WIDE, ALL BACKFILL IN RIGHT-OF-WAY SHALL BE MIN. 5/8" CSTC.

JULY 2014

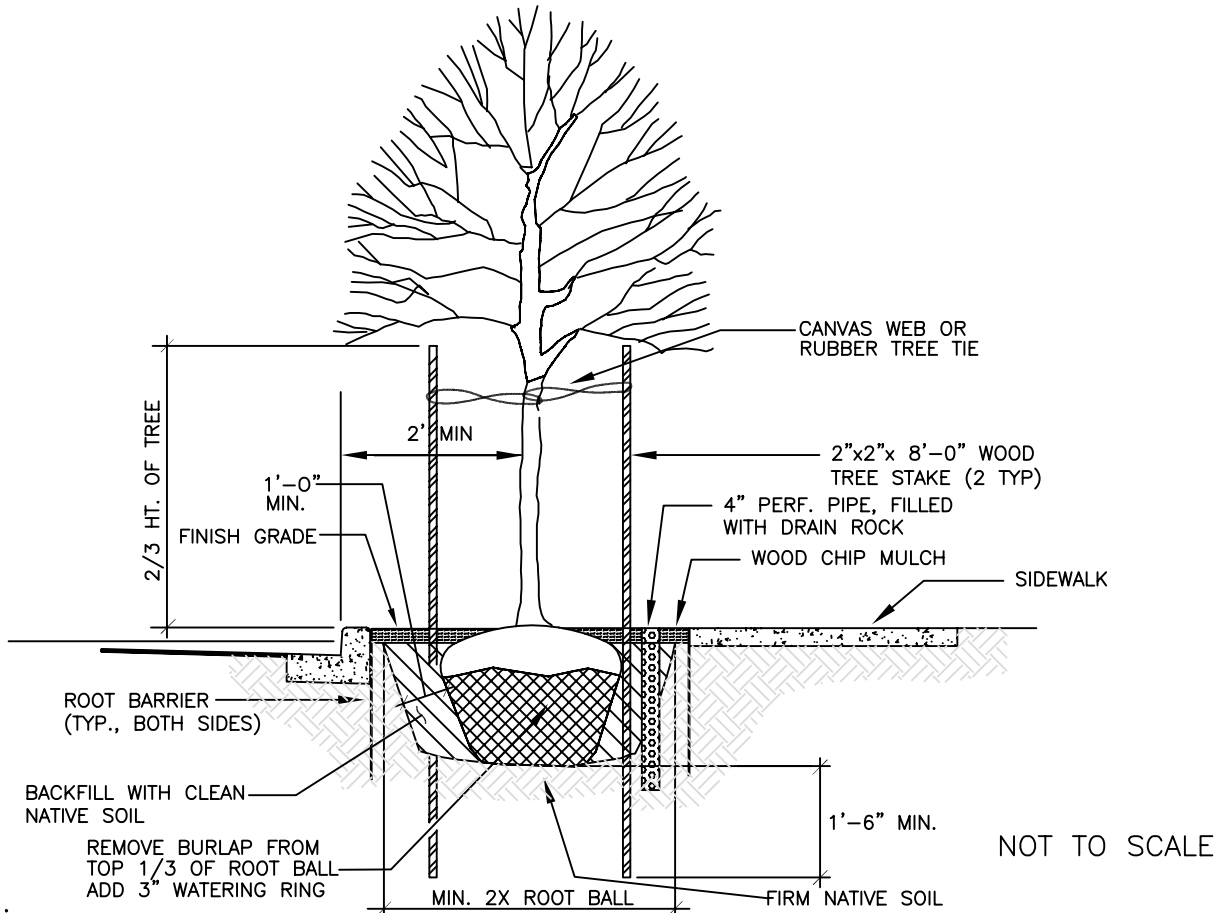
PACIFIC HIGHWAY SOUTH



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.

JUL 2017



NOTES:

PLANTING:

1. Dig hole 2–3 times the width of the root ball and as deep as the root ball. Do not make hole deeper than root ball.
2. Remove containers, biodegradable pots, synthetic or treated burlap, wire, twine, or ropes. Leave natural burlap in place and fold back. Loosen the roots and spread or cut circling roots.
3. Place top of root ball even with or slightly higher than soil grade on firm soil. Do not add soil amendments or gravel unless approved by Public Works Director.
4. Install 4"x 24" perforated drain pipe; fill with drain rock. Pipe shall not extend more than 1/2" above finish grade.
5. Back fill with clean native soil. Firm soil around the root ball; water slowly and thoroughly.
6. Mulch around tree with 2–4" wood-chip mulch. Do not place mulch next to trunk.

ROOT BARRIER:

1. Root barrier shall be rigid High Impact Polypropylene treated with UV inhibitors, minimum 18" height, with 1/2" raised vertical ribs 6" on center, or approved equal.
2. Install root barrier in continuous 12' strip, centered on tree, next to sidewalk and curb according to manufacturer's directions. Exposed edge shall not extend more than 1/2" above finished grade.

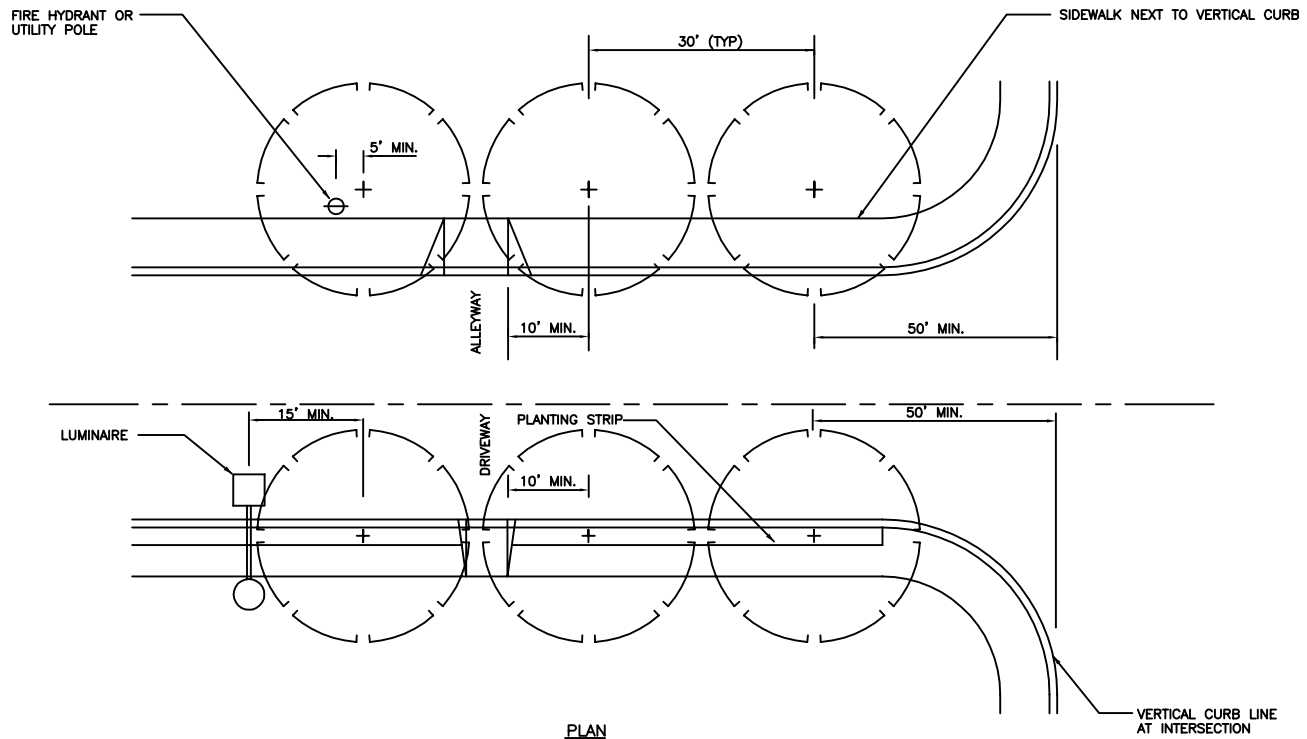
STAKING:

1. Use 2, 2"x2" by 8' long wood tree stakes. Do not drive stake through root ball.
2. Attach tree to stake with canvas web belting or rubber, using a figure-8 formation.

TAGS:

1. Remove tags after inspection.

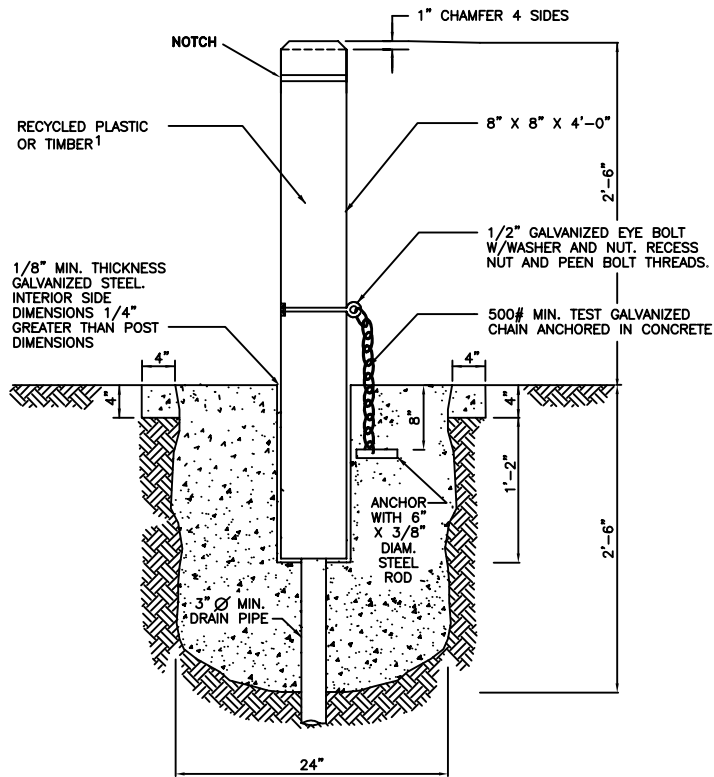
REV JAN 2019



NOTES:

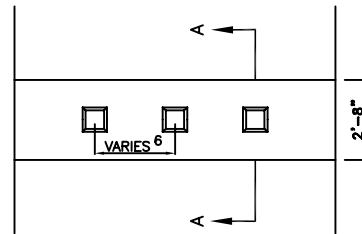
1. IF PLANTING STRIPS ARE APPROVED:
 - A. TREES SHALL BE STAKED IN A MANNER NOT TO OBSTRUCT SIDEWALK TRAFFIC.
2. ON BUS ROUTES, PLANS SHALL BE COORDINATED WITH METRO SERVICE PLANNING (206.684.1622), AND/OR PIERCE TRANSIT.
3. SEE SEC. 3.5.1.
4. TREE SHALL BE LOCATED 24" FROM FACE OF CURB

REV. MAR 2011



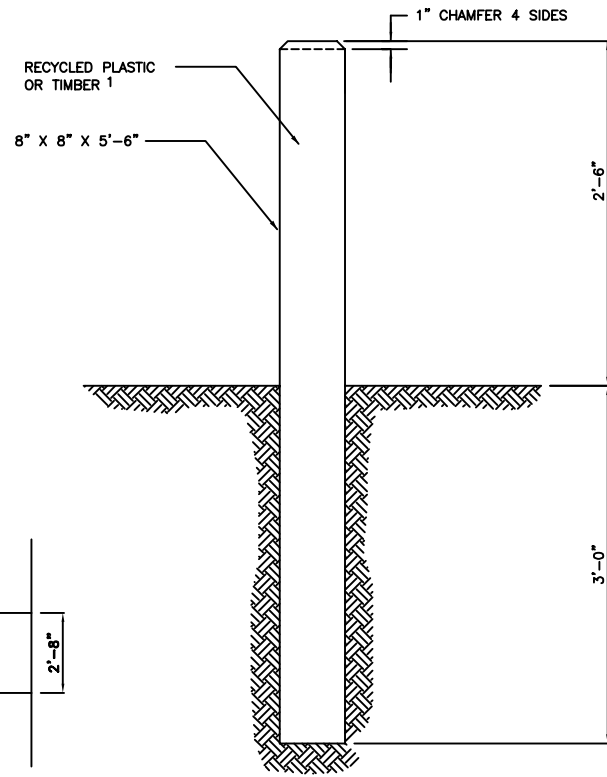
REMOVABLE BOLLARD

SECTION A-A



REMOVABLE BOLLARD

PLAN



FIXED BOLLARD

NOTES:

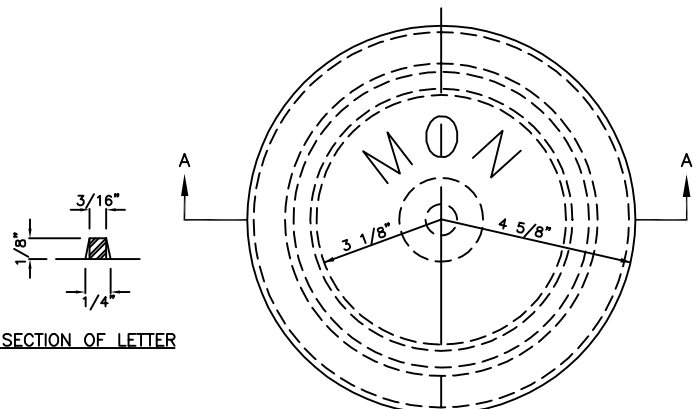
1. RECYCLED PLASTIC BOLLARD SHALL BE WHITE. TIMBER SHALL BE DOUGLAS FIR, DENSE CONSTRUCTION GRADE, AND SHALL BE PRESSURE TREATED WITH A WATERBORNE PRESERVATIVE (ACA, CCA, ACZA) IN ACCORDANCE WITH THE REQUIREMENTS OF SEC. 9-09.3 (4) OF THE WSDOT/APWA STANDARD SPECIFICATIONS. TOP 5" OF TIMBER SHALL BE PAINTED WHITE.
2. STEEL TUBE SHALL CONFORM TO ASTM A53 GRADE A.
3. NUTS, BOLTS, & WASHERS SHALL CONFORM TO ASTM A307.
4. ALL STEEL PARTS SHALL BE GALVANIZED.
5. CONCRETE SHALL BE CLASS 3000.
6. MIN. 50" SPACING ON TRAILS LESS THAN 10' WIDE. 60" SPACING ON TRAILS 10' OR WIDER.

REV. 4/11/08

NOTES:

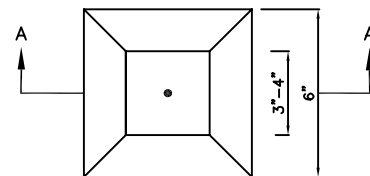
1. CASTINGS SHALL BE GRAY IRON ASTM A48, AASHTO M 105, CLASS 30.
2. COVER AND SEAT SHALL BE MACHINED FOR PERFECT CONTACT AROUND CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
3. APPROXIMATE WEIGHTS, STANDARD.

| | |
|-------|--------|
| 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

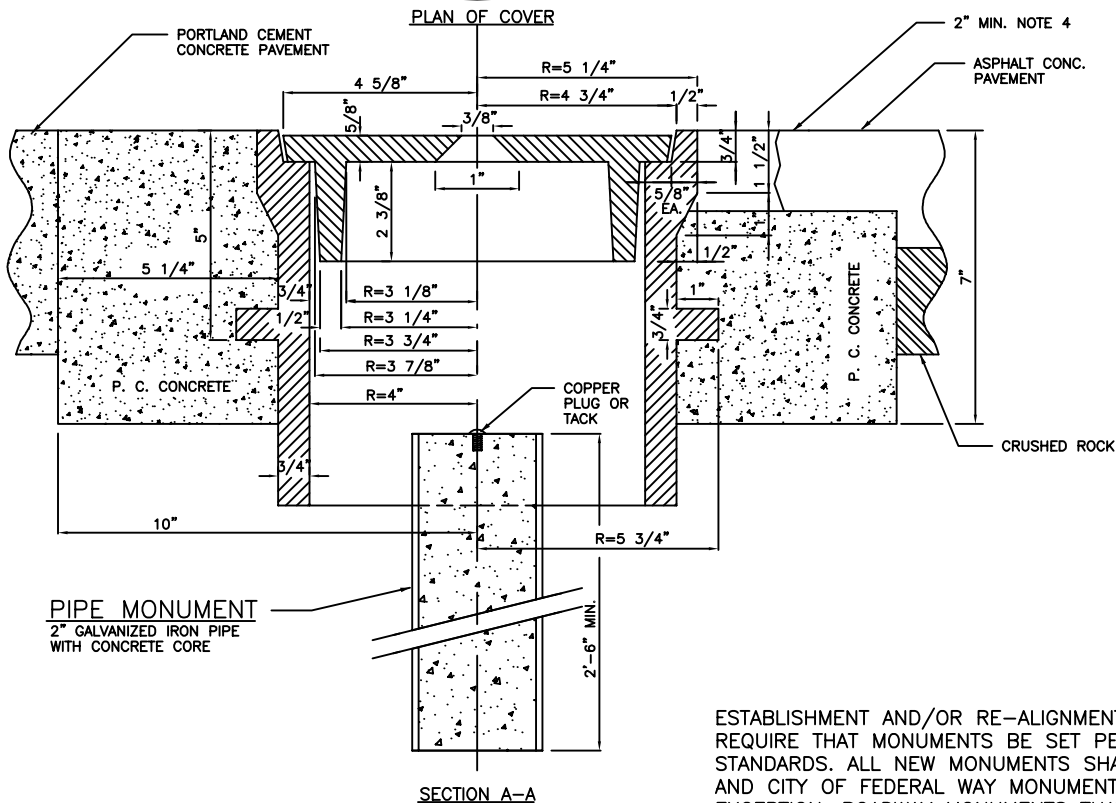


SECTION OF LETTER

PLAN OF COVER



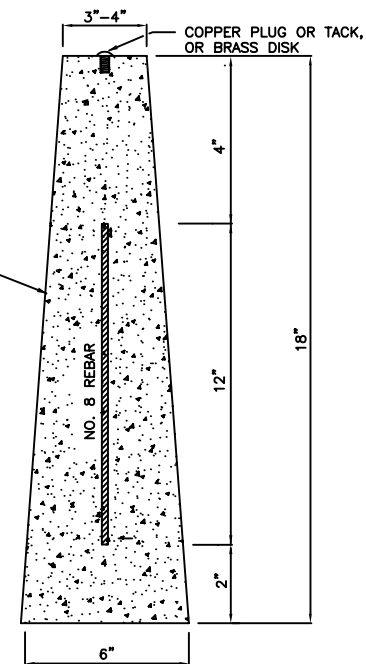
PLAN OF MONUMENT



PIPE MONUMENT
2" GALVANIZED IRON PIPE
WITH CONCRETE CORE

SECTION A-A

CONCRETE
MONUMENT
(ALTERNATE)



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. APR 2012

**STREET LIGHT STANDARDS
OUTSIDE CITY CENTER**

| Street Classification | Pavement Width | Lamp Wattage | Average Maintained Footcandle | Maximum Uniformity Ratio (AVG:MIN) | Luminaire Mounting Height* | Light Distribution Pattern | Maximum Luminaire Spacing |
|-----------------------|----------------|--------------|-------------------------------|------------------------------------|----------------------------|----------------------------|---------------------------|
| Arterial | Over 66' | ** | 1.0 | 3:1 | 40' | M-C-III | ** |
| Arterial | Over 44' | ** | 1.0 | 3:1 | 35' | M-C-III | ** |
| Arterial | ≤ 44' | ** | 1.0 | 3:1 | 35' | M-C-III | ** |
| Principal Collector | ≤ 44' | ** | 0.6 | 3:1 | 35' | M-C-III | ** |
| Minor Collector | ≤ 44' | ** | 0.5 | 4:1 | 30' | M-C-III | ** |
| Local | ≤ 34' | ** | 0.4 | 6:1 | 30' | M-C-III | ** |

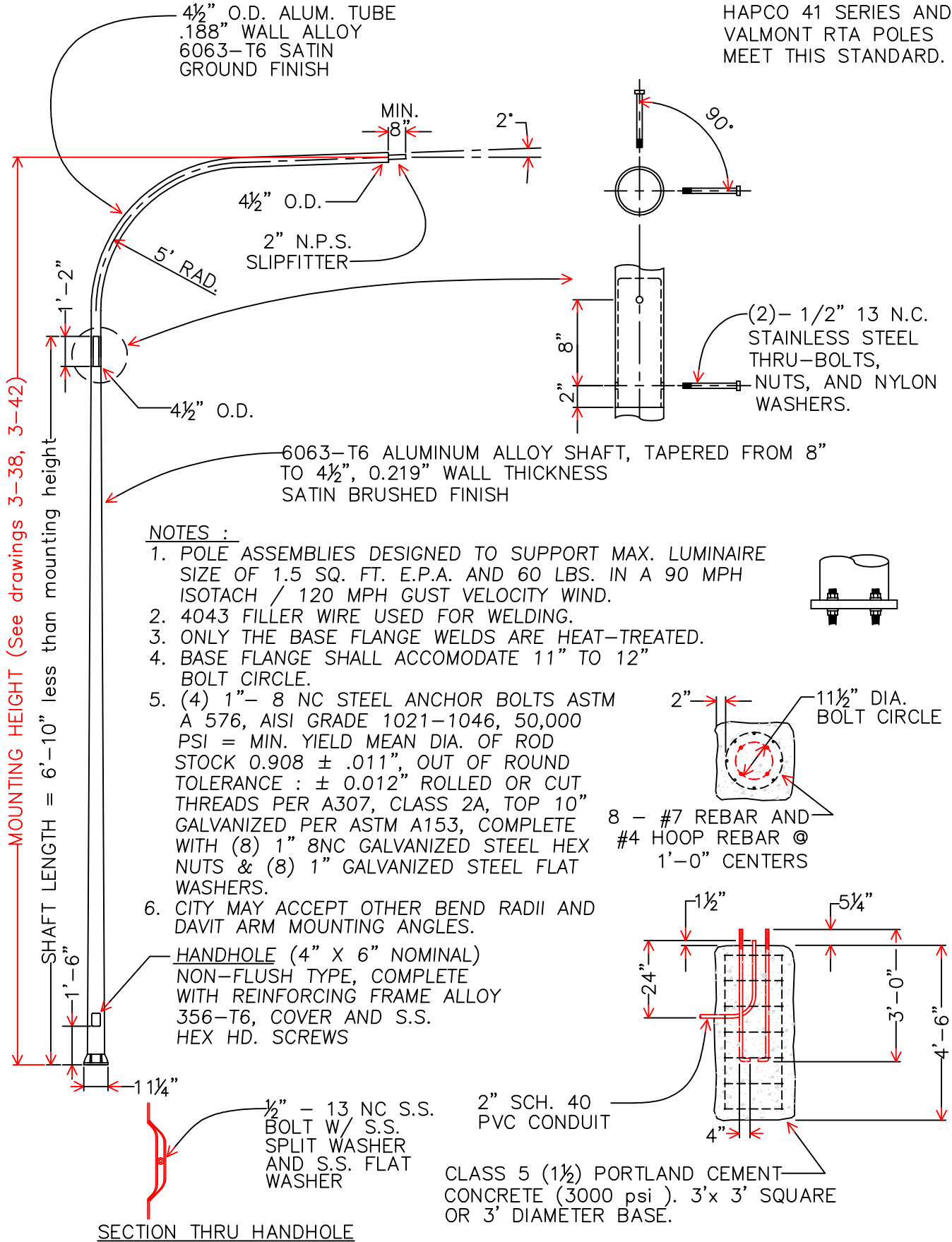
Notes:

1. Luminaires shall be LED with Correlated Color Temperature (CCT) of 4000K +/- 300K with a single photocell on pole nearest to service cabinet for all circuits.
2. Street lighting standards shall be tapered round aluminum with Davit bracket arm, with 5' radius.
3. Luminaires shall be located at least 6' behind the curb within the landscape strip. If landscape strip is less than 6', luminaires shall be located behind the sidewalk. (Refer to Standard Detail DWG. No. 3-39A).
4. Luminaire arm length shall provide for a 2' lamp overhang in front of the curb face.
5. All street lighting design plans shall be stamped by a Professional Engineer registered in Washington and approved by City staff.
6. Installation of street lights shall conform to City Standard Details and Specifications.

* Use 35' mounting height for streets up to 66' wide, 40' mounting height for streets over 66' wide.

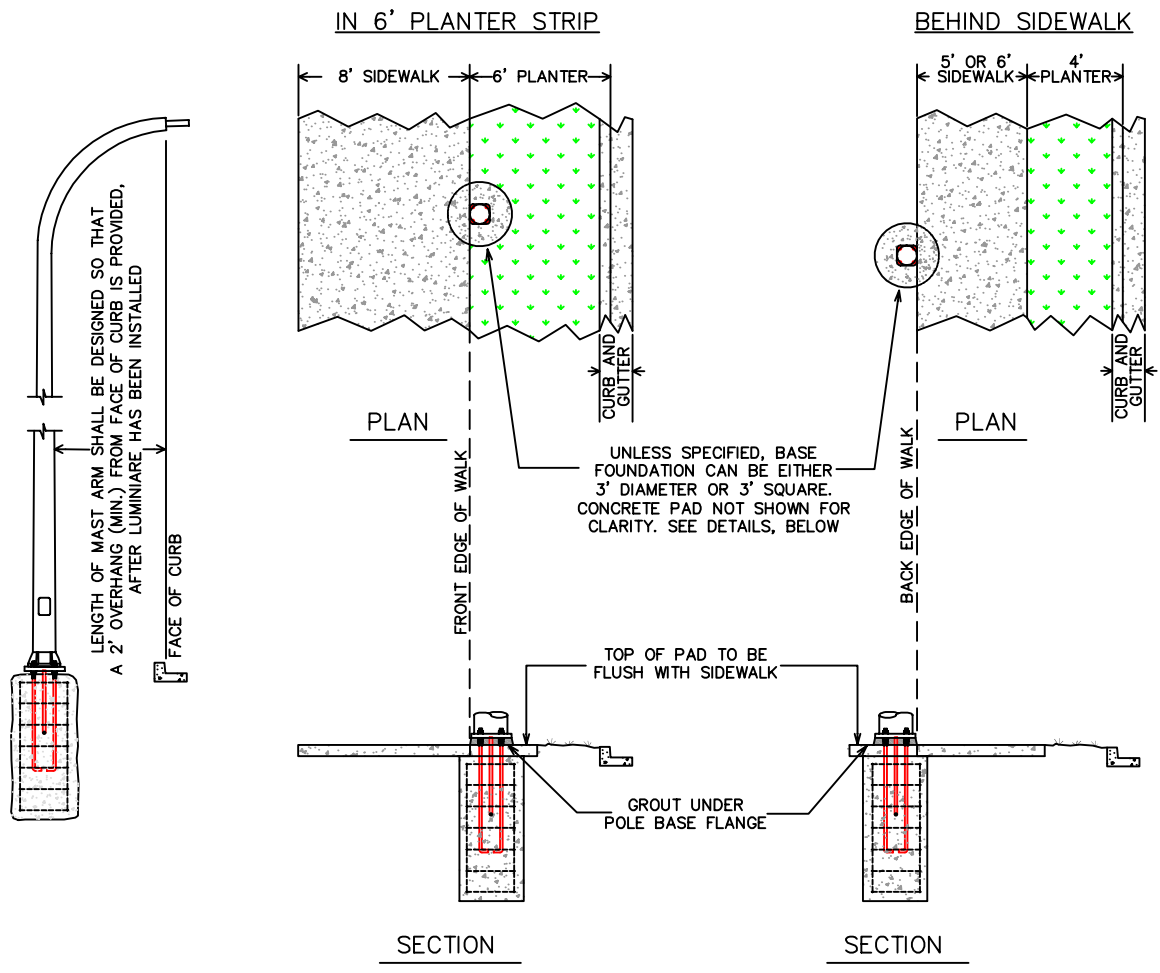
** To be designed to meet roadway conditions and design criteria.

HAPCO 41 SERIES AND VALMONT RTA POLES MEET THIS STANDARD.



Rev. NOV 2014

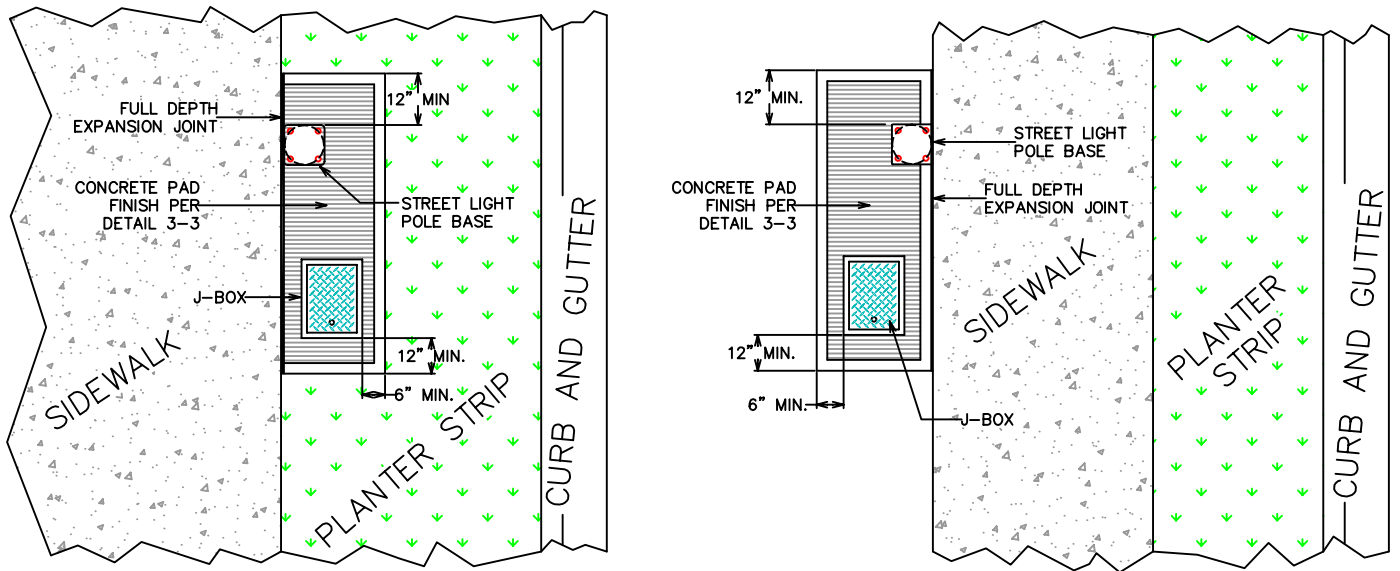
LUMINAIRE BASE LOCATION DETAIL



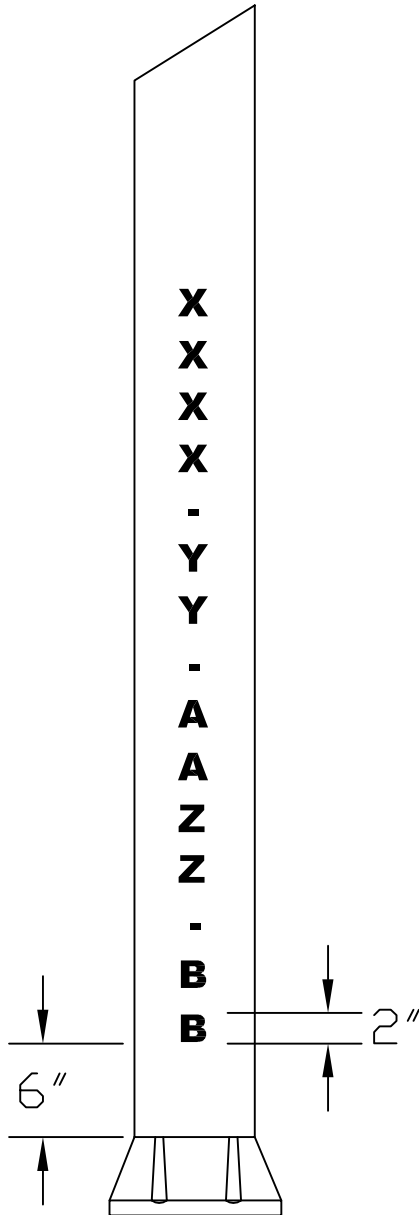
LUMINAIRE BASE AND J-BOX CONCRETE PAD ENCASEMENT DETAIL

FOR 6' PLANTER STRIP
(STREET LIGHT IN FRONT OF SIDEWALK)

FOR 4' PLANTER STRIP
(STREET LIGHT BEHIND SIDEWALK)



DEC 2014



XXXX = SERVICE CABINET LOCATION NUMBER BASED UPON A CITY DEFINED COORDINATE SYSTEM

YY = THE SERVICE NUMBER, WITH MOST LOCATIONS ONLY HAVING ONE SERVICE CABINET, THUS NUMBER 1

AAZZ = CIRCUIT DESIGNATION NUMBER: EXAMPLE IS STREET LIGHT CIRCUIT 10 = SL10

BB = POLE NUMBER WITHIN CIRCUIT

LEADING ZEROS SHALL BE OMITTED

ALL NUMBERS/LETTERS SHALL BE TWO (2) INCHES HIGH WITH TWO (2) INCH VERTICAL SPACING

ALL NUMBERS/LETTERS SHALL BE PAINTED BLACK ON THE POLE FACE NEAREST THE STREET. PAINT SHALL BE BLACK ALKYD GLOSS CONFORMING TO FEDERAL SPECIFICATION TT-E-489.

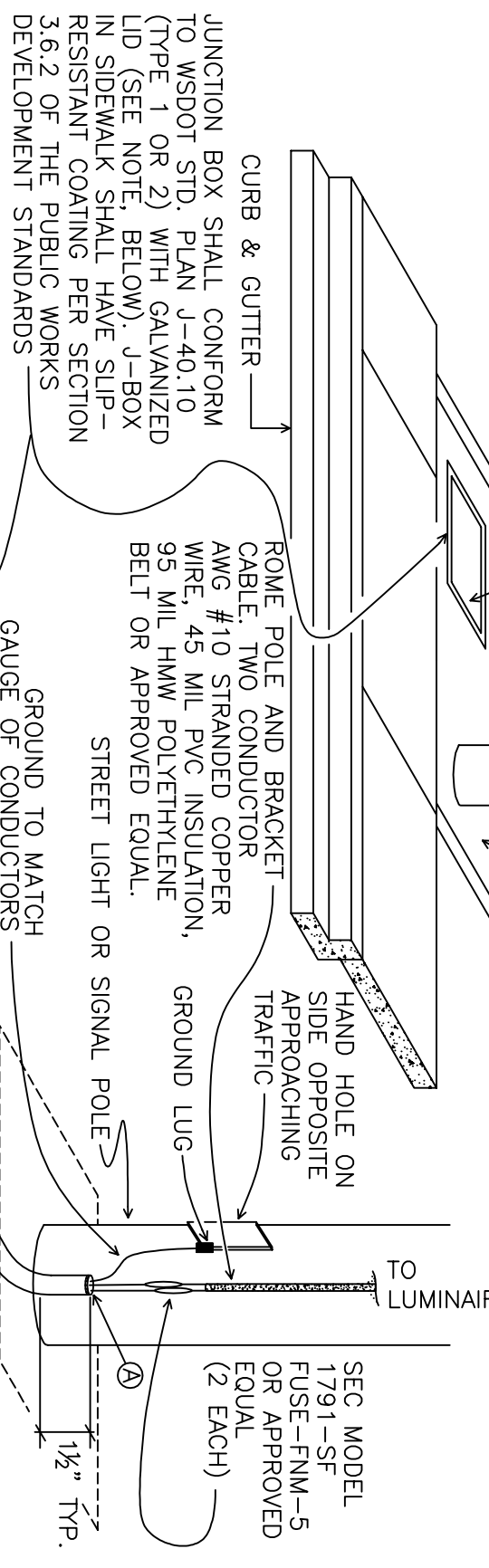
FEB 2011

JUNCTION BOX SHALL BE SET NEAR OR ADJACENT TO POLE BASE. BOTTOM OF BOX MUST BE ABLE TO DRAIN.

HAND HOLE

LUMINAIRE POLE. REFER TO DWG. 3-39A FOR PLACEMENT

CONCRETE PAD PER DWG. 3-39A



Ⓐ = BELL END PVC BUSHING

NOTES:

- 1) J-BOX LID TO BE WELDED SHUT AFTER FINAL INSPECTION W/2 1" LONG WELDS AT OPPOSITE CORNERS.
- 2) EXCEPT AS NOTED, ALL WIRING METHODS SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (NEC) AND APPLICABLE SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS

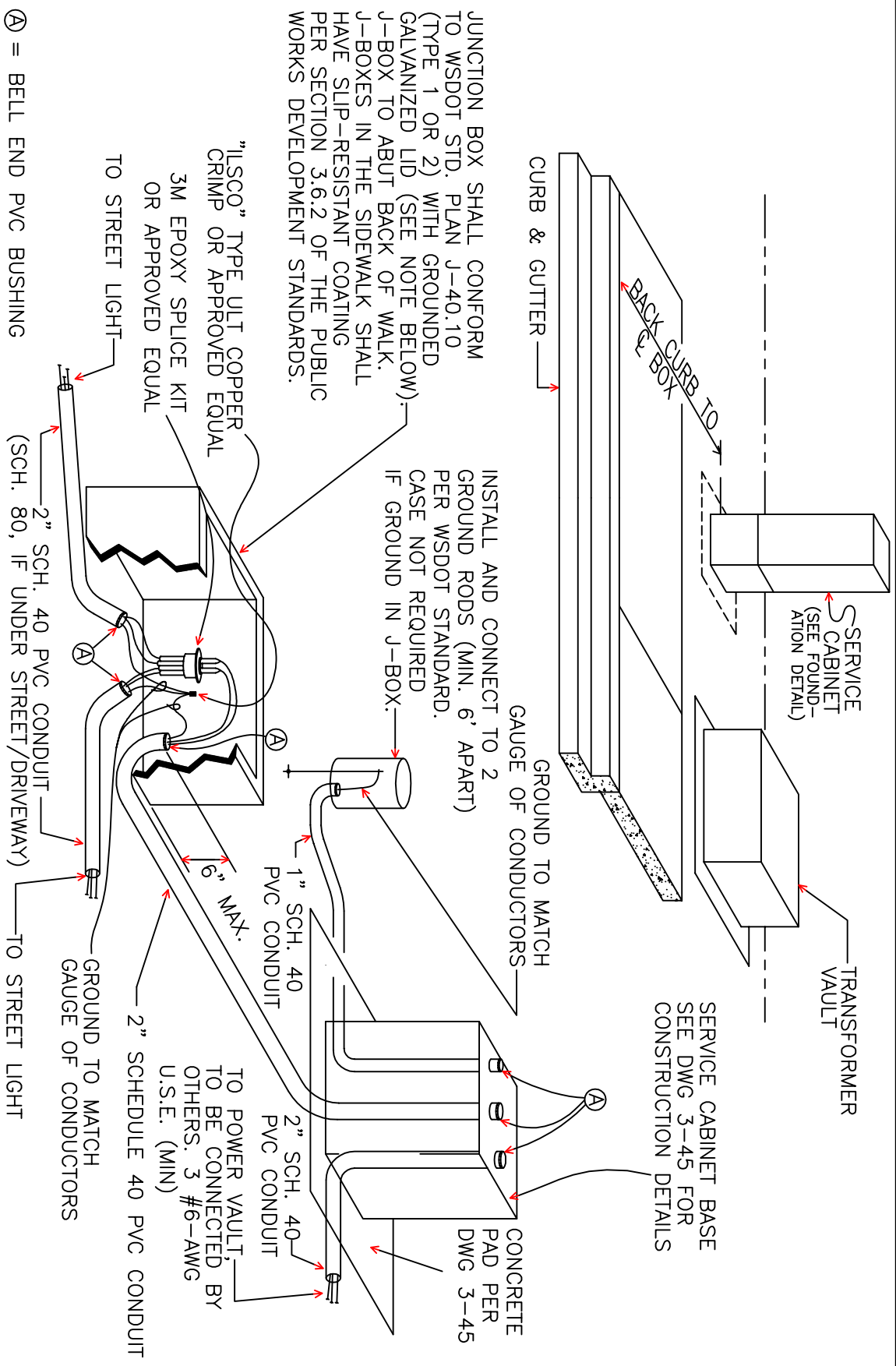
REV. APR 2019



CITY OF
Federal Way
PUBLIC WORKS

UNIFORM LUMINAIRE WIRING DETAIL

DWG. NO.
3-40



JUNCTION BOX SHALL CONFORM TO WSDOT STD. PLAN J-40.10 (TYPE 1 OR 2) WITH GROUNDED GALVANIZED LID (SEE NOTE BELOW). J-BOX TO ABOUT BACK OF WALK. J-BOXES IN THE SIDEWALK SHALL HAVE SLIP-RESISTANT COATING PER SECTION 3.6.2 OF THE PUBLIC WORKS DEVELOPMENT STANDARDS.

Ⓐ = BELL END PVC BUSHING

- NOTES:
- 1) J-BOX LID TO BE WELDED SHUT AFTER FINAL INSPECTION W/2 1" LONG WELDS AT OPPOSITE CORNERS.
 - 2) EXCEPT AS NOTED, ALL WIRING METHODS SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (NEC) AND APPLICABLE SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS

REV. APR 2015



PUBLIC WORKS

ILLUMINATION SYSTEM SERVICE DETAIL

DWG. NO. 3-41

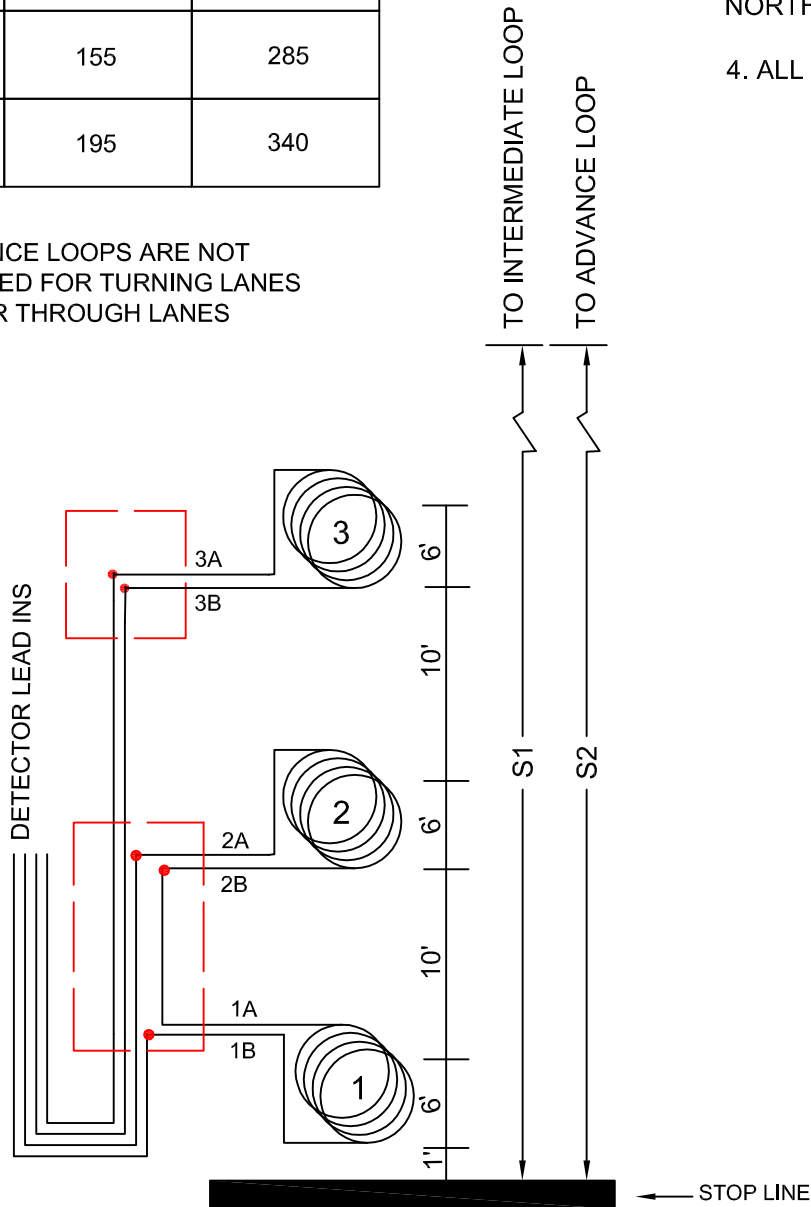
SERIES CONNECTED
 LOOP 1-2
 COUNT DETECTOR LOOP 3
 (DRAWING NOT TO SCALE)

| POSTED SPEED (MPH) | * S1(FT) | * S2(FT) |
|--------------------|----------|----------|
| 25 | — | 105 |
| 30 | — | 140 |
| 35 | — | 185 |
| 40 | 115 | 230 |
| 45 | 155 | 285 |
| 50 | 195 | 340 |

NOTES:

1. USE XYZ LOOP NUMBERING SCHEMATIC, WHERE:
 X IS THE PHASE #
 Y IS LANE # FROM INSIDE
 Z IS LOOP # FROM STOPBAR
2. USE 3' X 25' LOOP FOR BIKE LANES
3. PHASE 2 IS ALWAYS NORTHBOUND THRU DIRECTION
4. ALL LOOPS SHALL BE CIRCULAR

* ADVANCE LOOPS ARE NOT REQUIRED FOR TURNING LANES & MINOR THROUGH LANES



REV MAR 2011

DESIGNATED STREET TREE LIST

FOR ANY STREET THAT **DOES NOT** APPEAR ON THE LIST BELOW, USE ONE OF THE FOLLOWING TREES:

In Six-Foot Wide Planter Strip (Street Sections A, C, E, G, I, K, M, O)

Acer rubrum 'Red Sunset', 'October Glory', or 'Autumn Blaze' (Red Maple)
Acer saccharum 'Green Mountain'
Carpinus betulus (European Hornbeam)
Fraxinus americana 'Rosehill'
Fraxinus oxycarpa 'Raywood'
Fraxinus pennsylvanica lanceolata 'Marshall', 'Patmore', Summit', or 'Urbanite'
Malus floribunda 'Dolga' (Japanese Flowering Crab)
Tilia tomentosa (Silver Linden)

In Four-Foot Wide Planter Strip (Street Sections R, S, U, W)

Acer buergerianum (Trident Maple)
Acer campestre (Hedge Maple)
Acer griseum (Paperbark Maple)
Carpinus japonica (Japanese Hornbeam)
Magnolia kobus (Kobus Magnolia)
Magnolia loebneri (Magnolia)
Malus 'Adams' or 'Robinson' (Flowering Crabapple)
Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear)

CITY CENTER STREETS:

In the City Center, the following street trees must be used:

City Center North-South Streets

| | |
|---------------------------|--|
| 10 th Avenue S | Malus 'Adams' or 'Robinson' |
| 11 th Place S | Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear) |
| 13 th Avenue S | Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear) |
| 18 th Avenue S | Malus 'Adams' or 'Robinson' (Flowering Crabapple) |
| 20 th Avenue S | Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear) |
| 22 nd Avenue S | Malus 'Adams' or 'Robinson' (Flowering Crabapple) |
| 23 rd Avenue S | Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear) |
| 28 th Avenue S | Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear) |
| Pacific Highway | Acer rubrum 'Red Sunset' (Red Maple) |

City Center East-West Streets

| | |
|----------------------------|--|
| S 312 th Street | Acer rubrum 'Red Sunset' (Red Maple) |
| S 314 th Street | Malus 'Adams' or 'Robinson' (Flowering Crab) |
| S 316 th Street | Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear) |
| S 317 th Street | Malus 'Adams' or 'Robinson' (Flowering Crab) |
| S 320 th Street | Acer rubrum 'Red Sunset' (Red Maple) |
| S 322 nd Street | Malus 'Adams' or 'Robinson' (Flowering Crab) |
| S 324 th Street | Pyrus calleryana var. 'Capital' or 'Redspire' (Flowering Pear) |

In City Center Streetlight Planters, Add one of the following groundcovers:

Otto Luyken Laurel, Heather, English Ivy, Red Japanese Barberry

STREETS OUTSIDE THE CITY CENTER

Outside the City Center, only the street trees specified are to be used on the streets listed below. One species or a combination of species may be used. If a street does not appear on this list, please refer to the beginning of this appendix and select a tree species based on planter width.

Dash Point Road

Acer rubrum 'Red Sunset', 'October Glory', or 'Autumn Blaze' (Red Maple)
Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)
Under Power Lines
Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

Enchanted Parkway

Acer rubrum 'Red Sunset', 'October Glory', or 'Autumn Blaze' (Red Maple)
Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)
Under Power Lines:
Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

Hoyt Road

Acer saccharum 'Green Mountain'(Sugar Maple)
Fraxinus pennsylvanica lanceolata 'Marshall', 'Patmore', Summit', or 'Urbanite' (Green Ash)
Tilia tomentosa (Silver Linden)
Under Power Lines:
Magnolia kobus (Kobus Magnolia) or Acer buergeranum (Trident Maple)

Military Road

Acer saccharum 'Green Mountain'(Sugar Maple)
Fraxinus pennsylvanica lanceolata 'Marshall', 'Patmore', Summit', or 'Urbanite' (Green Ash)
Tilia tomentosa (Silver Linden)
Under Power Lines:
Magnolia kobus (Kobus Magnolia) or Acer buergeranum (Trident Maple)

Pacific Highway

Acer rubrum 'Red Sunset', 'October Glory', or 'Autumn Blaze' (Red Maple)
Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)
Under Power Lines:
Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

First Way

Acer saccharum 'Green Mountain'(Sugar Maple)
Fraxinus pennsylvanica lanceolata 'Marshall', 'Patmore', Summit', or 'Urbanite' (Green Ash)
Tilia tomentosa (Silver Linden)
Under Power Lines:
Magnolia kobus (Kobus Magnolia) or Acer buergeranum (Trident Maple)

16th Avenue S (Cross-Section C & E only)

Acer rubrum 'Red Sunset', 'October Glory', or 'Autumn Blaze' (Red Maple)
Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)
Under Power Lines:
Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

21st Avenue SW

Acer saccharum 'Green Mountain'(Sugar Maple)

Fraxinus pennsylvanica lanceolata 'Marshall', 'Patmore', Summit', or 'Urbanite' (Green Ash)

Tilia tomentosa (Silver Linden)

Under Power lines:

Magnolia kobus (Kobus Magnolia) or Acer buergerianum (Trident Maple)

S/SW 312th Street

Acer rubrum 'Red Sunset' (Red Maple)

Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)

Under Power Lines:

Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

S/SW 320th Street

Acer rubrum 'Red Sunset' (Red Maple)

Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)

Under power lines:

Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

SW 336th Street / Campus Drive

Acer rubrum 'Red Sunset' (Red Maple)

Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)

Under Power Lines:

Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

S 348th Street

Acer rubrum 'Red Sunset' (Red Maple)

Fraxinus americana 'Rosehill' or Fraxinus oxycarpa 'Raywood' (Rosehill or Raywood Ash)

Under Power Lines:

Acer griseum (Paperbark Maple) or Carpinus japonica (Japanese Hornbeam)

S/SW 356th Street

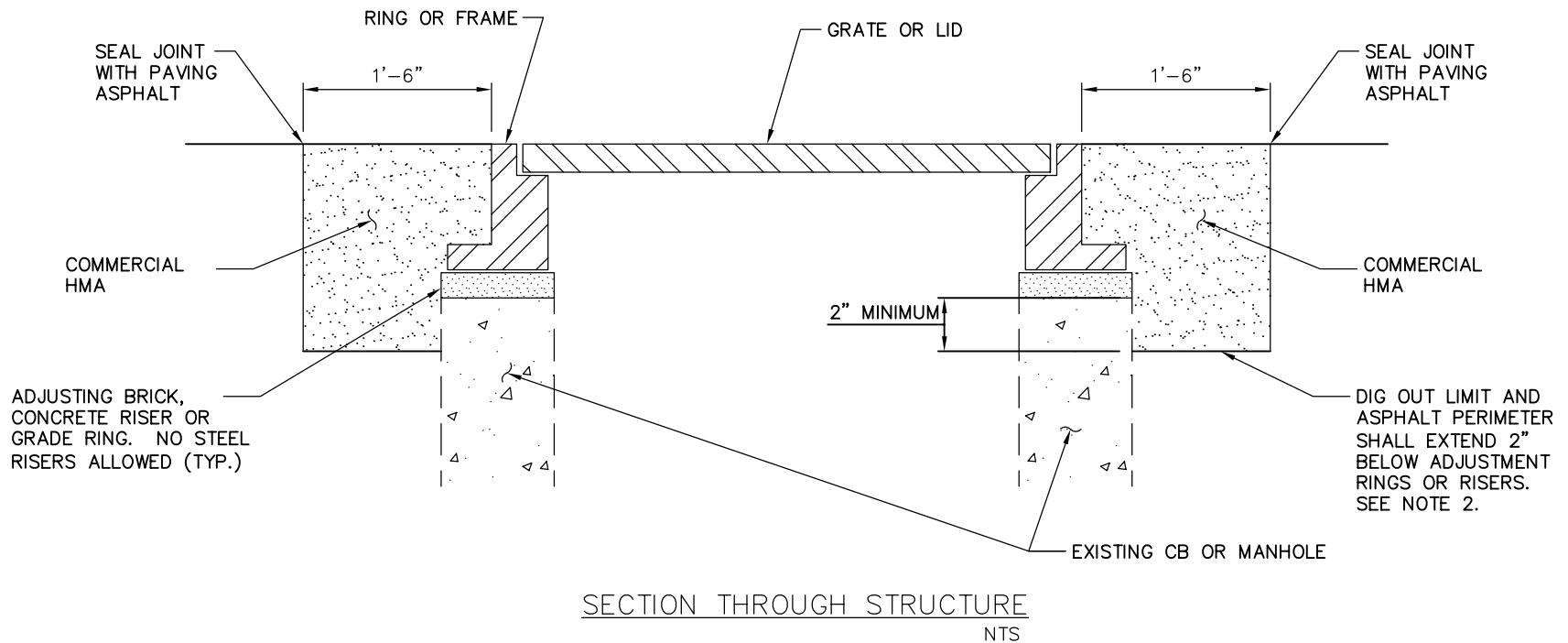
Acer saccharum 'Green Mountain'(Sugar Maple)

Fraxinus pennsylvanica lanceolata 'Marshall', 'Patmore', Summit', or 'Urbanite' (Green Ash)

Tilia tomentosa (Silver Linden)

Under Power Lines:

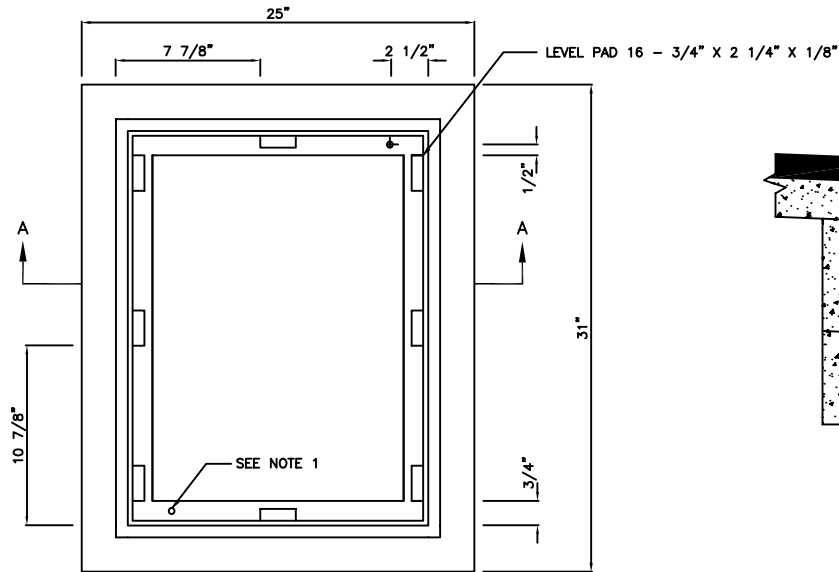
Magnolia kobus (Kobus Magnolia) or Acer buergerianum (Trident Maple)



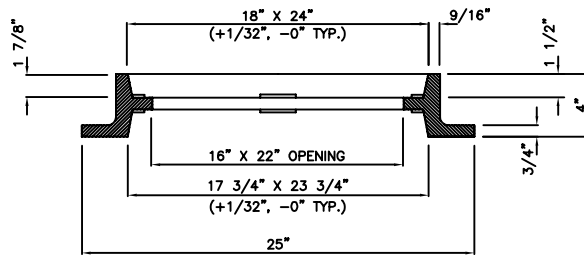
NOTES:

- 1) THE EXISTING STRUCTURE SHALL BE RAISED OR LOWERED TO THE REQUIRED ELEVATION USING CONCRETE BLOCKS, BRICK, AND/OR CONCRETE RINGS. EACH JOINT SHALL BE GROUTED USING A $\frac{3}{4}$ INCH LAYER OF NON-SHRINK MORTAR, PLASTERED SMOOTH INSIDE AND OUT. COVERS SHALL BE SEATED ON A UNIFORM LAYER OF GROUT TO PREVENT ROCKING.
- 2) IF RISERS OR GRADE RINGS ARE LESS THAN 2" THICK, THEN THE DIG-OUT LIMITS (AND HMA DEPTH) SHALL BE EXTENDED TO 2" BELOW THE NEXT RING OR RISER THAT IS GREATER THAN 2" THICK.
- 3) HMA SHALL BE MECHANICALLY COMPACTED IN 3" MAXIMUM LIFTS.
- 4) SEE DETAIL 3-36 FOR ADJUSTMENT OF SURVEY MONUMENT CASTINGS.

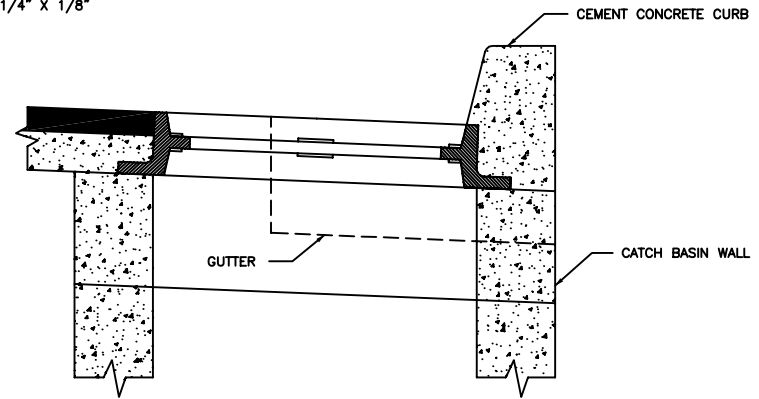
REV: NOV 2011



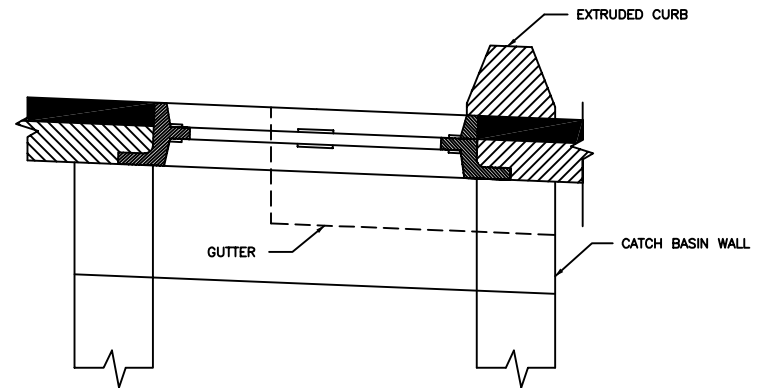
PLAN



SECTION A-A



VERTICAL CURB

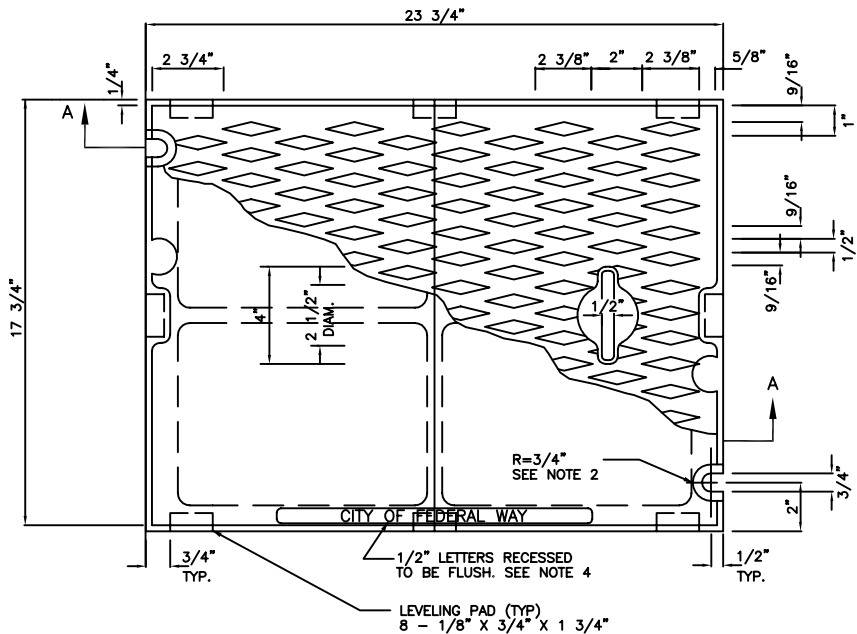


EXTRUDED CURB

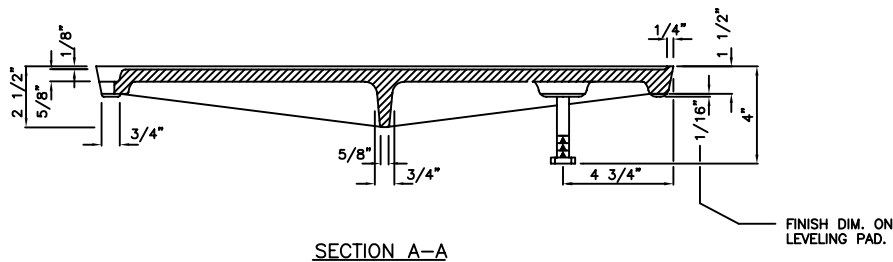
NOTES:

1. DRILL AND TAP FOR, AND PROVIDE, TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG WHEN USED WITH SOLID COVER (DWG. NO. 4-7) OR WHEN SPECIFIED BY ENGINEER.
2. FRAME MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
3. SET FRAME TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.

JULY 2014



PLAN COVER

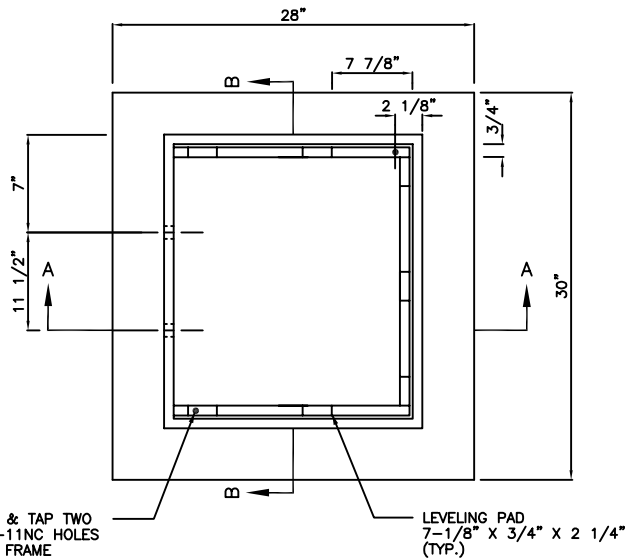


SECTION A-A

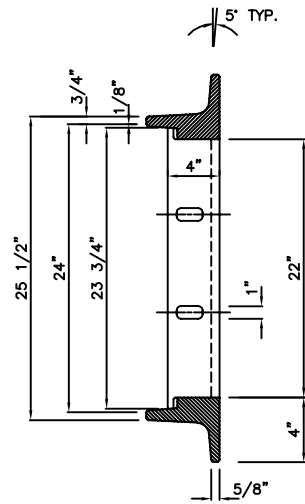
NOTES:

1. USE WITH FRAME DRILLED AND TAPPED FOR LOCKING BOLTS.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS STEEL TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS, 2" LONG.
3. MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
4. THE WORDS "CITY OF FEDERAL WAY" TO BE OMITTED IF COVER IS ON A PRIVATE SYSTEM.

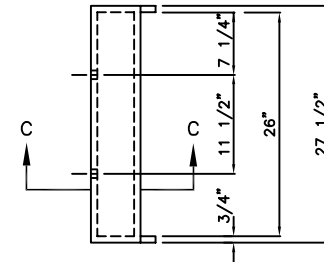
REV MAR 2011



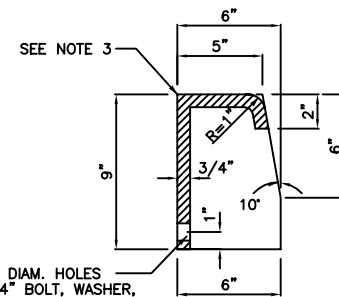
PLAN



SECTION B-B

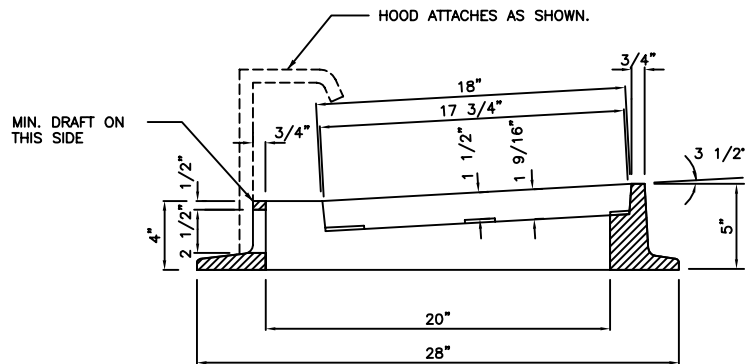


HOOD DETAIL



2 - 1" DIAM. HOLES FOR 3/4" BOLT, WASHER, & NUT, SEE NOTE 4.

SECTION C-C

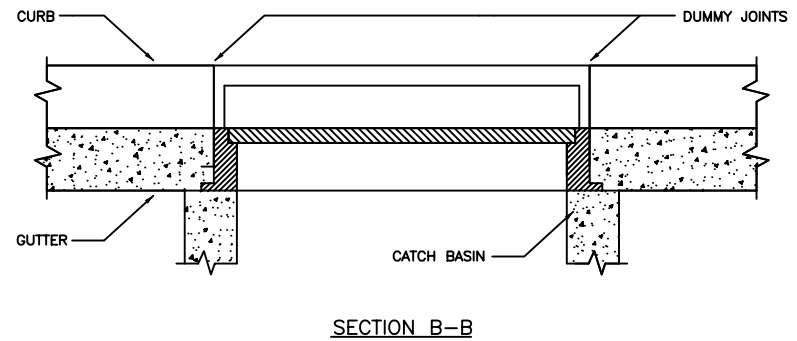
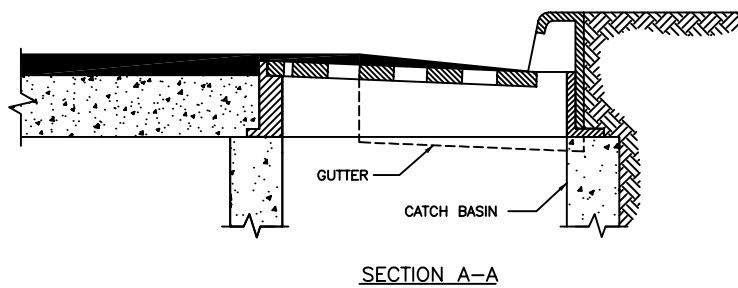
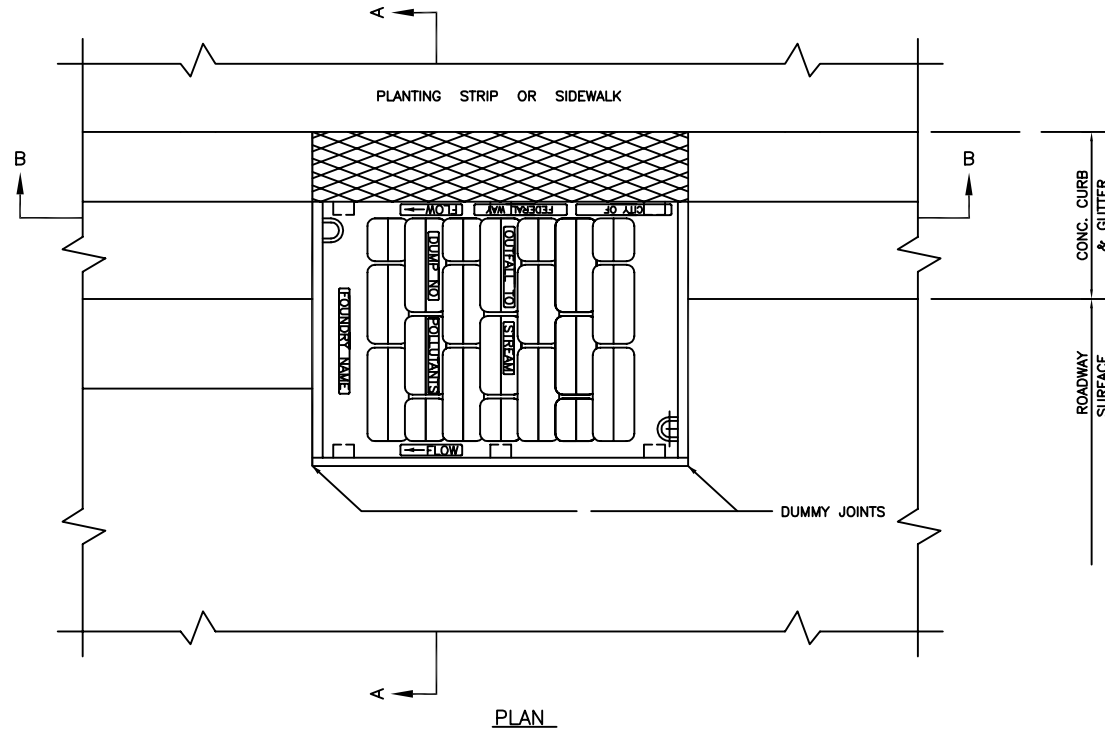


SECTION A-A

NOTES:

1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. SEE DWG. NO. 4-10 FOR VANED GRATE.
3. PATTERN ON TOP SURFACE OF HOOD SHALL BE 3/16" NON-SKID DIAMOND.
4. BOLT, WASHER, AND NUT SHALL BE GALV. OR CORROSION RESISTANT.

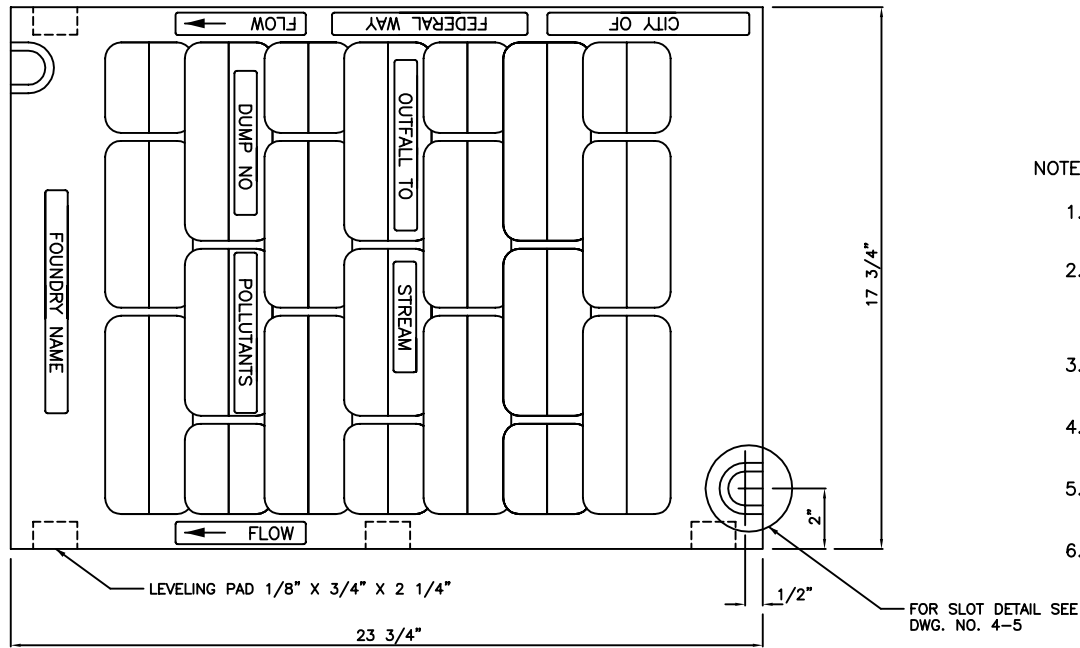
JULY 2014



NOTES:

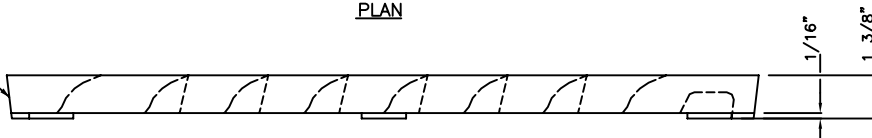
1. SET TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.

REV MAR 2011



PLAN

5" DRAFT

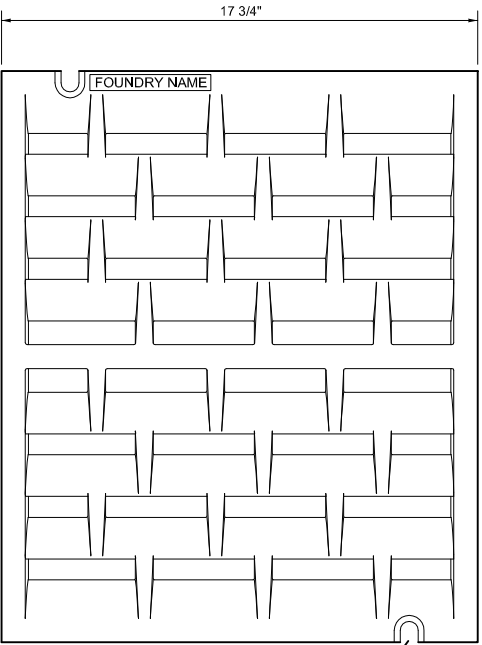


ELEVATION

NOTES:

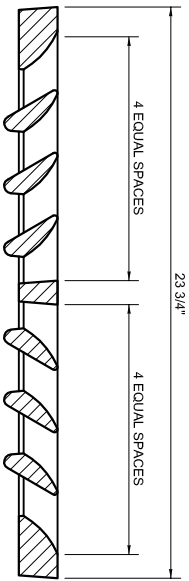
1. SELF-LOCK VANED GRATE MANUFACTURER SUBJECT TO APPROVAL BY ENGINEER.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG. NOTE SLOT DETAIL.
3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON BORDER AREA.
5. INSTALL BI-DIRECTIONAL VANED GRATES AT SAG LOCATIONS.
6. THE WORDS "CITY OF FEDERAL WAY SHALL BE OMITTED IF GRATE IS ON A PRIVATE SYSTEM.

REV. MAR 2011



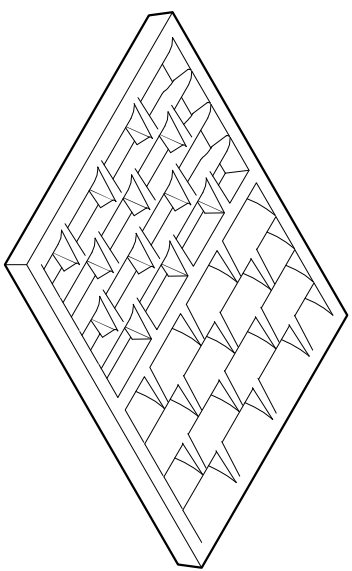
FOR SLOT DETAIL SEE
DWG. NO. 4-9

TOP

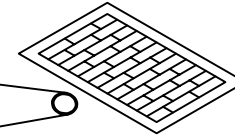


SECTION

- NOTES:
1. SELF-LOCK VANED GRATE MANUFACTURER SUBJECT TO APPROVAL BY ENGINEER.
 2. USE WITH TWO LOCKING BOLTS 5/8" - 11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG. NOTE SLOT DETAIL.
 3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
 4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON BORDER AREA.
 5. INSTALL BI-DIRECTIONAL VANED GRATES AT SAG LOCATIONS.
 6. THE WORDS "CITY OF FEDERAL WAY SHALL BE OMITTED IF GRATE IS ON A PRIVATE SYSTEM.



ISOMETRIC

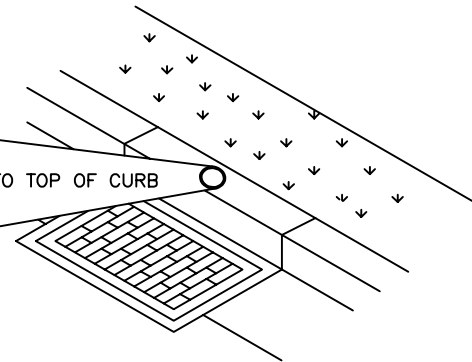


ADHERE TO PAVEMENT
ADJACENT TO GRATE

PARKING LOT INSTALLATION

NOTES:

1. CONTRACTOR TO INSTALL STREAM PROTECTION MARKERS AT EACH CATCH BASIN.
2. MARKERS AND INSTALLATION INSTRUCTIONS AVAILABLE AT PUBLIC WORKS DEPARTMENT.
3. ADHESIVE MATERIAL IS SPECIFIED IN THE INSTALLATION INSTRUCTIONS, AND SHALL BE PURCHASED BY THE OWNER OR CONTRACTOR.
4. MARKERS AVAILABLE FROM PUBLIC WORKS MAY DIFFER FROM THAT SHOWN.

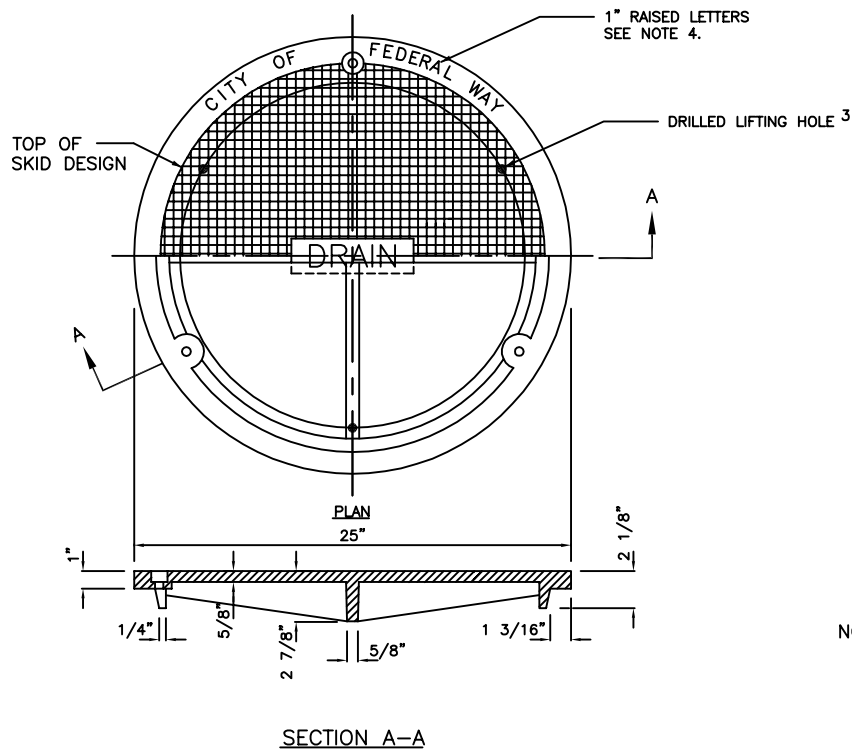


ADHERE TO TOP OF CURB

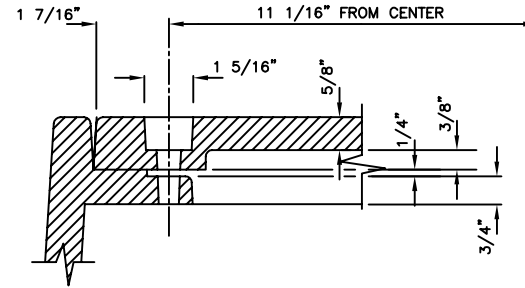
THIS SIDE TOWARDS SIDEWALK

CURB AND GUTTER INSTALLATION

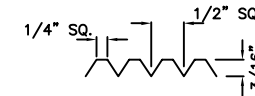
REV. NOV 2010



REV MAR 2011



BOLT-DOWN DETAIL

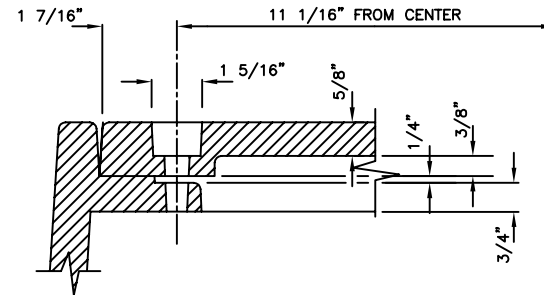
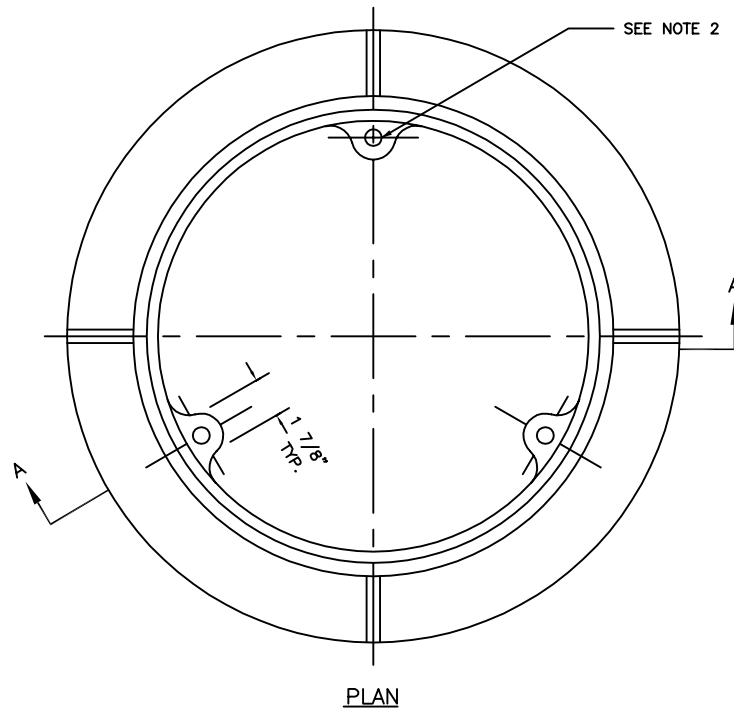


COVER SKID DESIGN DETAIL

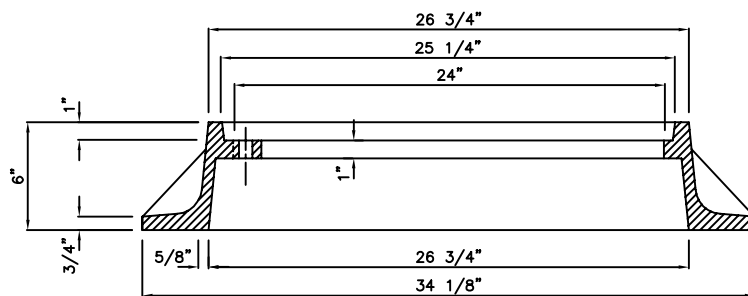
NOTES:

1. USE WITH THREE LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG. DRILL HOLES SPACED 120° AT 11 1/16" RADIUS.
2. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06
3. DRILL THREE 1 INCH HOLES SPACED AT 120° AND 9 1/2" RADIUS.
4. THE WORDS "CITY OF FEDERAL WAY" SHALL BE OMITTED IF COVER IS ON A PRIVATE SYSTEM.

REV MAR 2011



BOLT-DOWN DETAIL



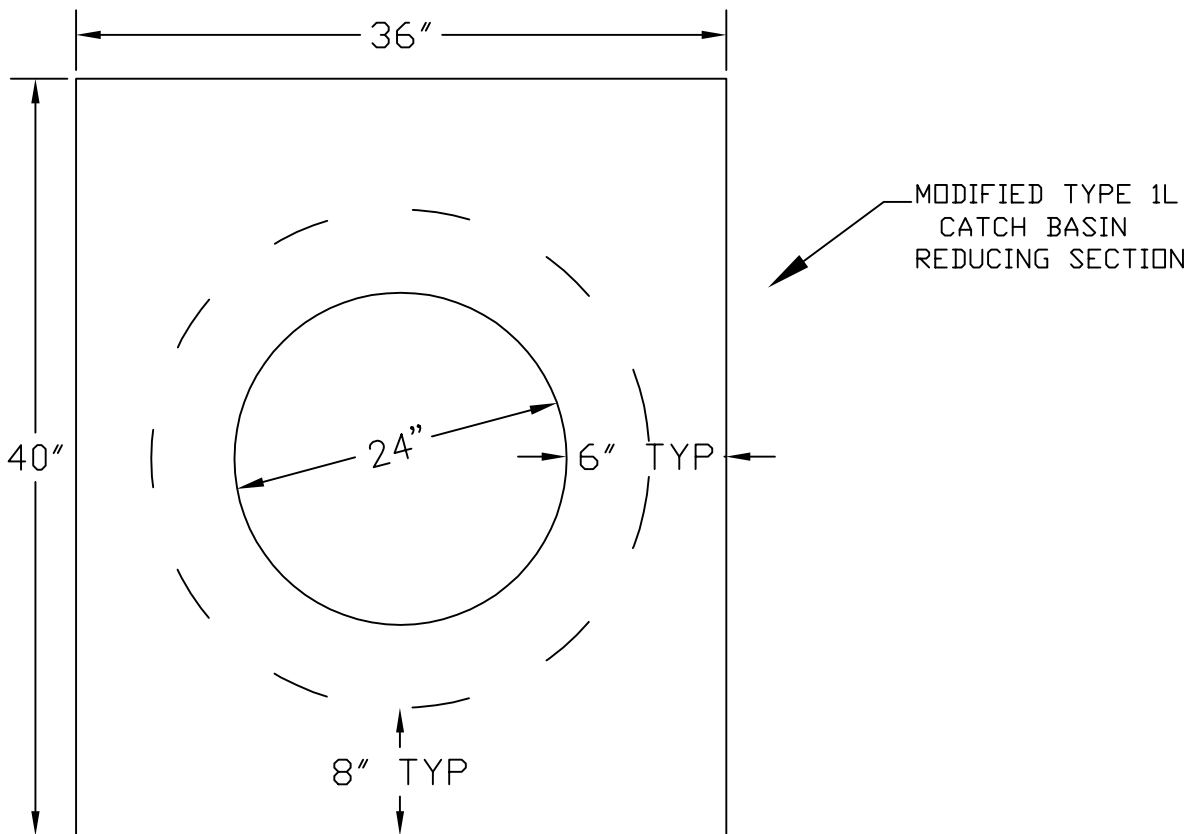
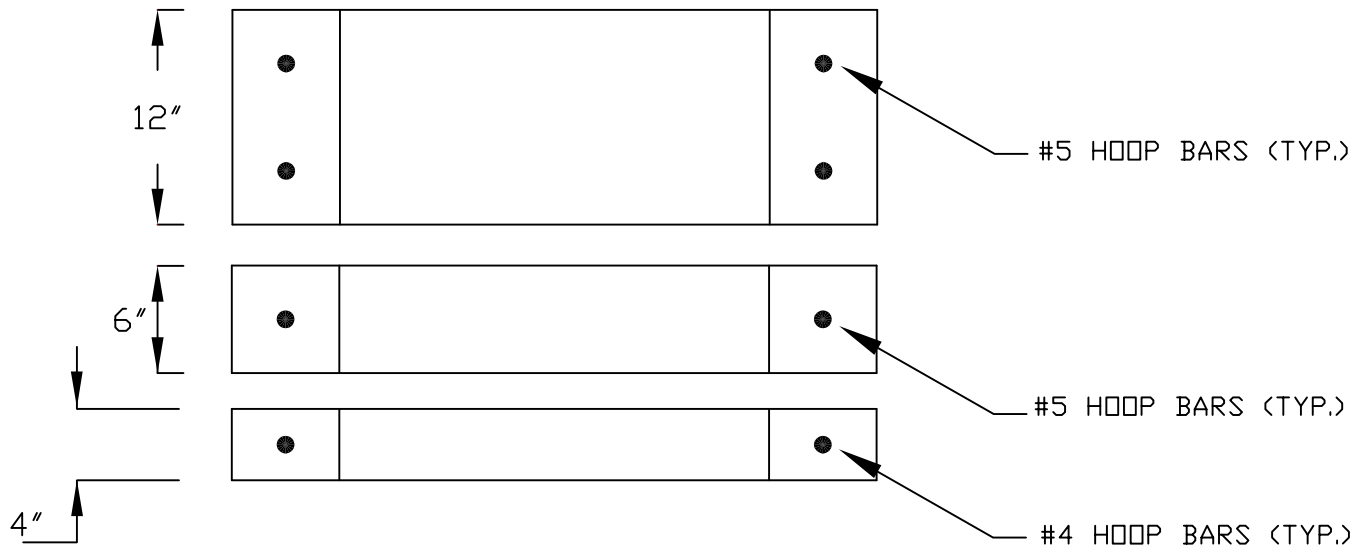
SECTION A-A

NOTES:

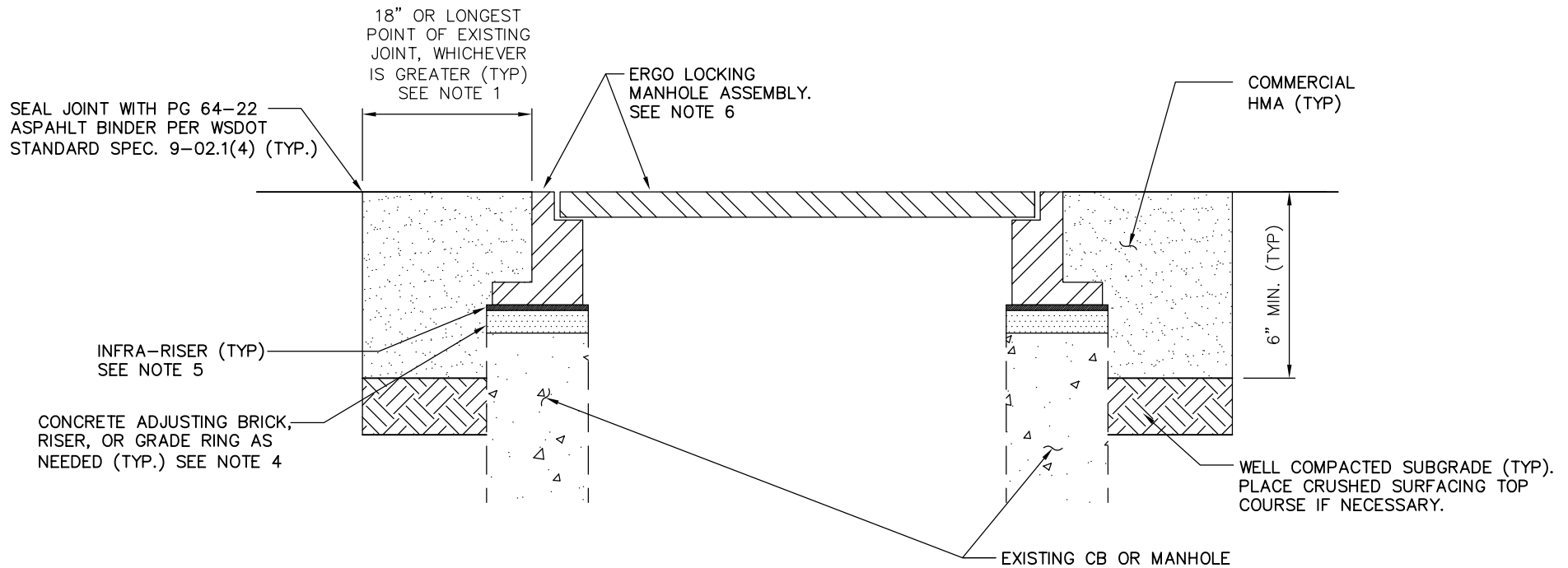
1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. DRILL AND TAP THREE 5/8"-11 NC HOLES THROUGH FRAME AT 120° AND 11 1/16" RADIUS.

JULY 2014

PROVIDE 1" COVER MIN. (TYP.)



JULY 2014

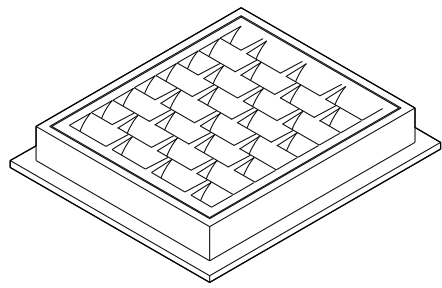


SECTION THROUGH STRUCTURE
NTS

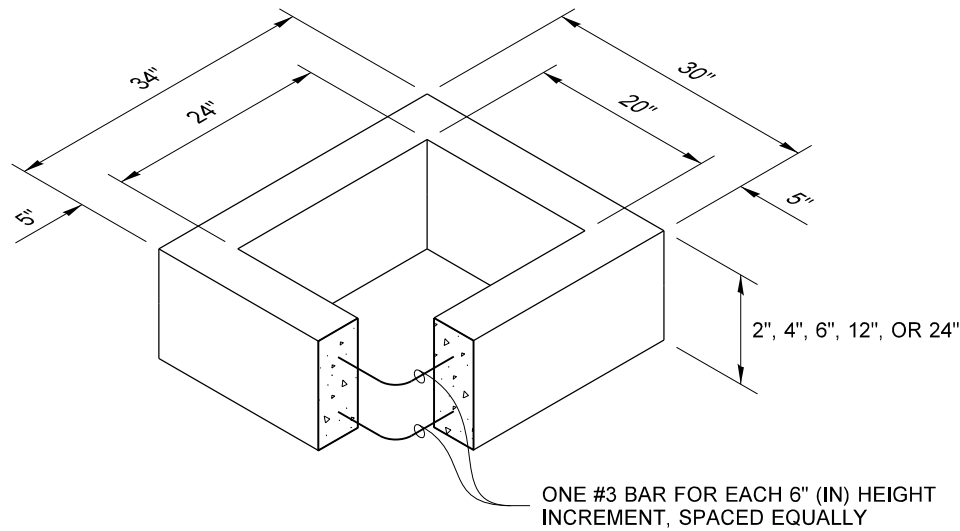
NOTES:

1. PAVEMENT CUT SHALL BE CIRCULAR AND CENTERED ON THE CENTER OF THE MANHOLE OR CATCH BASIN LID. RECTANGULAR OR POLYGON CUTS NOT ALLOWED.
2. CONVERT ALL RECTANGULAR FRAMES AND LIDS TO ROUND, USING CONCRETE CONVERSION RISER PER CITY OF FEDERAL WAY STANDARD PLAN DWG 4-18.
3. RAISE OR LOWER STRUCTURE TO THE REQUIRED ELEVATION AND SLOPE USING ONLY INFRA-RISER AND/OR CONCRETE RINGS AND BRICKS AS NECESSARY. NO OTHER MATERIALS ARE ALLOWED. TO ACHIEVE WATER-TIGHT CONSTRUCTION, GROUT INSIDE AND OUTSIDE OF EACH JOINT USING A LAYER OF NON-SHRINK MORTAR NO MORE THAN 3/4" THICK, AND FINISHED SMOOTH.
4. SEAL JOINT WITH PG 64-22 ASPHALT BINDER PER WSDOT STANDARD SPEC. 9-02.1(4) (TYP.)
5. ON ALL STRUCTURES WITHIN THE ROADWAY TRAVEL LANES, INSTALL INFRA-RISER MULTI-PURPOSE RUBBER COMPOSITE ADJUSTMENT RISER, MANUFACTURED BY EAST JORDAN IRON WORKS. INFRA-RISER SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. REMOVE EXISTING CONCRETE RISER IF NECESSARY TO MAKE ROOM FOR INFRA-RISER. STACKED INFRA-RISER SHALL NOT EXCEED 3" TOTAL HEIGHT. INFRA-RISER SHALL BE INSTALLED ON TOP OF ALL CONCRETE RISERS, DIRECTLY UNDER THE ERGO MANHOLE ASSEMBLY.
6. ON ALL STRUCTURES, INSTALL NEW EAST JORDAN IRON WORKS ERGO 4"x24" CAM LOCKING HINGED MANHOLE ASSEMBLY (PRODUCT NO. 00104028L03), PER MANUFACTURER'S RECOMMENDATIONS. SET TOP OF ASSEMBLY TO BE FLUSH WITH EXISTING ROAD AND/OR GUTTER SURFACE. LOCATE HINGE SO THAT IT'S NEAREST TO ON-COMING TRAFFIC.
7. HMA SHALL BE MECHANICALLY COMPACTED IN 3" (MAX.) LIFTS. .

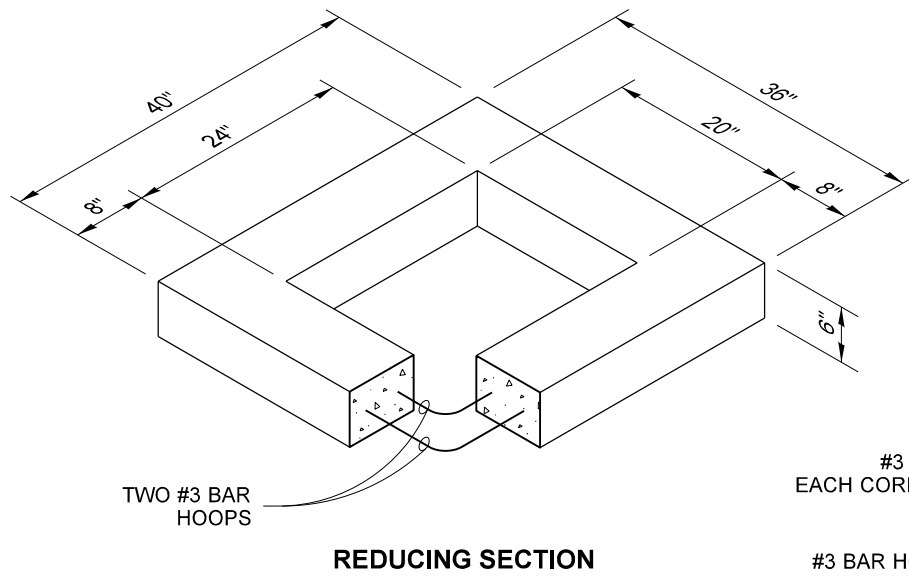
JUN 2017



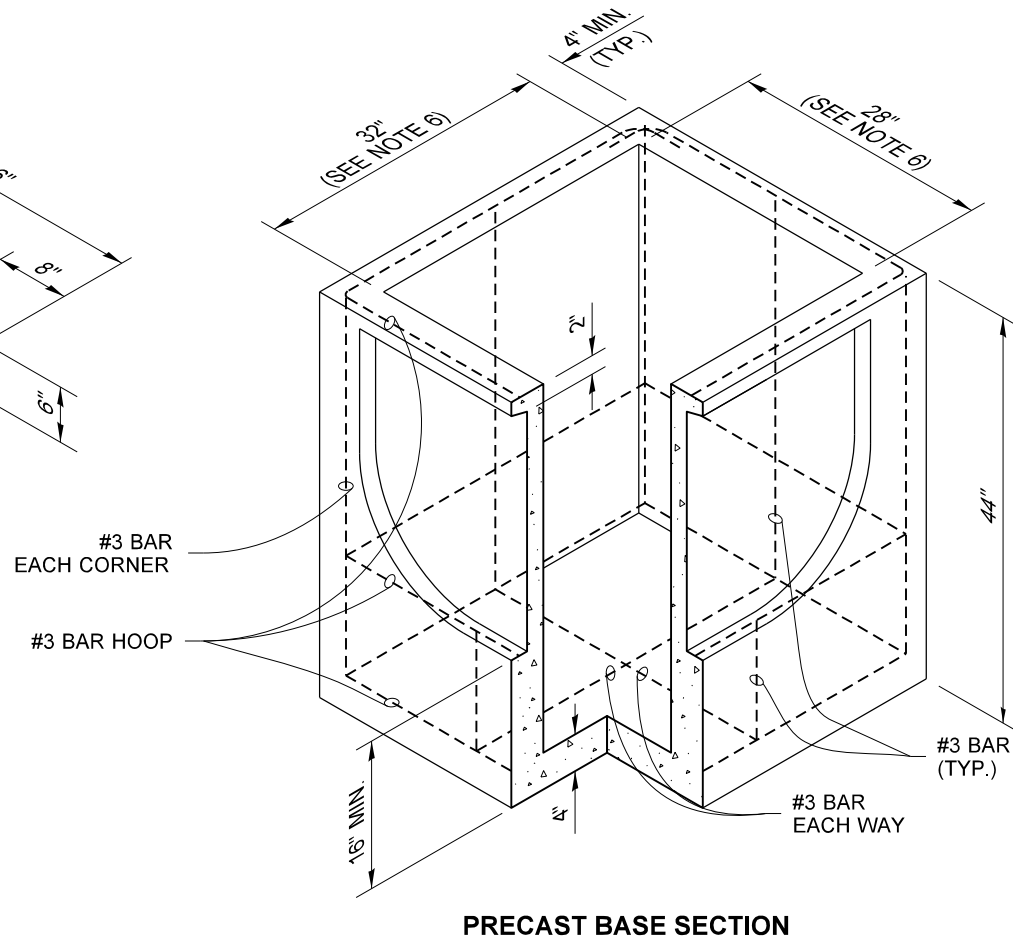
FRAME AND VANED GRATE



RECTANGULAR ADJUSTMENT SECTION



REDUCING SECTION



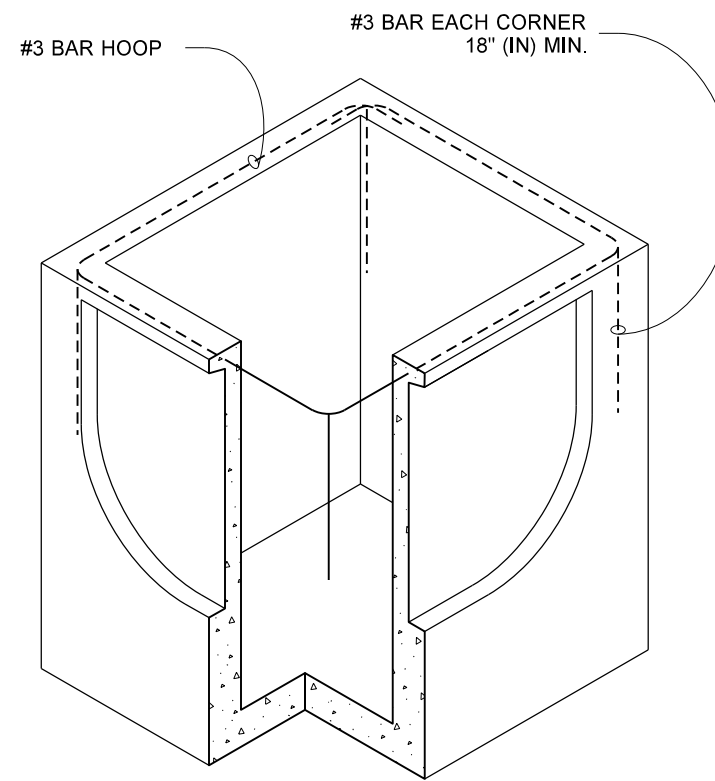
PRECAST BASE SECTION

| PIPE ALLOWANCES | |
|--|----------------------------------|
| PIPE MATERIAL | MAXIMUM INSIDE DIAMETER (INCHES) |
| REINFORCED OR PLAIN CONCRETE | 18" |
| ALL METAL PIPE | 21" |
| CPSSP * (STD. SPEC. SECT. 9-05.20) | 18" |
| SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1)) | 21" |
| PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2)) | 21" |

* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot, shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout shall not be greater than 26" (in), in any direction. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the Precast Base Section.
7. All pickup holes shall be grouted full after the basin has been placed.



(SEE NOTE 1)

ALTERNATIVE PRECAST BASE SECTION

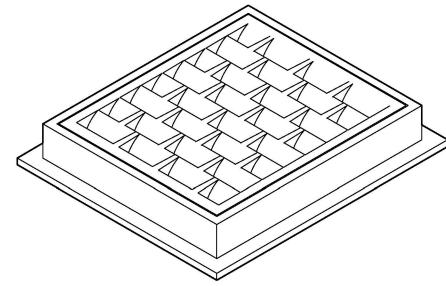


CATCH BASIN TYPE 1L
STANDARD PLAN B-5.40-02

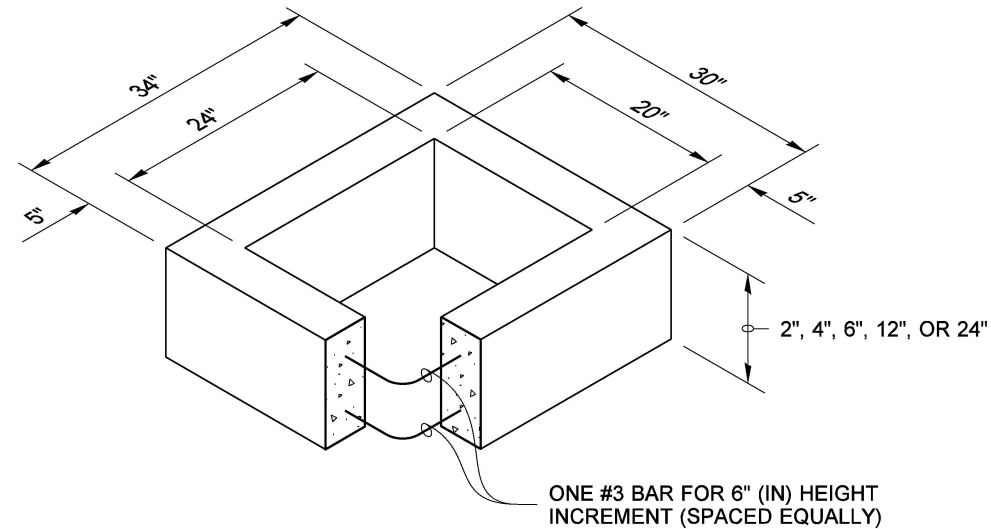
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

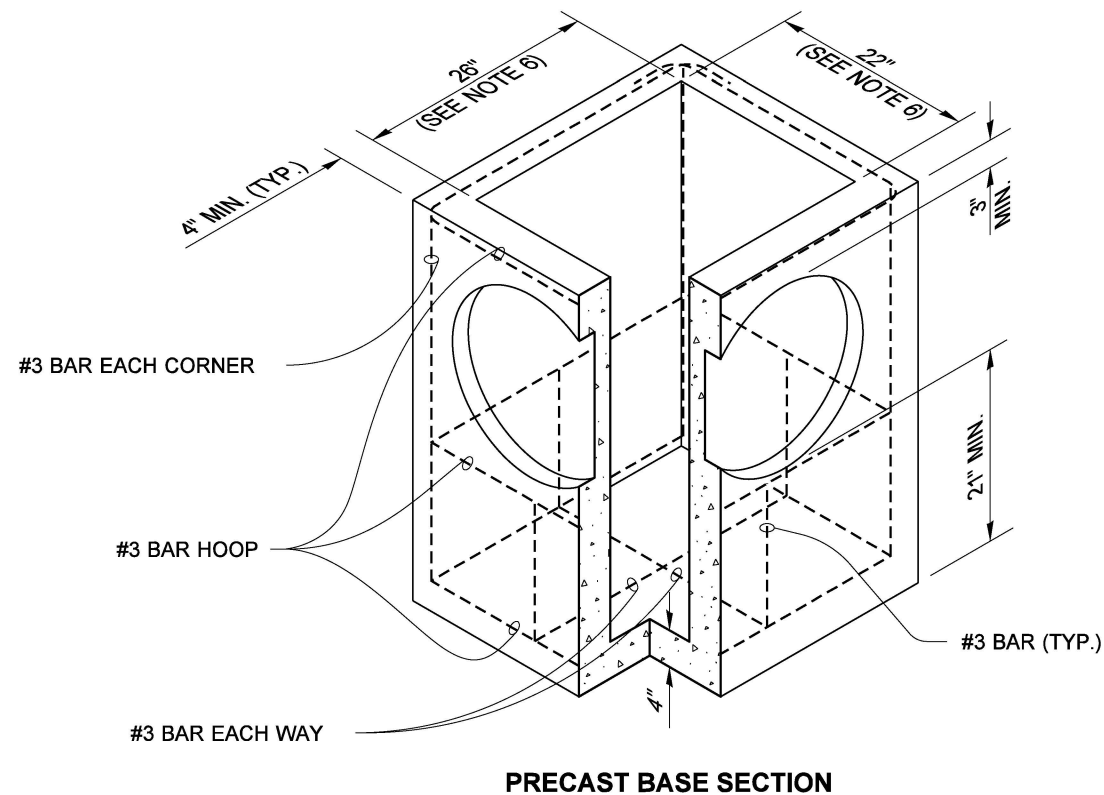
STATE DESIGN ENGINEER
Washington State Department of Transportation



FRAME AND VANED GRATE



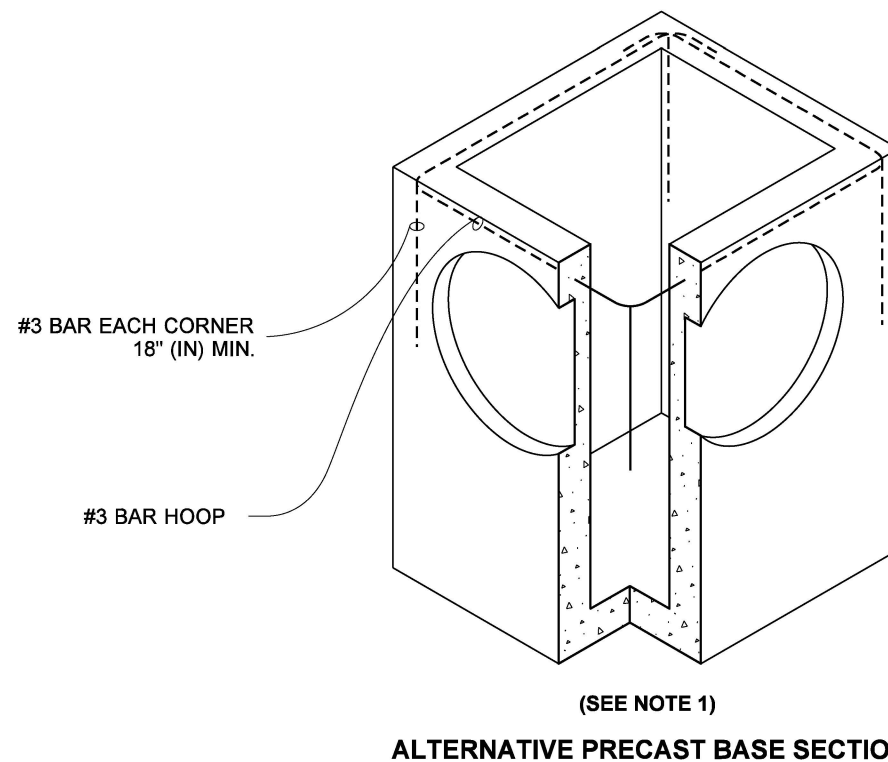
RECTANGULAR ADJUSTMENT SECTION



PRECAST BASE SECTION

| PIPE ALLOWANCES | |
|--|----------------------------------|
| PIPE MATERIAL | MAXIMUM INSIDE DIAMETER (INCHES) |
| REINFORCED OR PLAIN CONCRETE | 12" |
| ALL METAL PIPE | 15" |
| CPSSP * (STD. SPEC. SECT. 9-05.20) | 12" |
| SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1)) | 15" |
| PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2)) | 15" |

* CORRUGATED POLYETHYLENE STORM SEWER PIPE



ALTERNATIVE PRECAST BASE SECTION

NOTES

- As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
- The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
- The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
- The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
- The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
- The opening shall be measured at the top of the **Precast Base Section**.
- All pickup holes shall be grouted full after the basin has been placed.



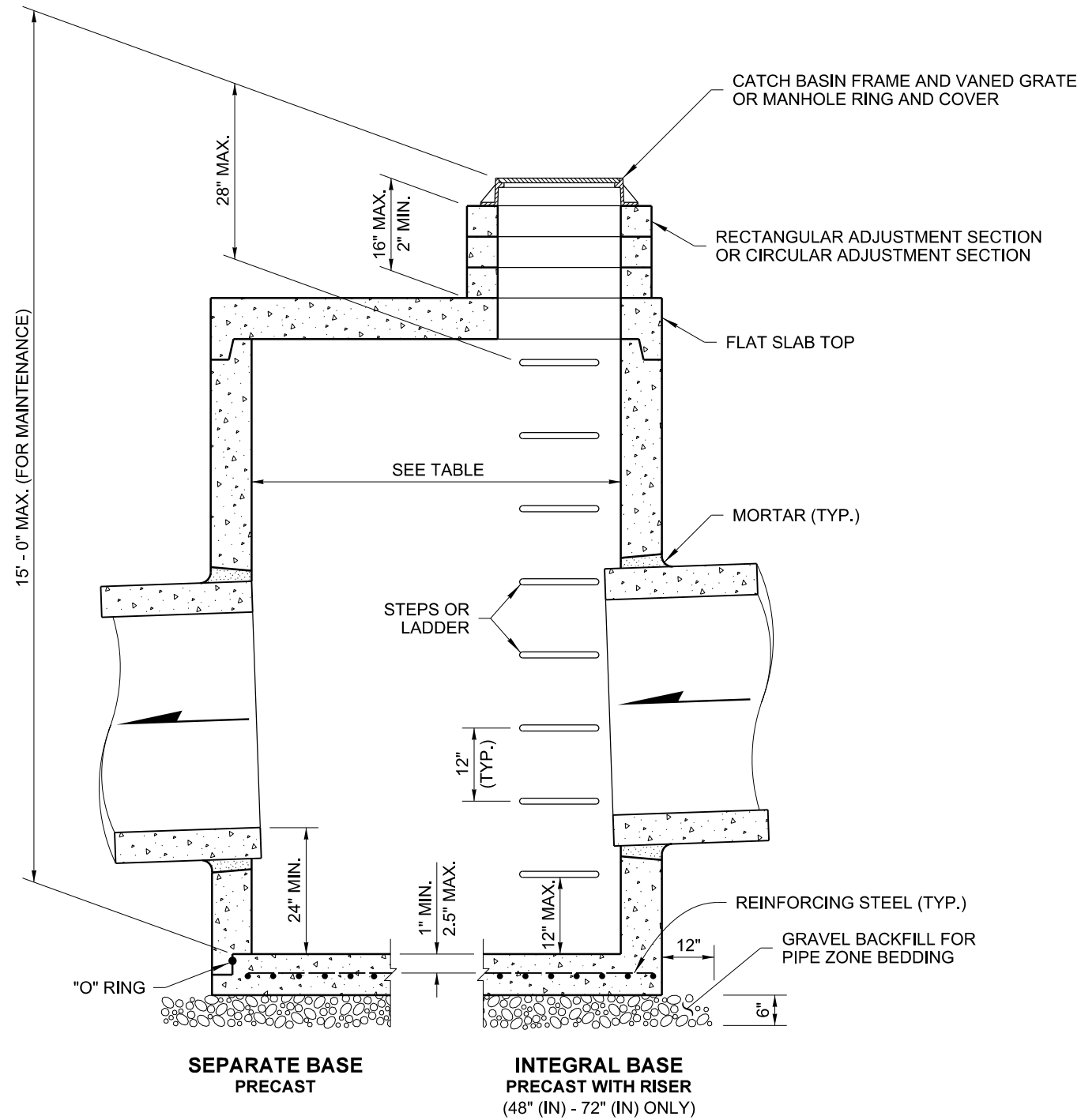
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CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Roark, Steve Digitally signed by Roark, Steve
 Date: 2020.09.09 09:45:23 -07'00'
 STATE DESIGN ENGINEER
 Washington State Department of Transportation



NOTES

1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.

CATCH BASIN DIMENSIONS

| CATCH BASIN DIAMETER | MIN. WALL THICKNESS | MIN. BASE THICKNESS | MAXIMUM KNOCKOUT SIZE | MINIMUM DISTANCE BETWEEN KNOCKOUTS |
|----------------------|---------------------|---------------------|-----------------------|------------------------------------|
| 48" | 4" | 6" | 36" | 8" |
| 54" | 4.5" | 8" | 42" | 8" |
| 60" | 5" | 8" | 48" | 8" |
| 72" | 6" | 8" | 60" | 12" |
| 84" | 8" | 12" | 72" | 12" |
| 96" | 8" | 12" | 84" | 12" |
| 120" | 10" | 12" | 96" | 12" |
| 144" | 12" | 12" | 108" | 12" |

PIPE ALLOWANCES

| CATCH BASIN DIAMETER | PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER | | | | |
|----------------------|--|-----------|-----------------|------------------|--------------------|
| | CONCRETE | ALL METAL | CPSSP ① PP ④ | SOLID WALL PVC ② | PROFILE WALL PVC ③ |
| 48" | 24" | 30" | 24" | 30" | 30" |
| 54" | 30" | 36" | 30" | 36" | 36" |
| 60" | 36" | 42" | 36" | 42" | 42" |
| 72" | 42" | 54" | 42" | 48" | 48" |
| 84" | 54" | 60" | 54" | 48" | 48" |
| 96" | 60" | 72" | 60" | 48" | 48" |
| 120" | 66" | 84" | 60" | 48" | 48" |
| 144" | 78" | 96" | 60" | 48" | 48" |

- ① Corrugated Polyethylene Storm Sewer Pipe (See **Standard Specification Section 9-05.20**)
- ② (See **Standard Specification Section 9-05.12(1)**)
- ③ (See **Standard Specification Section 9-05.12(2)**)
- ④ Polypropylene Pipe (See **Standard Specification Section 9-05.24**)



CATCH BASIN TYPE 2

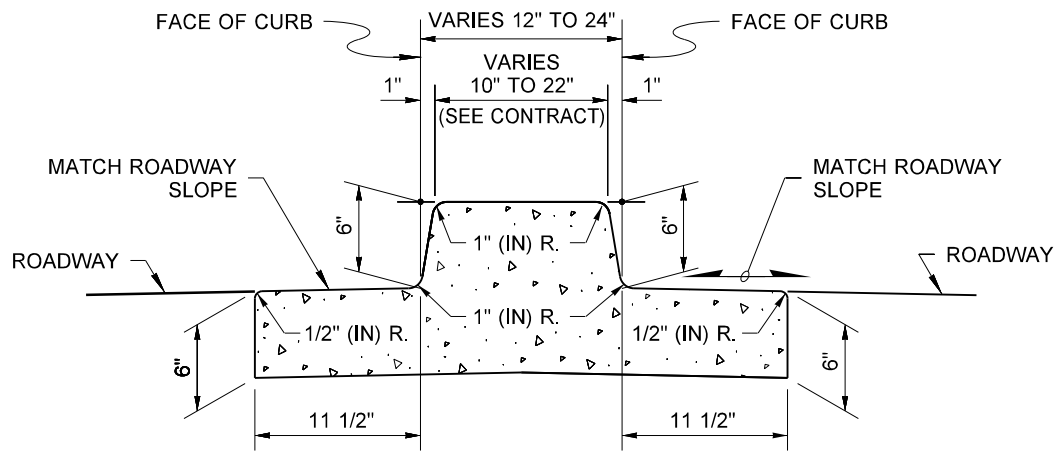
STANDARD PLAN B-10.20-02

SHEET 1 OF 1 SHEET

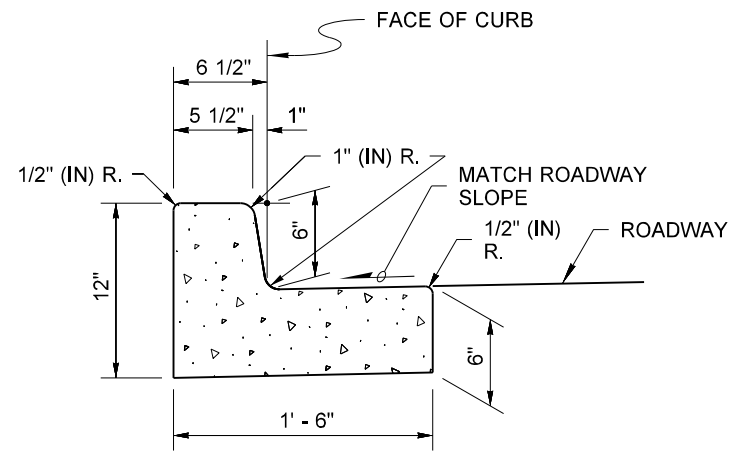
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
 Washington State Department of Transportation

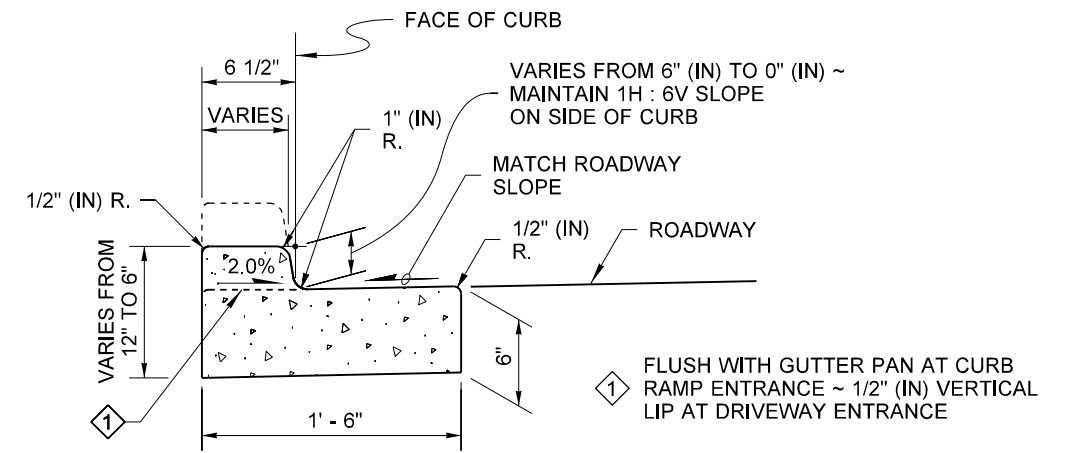
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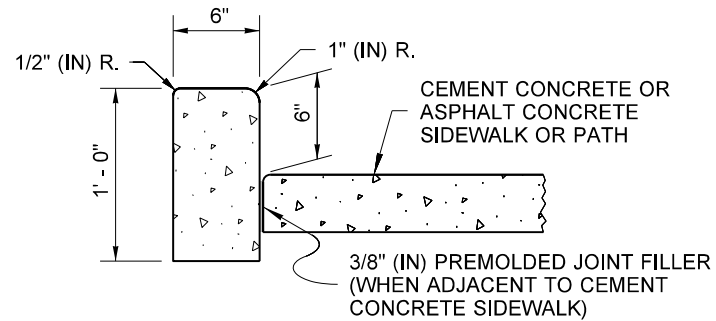
DUAL-FACED CEMENT CONCRETE TRAFFIC CURB AND GUTTER



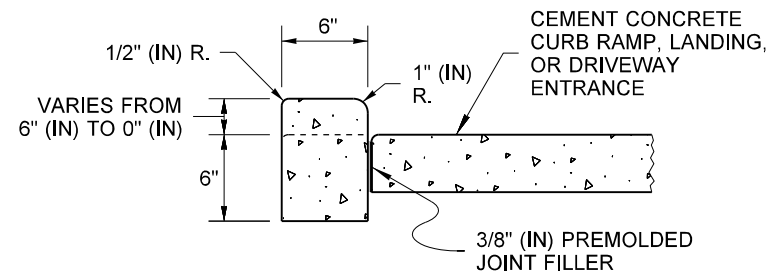
CEMENT CONCRETE TRAFFIC CURB AND GUTTER



DEPRESSED CURB AND GUTTER SECTION AT CURB RAMPS AND DRIVEWAY ENTRANCES



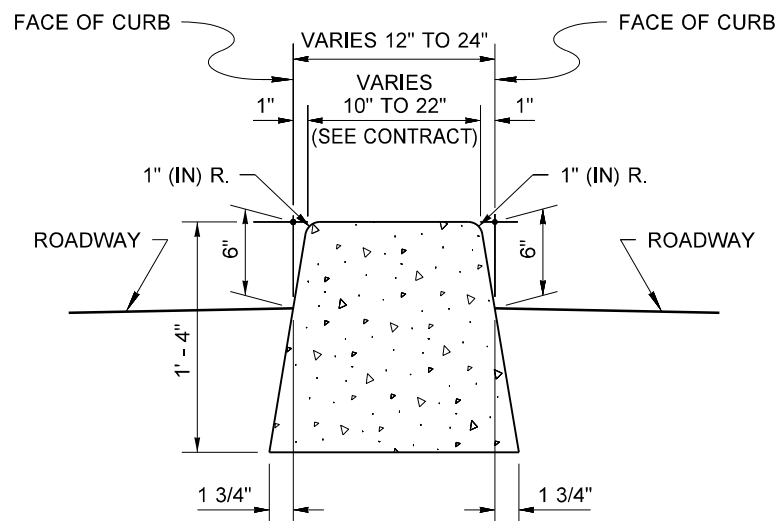
CEMENT CONCRETE PEDESTRIAN CURB



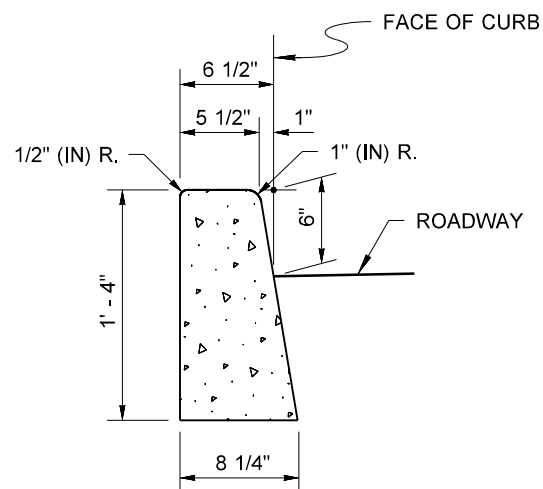
CEMENT CONCRETE PEDESTRIAN CURB AT CURB RAMPS, LANDINGS, AND DRIVEWAY ENTRANCES

NOTE

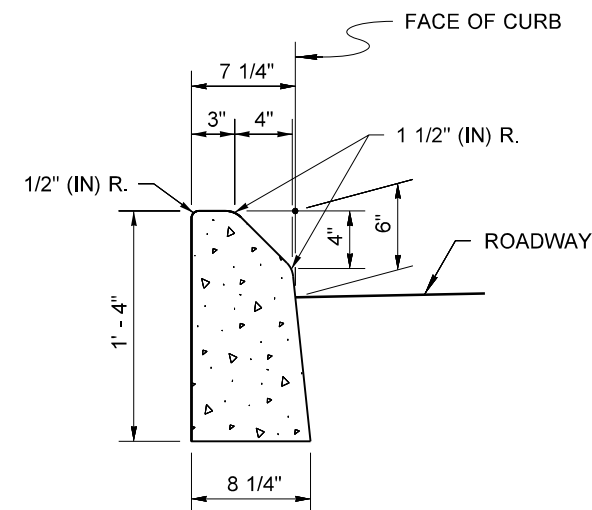
1. See **Standard Plan F-30.10** for Curb Expansion and Contraction Joint spacing. See **Standard Specification, Sections 8-04 and 9-04** for additional requirements.



DUAL-FACED CEMENT CONCRETE TRAFFIC CURB



CEMENT CONCRETE TRAFFIC CURB



MOUNTABLE CEMENT CONCRETE TRAFFIC CURB

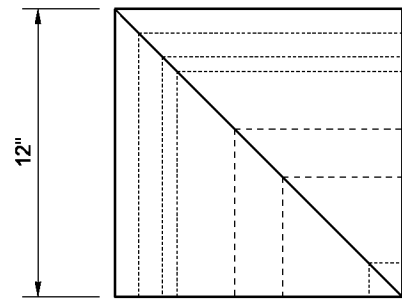


Michael S Fleming
 Digitally signed by Michael S Fleming
 Date: 2020.09.24 07:39:38 -07'00'
CEMENT CONCRETE CURBS

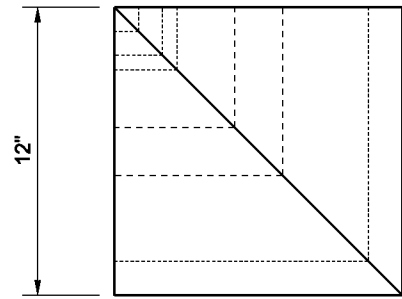
STANDARD PLAN F-10.12-04

SHEET 1 OF 1 SHEET

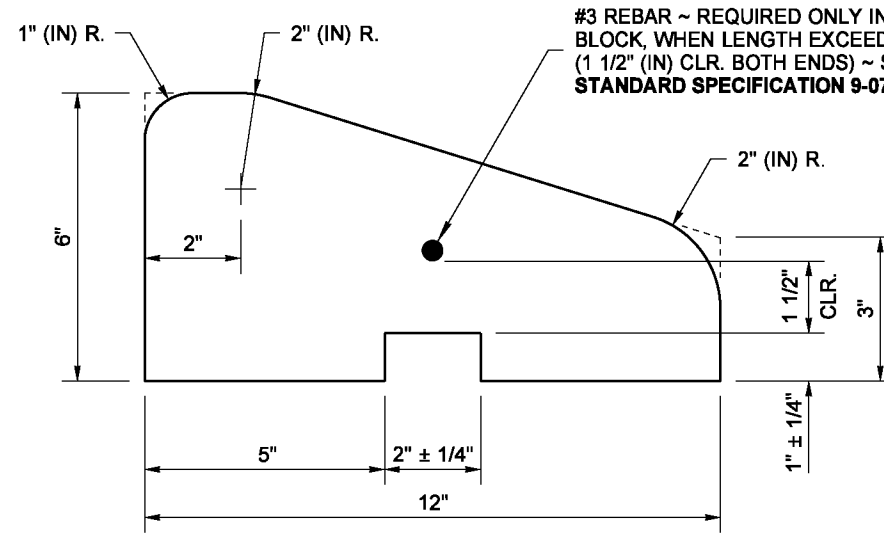
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 STATE DESIGN ENGINEER
 Washington State Department of Transportation



TOP VIEW
INSIDE CORNER BLOCK

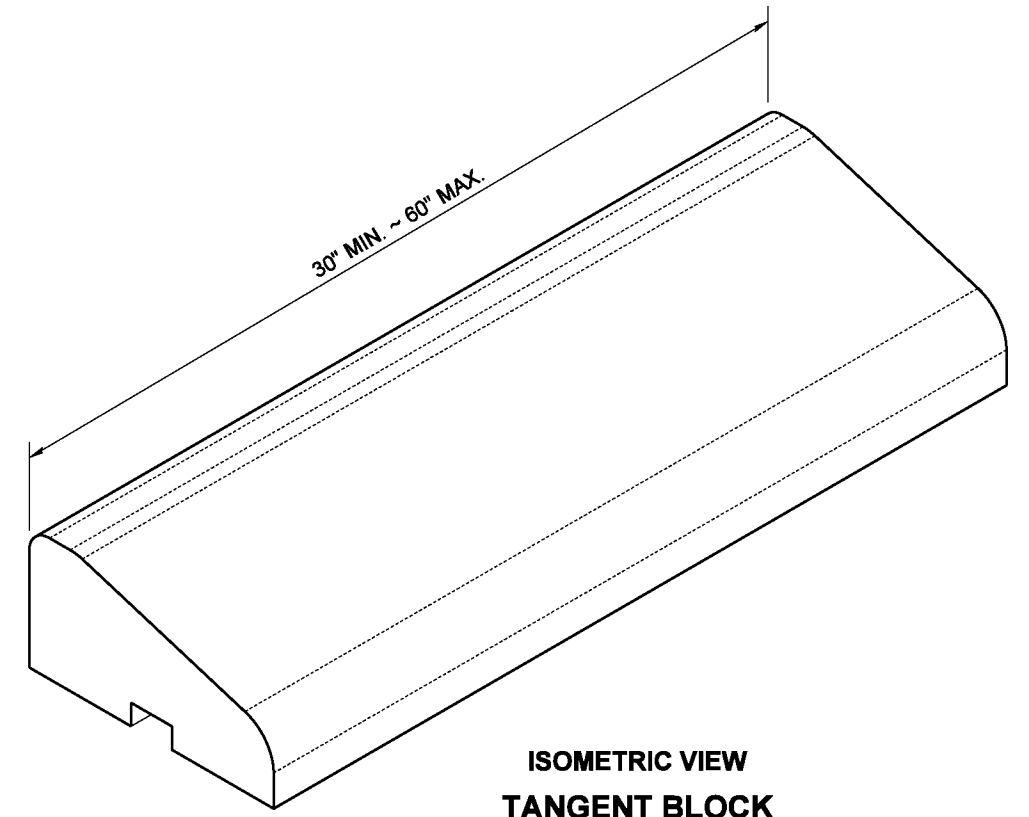


TOP VIEW
OUTSIDE CORNER BLOCK

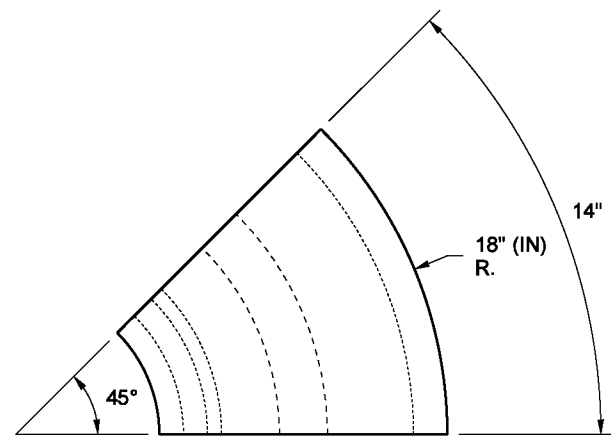


TYPICAL OF ALL
END VIEW

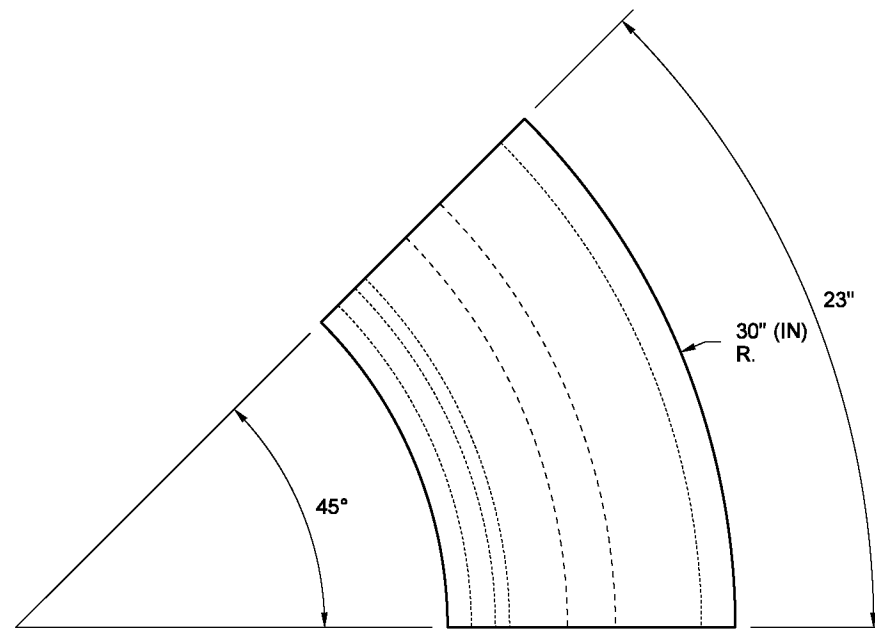
#3 REBAR ~ REQUIRED ONLY IN TANGENT BLOCK, WHEN LENGTH EXCEEDS 30" (IN) (1 1/2" (IN) CLR. BOTH ENDS) ~ SEE STANDARD SPECIFICATION 9-07



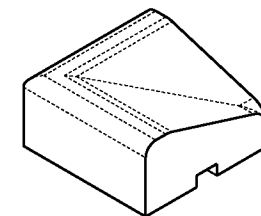
ISOMETRIC VIEW
TANGENT BLOCK



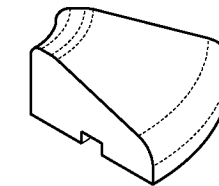
TOP VIEW
18" RADIUS BLOCK



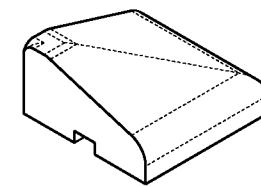
TOP VIEW
30" RADIUS BLOCK



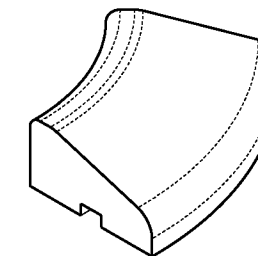
INSIDE CORNER BLOCK



18" (IN) RADIUS BLOCK



OUTSIDE CORNER BLOCK



30" (IN) RADIUS BLOCK

ISOMETRIC VIEWS

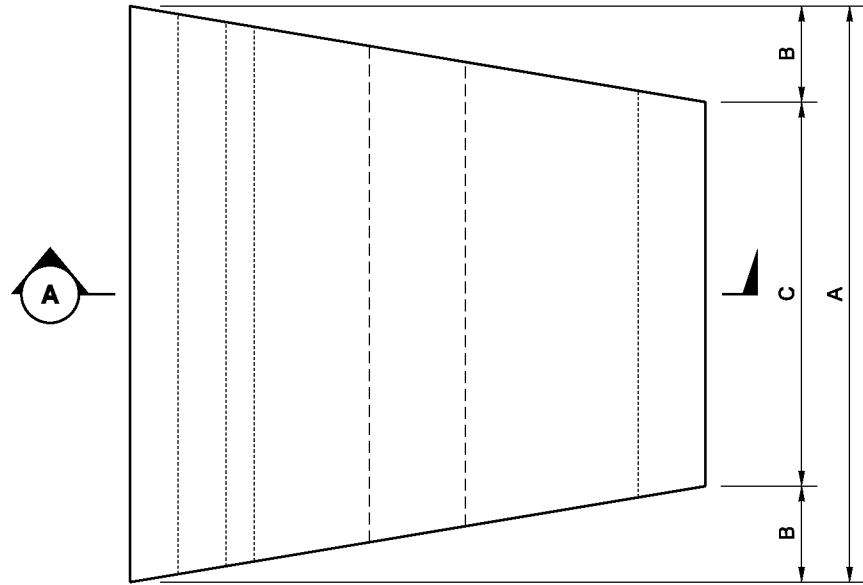


PRECAST SLOPED MOUNTABLE CURB
STANDARD PLAN F-10.62-02

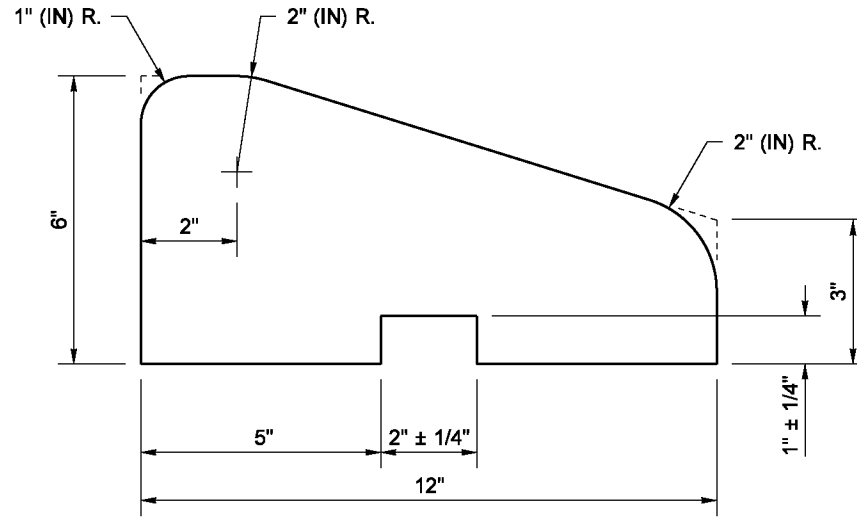
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

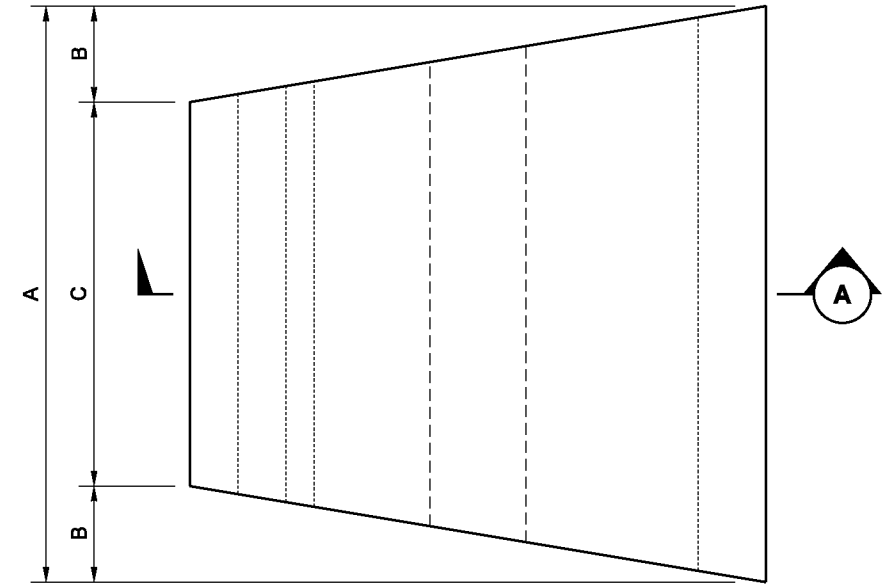
STATE DESIGN ENGINEER
Washington State Department of Transportation



TOP VIEW
INSIDE RADIUS BLOCK



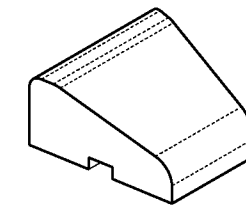
SECTION A



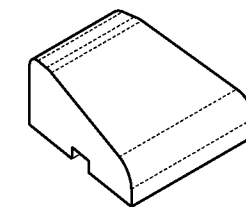
TOP VIEW
OUTSIDE RADIUS BLOCK

| CURB RADIUS TABLE | | | |
|-------------------|--------------------------------|-------------|-------------|
| CURB RADIUS | DIMENSION A | DIMENSION B | DIMENSION C |
| 3' | 12" | 2" | 8" |
| 4' TO 5' | 12" | 1 1/2" | 9" |
| 6' | 12" | 1" | 10" |
| 7' | 12" | 7/8" | 10 1/4" |
| 8' | 18" | 1 1/8" | 15 3/4" |
| 9' | 18" | 1" | 16" |
| 10' | 18" | 7/8" | 16 1/4" |
| 11' TO 13' | 18" | 3/4" | 16 1/2" |
| 14' TO 15' | 18" | 5/8" | 16 3/4" |
| 16' TO 17' | 24" | 3/4" | 22 1/2" |
| 18' TO 22' | 24" | 5/8" | 22 3/4" |
| 23' TO 29' | 24" | 1/2" | 23" |
| 30' TO 34' | 30" | 1/2" | 29" |
| 35' TO 48' | 30" | 3/8" | 29 1/4" |
| 49' TO 60' | 30" | 1/4" | 29 1/2" |
| OVER 60' | USE TANGENT BLOCK, SEE SHEET 1 | | |

THIS TABLE LISTS THE CALCULATED DIMENSIONS FOR CASTING BLOCKS SUITABLE FOR CONSTRUCTING VARIOUS CURB RADII. CURVED BLOCKS, OR BLOCKS WITH DIFFERENT DIMENSIONS MAY BE ACCEPTABLE WITH PRIOR APPROVAL OF THE ENGINEER.



INSIDE RADIUS BLOCK



OUTSIDE RADIUS BLOCK

ISOMETRIC VIEWS

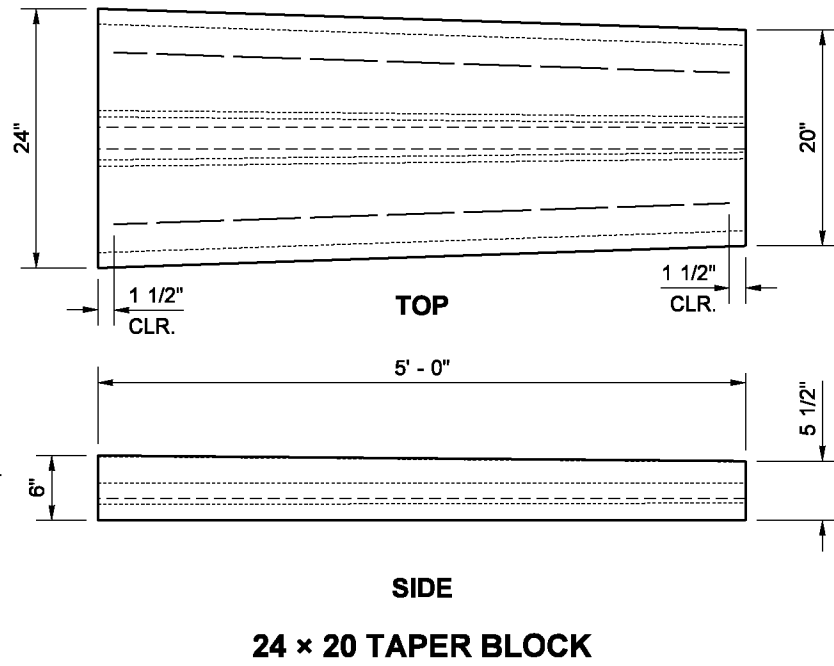
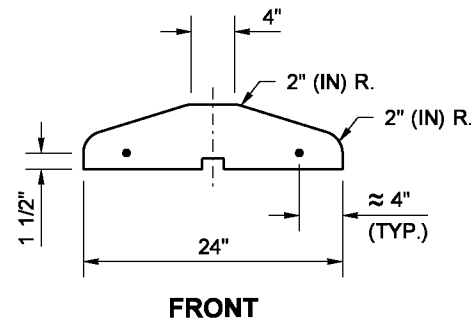


PRECAST SLOPED MOUNTABLE CURB
STANDARD PLAN F-10.62-02

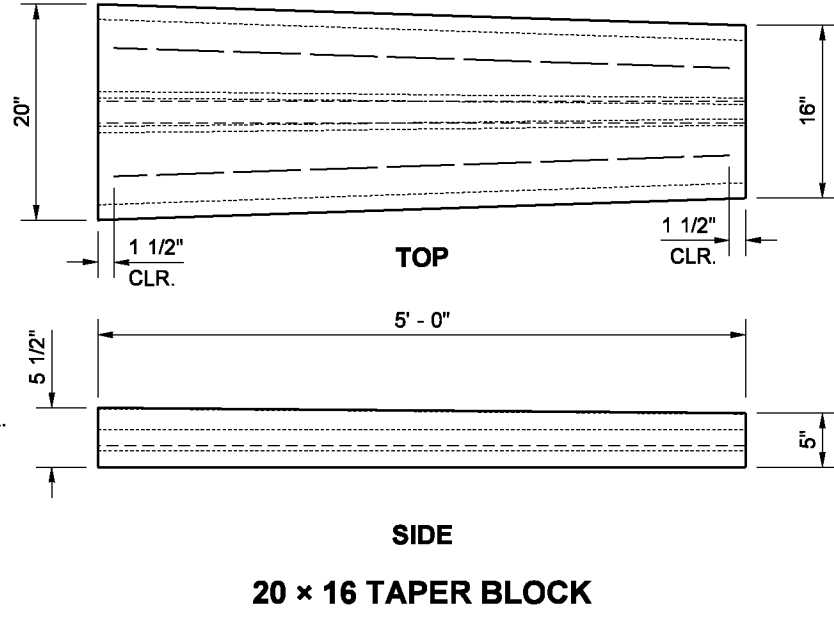
SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

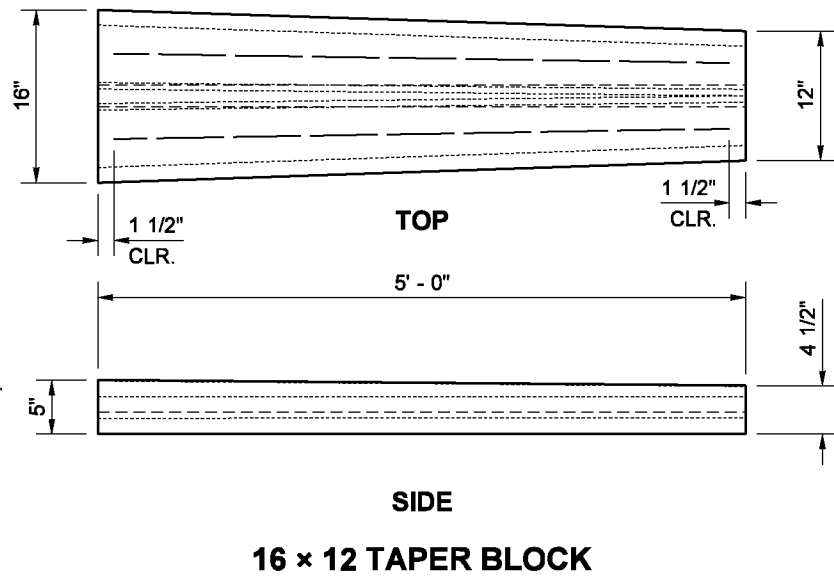
STATE DESIGN ENGINEER
Washington State Department of Transportation



24 x 20 TAPER BLOCK



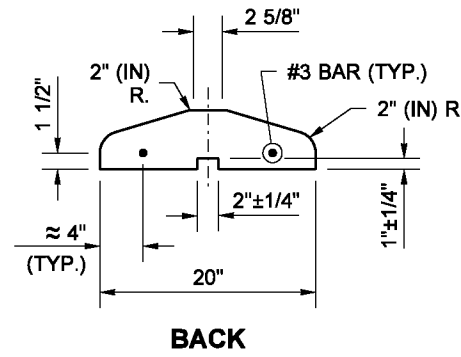
20 x 16 TAPER BLOCK



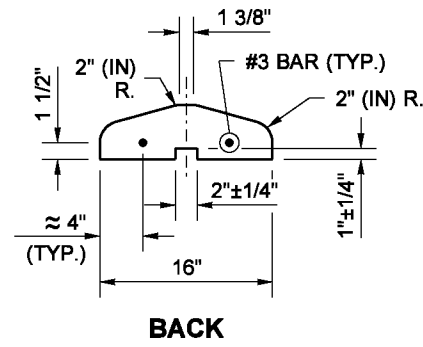
16 x 12 TAPER BLOCK

NOTES

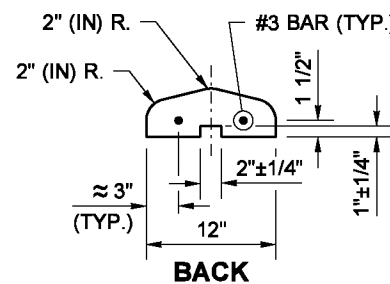
1. The dual faced curb may be constructed by using two precast sloped mountable curbs (longitudinal halves) so long as the installation is consistent with the dimensions shown in the plan.
2. Reinforcing steel shall conform to **Standard Specification 9-07**.



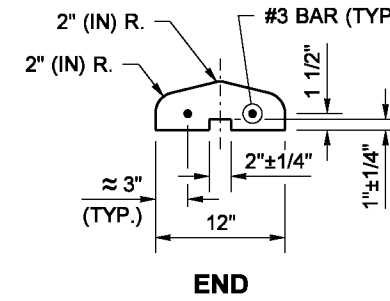
BACK



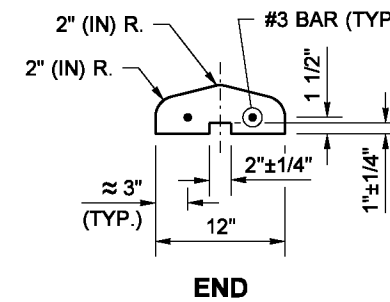
BACK



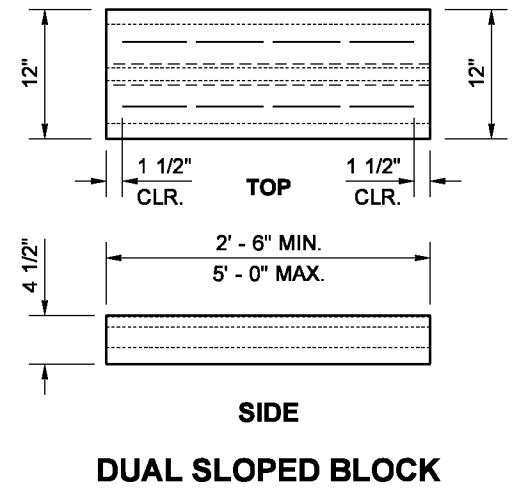
BACK



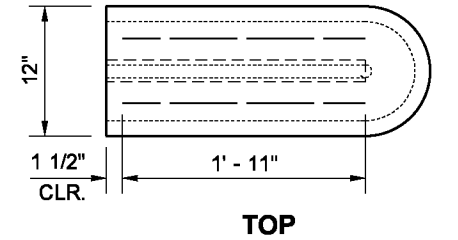
END



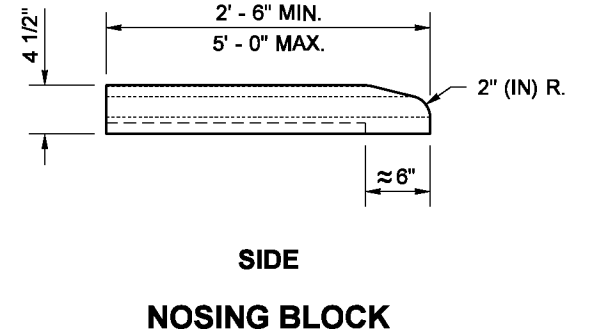
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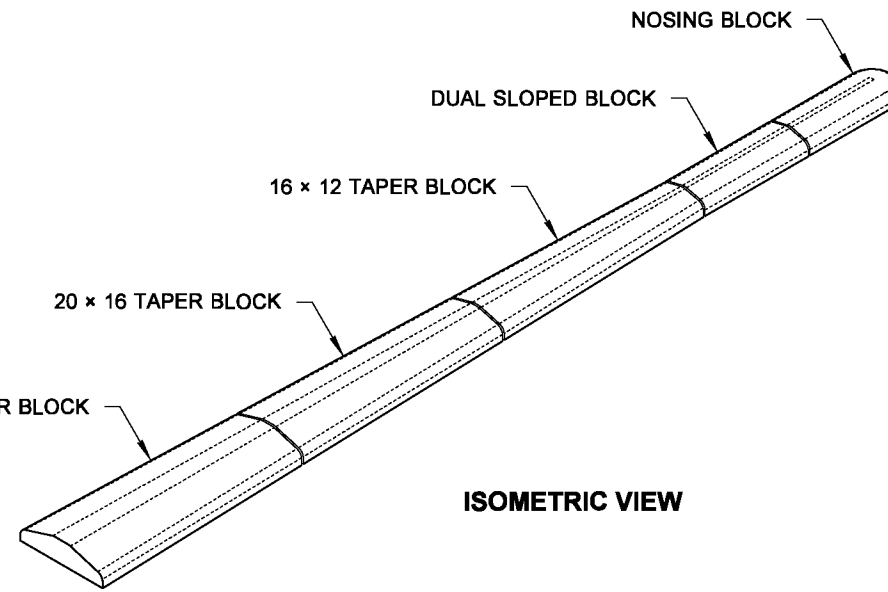
DUAL SLOPED BLOCK



TOP



SIDE NOSING BLOCK



ISOMETRIC VIEW

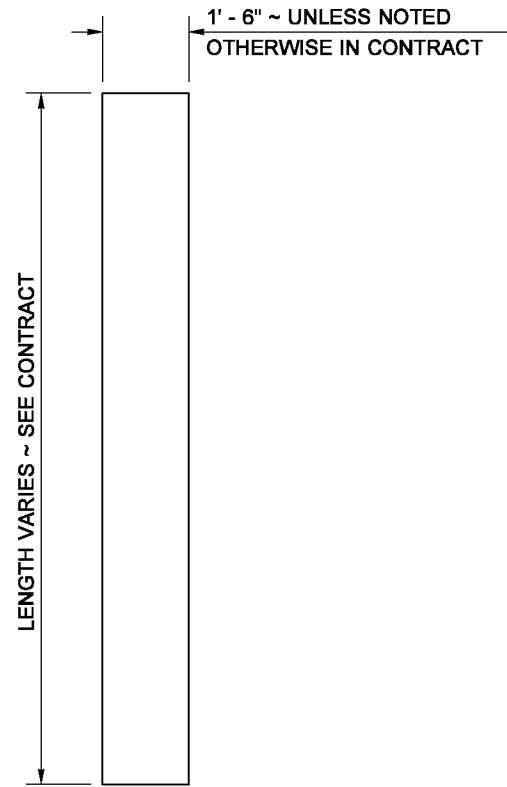


PRECAST DUAL FACED SLOPED MOUNTABLE CURB STANDARD PLAN F-10.64-03

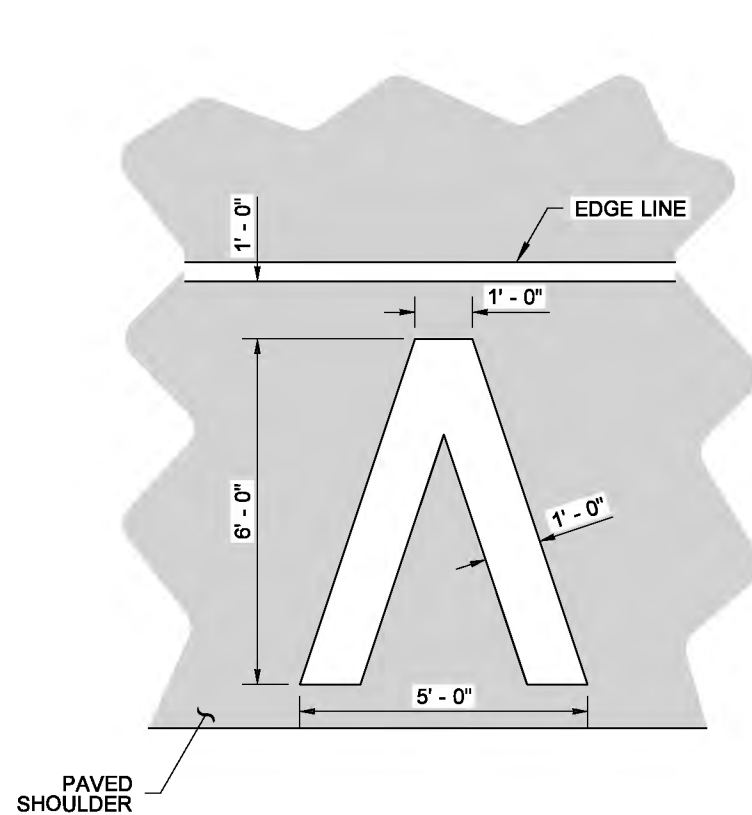
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

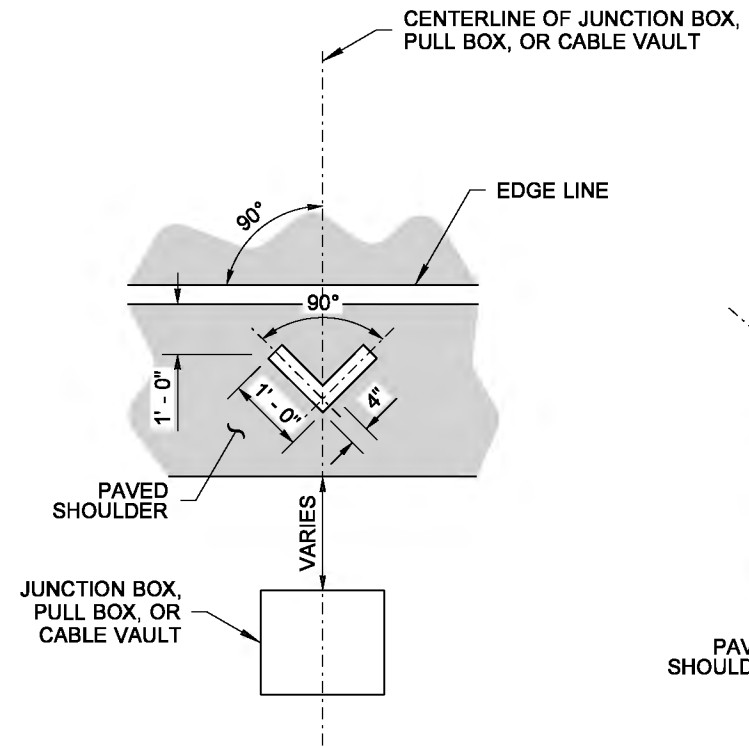
STATE DESIGN ENGINEER
Washington State Department of Transportation



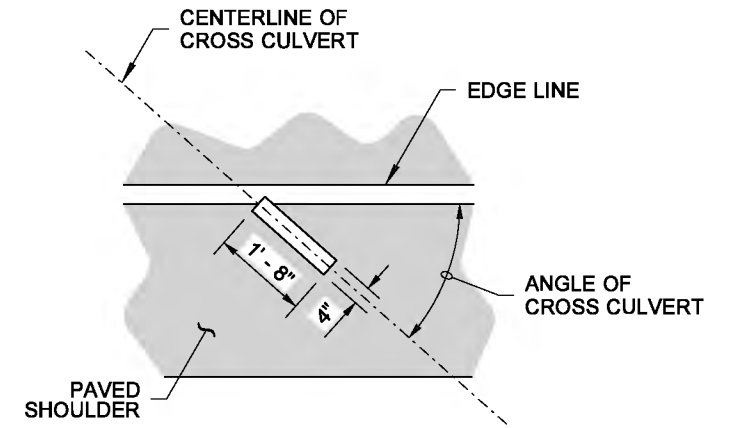
STOP LINE



MARKING AREA = 11.73 SQ.FT.
HALF-MILE MARKER

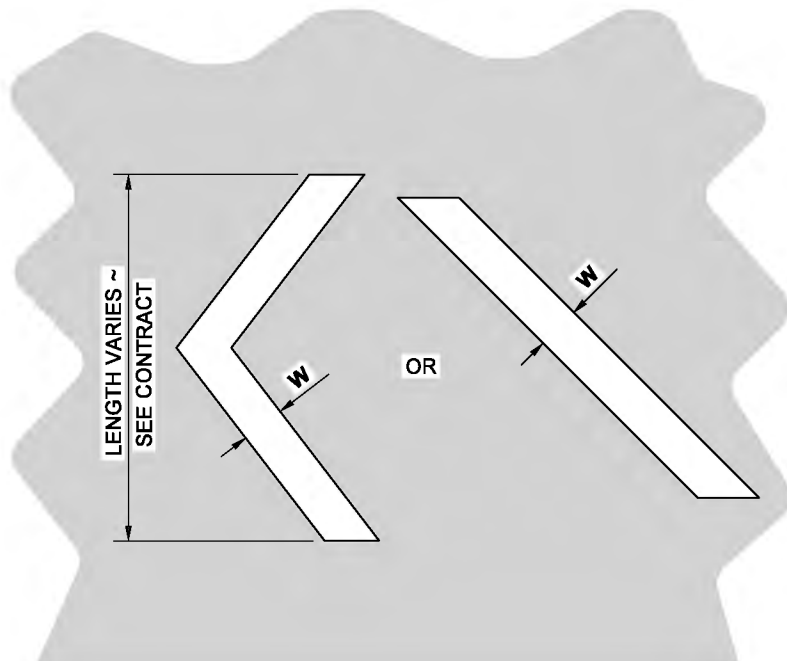


MARKING AREA = 0.56 SQ. FT.
**JUNCTION BOX, PULL BOX,
OR CABLE VAULT MARKINGS**



MARKING AREA = 0.56 SQ.FT.
CROSS CULVERT

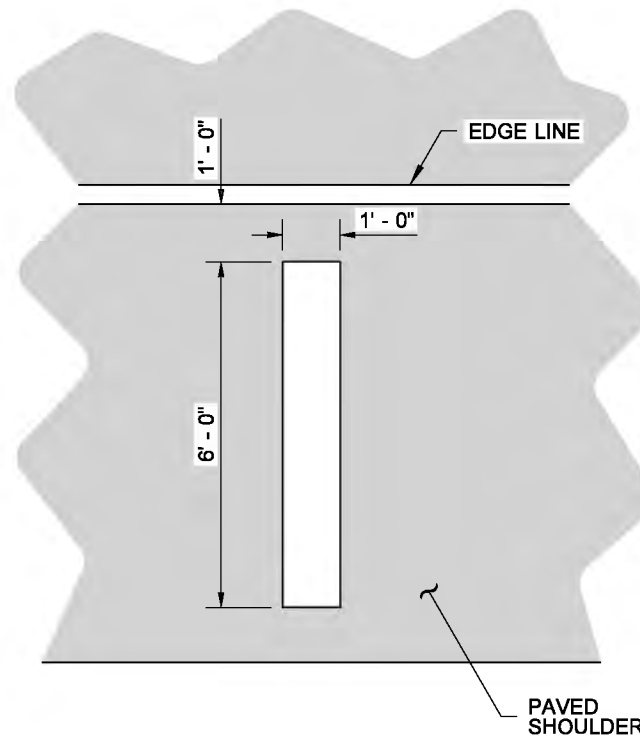
DRAINAGE MARKING



WHITE OR YELLOW ~ SEE CONTRACT
CHEVRON OR DIAGONAL

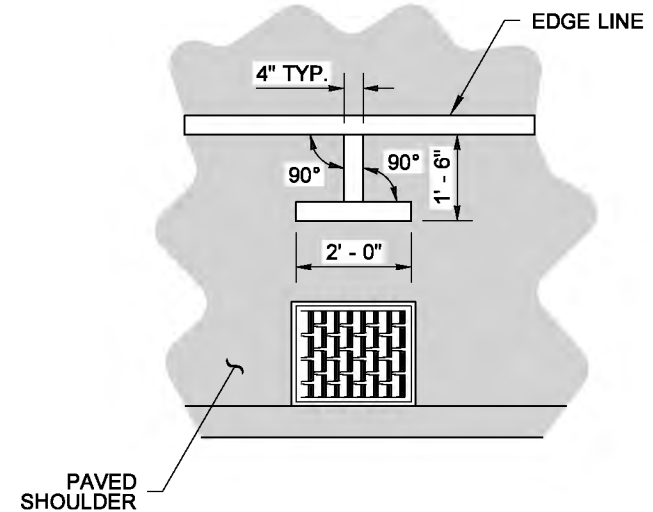
CROSSHATCH MARKING

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

NOTE

1. If Rumble Strips are present, install marking outside of the Rumble Strip.



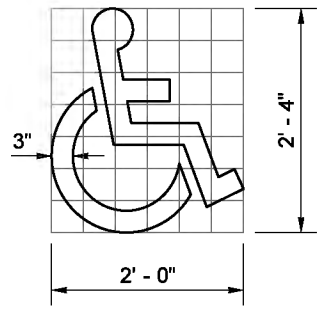
**SYMBOL MARKINGS
MISCELLANEOUS**

STANDARD PLAN M-24.60-04

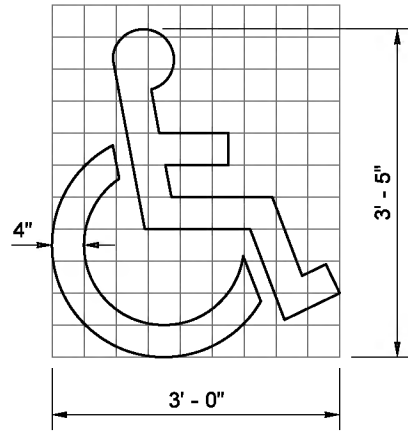
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

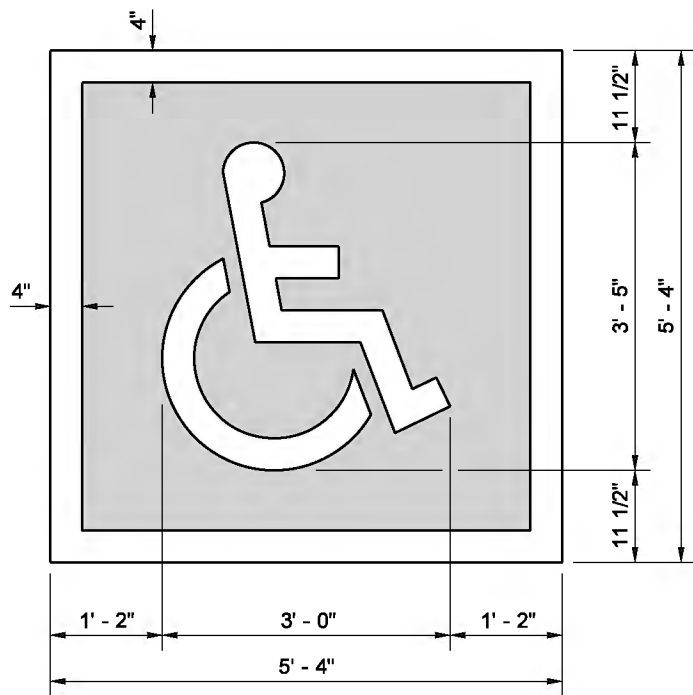
STATE DESIGN ENGINEER
Washington State Department of Transportation



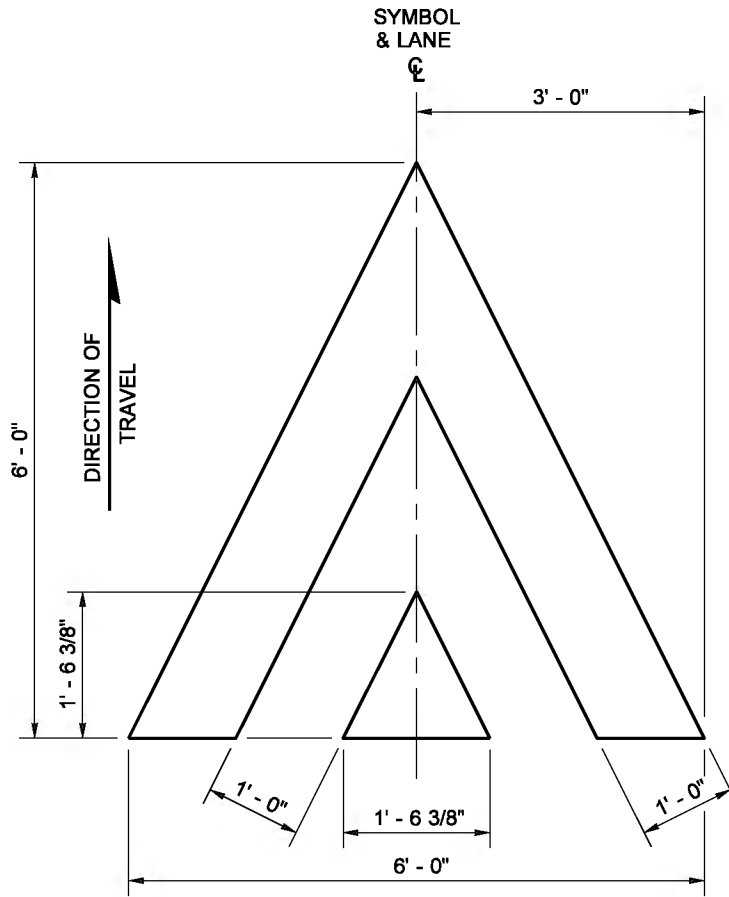
GRID IS 4" (IN) SQUARE MARKING AREA = 1.41 SQ.FT.
ACCESS PARKING SPACE SYMBOL (MINIMUM)



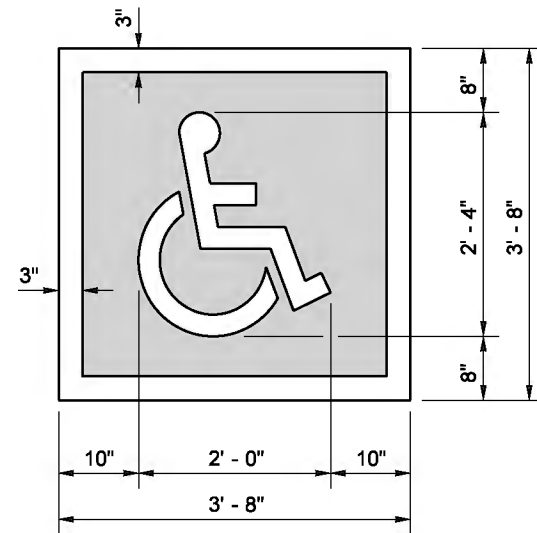
GRID IS 4" (IN) SQUARE MARKING AREA = 3.09 SQ.FT.
ACCESS PARKING SPACE SYMBOL (STANDARD)



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)



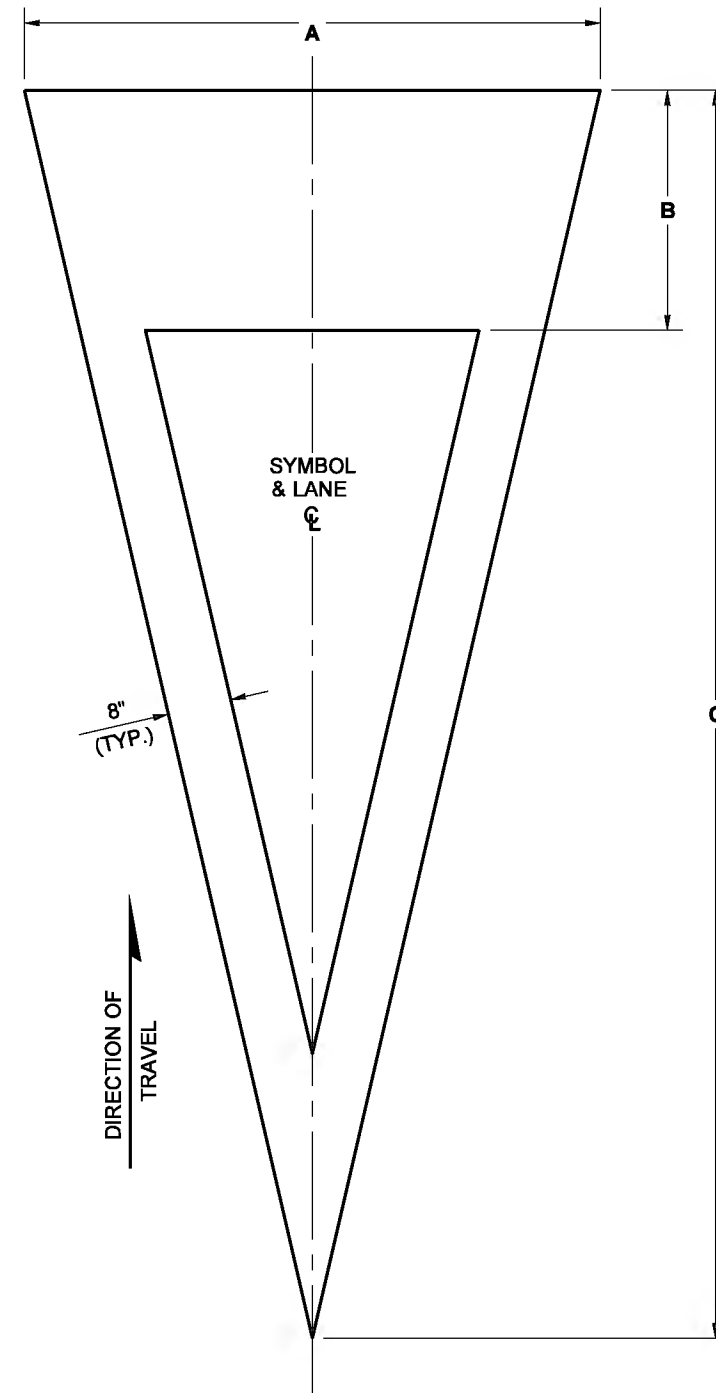
MARKING AREA = 12.08 SQ.FT.
SPEED BUMP SYMBOL



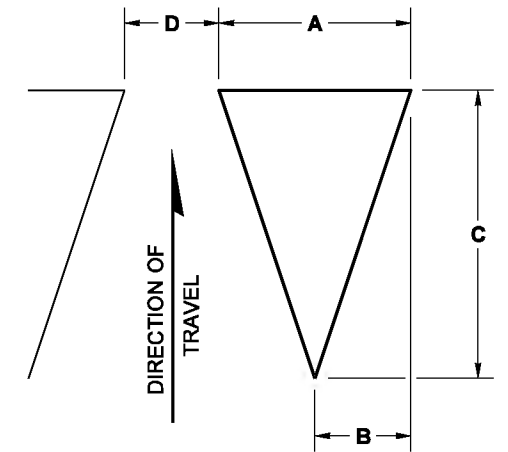
TOTAL MARKING AREA = 13.44 SQ.FT.
 WHITE = 4.82 SQ.FT. BLUE = 8.62 SQ.FT.
ACCESS PARKING SPACE SYMBOL (MINIMUM) WITH BLUE BACKGROUND AND WHITE BORDER (REQUIRED FOR CEMENT CONCRETE SURFACES)

| 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" | ROUNDBOUNT ENTRY * | 3.00 SQ.FT. |

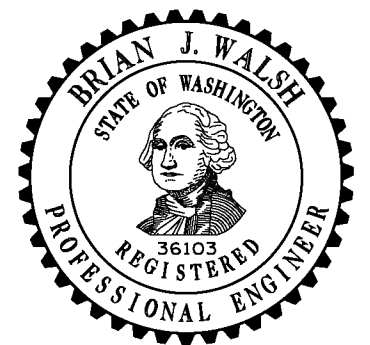
* MINIMUM OF 4 IN LANE



YIELD AHEAD SYMBOL



YIELD LINE SYMBOL (MULTIPLE SYMBOLS REQUIRED FOR TRANSVERSE YIELD LINE - SEE CONTRACT)



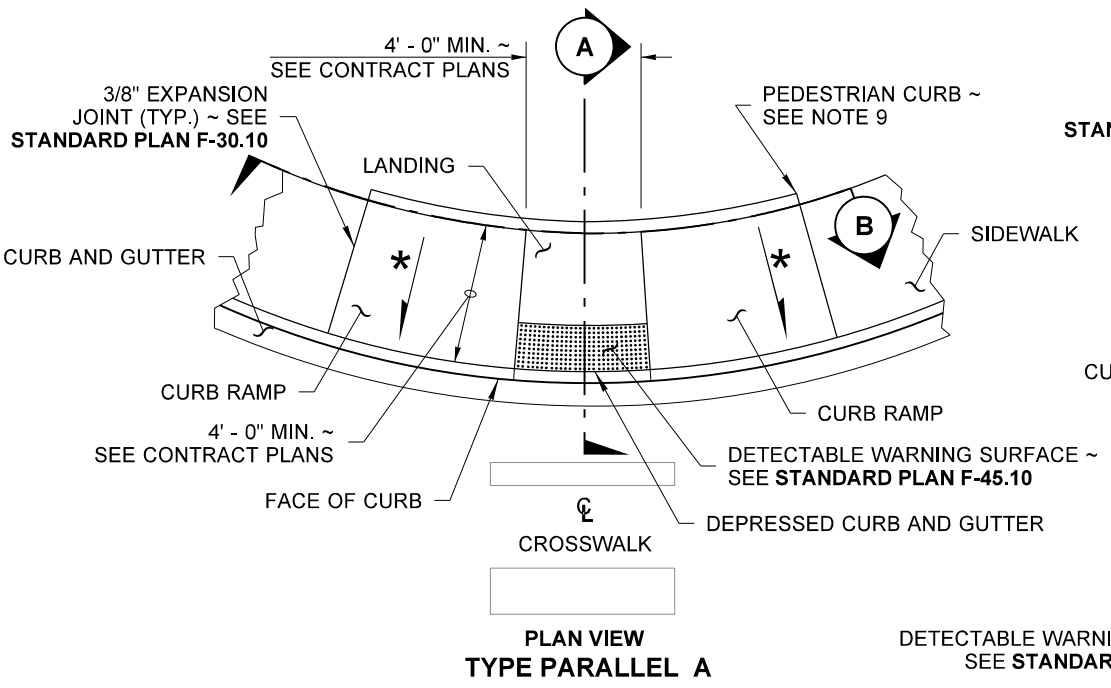
SYMBOL MARKINGS MISCELLANEOUS
STANDARD PLAN M-24.60-04

SHEET 2 OF 2 SHEETS

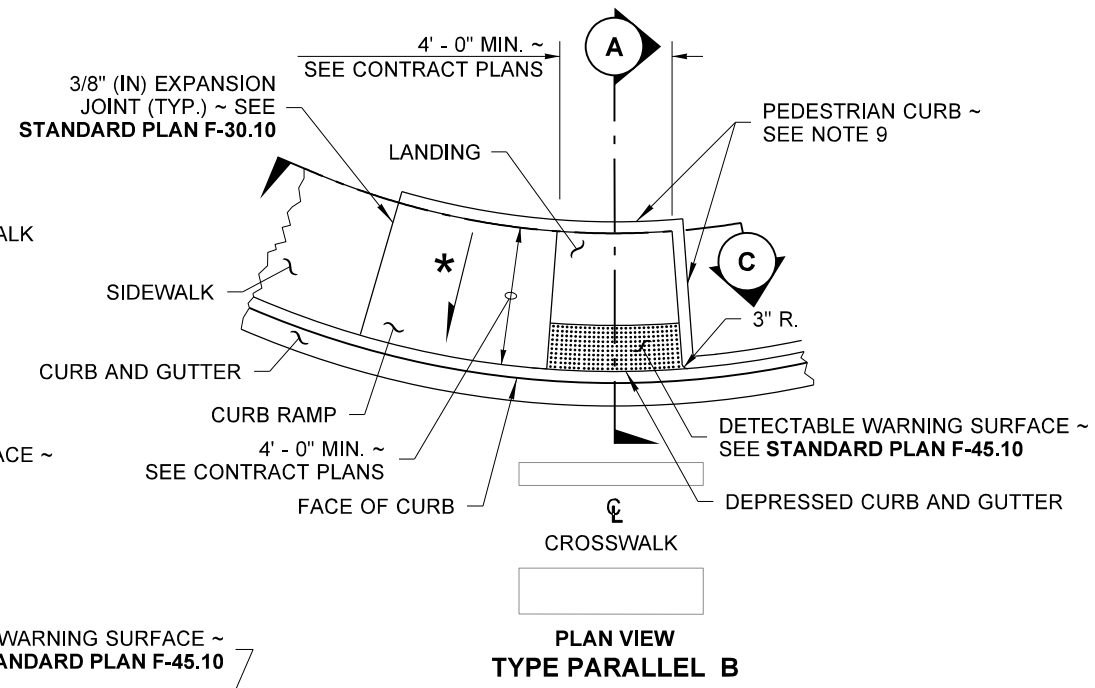
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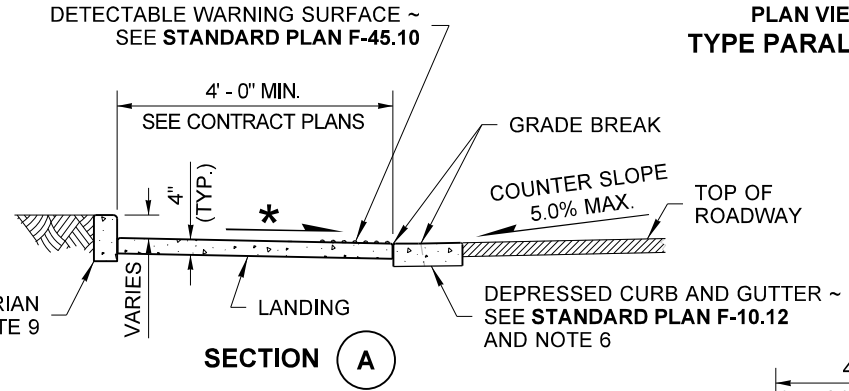


**PLAN VIEW
TYPE PARALLEL A**

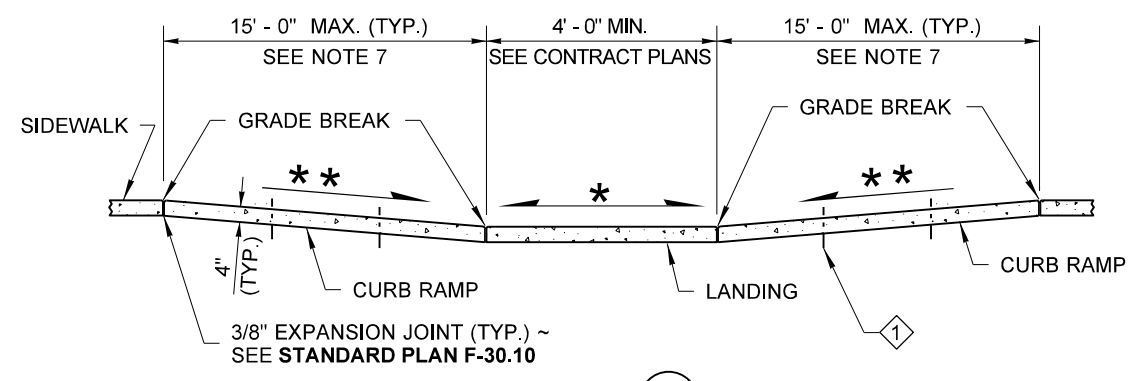


**PLAN VIEW
TYPE PARALLEL B**

1 CONTRACTION JOINT (TYP.) ~ SEE **STANDARD PLAN F-30.1** FOR CURB RAMP LENGTHS GREATER THAN 8' - 0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4' - 0" MIN. OC.



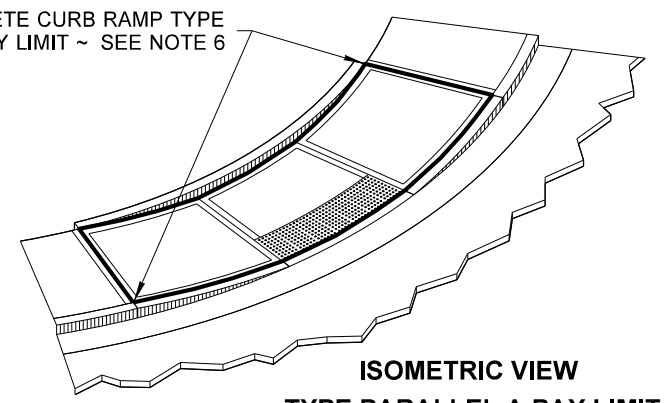
SECTION A



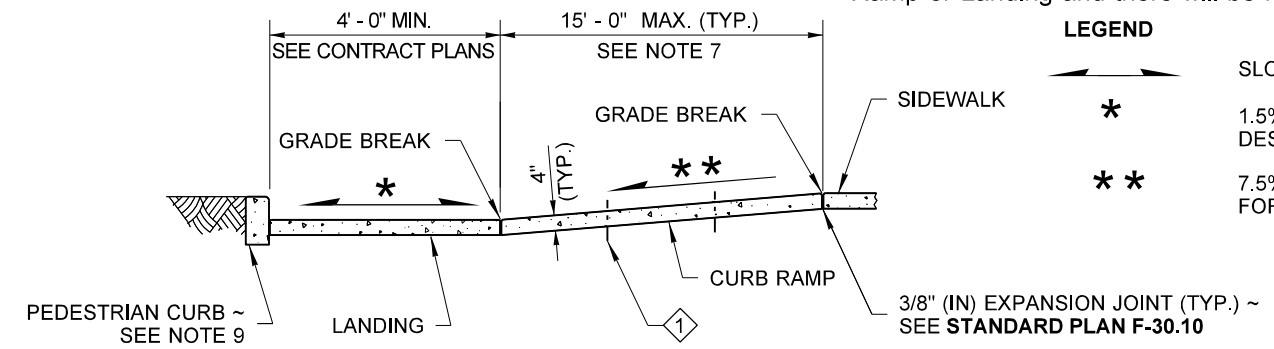
SECTION B

(ALONG INSIDE RADIUS AT BACK OF WALKWAY)

"CEMENT CONCRETE CURB RAMP TYPE PARALLEL A" PAY LIMIT ~ SEE NOTE 6



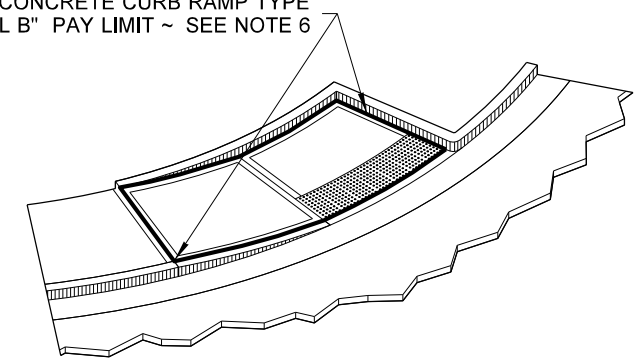
**ISOMETRIC VIEW
TYPE PARALLEL A PAY LIMIT**



SECTION C

(ALONG INSIDE RADIUS AT BACK OF WALKWAY)

"CEMENT CONCRETE CURB RAMP TYPE PARALLEL B" PAY LIMIT ~ SEE NOTE 6



**ISOMETRIC VIEW
TYPE PARALLEL B PAY LIMIT**

NOTES

1. At marked crosswalks, the connection between the landing and the roadway must be contained within the width of the crosswalk markings.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in the Depressed Curb and Gutter where the Landing connects to the roadway.
4. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
5. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type ___" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
7. The Curb Ramp length is not required to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length, the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet. Do not include abutting landing(s) in the 15-foot max. measurement. When a ramp is constructed on a radius, the 15-foot max. length is measured on the inside radius along the back of the walkway.
8. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14**.
9. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will be no material to retain.

LEGEND

- ↔ SLOPE IN EITHER DIRECTION
- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.) ~ SEE NOTE 7



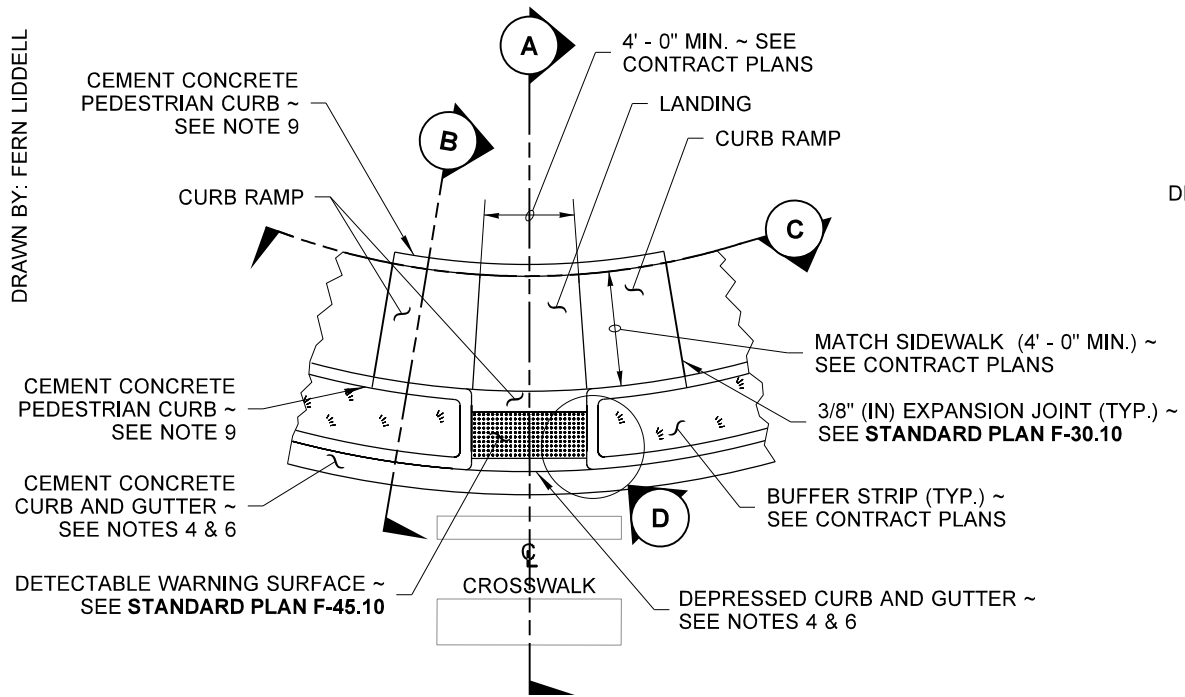
**PARALLEL CURB RAMP
STANDARD PLAN F-40.12-03**

SHEET 1 OF 1 SHEET

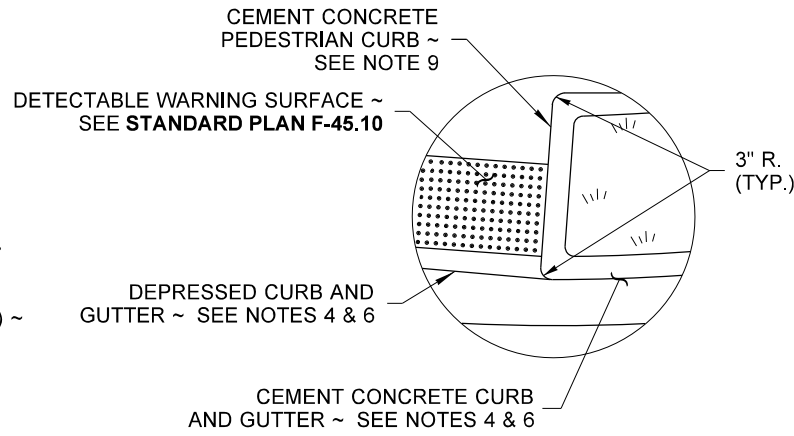
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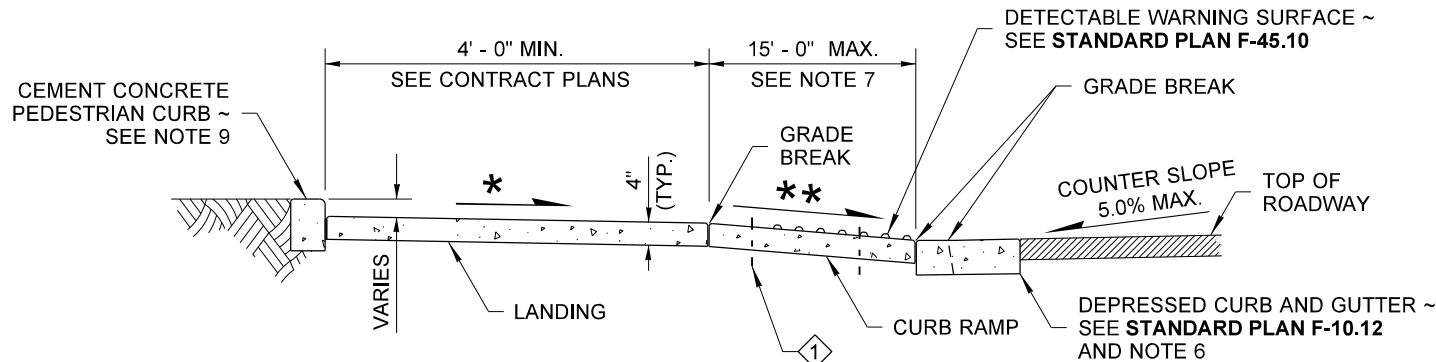
**PLAN VIEW
TYPE COMBINATION
WITH BUFFER**



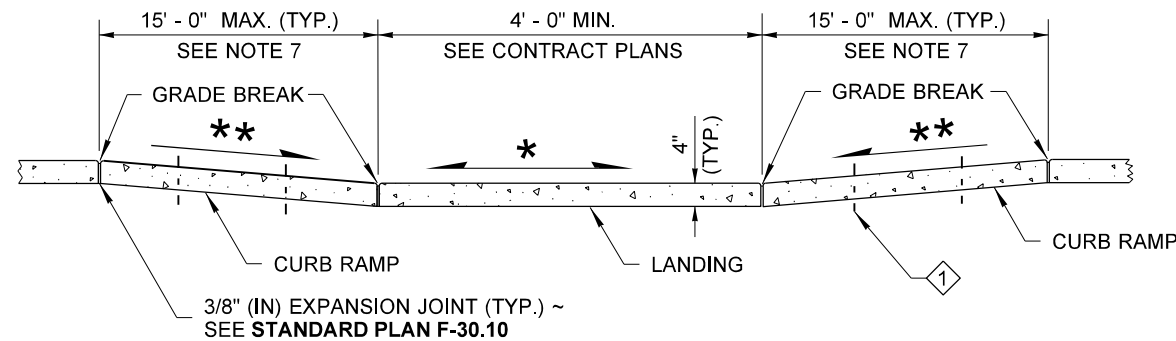
**DETAIL D
CURB RADIUS DETAIL**

NOTES

1. At marked crosswalks, the connection between the curb ramp and the roadway must be contained within the width of the crosswalk markings.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in the Depressed Curb and Gutter where the landing connects to the roadway.
4. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb, Gutter and Pedestrian Curb details.
5. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type ___" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
7. The Curb Ramp length is not required to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length, the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet. Do not included the abutting landing in the 15-foot max. measurement. When a ramp is constructed on a radius, the 15-foot max. length is measured on the inside radius along the back of the walkway.
8. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14**.
9. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will not be material to retain.



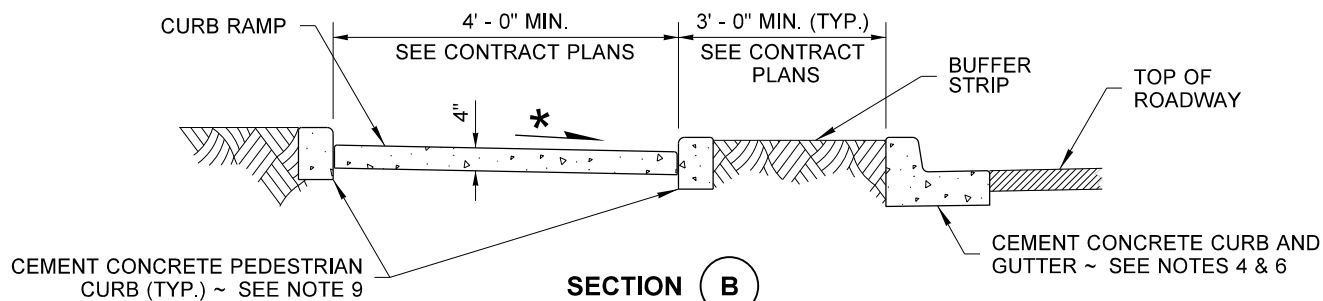
SECTION A



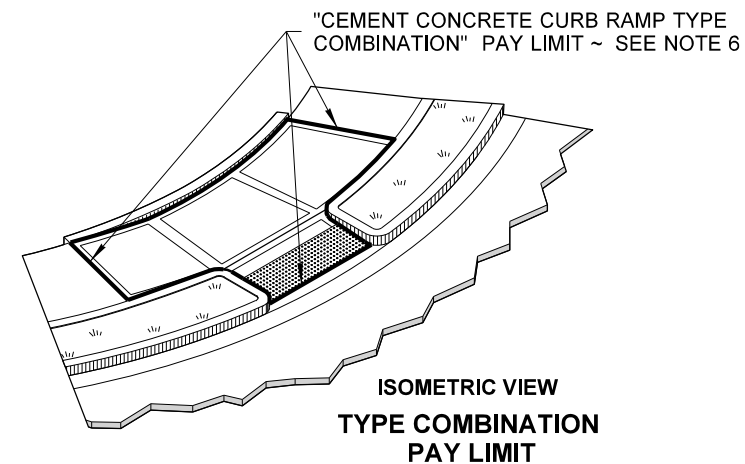
SECTION C

(ALONG INSIDE RADIUS AT BACK OF WALKWAY)

① CONTRACTION JOINT (TYP.) ~ SEE **STANDARD PLAN F-30.10** FOR CURB RAMP LENGTHS GREATER THAN 8'-0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4'-0" MIN. OC.



SECTION B



LEGEND

- ↔ SLOPE IN EITHER DIRECTION
- * 1.5 OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.)



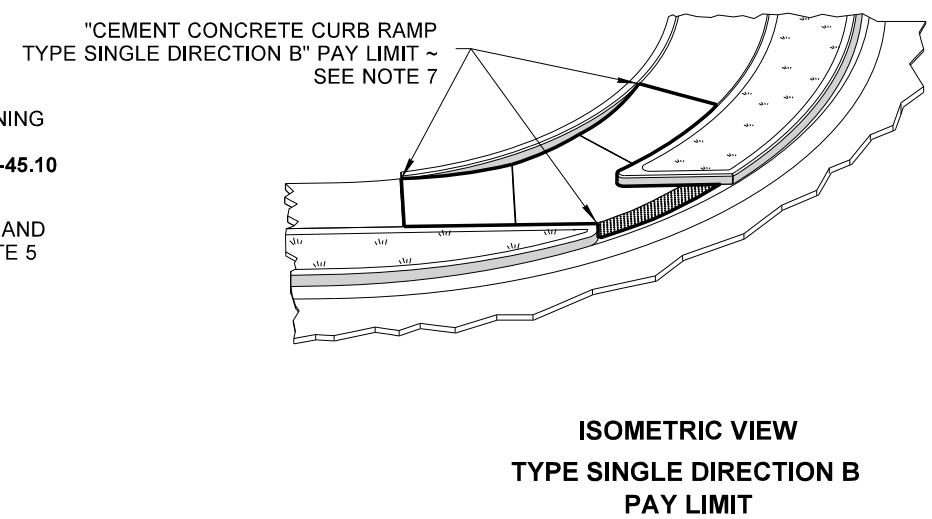
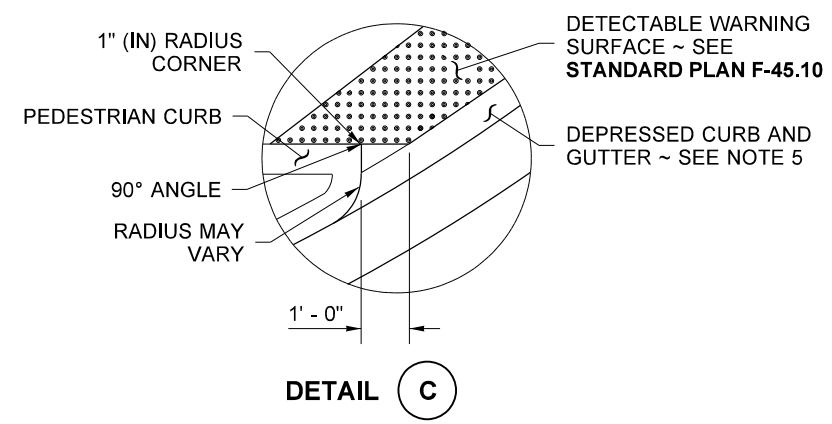
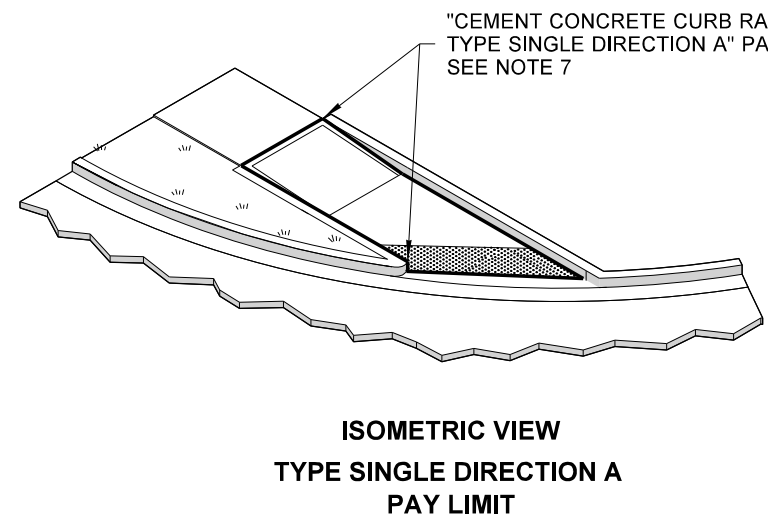
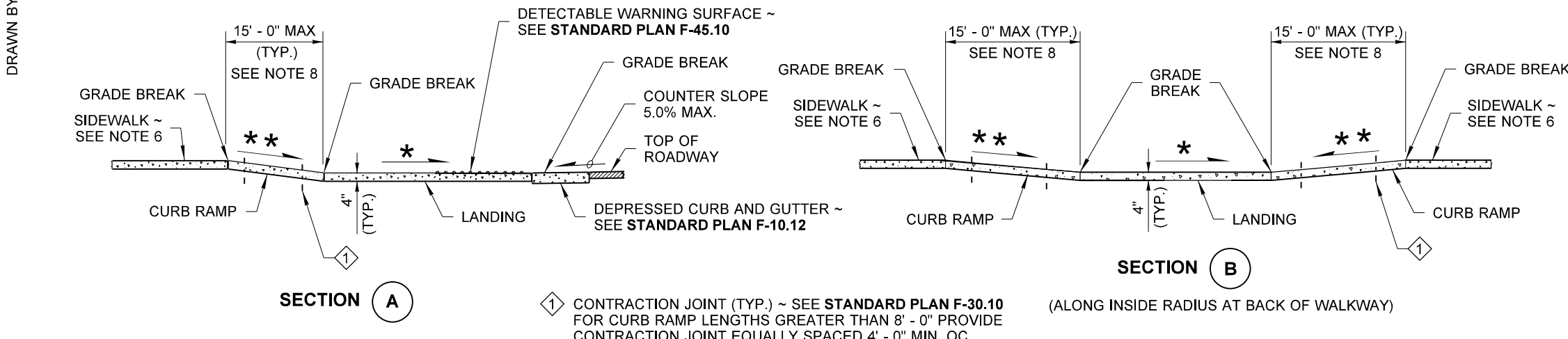
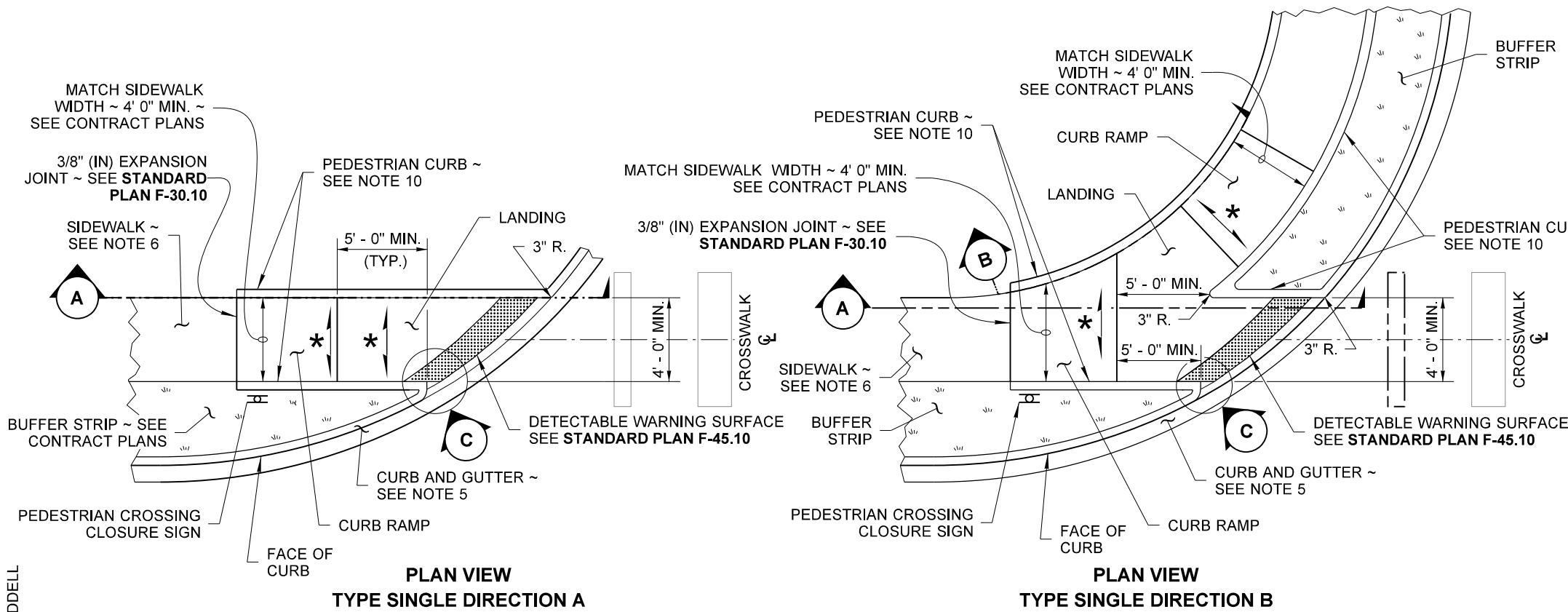
**COMBINATION CURB RAMP
STANDARD PLAN F-40.14-03**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION



DRAWN BY: FERN LIDDELL



NOTES

1. This plan is to be used where pedestrian crossing in one direction is not permitted.
2. At marked crosswalks, the connection between the Landing and the roadway must be contained within the width of the crosswalk markings.
3. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
4. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing or in the Depressed Curb and Gutter where the Landing connects to the roadway.
5. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb, Gutter and Pedestrian Curb details.
6. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
7. The Bid Item "Cement Concrete Curb Ramp Type ___" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
8. The Curb Ramp length is not required to exceed 15 feet (unless shown otherwise in the Contract Plans). When applying the 15-foot max. length (measured from back of sidewalk) the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet.
9. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14**.
10. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will not be material to retain.

LEGEND

- SLOPE IN EITHER DIRECTION
- 1.5 OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
- 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.) SEE NOTE 7



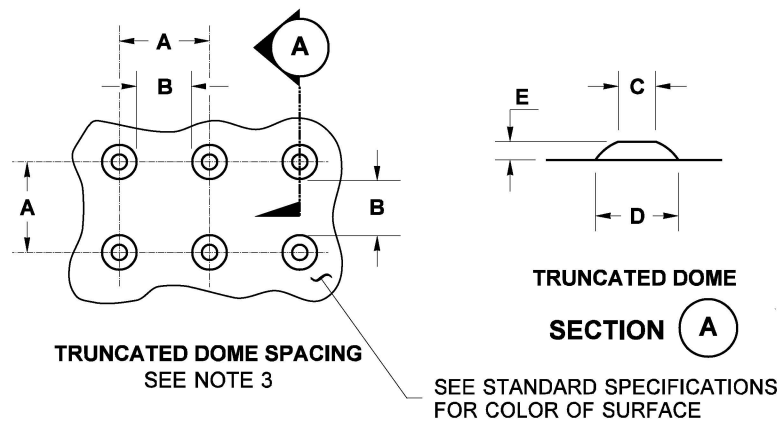
SINGLE DIRECTION CURB RAMP
STANDARD PLAN F-40.16-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

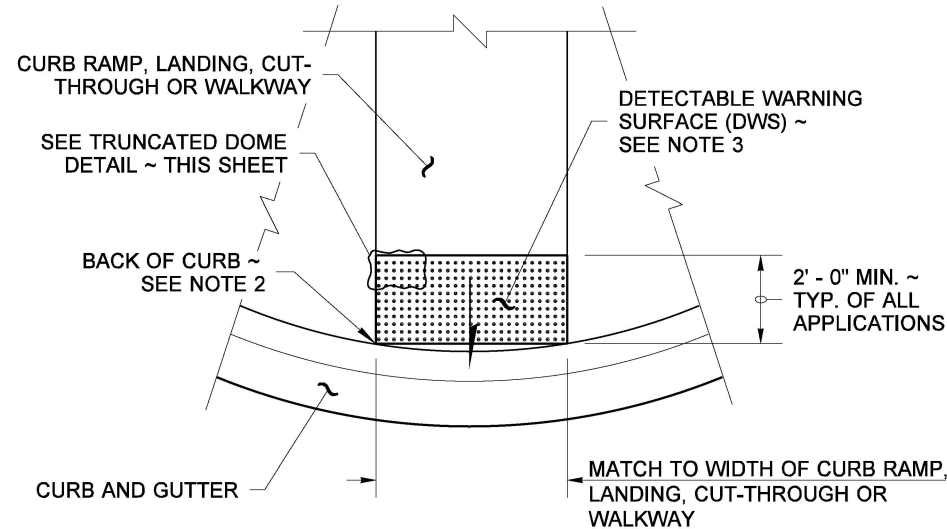
STATE DESIGN ENGINEER
 Washington State Department of Transportation

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



| | MIN. | MAX. |
|---|-------|-------|
| A | 1.60" | 2.40" |
| B | 0.65" | — |
| C | 0.45" | 0.90" |
| D | 0.9" | 1.40" |
| E | 0.2" | 0.2" |

TRUNCATED DOME DETAILS

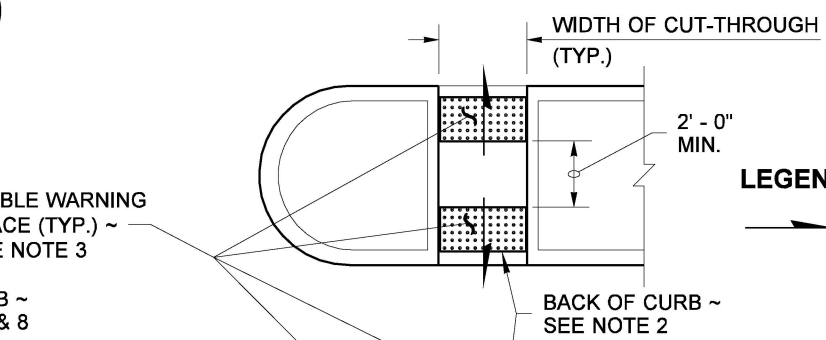
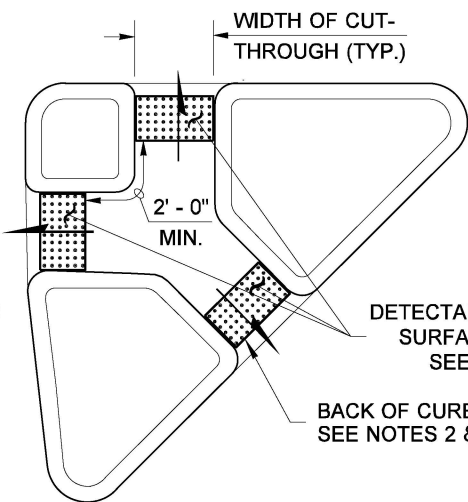
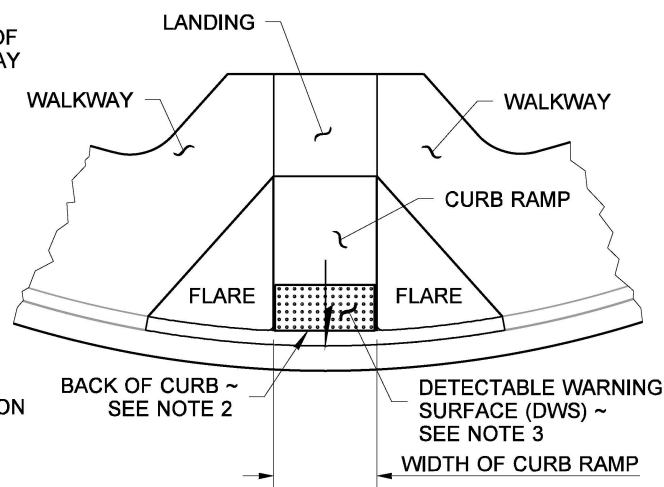
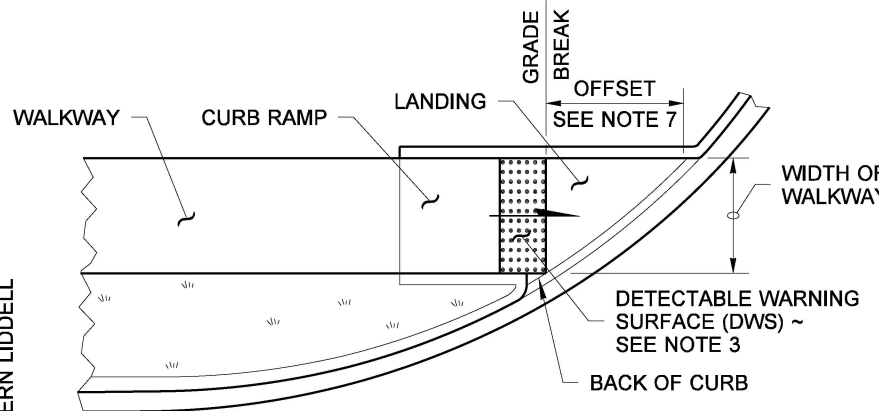


DETECTABLE WARNING SURFACE DETAIL

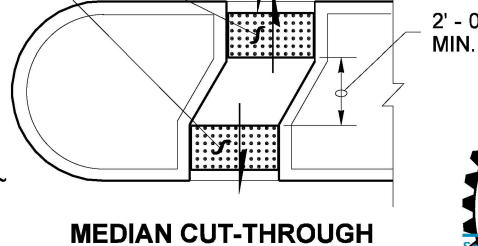
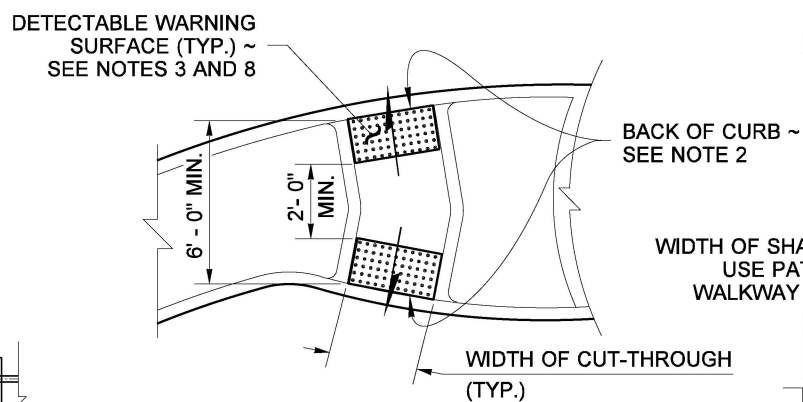
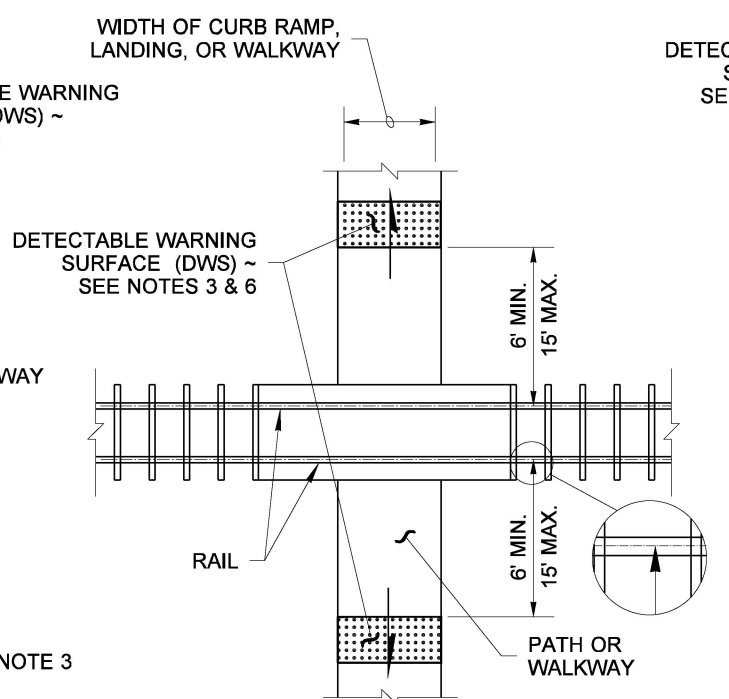
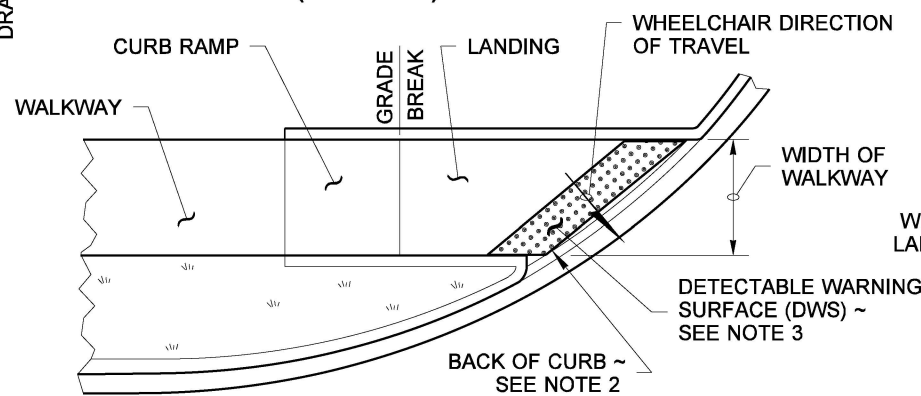
NOTES

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 ft. from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp directly above the grade break.
8. Glued or stick down Detectable Warning Surfaces are allowed only for temporary work zone applications.

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LEGEND
→ DIRECTION OF TRAVEL



Aug 30, 2021

DETECTABLE WARNING SURFACE

STANDARD PLAN F-45.10-03

SHEET 1 OF 1 SHEET

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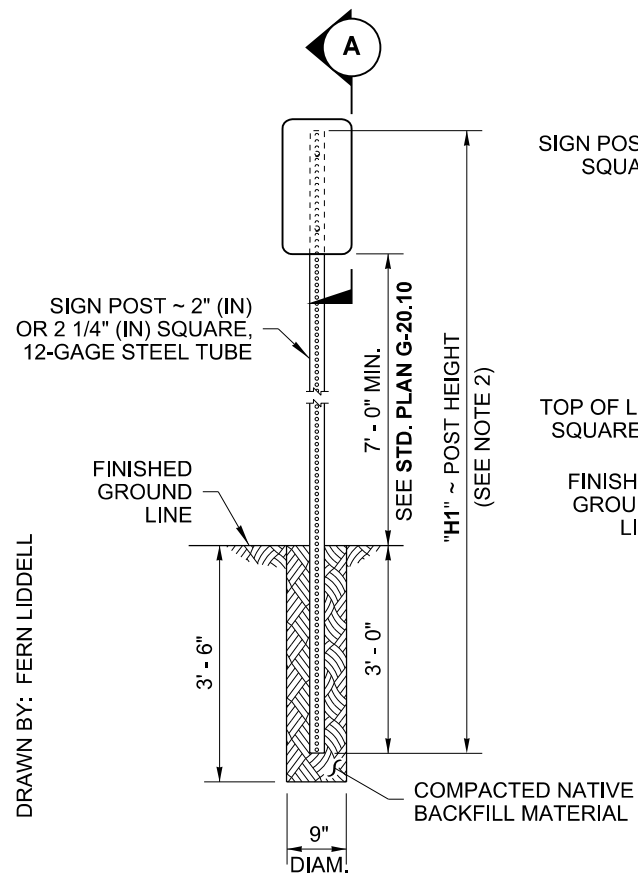
[Signature]

Aug 31, 2021

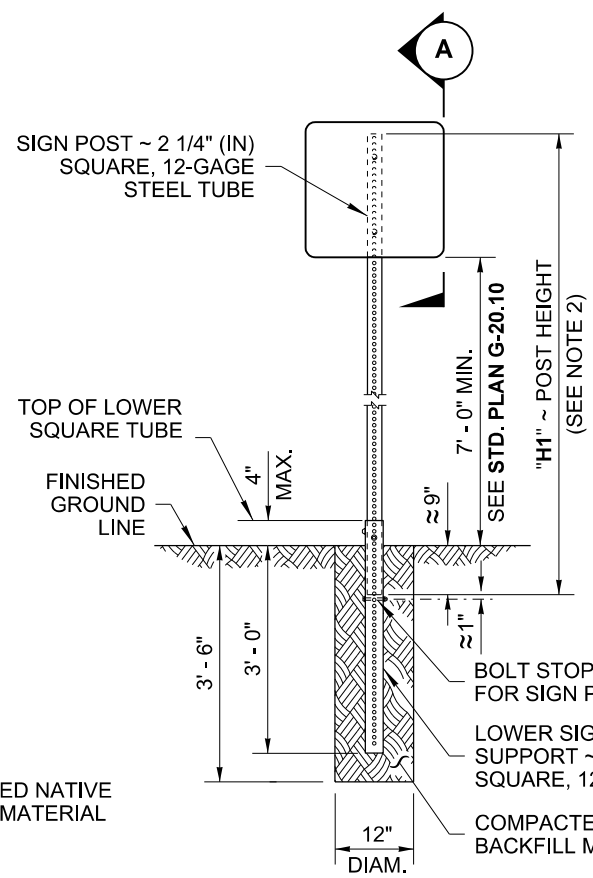
STATE DESIGN ENGINEER



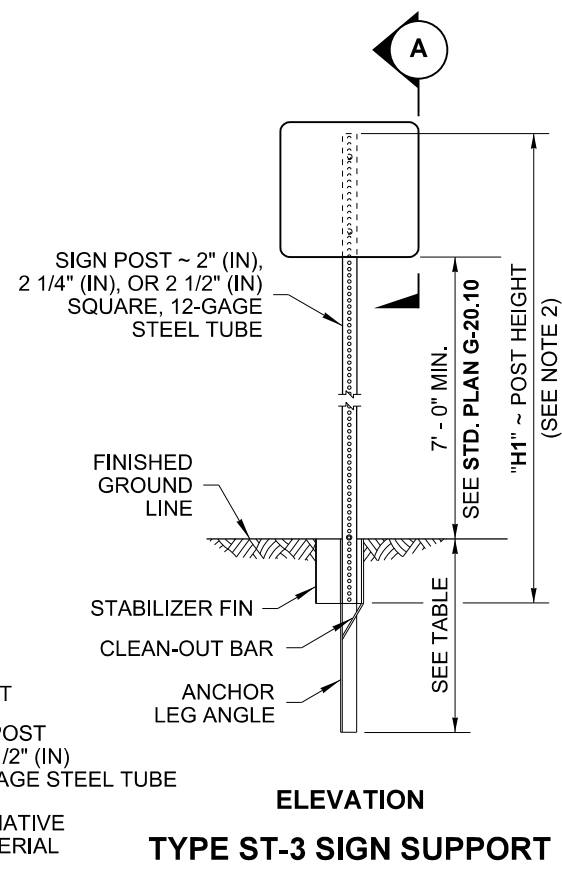
DRAWN BY: FERN LIDDELL



**ELEVATION
TYPE ST-1 SIGN SUPPORT**

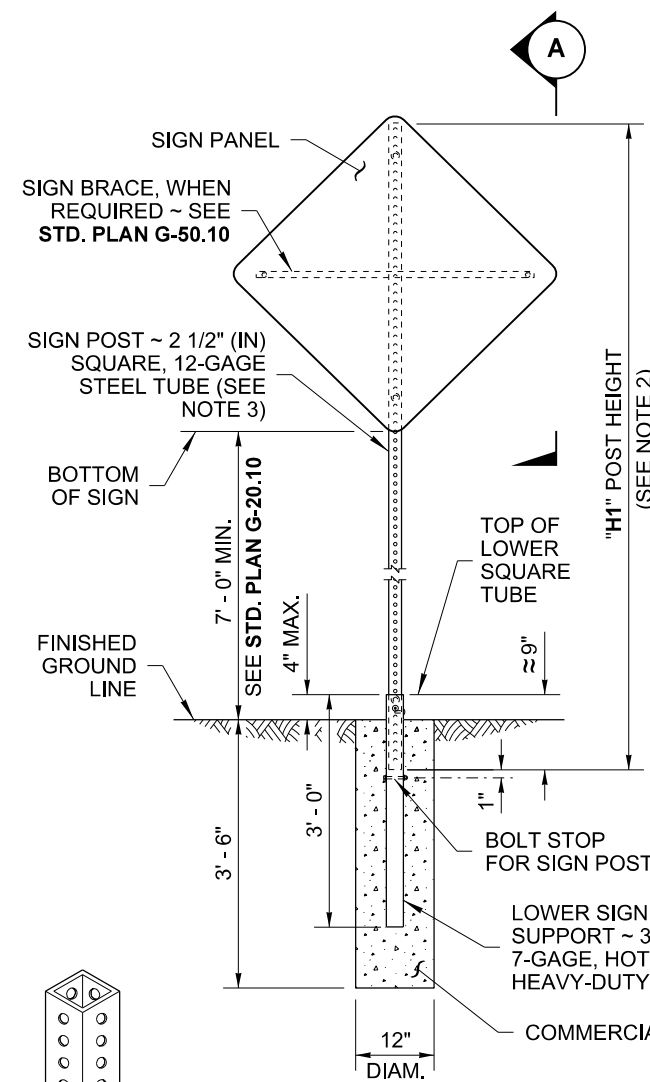


**ELEVATION
TYPE ST-2 SIGN SUPPORT**



**ELEVATION
TYPE ST-3 SIGN SUPPORT**

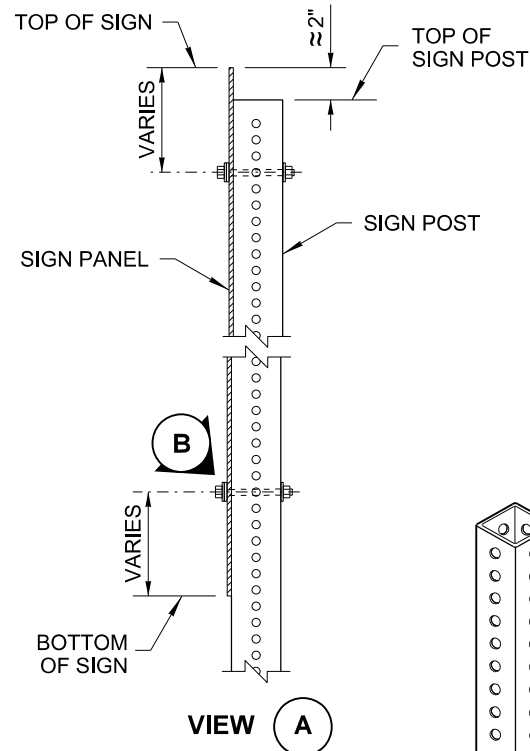
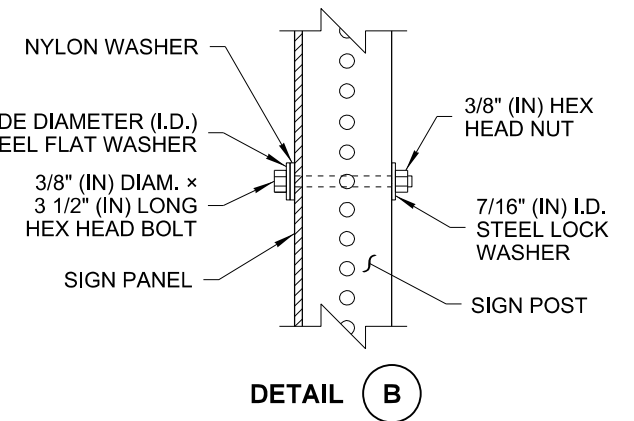
| BURIED DEPTH | POST SIZE |
|--------------|------------|
| 2' - 6" | 2", 2 1/4" |
| 3' - 0" | 2 1/2" |



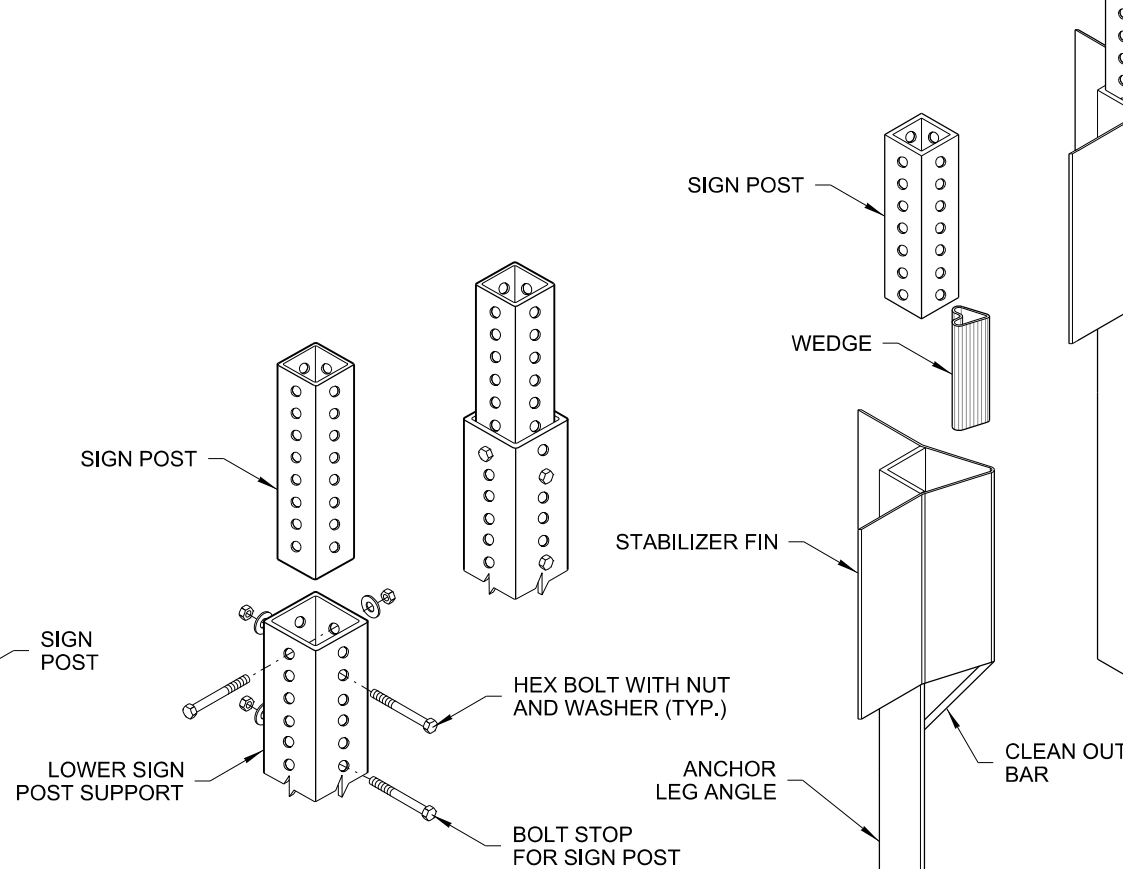
**ELEVATION
TYPE ST-4 SIGN SUPPORT**

NOTES

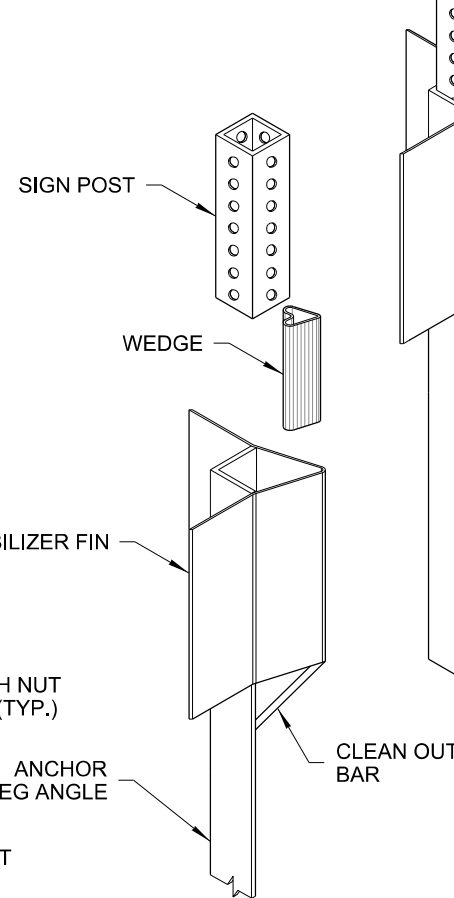
1. Dimensions for the parts used to assemble the base connections are intentionally not shown. Base connections are patented, manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are shown on this plan only to illustrate how the parts are assembled.
2. For "H1", refer to the Sign Specification Sheet in the Contract.
3. A 2" (in) post with a 2 1/4" (in) PSST anchor or a 2 1/4" (in) post with a 2 1/2" (in) PSST anchor may be substituted. See Contract Plans.
4. Perforated square steel post shall meet the requirements of **Standard Specification, Section 9-06**.
5. Use only base connection manufacturer supplied hardware that meets the requirements of **Standard Specification, Sections 9-06 and 9-28**.



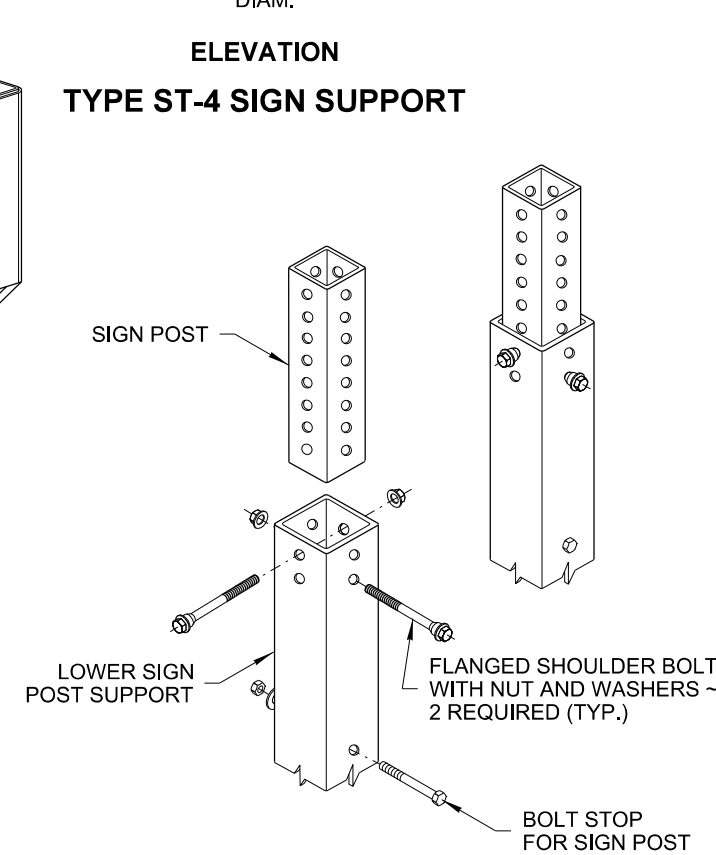
TYPE ST-1



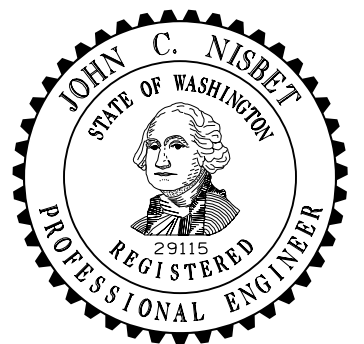
TYPE ST-2



TYPE ST-3



TYPE ST-4



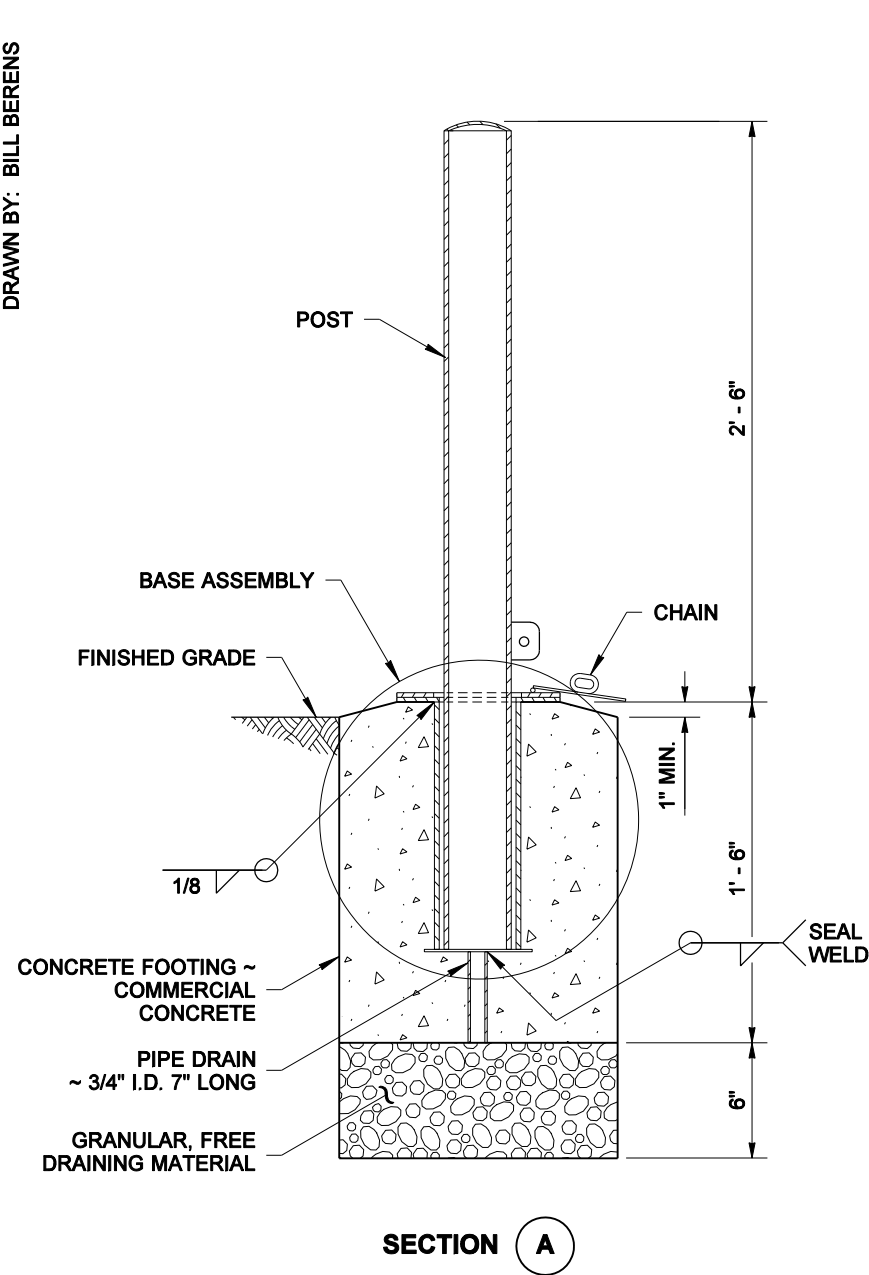
**STEEL SIGN SUPPORT
TYPES ST-1 - ST-4
INSTALLATION DETAILS
STANDARD PLAN G-24.50-05**

SHEET 1 OF 1 SHEET

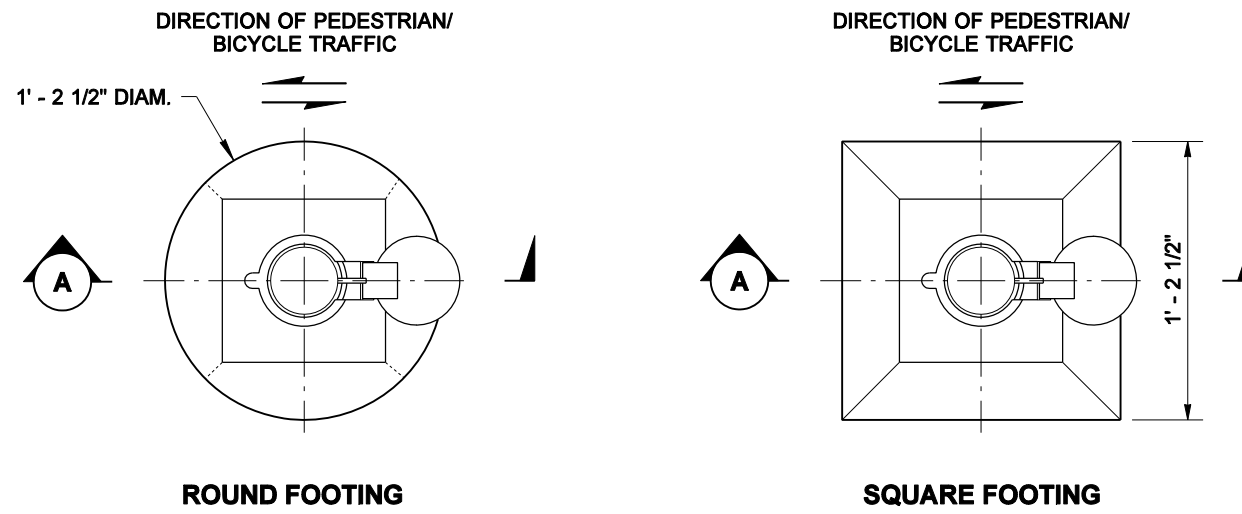
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Washington State Department of Transportation

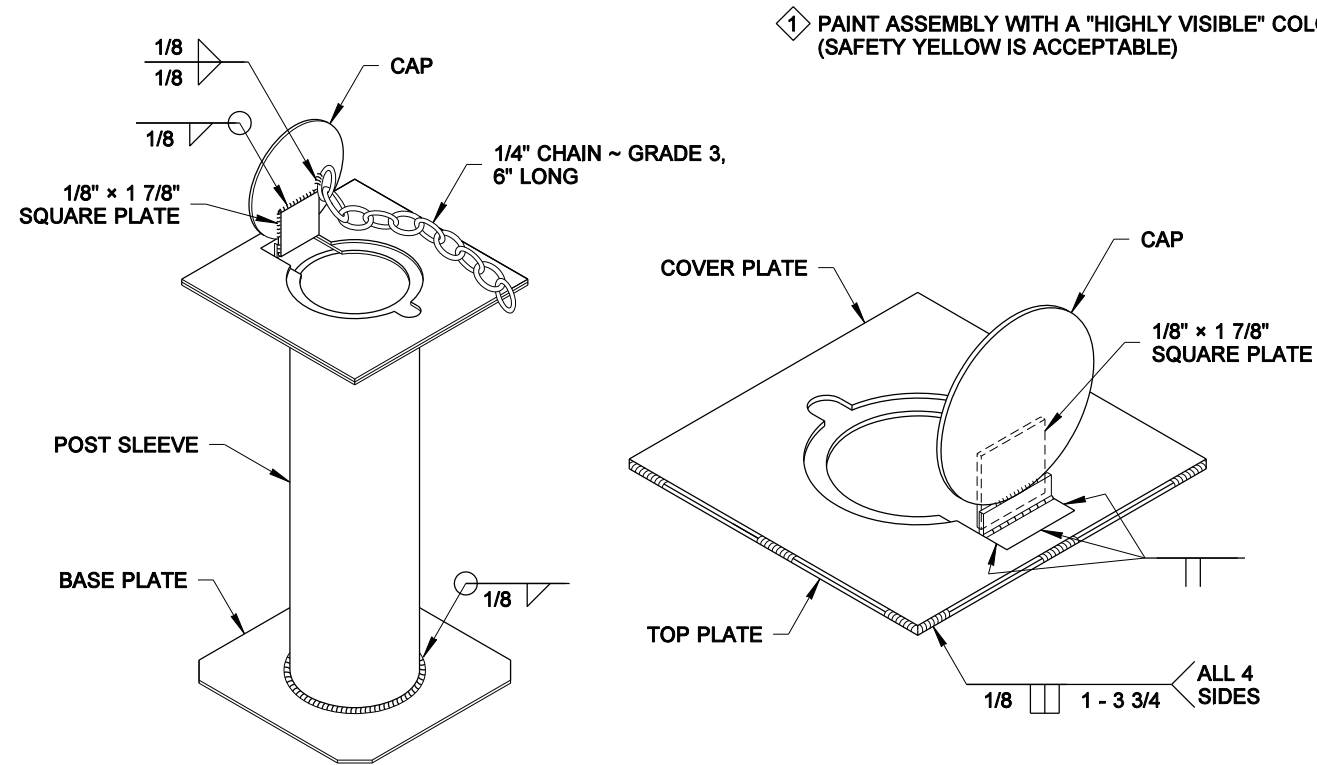
DRAWN BY: BILL BERENS



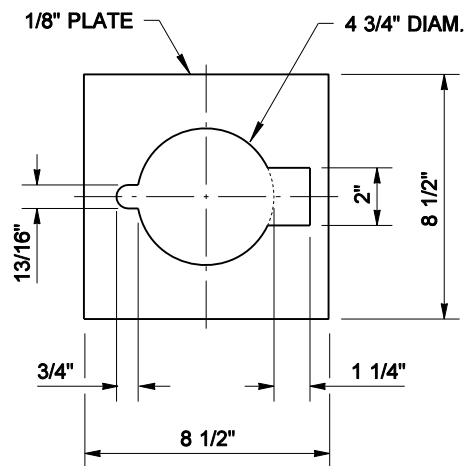
SECTION A



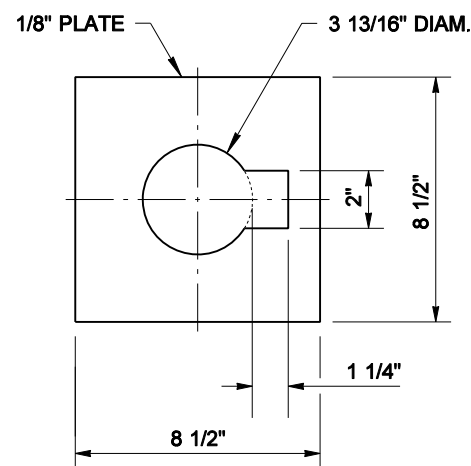
PLAN VIEW



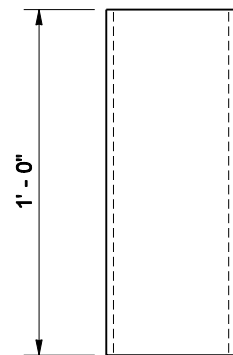
BASE ASSEMBLY



COVER PLATE

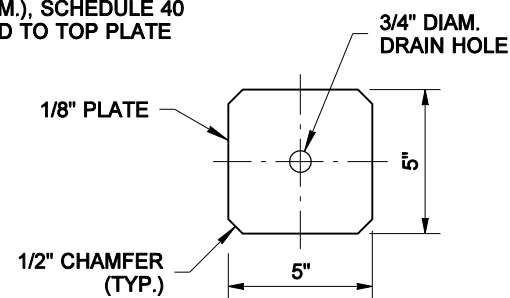


TOP PLATE

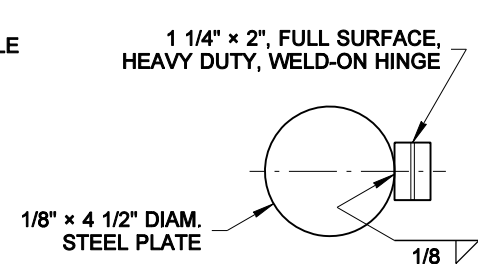


POST SLEEVE

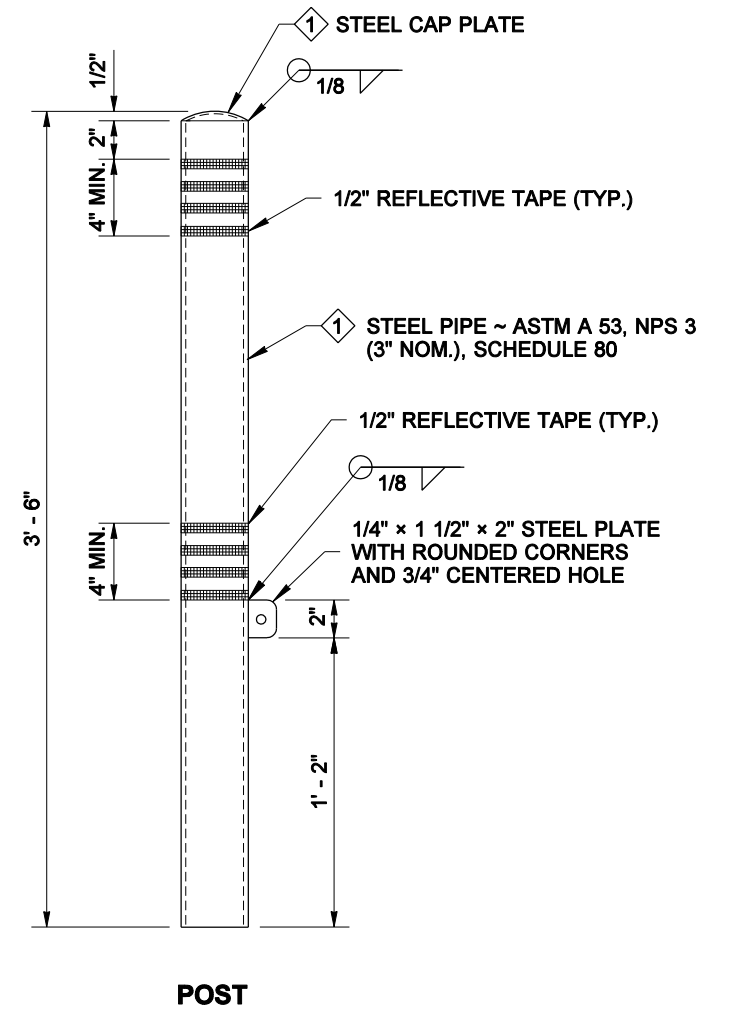
STEEL PIPE ~ ASTM A 53, NPS 4 (4" NOM.), SCHEDULE 40 ~ WELD TO TOP PLATE



BASE PLATE



CAP AND HINGE



NOTE

This bollard does not have an effective breakaway design feature and cannot be installed within the Design Clear Zone.



EXPIRES JUNE 19, 2010

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BOLLARD TYPE 1

STANDARD PLAN H-60.10-01

SHEET 1 OF 1 SHEET

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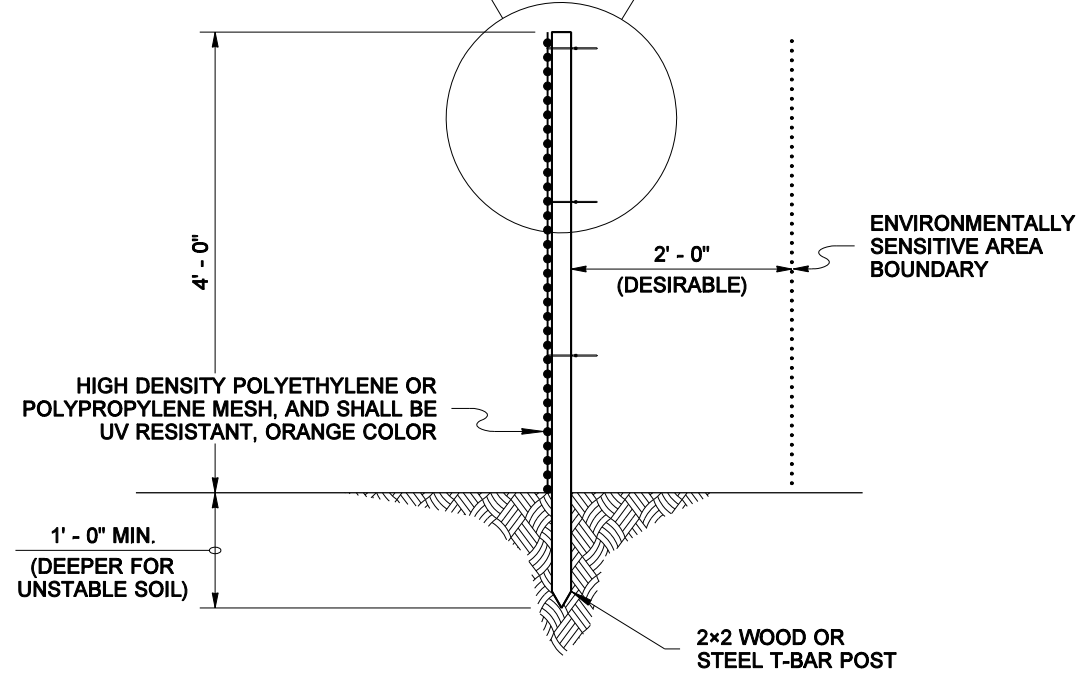
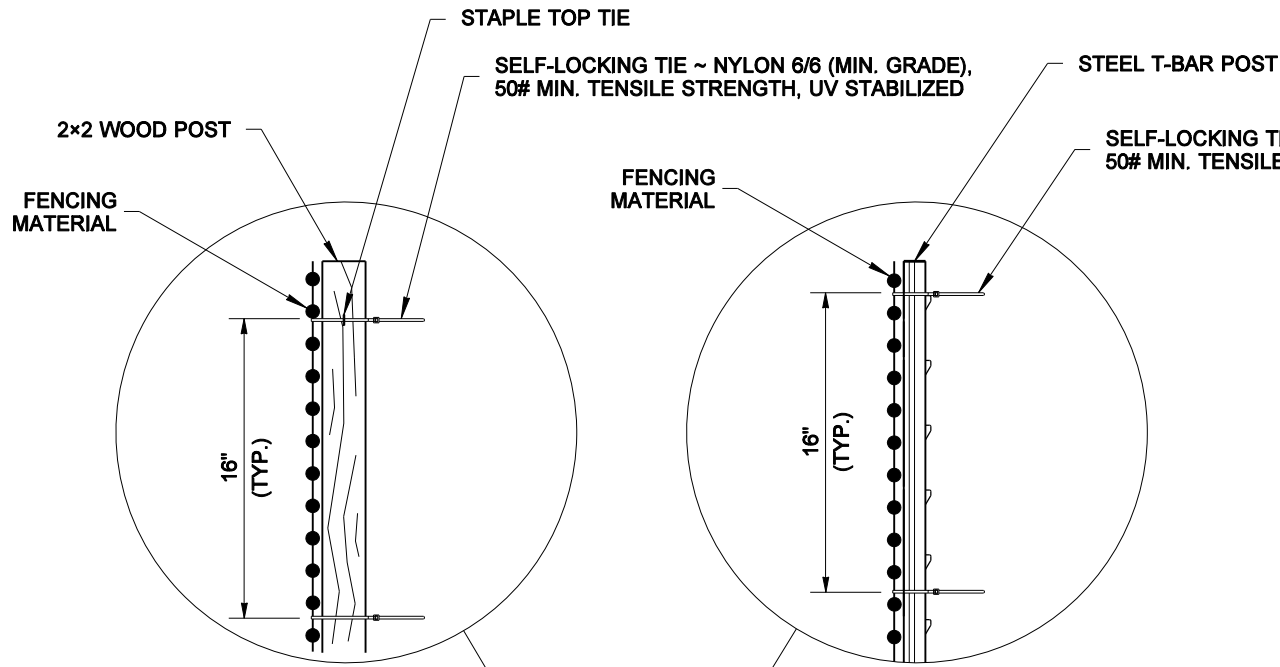
Pasco Bakotich III 07-03-08

STATE DESIGN ENGINEER

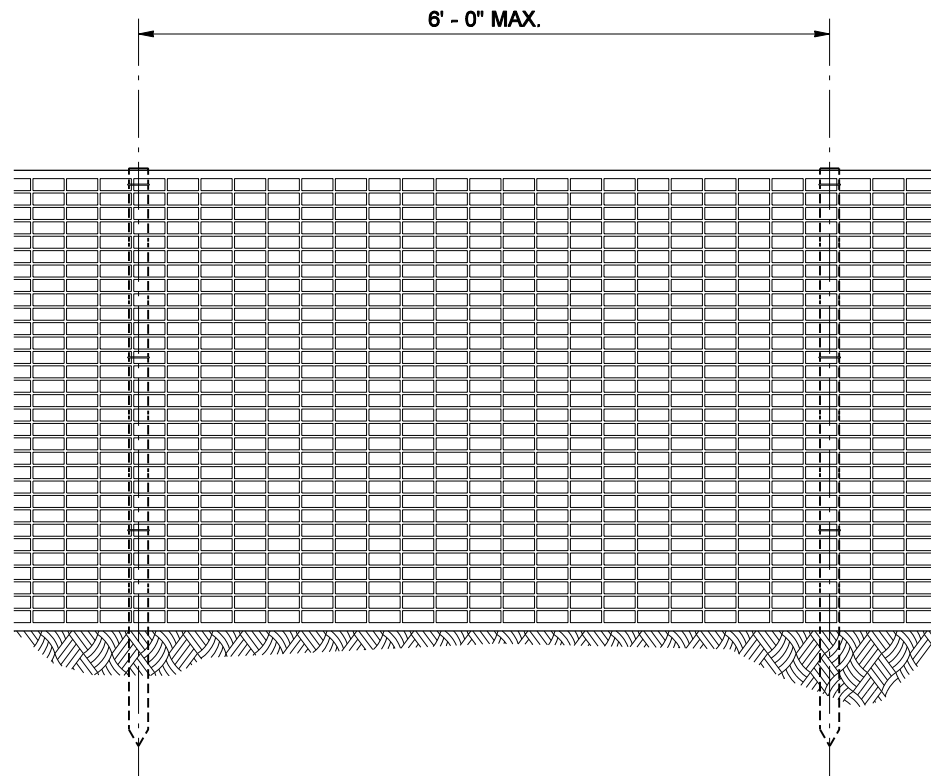
DATE



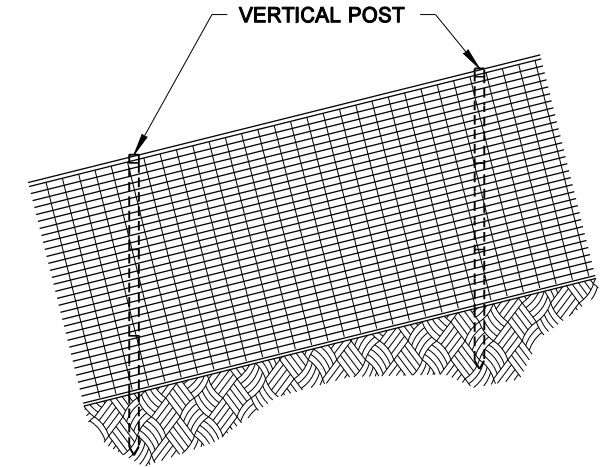
DRAWN BY: BILL BERENS



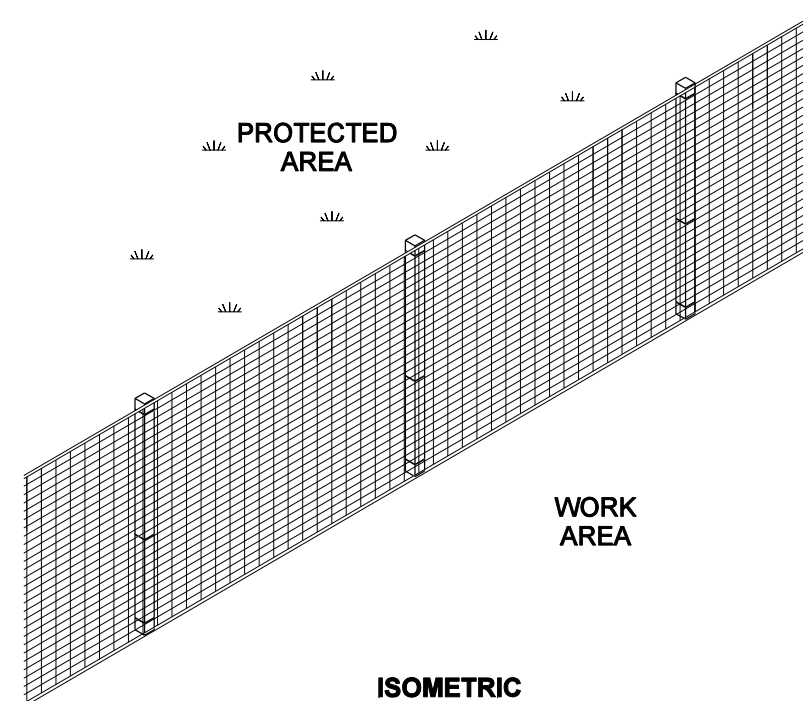
TYPICAL SECTION



ELEVATION



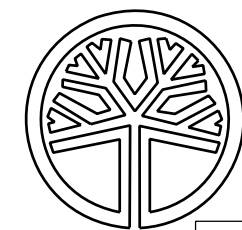
ELEVATION
FENCE ON SLOPE



ISOMETRIC

NOTE

1. Post shall have sufficient strength and durability to support the fence through the life of the project.



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

MARK W. MAURER
CERTIFICATE NO. 000598

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HIGH VISIBILITY FENCE

STANDARD PLAN I-10.10-01

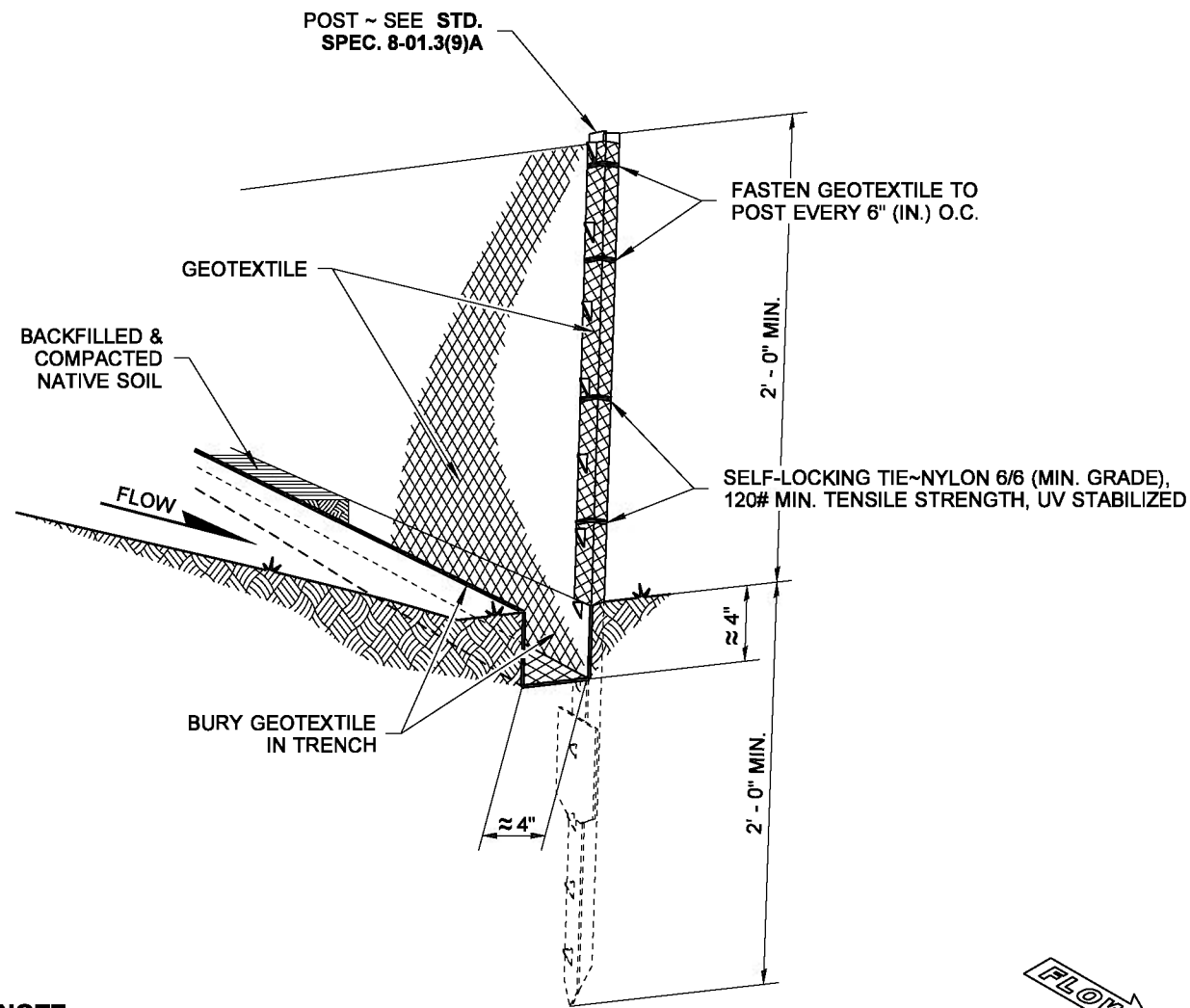
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III 08-11-09

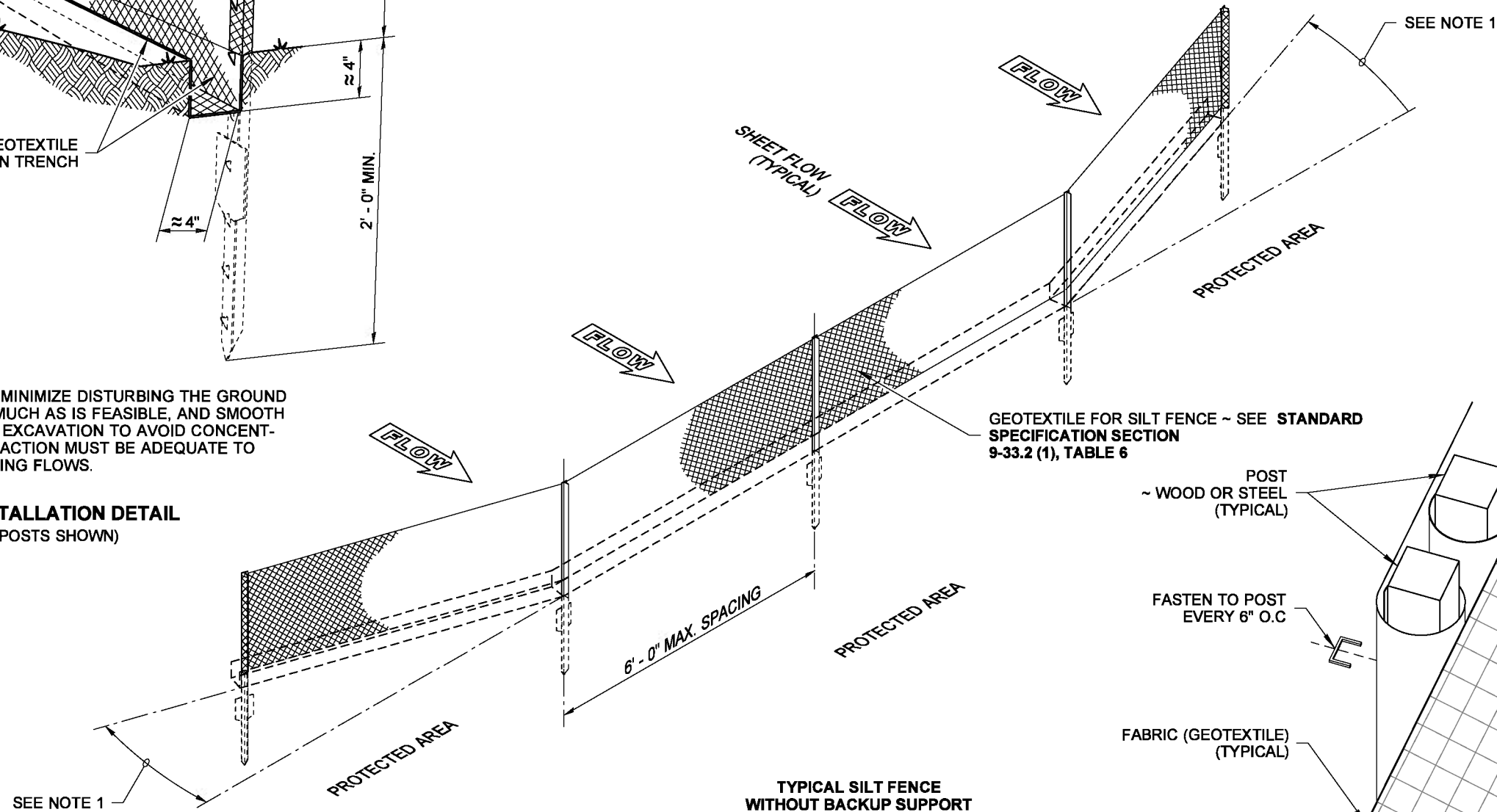
STATE DESIGN ENGINEER DATE



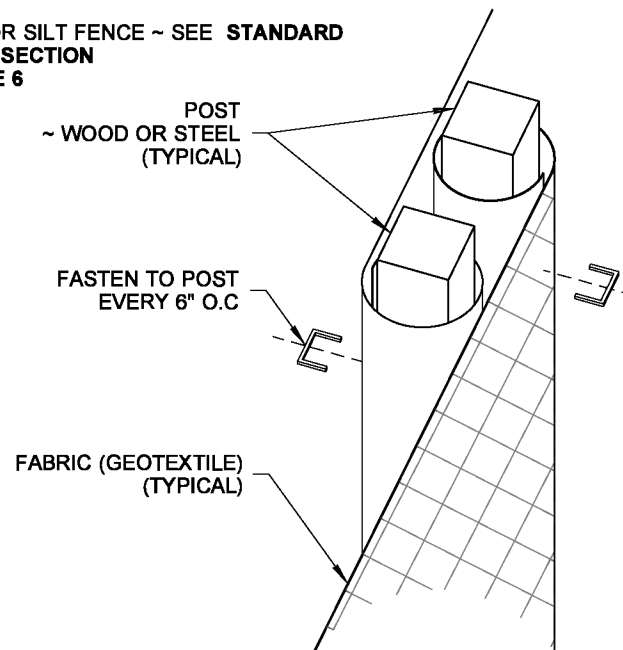


NOTE
 DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

TYPICAL INSTALLATION DETAIL
 (STEEL POSTS SHOWN)



TYPICAL SILT FENCE WITHOUT BACKUP SUPPORT ISOMETRIC
 (STEEL POSTS SHOWN)



SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

SPLICE DETAIL
 (WOOD POSTS SHOWN)

NOTES

1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with **Standard Specifications 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.

STATE OF WASHINGTON
 REGISTERED
 LANDSCAPE ARCHITECT

SANDRA L. SALISBURY
 CERTIFICATE NO. 000860

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SILT FENCE

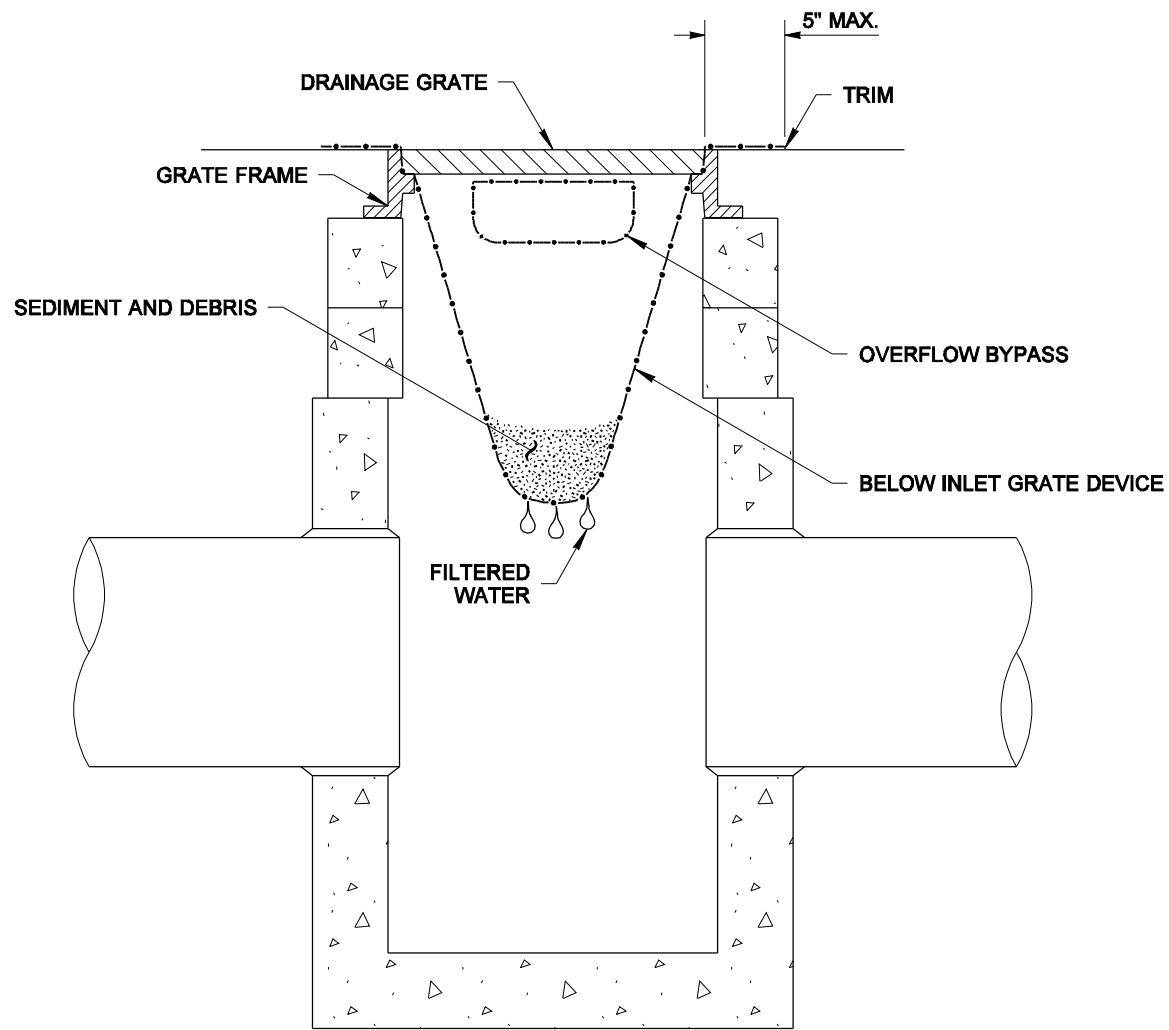
STANDARD PLAN I-30.15-02

SHEET 1 OF 1 SHEET

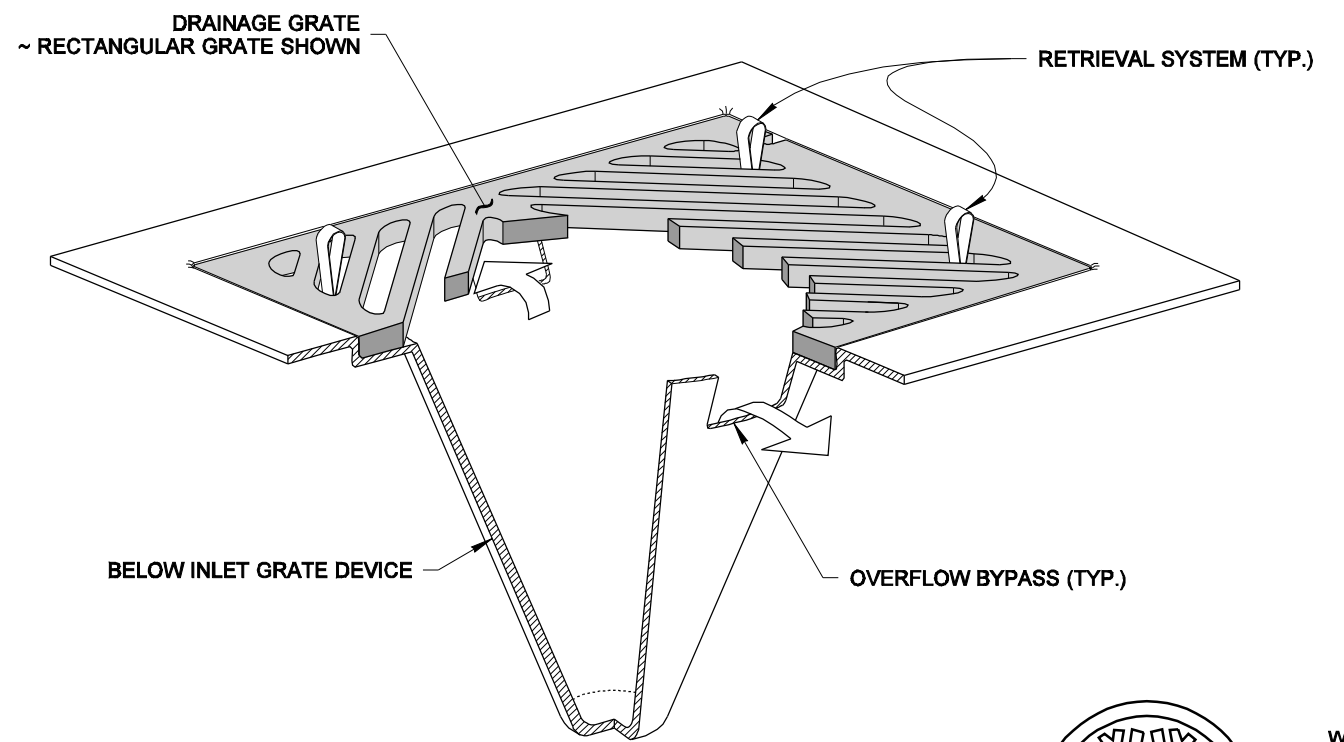
APPROVED FOR PUBLICATION

Pasco Bakotich III 3/22/13
 STATE DESIGN ENGINEER DATE

Washington State Department of Transportation



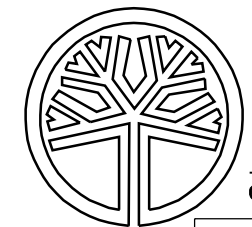
SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

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).



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

MARK W. MAURER
CERTIFICATE NO. 000598

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**STORM DRAIN
INLET PROTECTION
STANDARD PLAN I-40.20-00**

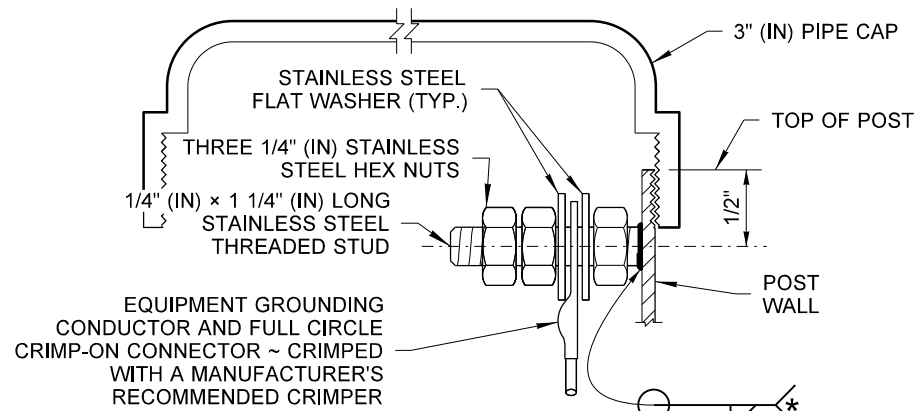
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III 09-20-07
STATE DESIGN ENGINEER DATE

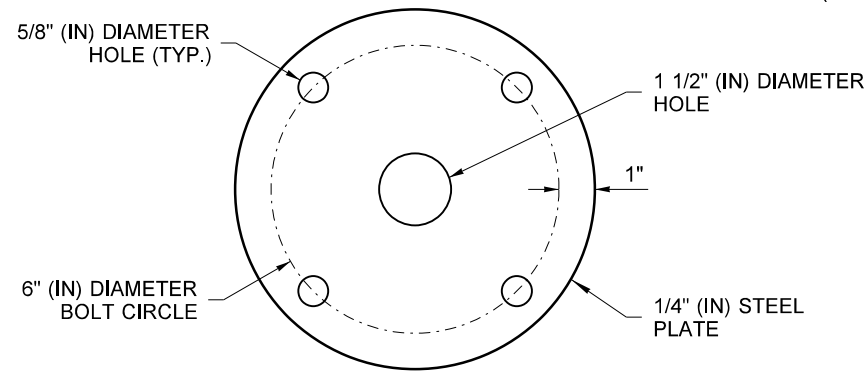


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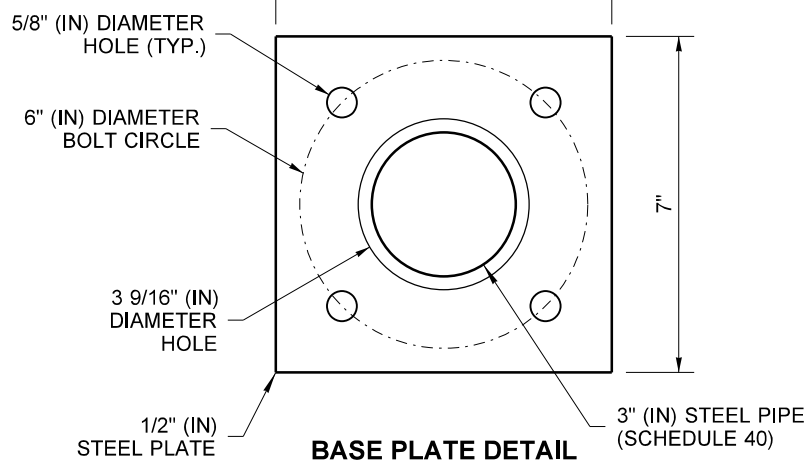


GROUNDING CONNECTION DETAIL

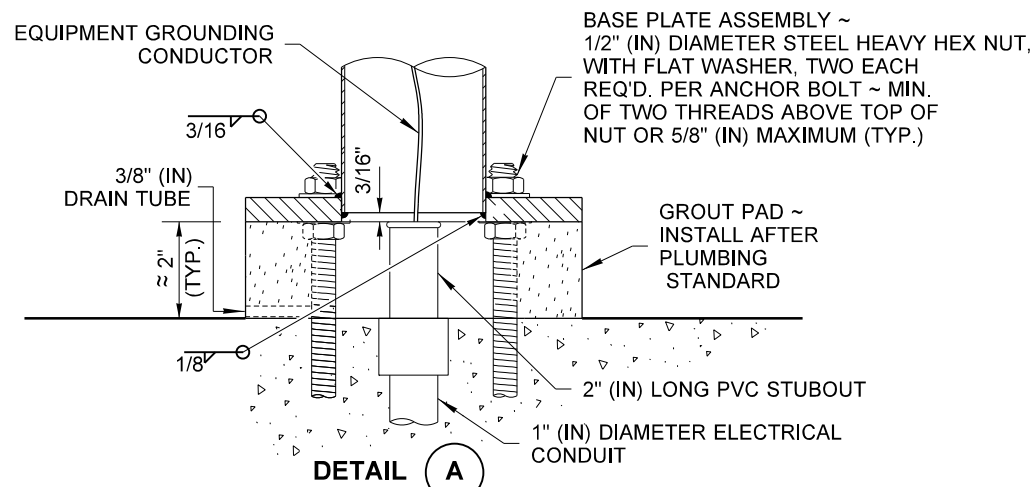
* WELD STUD TO POLE WALL TO MAXIMUM EXTENT POSSIBLE (1/2" (IN) MINIMUM WELD)



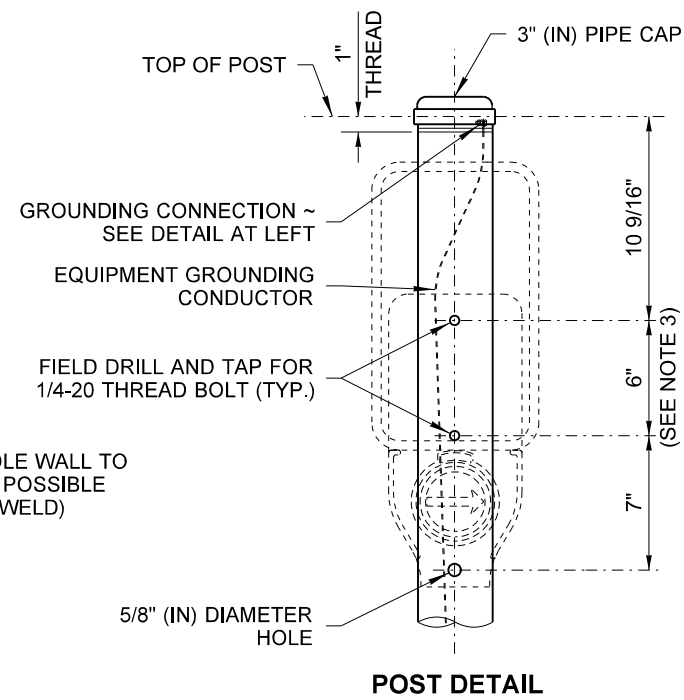
ANCHOR BOLT TEMPLATE



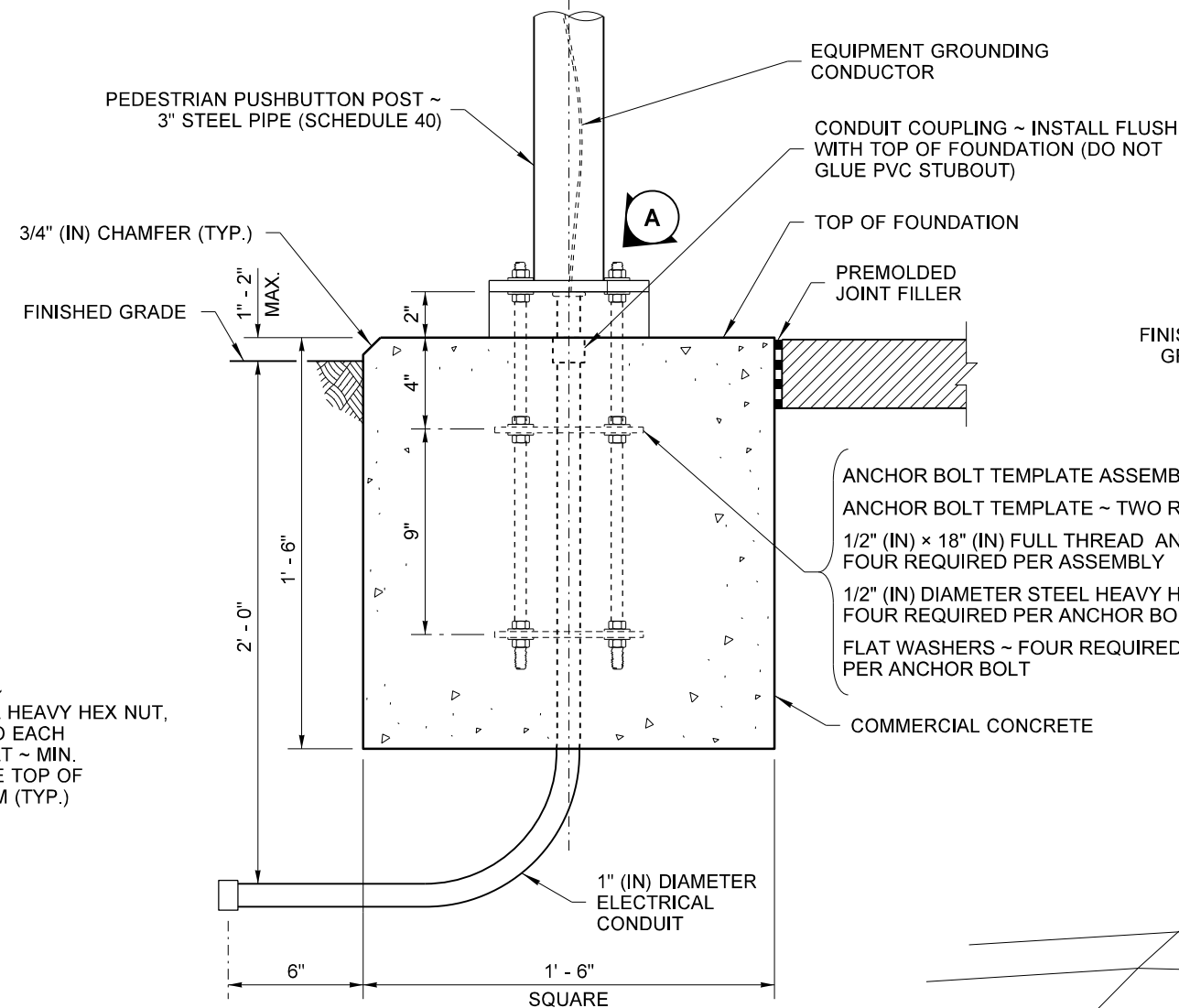
BASE PLATE DETAIL



DETAIL A



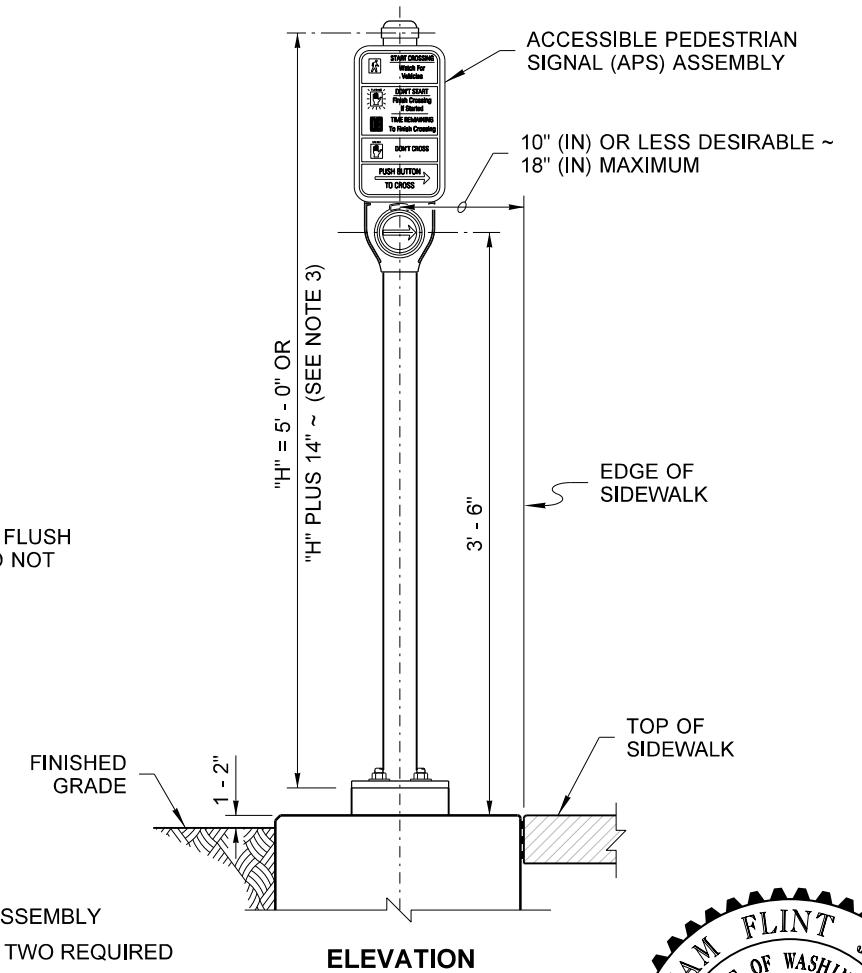
POST DETAIL



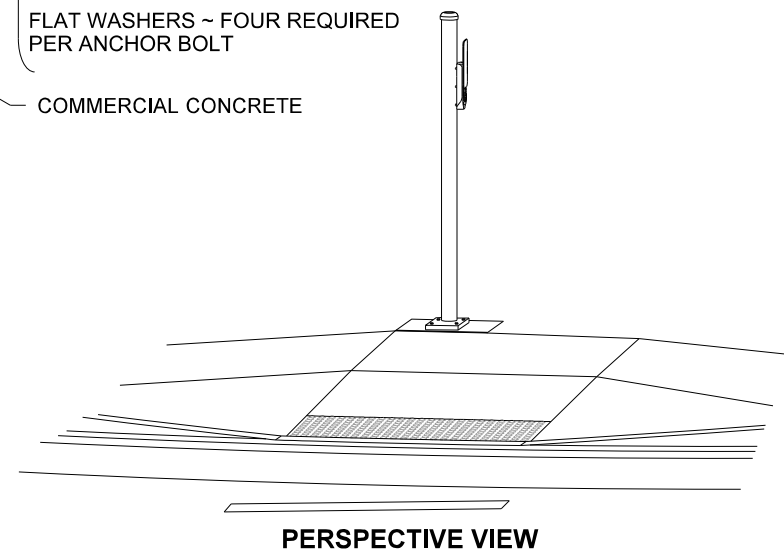
FOUNDATION DETAIL

NOTES

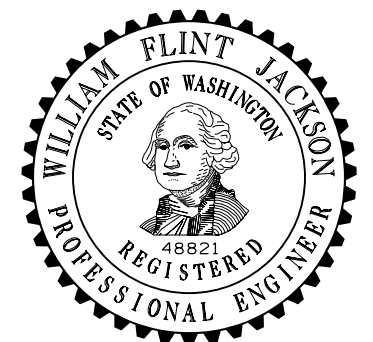
1. See **Standard Plan J-20.26** for Accessible Pedestrian Pushbutton details.
2. Where shown in the plans, install plaque (R10-32P) "PUSH BUTTON FOR 2 SECONDS FOR EXTRA CROSSING TIME" above the Accessible Pedestrian Signal (APS) assembly. Add 14" (in) to post height to accommodate plaque and leave a 2" (in) space between signs.
3. Mounting distances vary between manufacturers. See manufacturers recommendations for mounting information.
4. Junction Box serving the Standard shall preferably be located 5' - 0" (10' - 0" Max.) from the Standard.
5. Two button installation may require adaptor(s).



ELEVATION



PERSPECTIVE VIEW



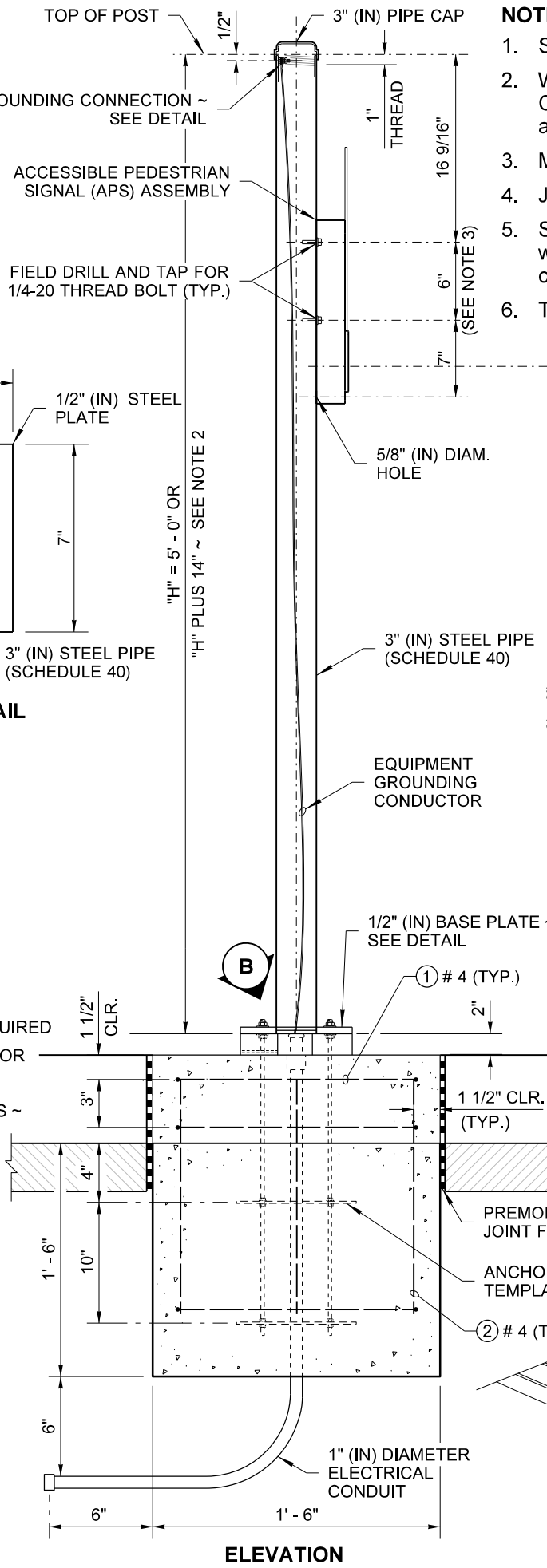
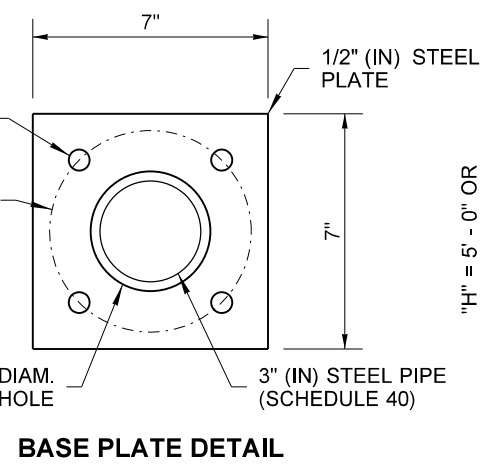
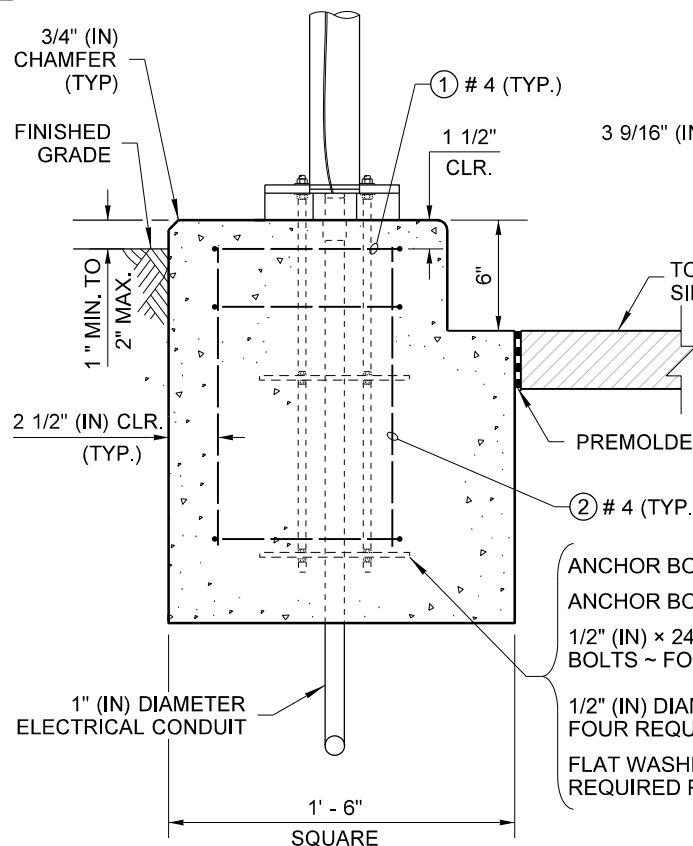
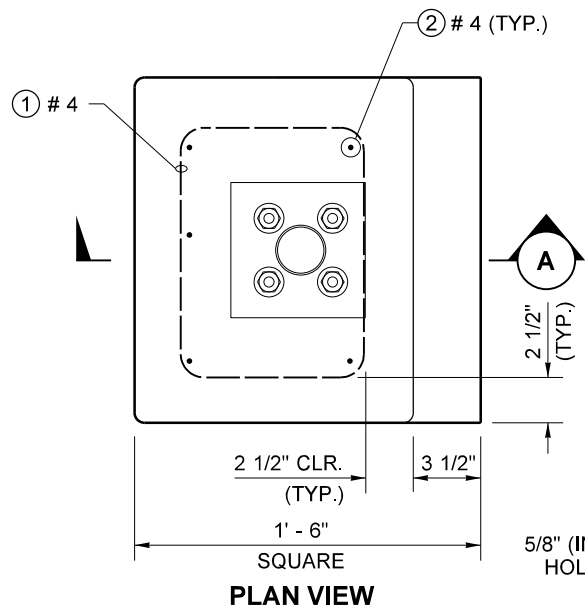
**ACCESSIBLE PEDESTRIAN
PUSHBUTTON POST (PPB)
AND FOUNDATION
STANDARD PLAN J-20.10-04**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

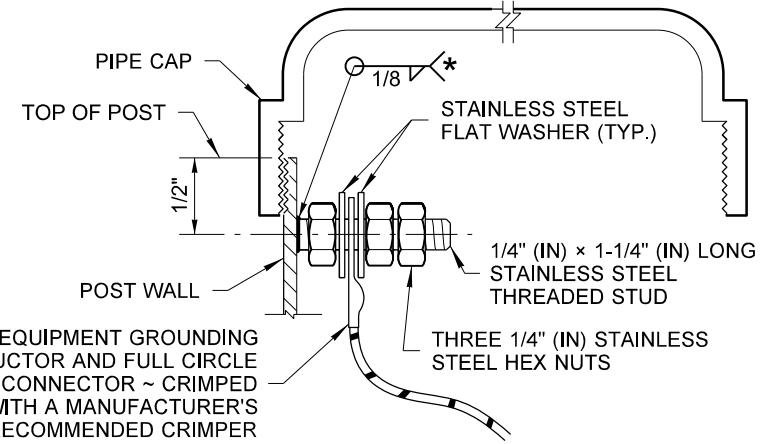
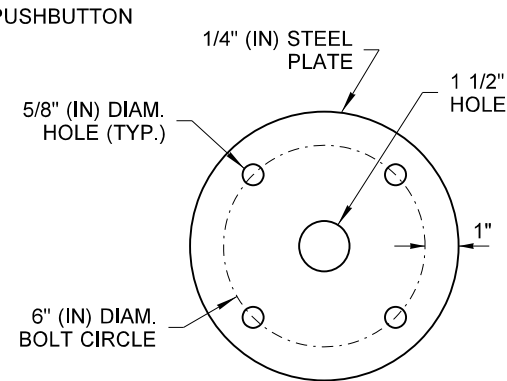
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



NOTES

1. See **Standard Plan J-20.26** for Accessible Pedestrian Pushbutton details.
2. Where shown in the plans, install plaque (R10-32P) "PUSH BUTTON FOR 2 SECONDS FOR EXTRA CROSSING TIME" above the Accessible Pedestrian Signal (APS) assembly. Add 14" (in) to the PPB post height to accommodate plaque and leave a 2" (in) space between signs.
3. Mounting distances vary between manufacturers. See manufacturers recommendations for mounting information.
4. Junction Box serving the Standard shall preferably be located 5' - 0" (10' - 0" Max.) from the Standard.
5. Supplemental Grounding Conductor shall be non-insulated #4 AWG stranded copper and shall be clamped to vertical rebar with a connector suitable for use embedded in concrete: Provide 3' - 0" min. slack. Attach to pole grounding stud with a full circle crimp-on connector (crimped with a manufacturer recommended crimper).
6. Two button installation may require adaptor(s).

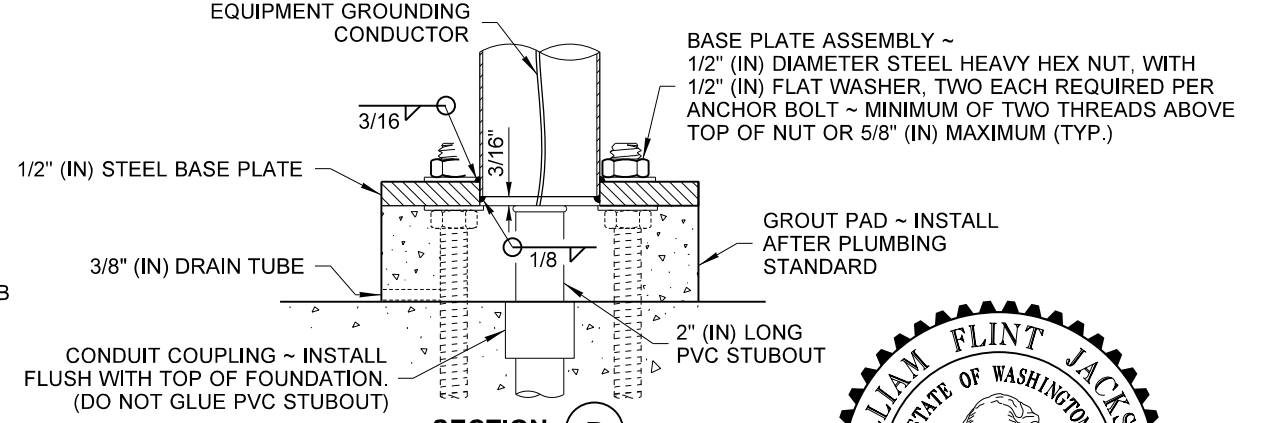


ANCHOR BOLT TEMPLATE

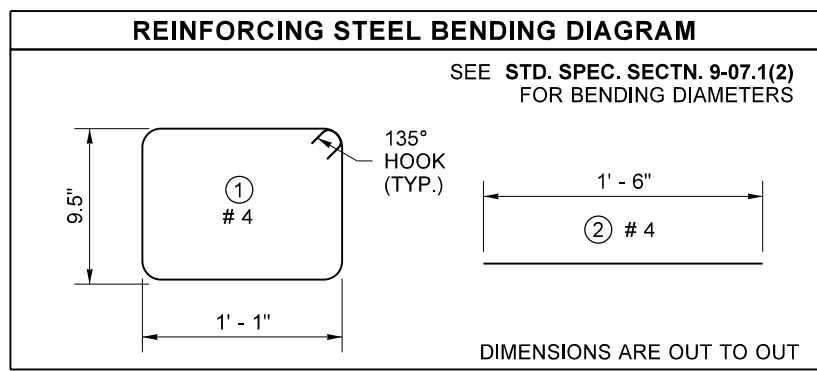
GROUNDING CONNECTION DETAIL

* WELD STUD TO POLE WALL TO MAXIMUM EXTENT POSSIBLE ~ 1/2" (IN) MINIMUM WELD

CONFIGURATIONS VARY AMONG DIFFERENT MANUFACTURERS



SECTION B



TYPE PPB STANDARD DETAILS

**ACCESSIBLE PEDESTRIAN PUSHBUTTON WITH CURB BASE
STANDARD PLAN J-20.11-03**

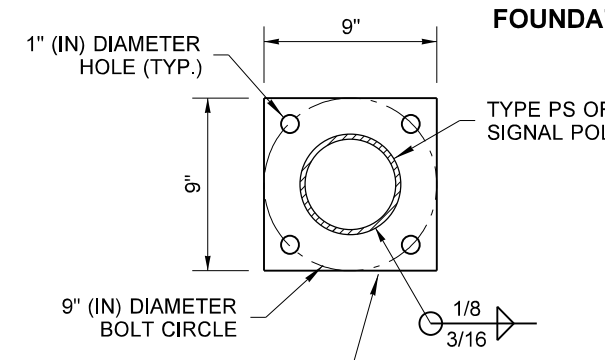
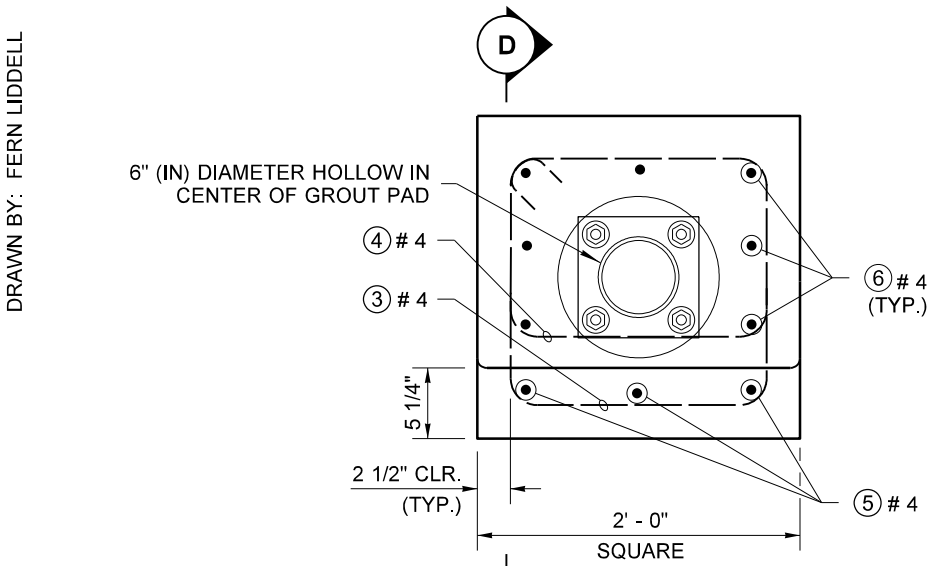
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

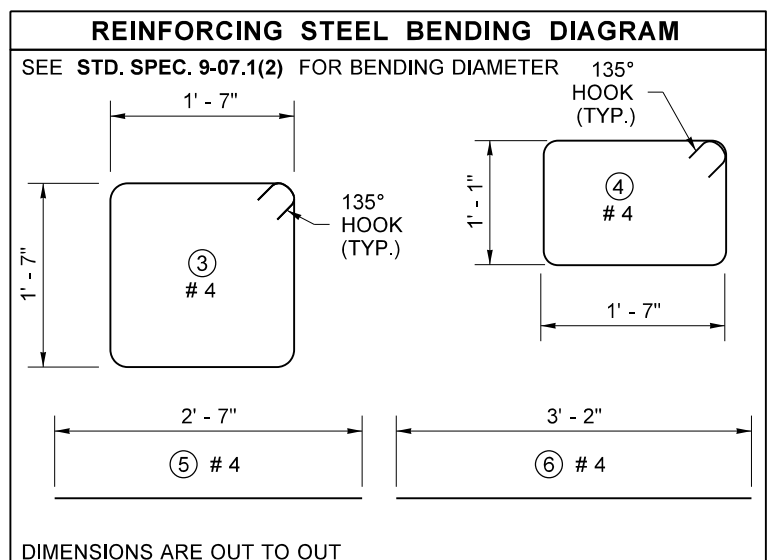
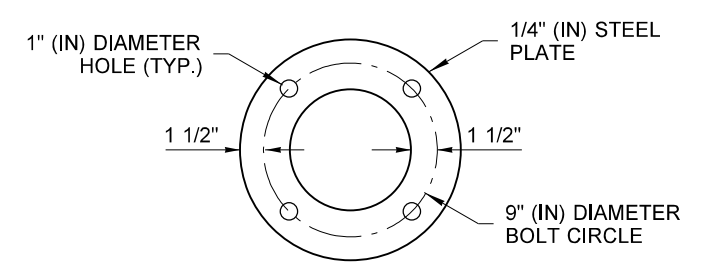
STATE DESIGN ENGINEER
Washington State Department of Transportation

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

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| REINFORCING STEEL QUANTITIES LIST | | | | |
|-----------------------------------|---|---|---|---|
| MARK | ③ | ④ | ⑤ | ⑥ |
| QTY. | 3 | 2 | 3 | 7 |



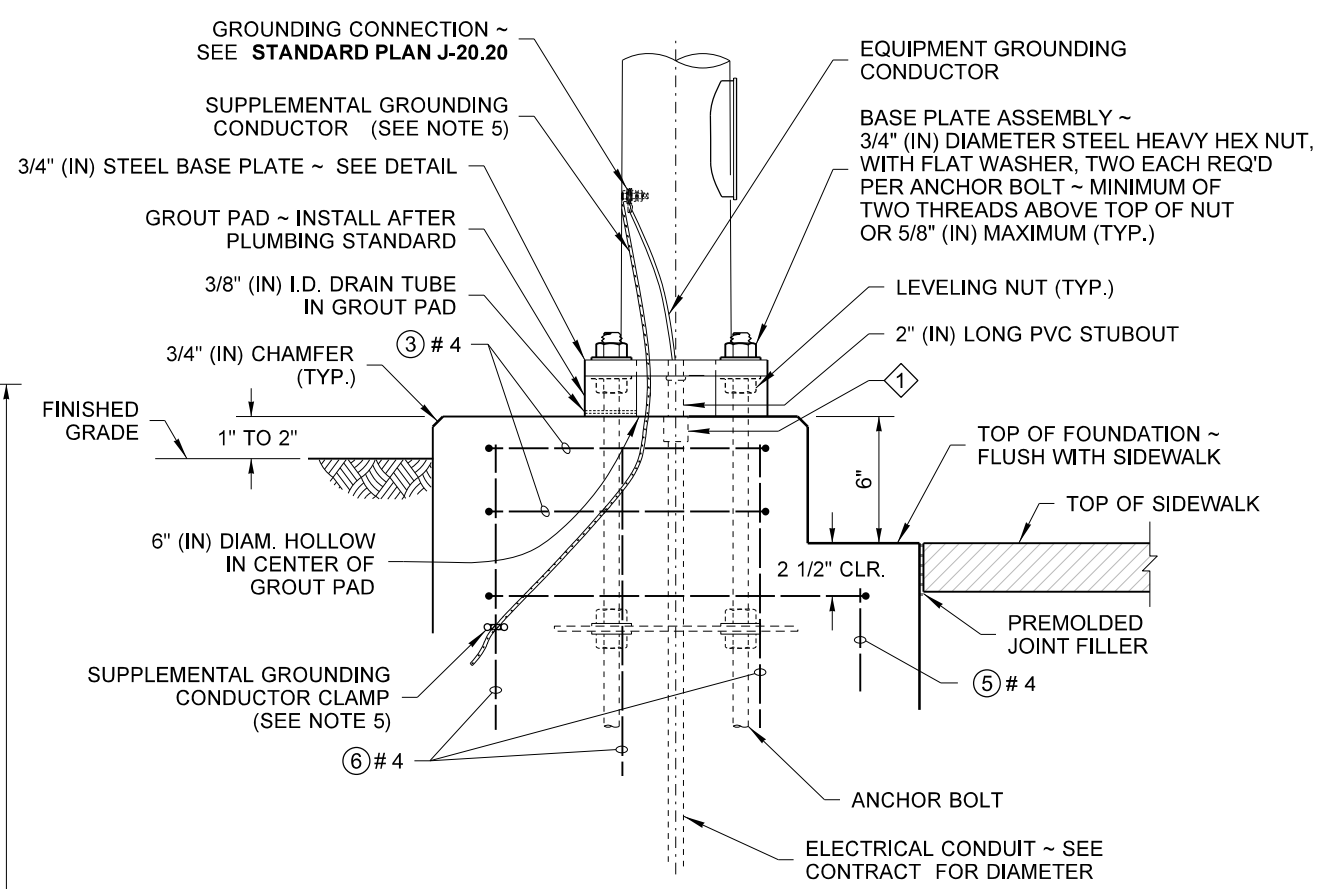
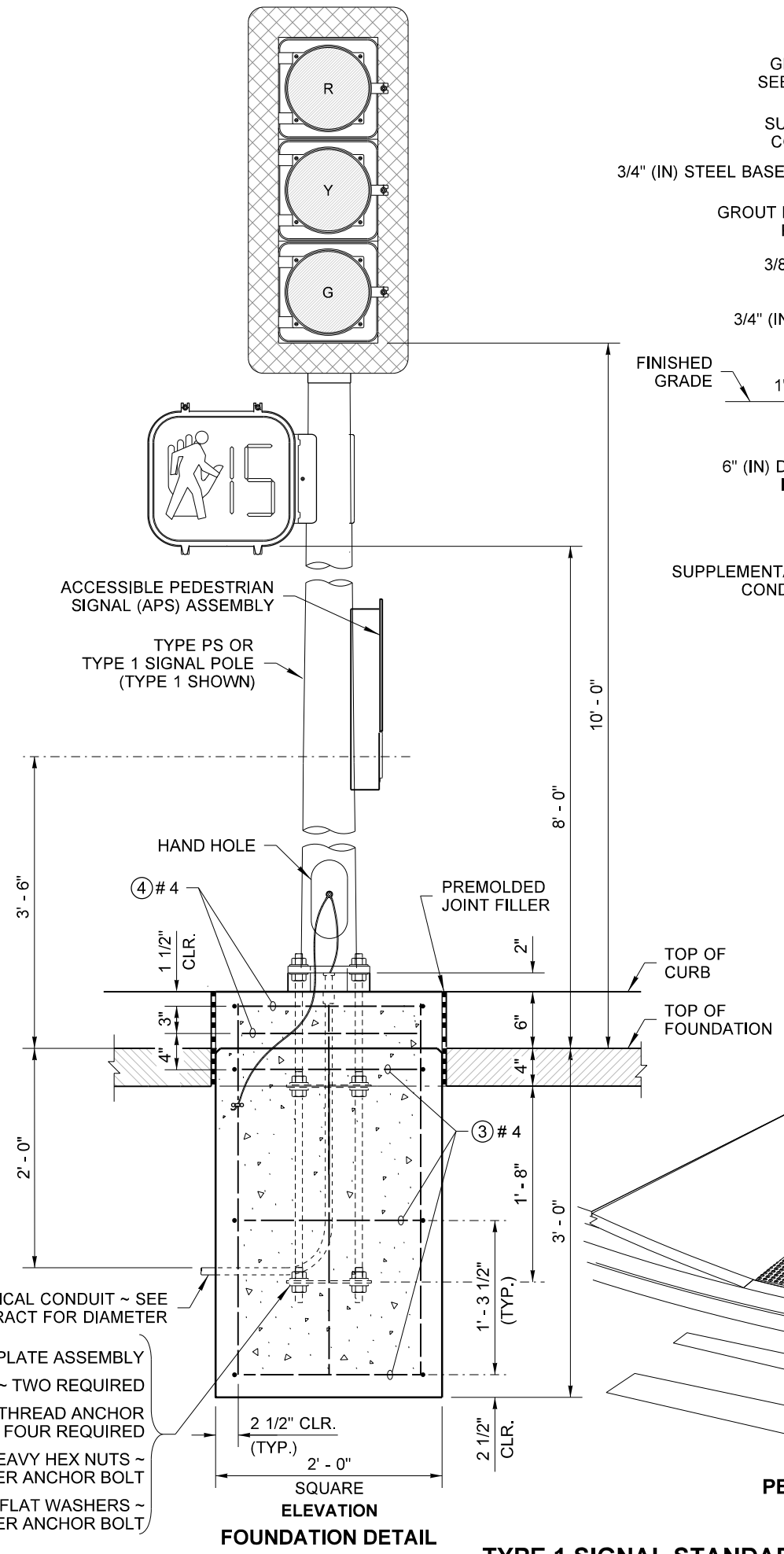
ANCHOR BOLT TEMPLATE ASSEMBLY

ANCHOR BOLT TEMPLATE ~ TWO REQUIRED

3/4" (IN) x 36" (IN) FULL THREAD ANCHOR BOLT ~ FOUR REQUIRED

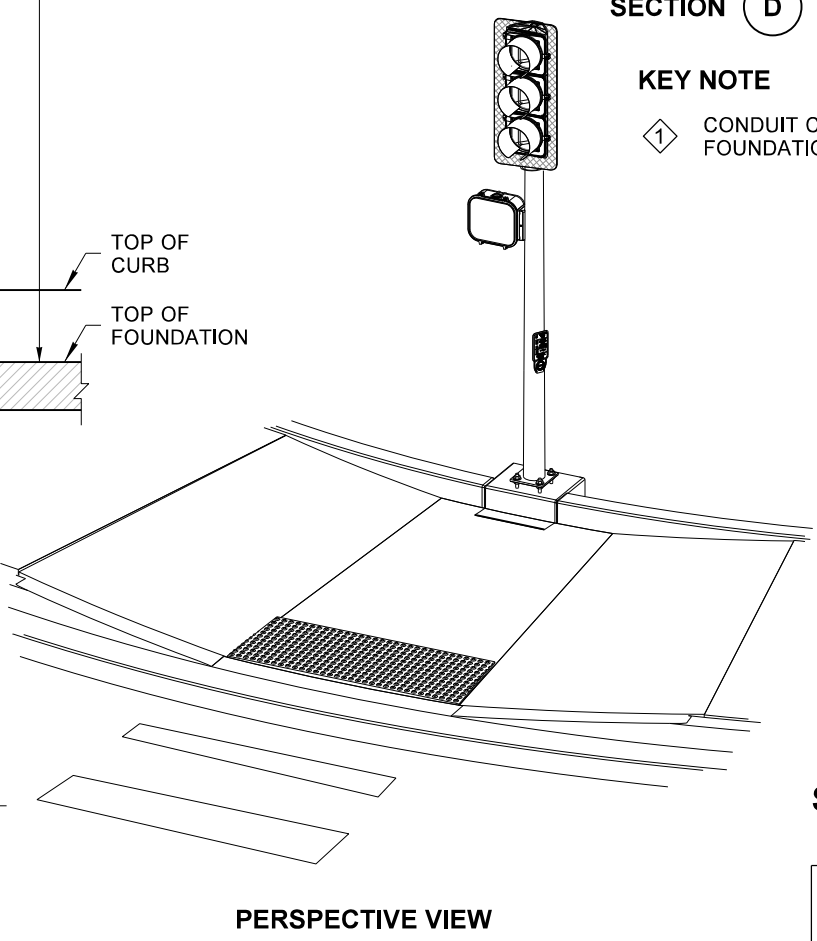
3/4" (IN) DIAM. STEEL HEAVY HEX NUTS ~ FOUR REQUIRED PER ANCHOR BOLT

FLAT WASHERS ~ FOUR REQUIRED PER ANCHOR BOLT



KEY NOTE

① CONDUIT COUPLING ~ INSTALL FLUSH WITH TOP OF FOUNDATION. (DO NOT GLUE PVC STUBOUT)



ACCESSIBLE PEDESTRIAN PUSHBUTTON WITH CURB BASE

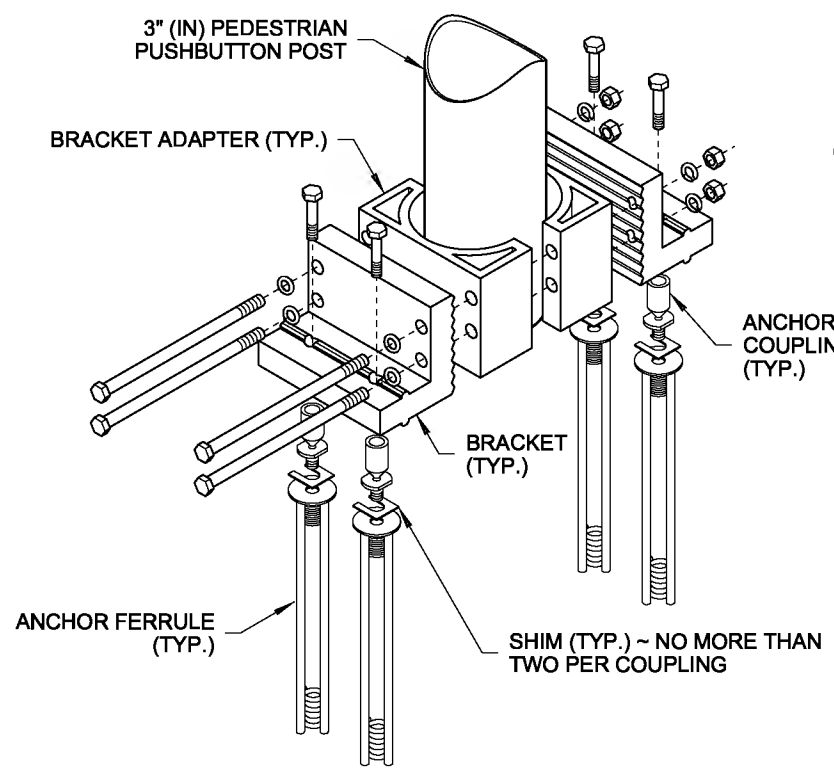
STANDARD PLAN J-20.11-03

SHEET 2 OF 2 SHEETS

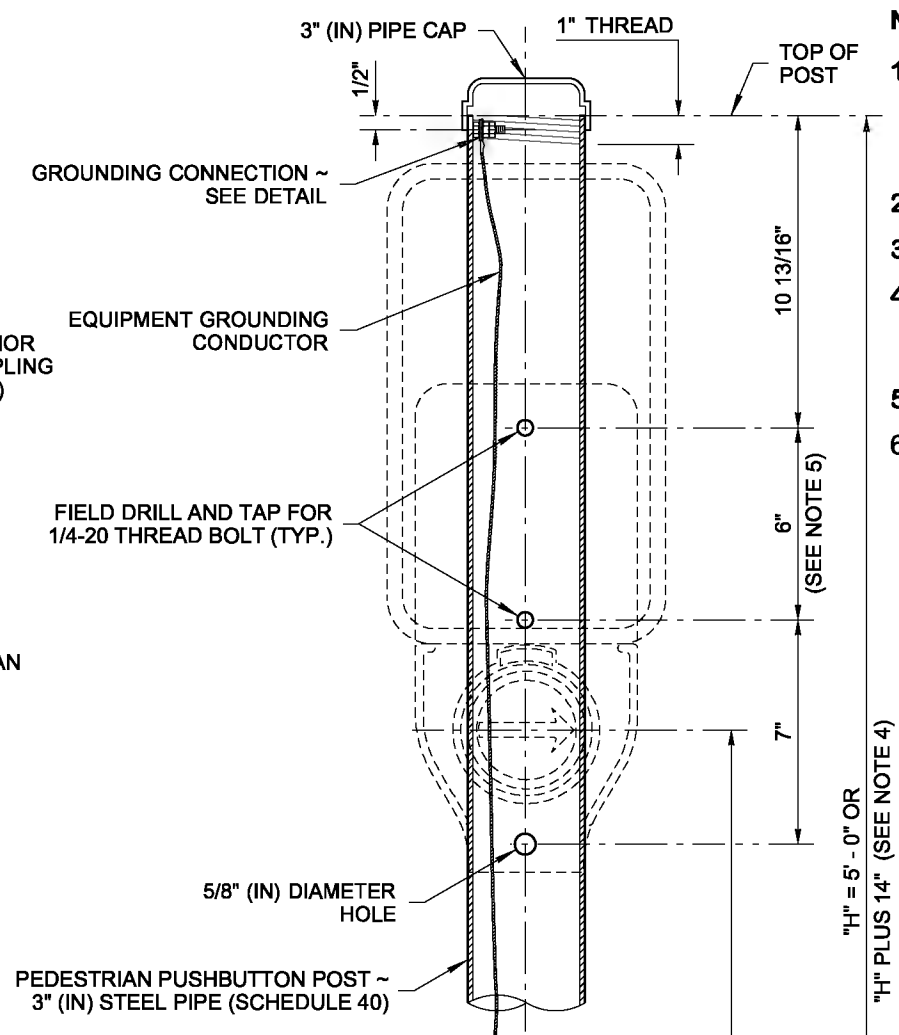
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



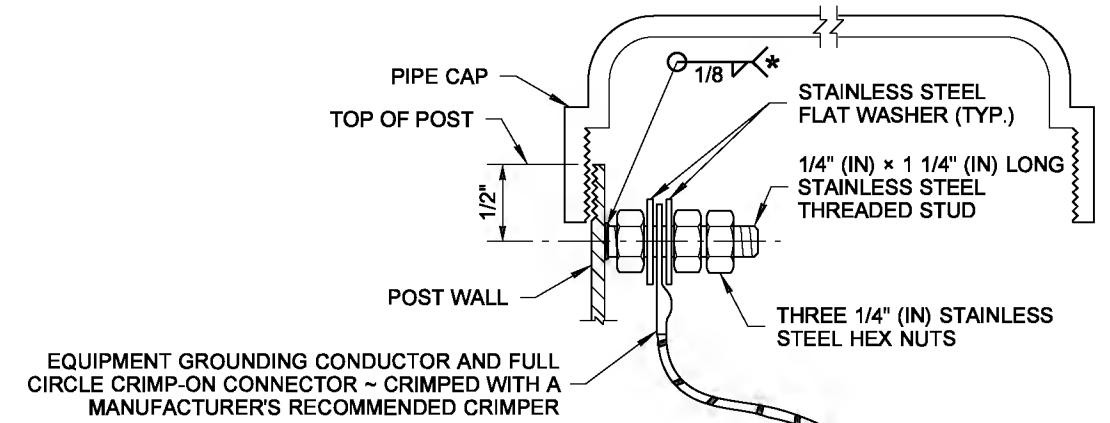
**EXPLODED VIEW
BREAKAWAY BASE CONNECTOR**
(SEE NOTE 1)



POST DETAIL

NOTES

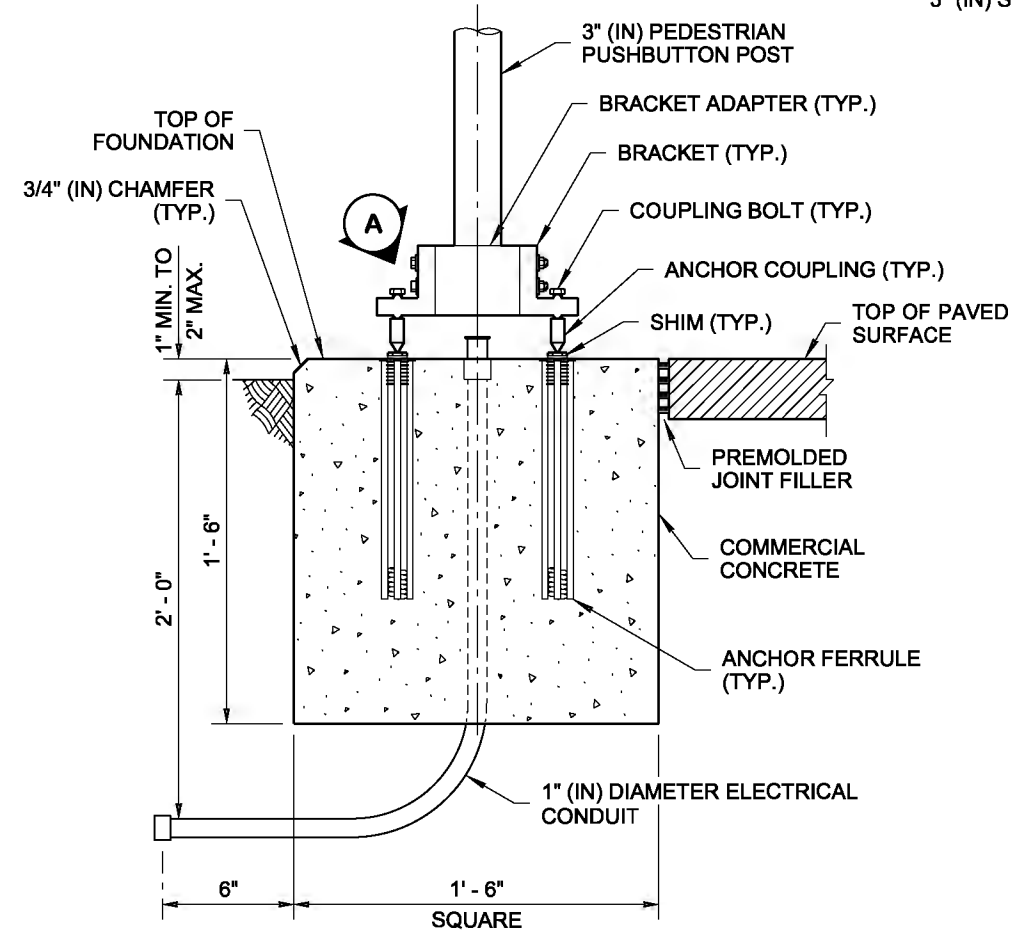
1. See **Standard Specification 9-06.16** for Breakaway Base Connection details. Dimensions for the parts used to assemble the base connections are intentionally not shown. Base connections are patented manufactured products that are in compliance with NCHRP 350 crash test criteria. The Breakaway Base Connection details are only shown on this plan to illustrate how parts are assembled.
2. See **Standard Plan J-20.26** for Accessible Pedestrian Pushbutton details.
3. Secure conductor in adjacent Junction Box per detail in **Standard Plan J-28.70**.
4. Where shown in the plans, install plaque (R10-32P) "PUSH BUTTON FOR 2 SECONDS FOR EXTRA CROSSING TIME" above the Accessible Pedestrian Signal (APS) assembly. Add 14" (in) to post height to accommodate plaque and leave a 2" (in) space between signs.
5. Mounting distances vary between manufacturers. See manufacturer's recommendations for mounting information.
6. Junction Box serving the Standard shall preferably be located 5' - 0" (10' - 0" Max.) from the Standard.



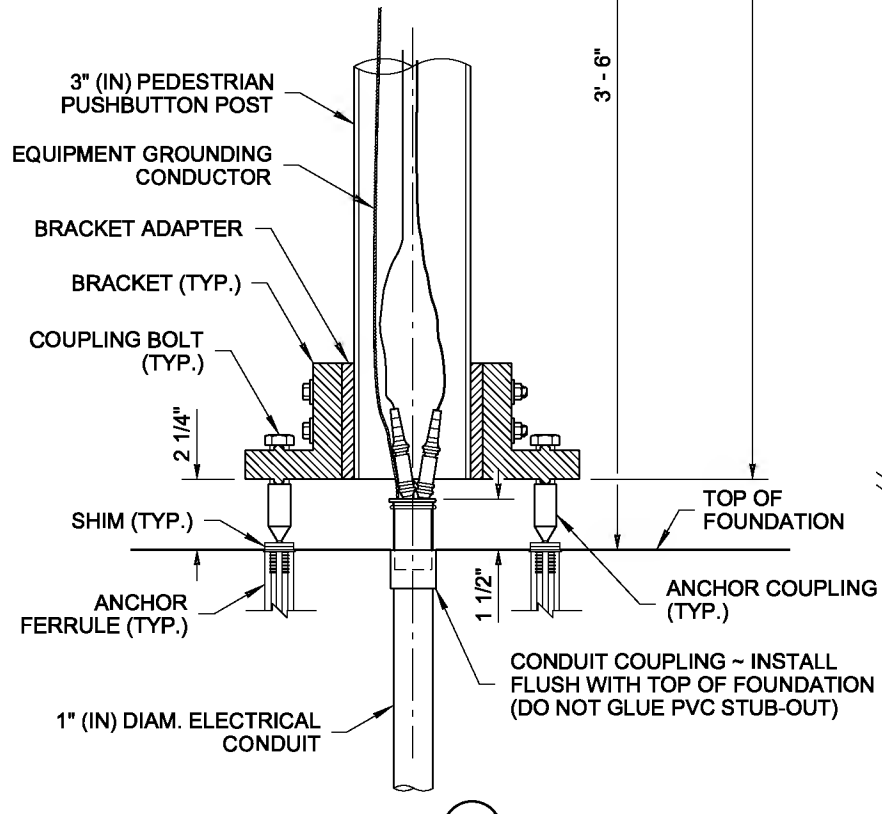
GROUNDING CONNECTION DETAIL

* WELD STUD TO POLE WALL TO MAXIMUM EXTENT POSSIBLE ~ 1/2" (IN) MINIMUM WELD

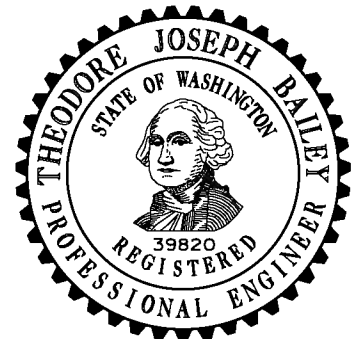
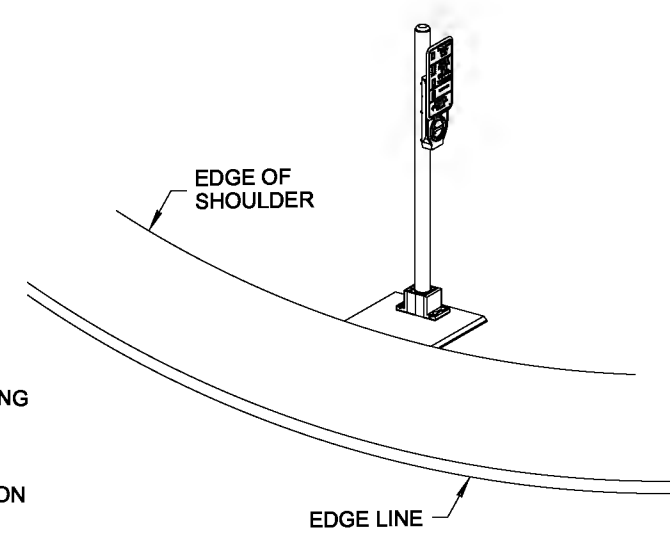
CONFIGURATIONS VARY AMONG DIFFERENT MANUFACTURERS (SHOWN EXPLODED FOR CLARITY)



FOUNDATION DETAIL



DETAIL A



**ACCESSIBLE BREAKAWAY
PEDESTRIAN PUSHBUTTON
(PPB) POST**
STANDARD PLAN J-20.15-03

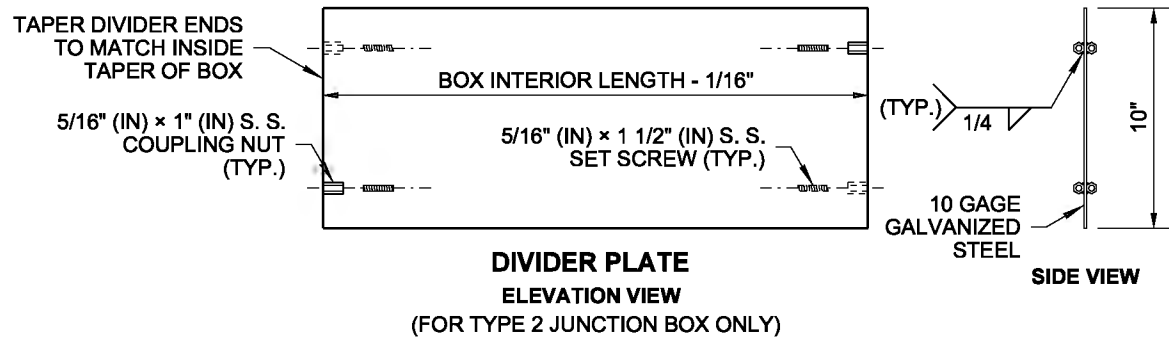
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

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

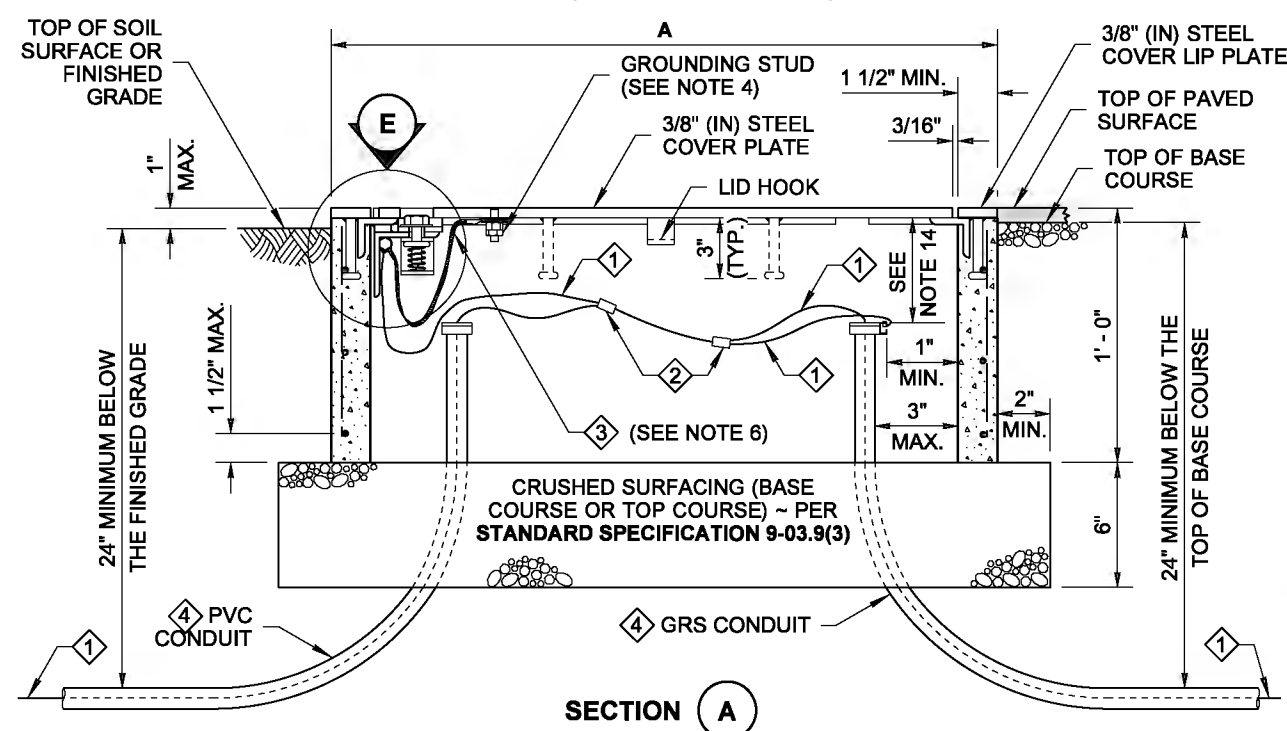
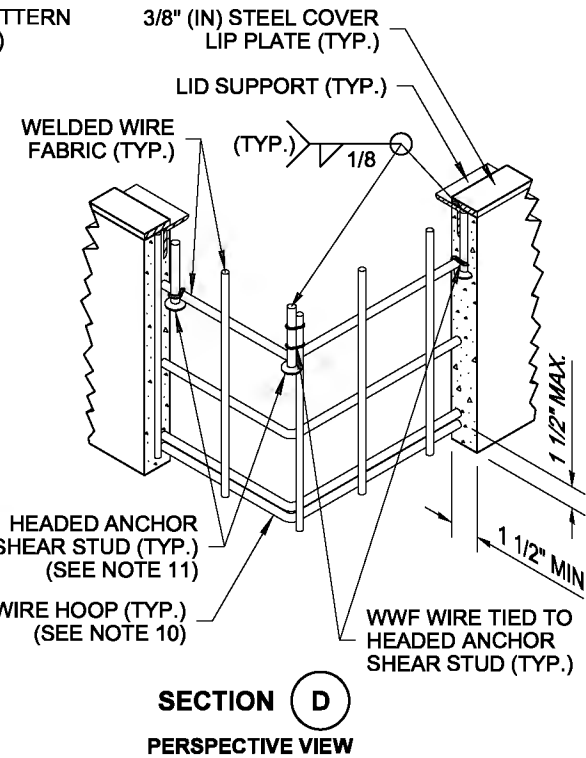
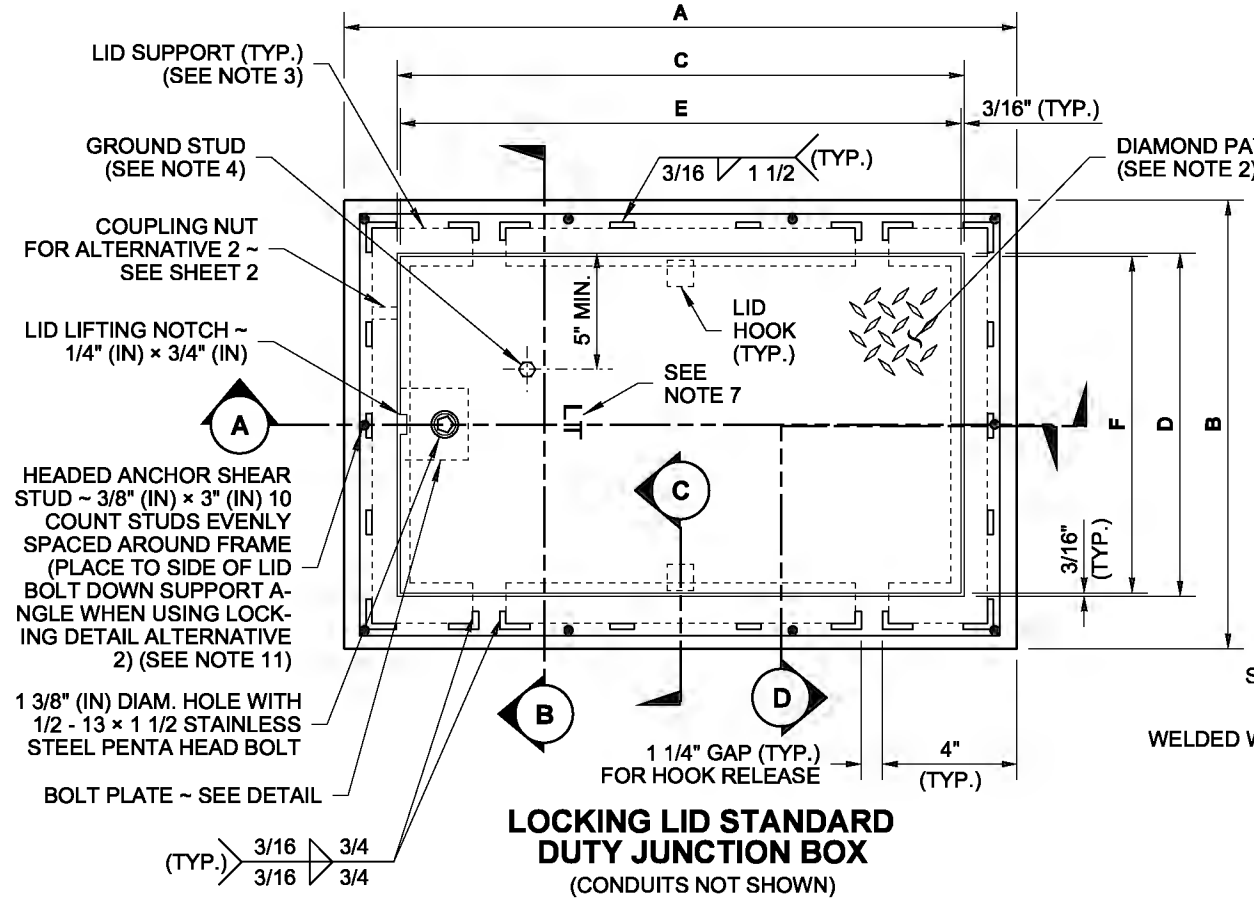
DRAWN BY: LISA CYFORD



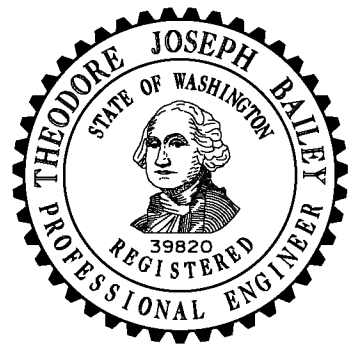
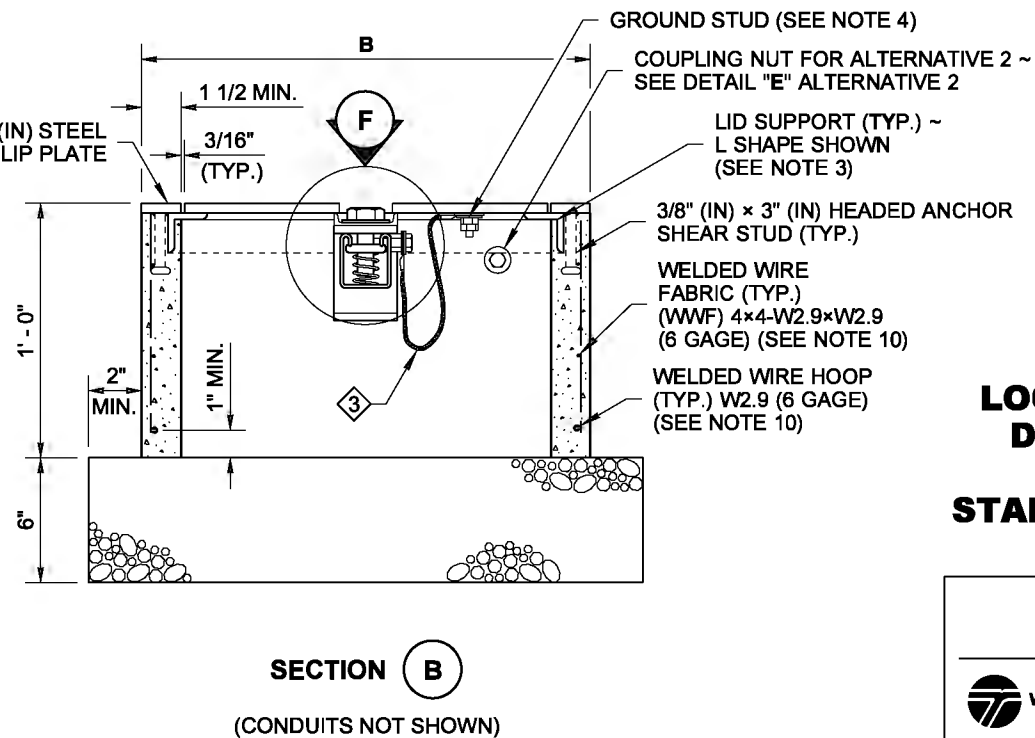
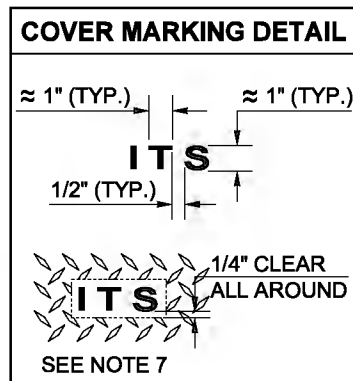
| JUNCTION BOX DIMENSION TABLE | | | |
|------------------------------|--------------------------------|-----------|-----------|
| MARK | ITEM | BOX TYPE | |
| | | TYPE 1 | TYPE 2 |
| A | OUTSIDE LENGTH OF JUNCTION BOX | 22" | 33" |
| B | OUTSIDE WIDTH OF JUNCTION BOX | 17" | 22 1/2" |
| C | INSIDE LENGTH 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

- All box dimensions are approximate. Exact configurations vary among manufacturers.
- 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.
- Lid support members shall be 3/16" (in) minimum thick steel C, L, or T shape, welded to the frame.
- A 1/4-20 NC x 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.
- Bolts and nuts shall be liberally coated with anti-seize compound.
- Equipment Bonding Jumper shall be # 8 AWG min. x 4' (ft) of tinned braided copper.
- 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)**.
- 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.
- When required in Contract, provide a 12" (in) deep extension for each Type 2 Junction Box where specified.
- See the **Standard Specifications** for alternative reinforcement and class of concrete.
- 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.
- 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.
- 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.
- 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)**.



- Equipment Grounding Conductor
- Copper Solderless Crimp Connector
- Equipment Bonding Jumper (See Note 6)
- See Contract for conduit size and number



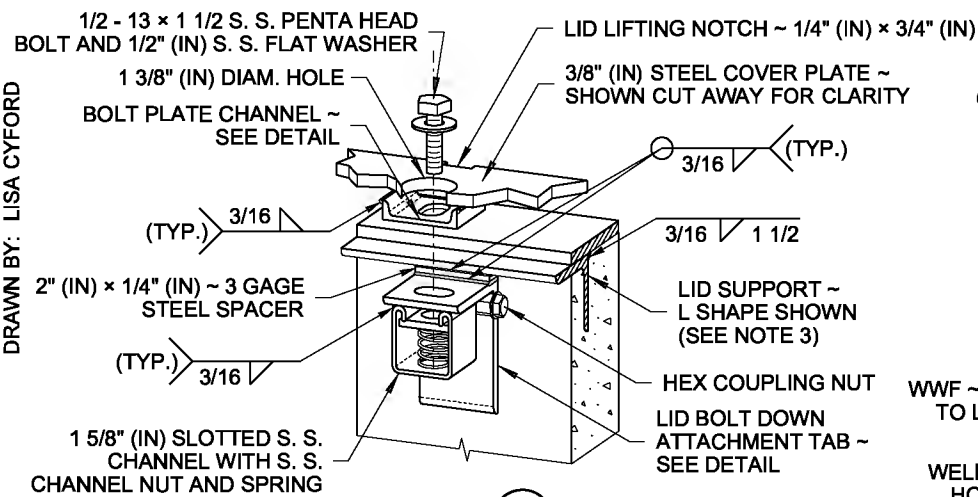
**LOCKING LID STANDARD
DUTY JUNCTION BOX
TYPES 1 & 2
STANDARD PLAN J-40.10-04**

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

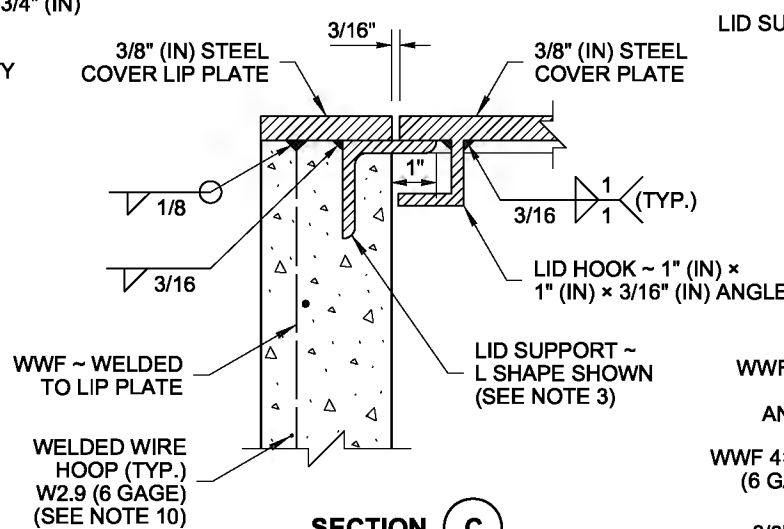


DRAWN BY: LISA CYFORD

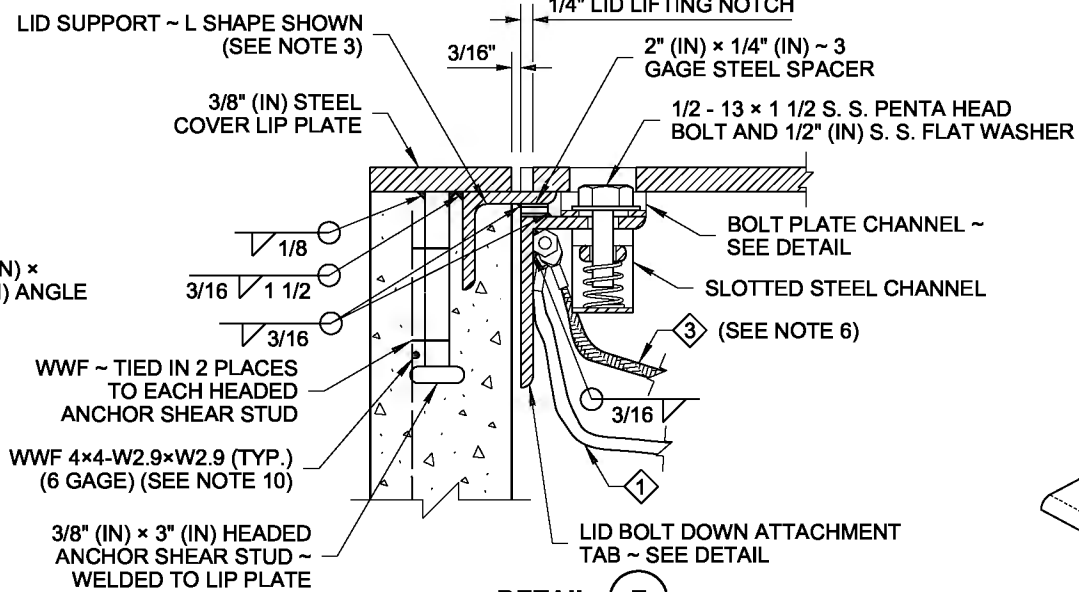


DETAIL F

ALTERNATIVE 1 SHOWN PERSPECTIVE VIEW

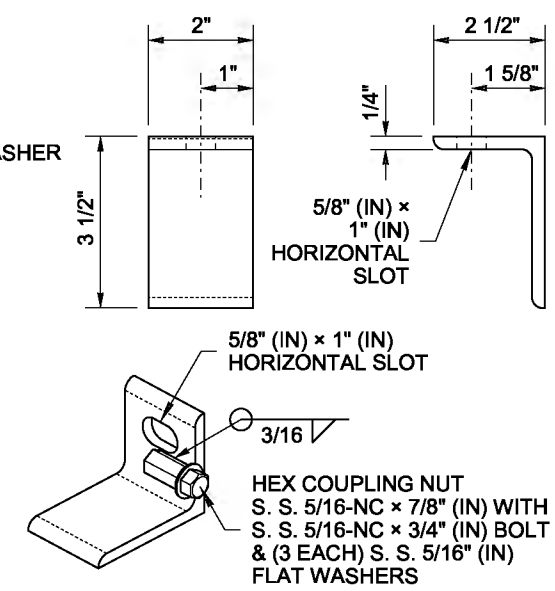


SECTION C

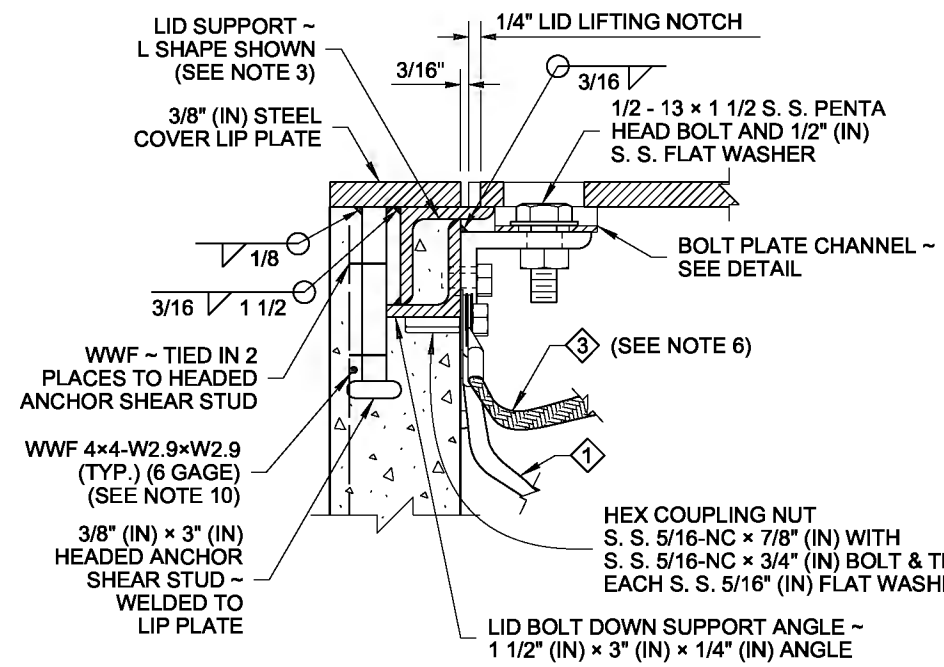


DETAIL E

ALTERNATIVE 1 SHOWN

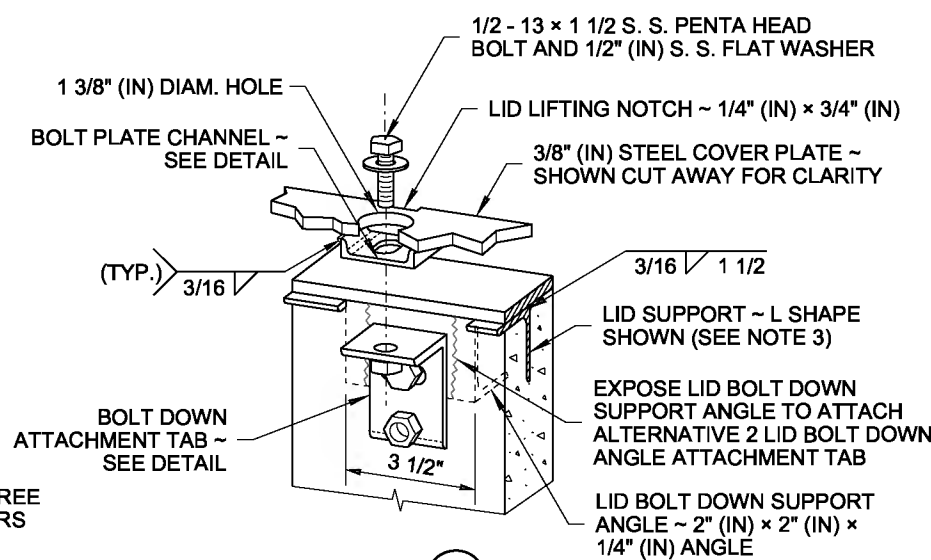


ALTERNATIVE 1 LID BOLT DOWN ATTACHMENT TAB (SEE NOTE 12)



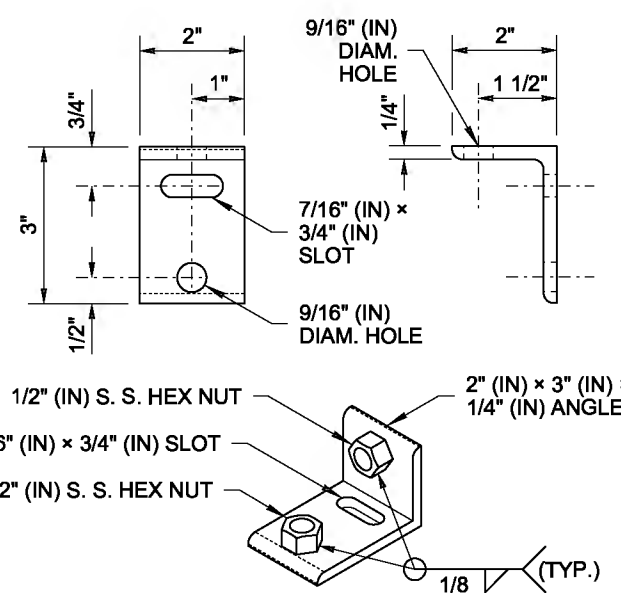
DETAIL E

ALTERNATIVE 2 SHOWN

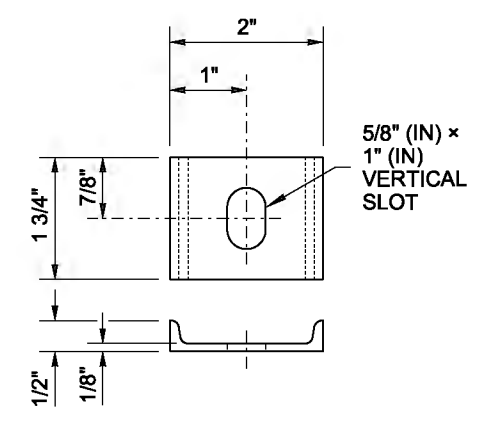


DETAIL F

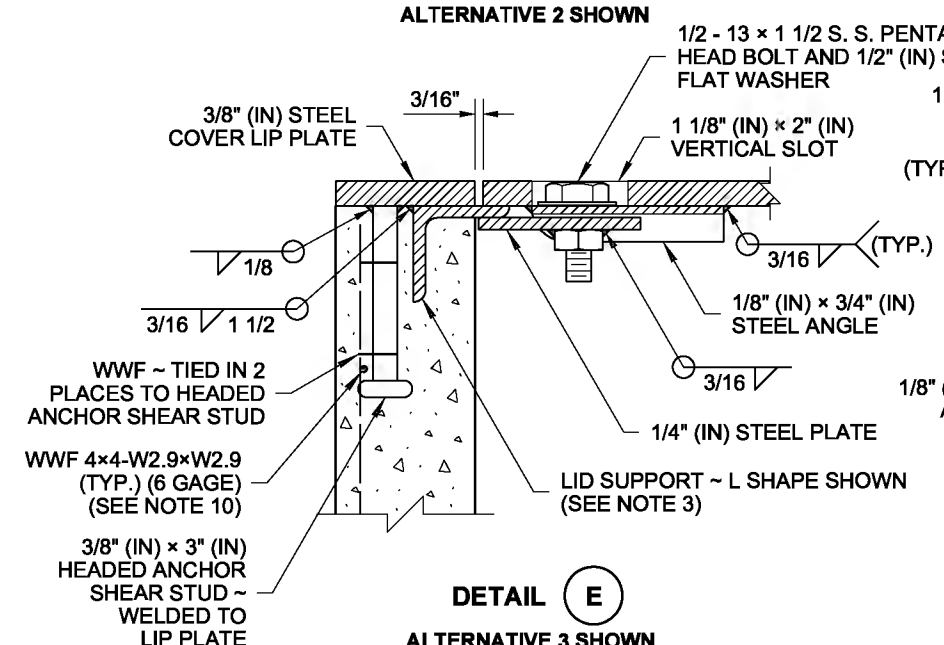
ALTERNATIVE 2 SHOWN PERSPECTIVE VIEW



ALTERNATIVE 2 LID BOLT DOWN ATTACHMENT TAB (SEE NOTE 12)

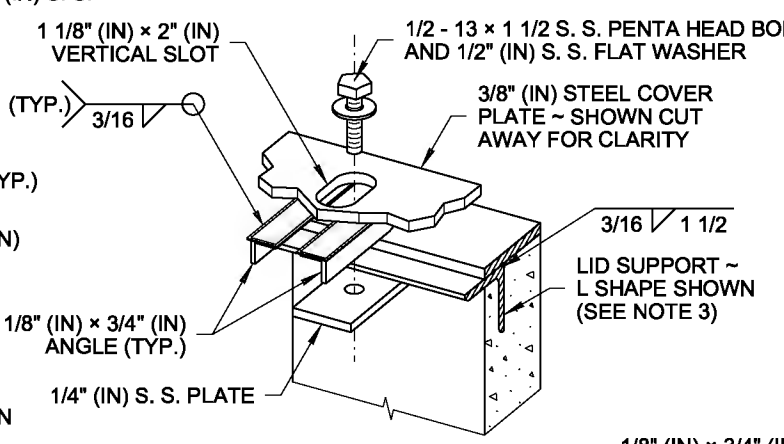


BOLT PLATE CHANNEL



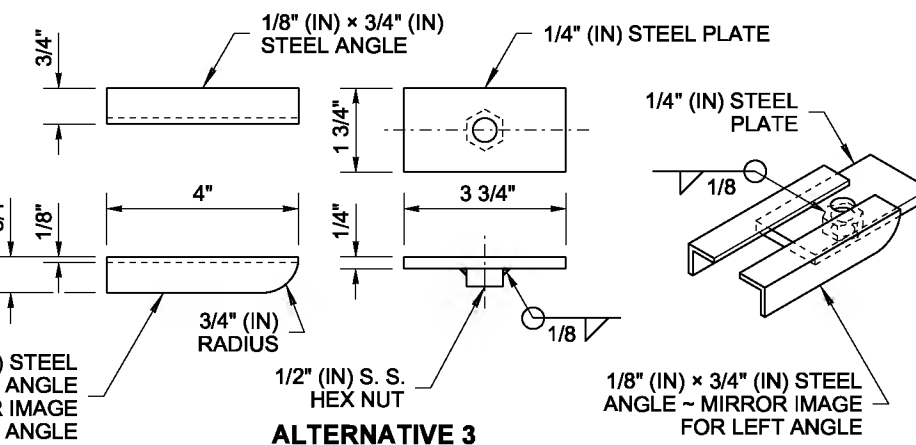
DETAIL E

ALTERNATIVE 3 SHOWN

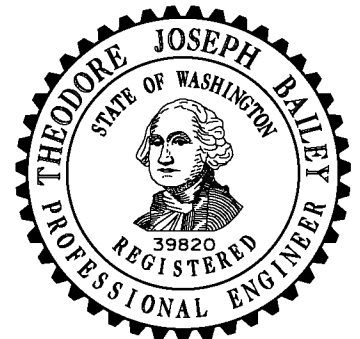


DETAIL F

ALTERNATIVE 3 SHOWN PERSPECTIVE VIEW



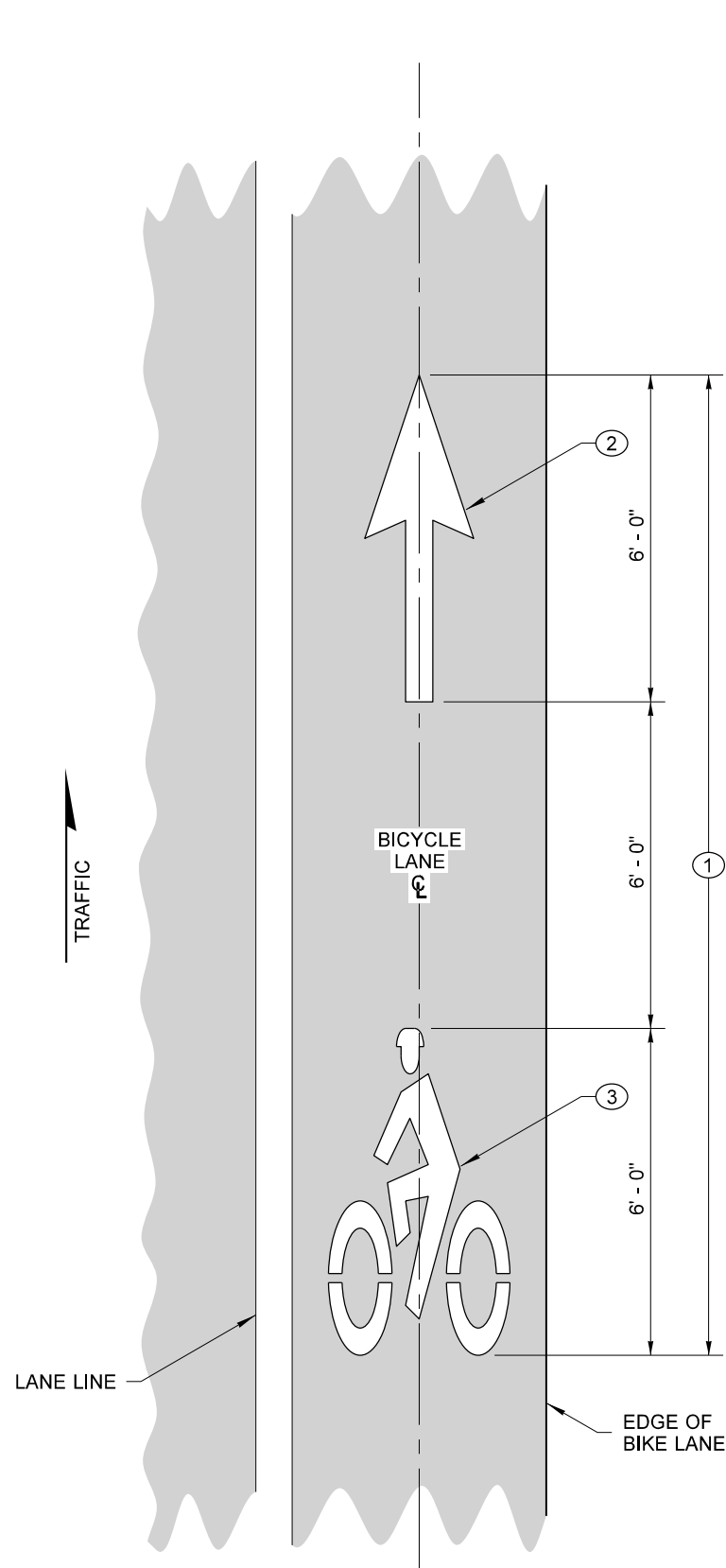
ALTERNATIVE 3 LID BOLT DOWN ATTACHMENT TAB (SEE NOTE 12)



LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2
STANDARD PLAN J-40.10-04

SHEET 2 OF 2 SHEETS
 APPROVED FOR PUBLICATION
 STATE DESIGN ENGINEER
 Washington State Department of Transportation

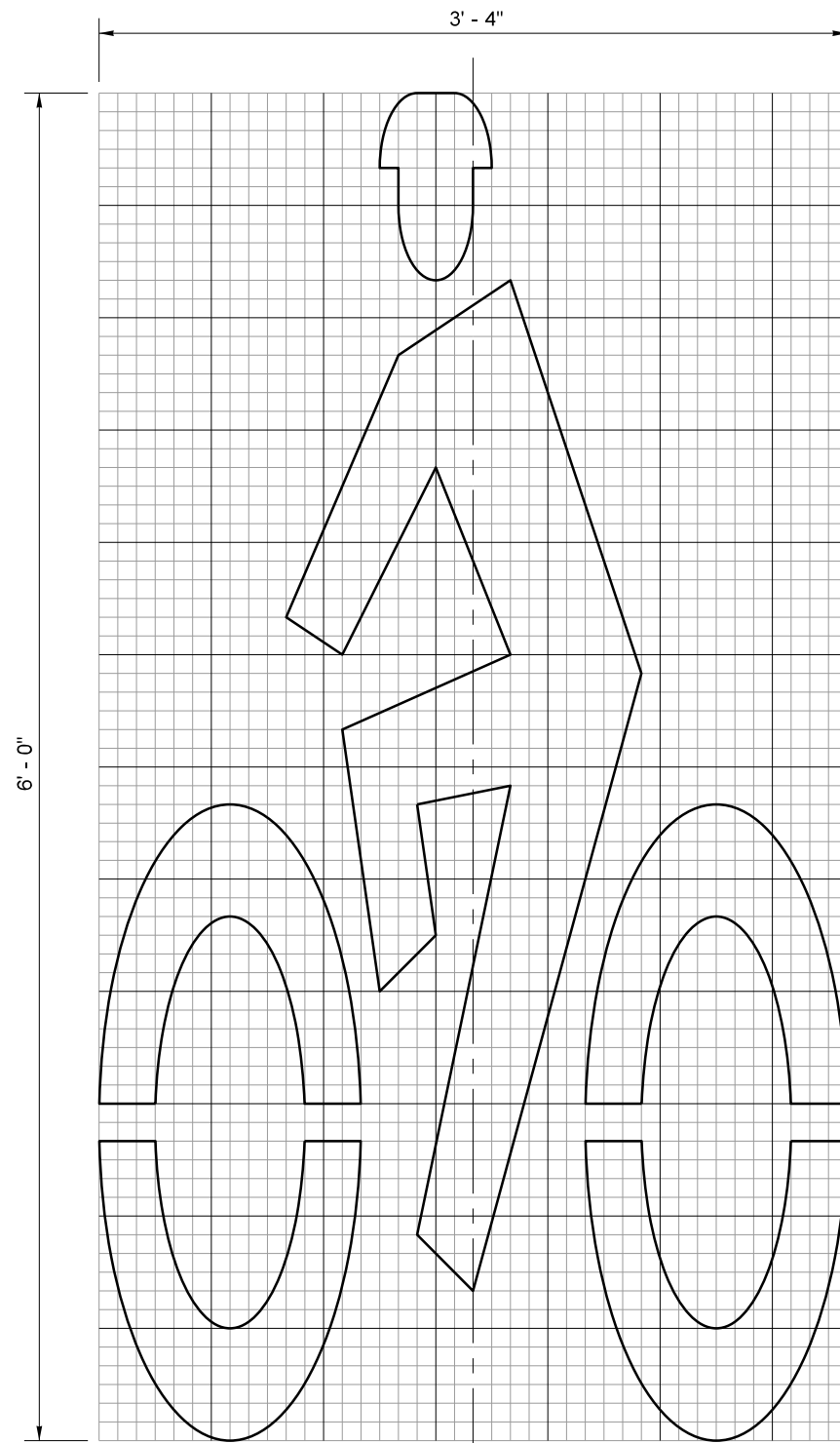
*** PLAN CENTER COPY *** Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com



BICYCLE LANE SYMBOL LAYOUT

KEY NOTES

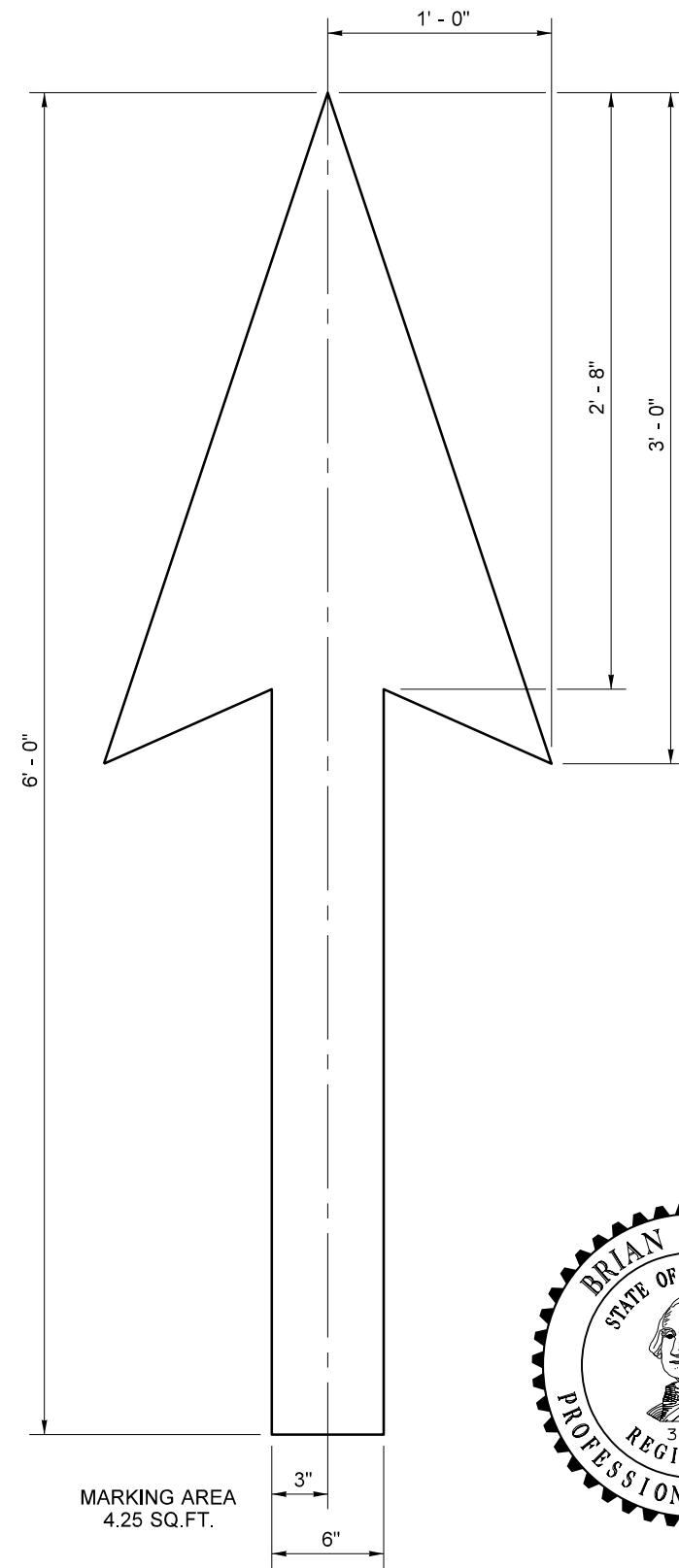
- ① Bid Item "Bicycle Lane Symbol" includes Bike Lane Arrow and Bike Rider Symbol.
- ② 2' (ft) x 6' (ft) White Bike Lane Arrow.
- ③ Bike Rider Symbol.



GRID IS 1" (IN) SQUARE
**BIKE RIDER SYMBOL
DETAIL**

GENERAL NOTE

See Contract for location and material requirements.



**BIKE LANE ARROW
DETAIL**



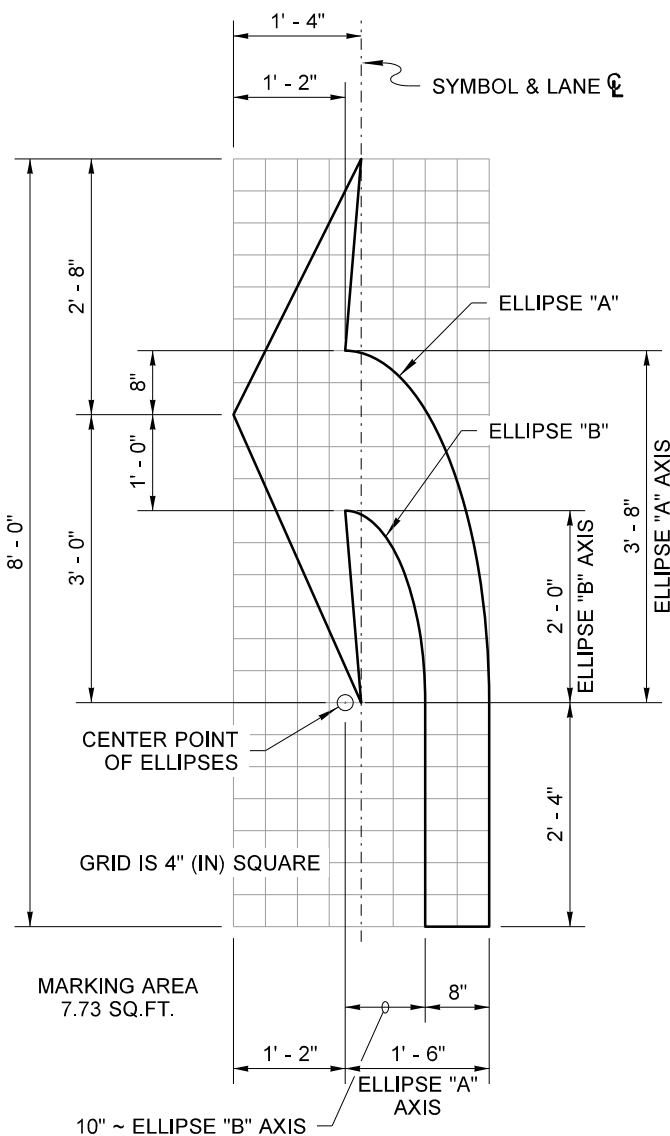
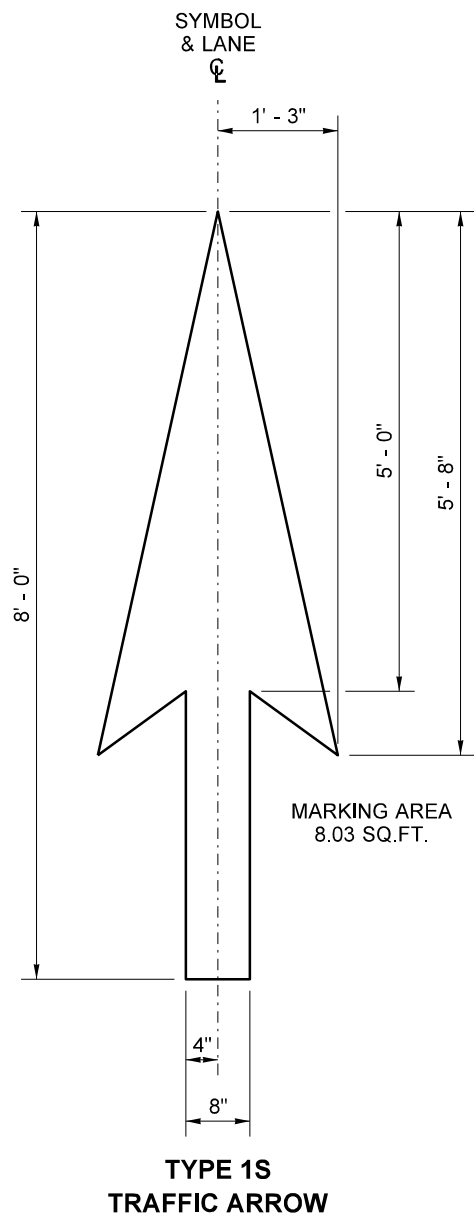
BICYCLE LANE SYMBOL LAYOUT

STANDARD PLAN M-9.50-02

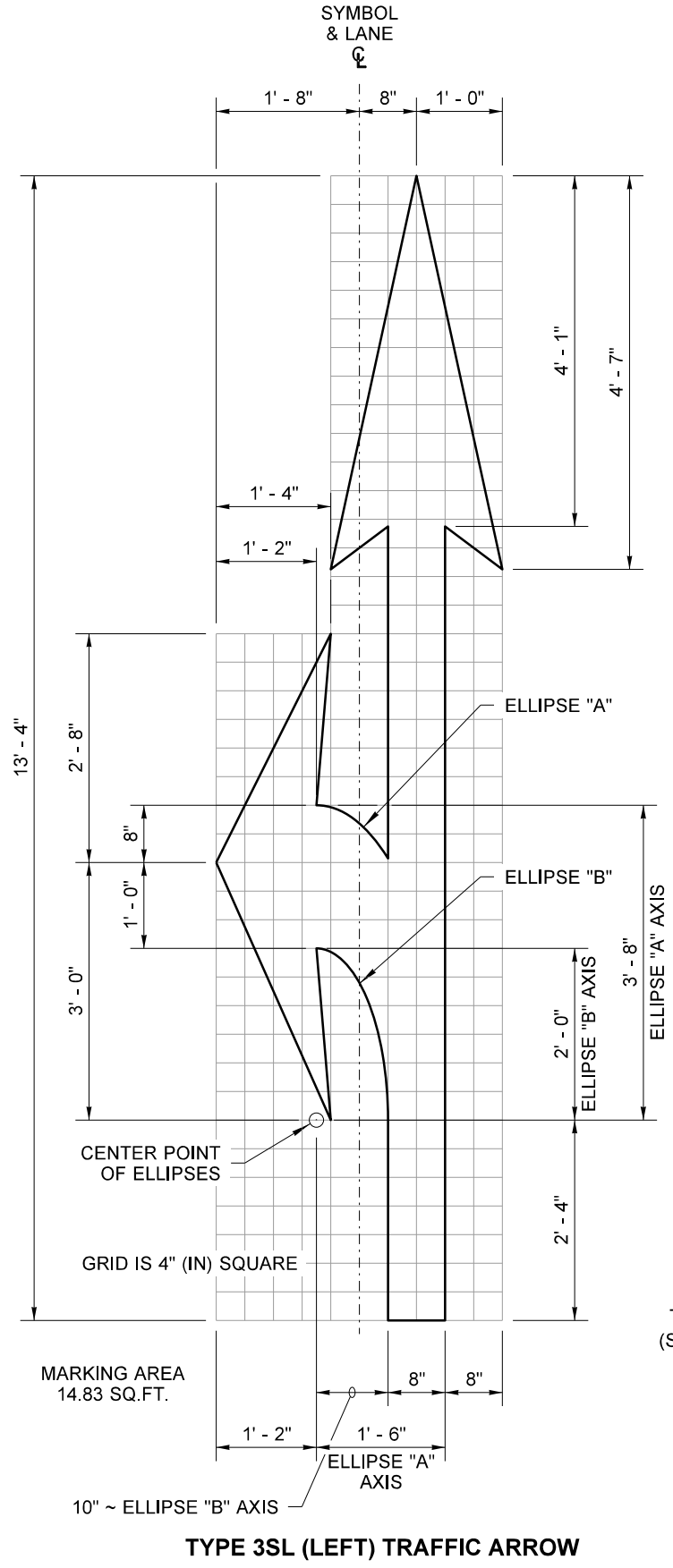
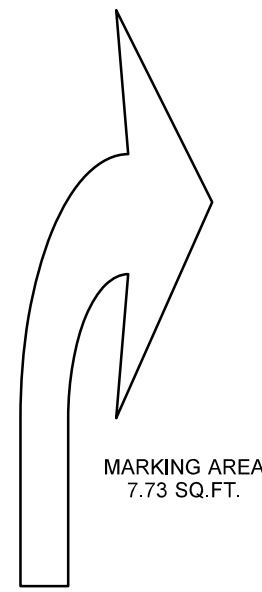
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

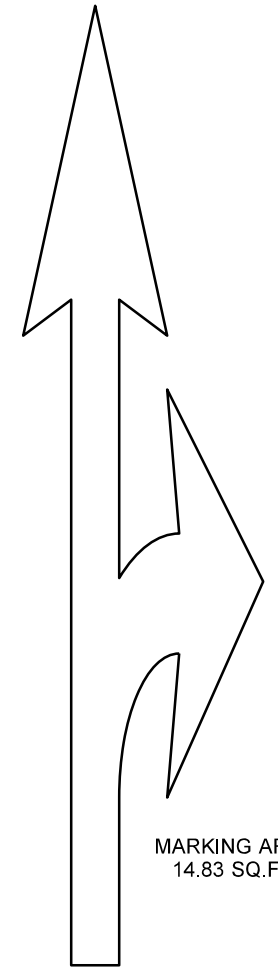
STATE DESIGN ENGINEER
Washington State Department of Transportation



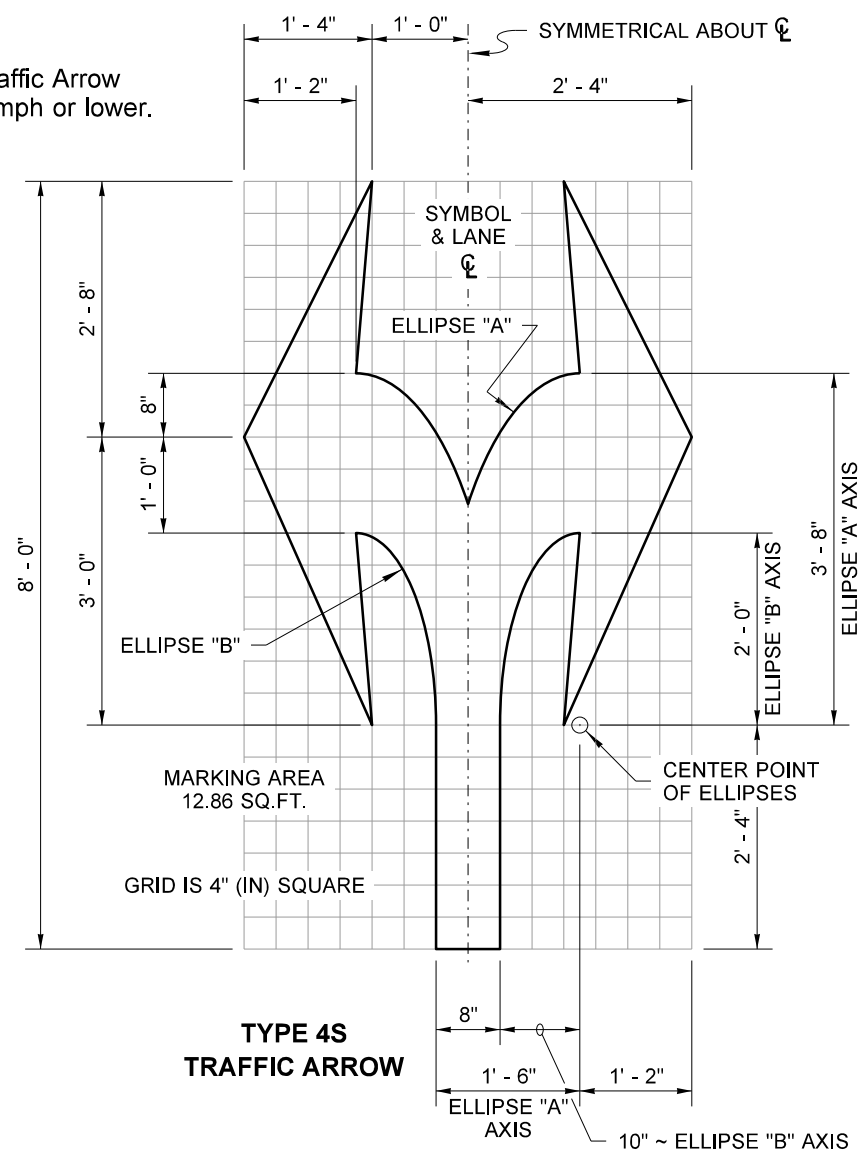
TYPE 2SR (RIGHT) TRAFFIC ARROW
MIRROR IMAGE OF TYPE 2SL TRAFFIC ARROW (SHOWN AT REDUCED SCALE)



TYPE 3SR (RIGHT) TRAFFIC ARROW
MIRROR IMAGE OF TYPE 3SL TRAFFIC ARROW (SHOWN AT REDUCED SCALE)



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.

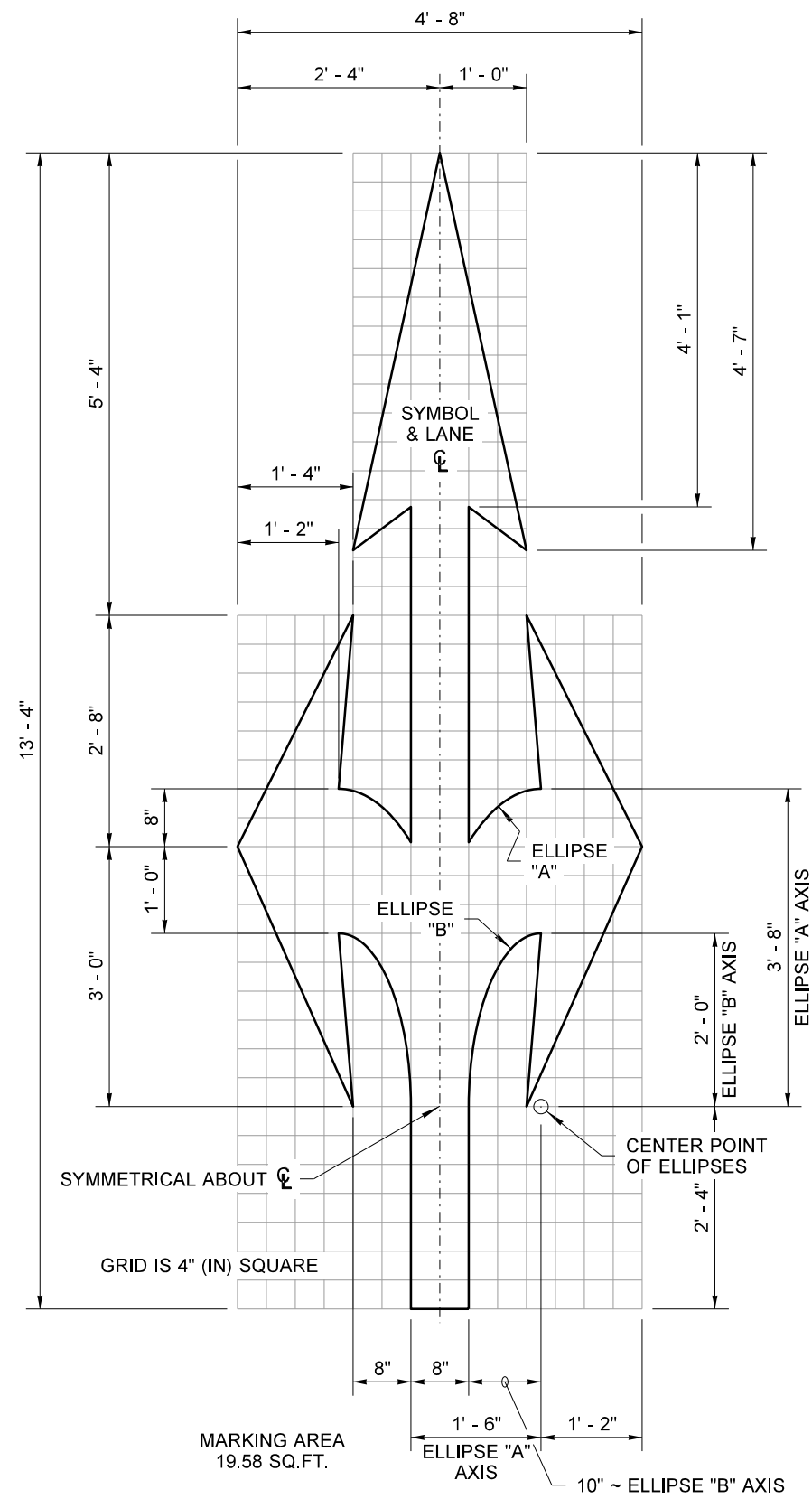


SYMBOL MARKINGS ~ TRAFFIC ARROWS FOR LOW-SPEED ROADWAYS
STANDARD PLAN M-24.40-02

SHEET 1 OF 2 SHEETS
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

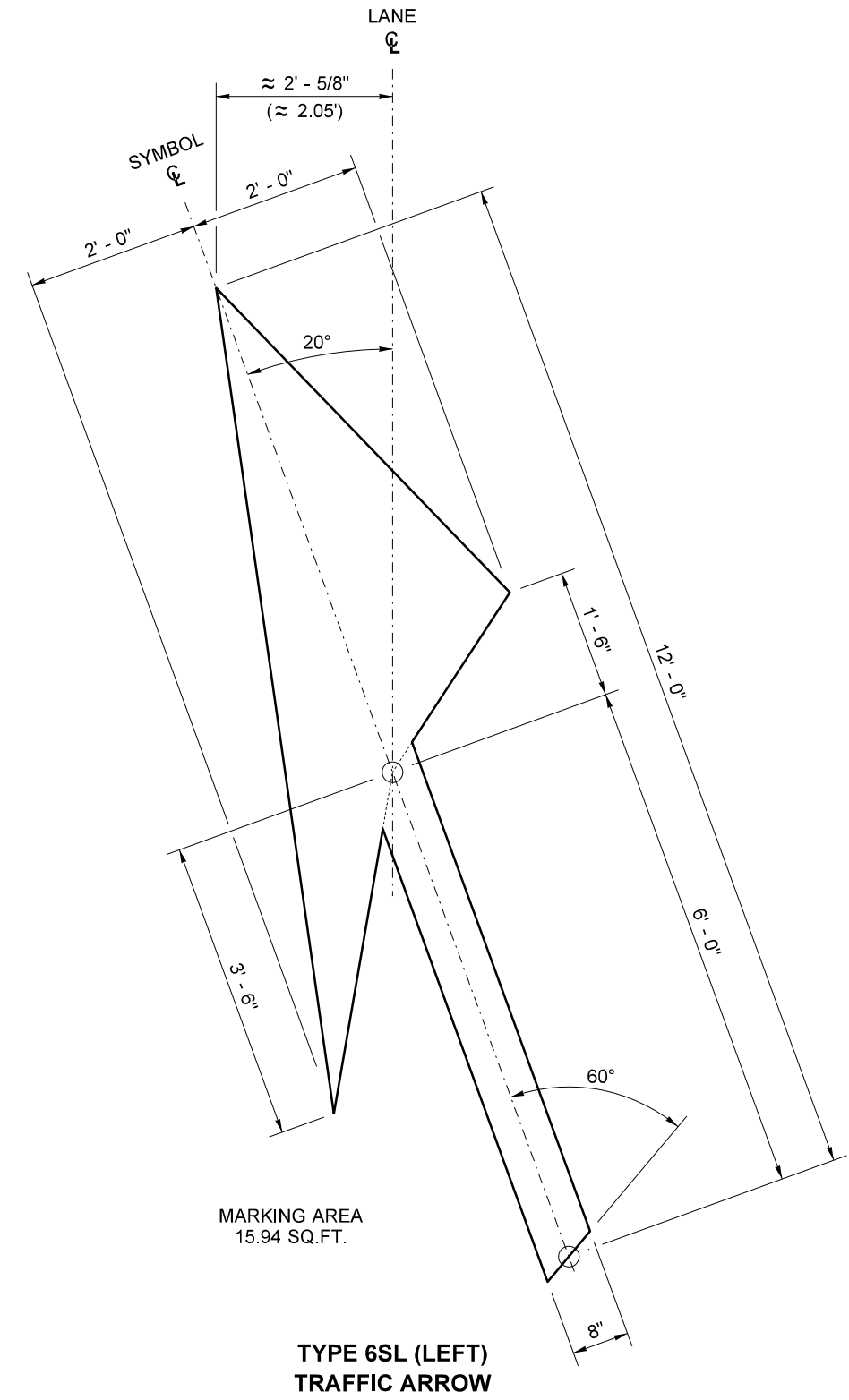
DRAWN BY: COLBY FLETCHER



TYPE 7S TRAFFIC ARROW

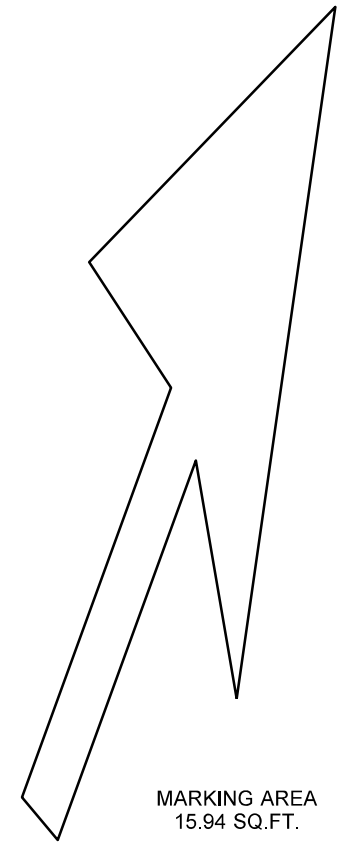
MARKING AREA
19.58 SQ.FT.

ELLIPSE "A" AXIS
1'-6"
ELLIPSE "B" AXIS
10" ~ ELLIPSE "B" AXIS



**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)



**SYMBOL MARKINGS ~
TRAFFIC ARROWS FOR
LOW-SPEED ROADWAYS
STANDARD PLAN M-24.40-02**

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: COLBY FLETCHER

FHWA 1273

CITY OF FEDERAL WAY

**LAKOTA SRTS
PROJECT #204 / RFB #21-003**

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

PREVAILING WAGES AND BENEFIT CODE KEY

CITY OF FEDERAL WAY

LAKOTA SRTS
PROJECT #204 / RFB #21-003

"General Decision Number: WA20210001 02/26/2021

Superseded General Decision Number: WA20200001

State: Washington

Construction Type: Highway

Counties: Washington Statewide.

HIGHWAY (Excludes D.O.E. Hanford Site in Benton and Franklin Counties)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---------------------|-------------------|
| 0 | 01/01/2021 |
| 1 | 01/22/2021 |
| 2 | 02/12/2021 |
| 3 | 02/26/2021 |

CARP0003-006 06/01/2018

SOUTHWEST WASHINGTON: CLARK, COWLITZ, KLICKITAT, LEWIS(Piledriver only), PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to Willapa Bay to the Pacific Ocean), SKAMANIA, and WAHKIAKUM Counties.

| | Rates | Fringes |
|---------------------|----------|---------|
| Carpenters: | | |
| CARPENTERS..... | \$ 37.64 | 16.83 |
| DIVERS TENDERS..... | \$ 43.73 | 16.83 |
| DIVERS..... | \$ 87.73 | 16.83 |
| DRYWALL..... | \$ 37.64 | 16.83 |
| MILLWRIGHTS..... | \$ 38.17 | 16.83 |
| PILEDRIVERS..... | \$ 38.71 | 16.83 |

DEPTH PAY:

50 TO 100 FEET \$1.00 PER FOOT OVER 50 FEET
 101 TO 150 FEET \$1.50 PER FOOT OVER 101 FEET
 151 TO 200 FEET \$2.00 PER FOOT OVER 151 FEET

Zone Differential (Add up Zone 1 rates):

Zone 2 - \$0.85
 Zone 3 - 1.25
 Zone 4 - 1.70
 Zone 5 - 2.00
 Zone 6 - 3.00

BASEPOINTS: ASTORIA, LONGVIEW, PORTLAND, THE DALLES, AND VANCOUVER, (NOTE: All dispatches for Washington State Counties: Cowlitz, Wahkiakum and Pacific shall be from Longview Local #1707 and mileage shall be computed from that point.)

ZONE 1: Projects located within 30 miles of the respective city hall of the above mentioned cities
 ZONE 2: Projects located more than 30 miles and less than 40 miles of the respective city of the above mentioned cities
 ZONE 3: Projects located more than 40 miles and less than 50 miles of the respective city of the above mentioned cities
 ZONE 4: Projects located more than 50 miles and less than 60 miles of the respective city of the above mentioned cities.
 ZONE 5: Projects located more than 60 miles and less than 70 miles of the respective city of the above mentioned cities
 ZONE 6: Projects located more than 70 miles of the respected city of the above mentioned cities

CARP0030-004 06/01/2020

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM Counties

| | Rates | Fringes |
|--|-----------|---------|
| CARPENTER | | |
| BRIDGE CARPENTERS..... | \$ 46.92 | 18.02 |
| CARPENTERS ON CREOSOTE MATERIAL..... | \$ 47.02 | 18.02 |
| CARPENTERS..... | \$ 46.92 | 18.02 |
| DIVERS TENDER..... | \$ 51.89 | 18.02 |
| DIVERS..... | \$ 100.78 | 18.02 |
| MILLWRIGHT AND MACHINE ERECTORS..... | | |
| ERECTORS..... | \$ 48.42 | 18.02 |
| PILEDRIIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING..... | \$ 47.17 | 18.02 |

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

| | | |
|------------------|--------------|--------------|
| Seattle | Olympia | Bellingham |
| Auburn | Bremerton | Anacortes |
| Renton | Shelton | Yakima |
| Aberdeen-Hoquiam | Tacoma | Wenatchee |
| Ellensburg | Everett | Port Angeles |
| Centralia | Mount Vernon | Sunnyside |
| Chelan | Pt. Townsend | |

Zone Pay:

| | |
|----------------------|-------------|
| 0 -25 radius miles | Free |
| 26-35 radius miles | \$1.00/hour |
| 36-45 radius miles | \$1.15/hour |
| 46-55 radius miles | \$1.35/hour |
| Over 55 radius miles | \$1.55/hour |

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

| | |
|----------------------|-------------|
| 0 -25 radius miles | Free |
| 26-45 radius miles | \$.70/hour |
| Over 45 radius miles | \$1.50/hour |

 CARP0059-002 06/01/2019

ADAMS, ASOTIN, BENTON, CHELAN (East of 120th meridian),
 COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT (East of
 120th meridian), KITTITAS (East of 120th meridian), LINCOLN,
 OKANOGAN (East of 120th meridian), PEND OREILLE, SPOKANE,
 STEVENS, WALLA WALLA, WHITMAN, and YAKIMA (East of 120th
 meridian) Counties

| | Rates | Fringes |
|--------------|----------|---------|
| CARPENTER | | |
| GROUP 1..... | \$ 35.47 | 16.88 |
| GROUP 2..... | \$ 47.42 | 18.96 |
| GROUP 3..... | \$ 36.66 | 16.88 |
| GROUP 4..... | \$ 36.66 | 16.88 |
| GROUP 5..... | \$ 83.96 | 16.88 |
| GROUP 6..... | \$ 40.23 | 16.88 |
| GROUP 7..... | \$ 41.23 | 16.88 |
| GROUP 8..... | \$ 37.66 | 16.88 |
| GROUP 9..... | \$ 44.23 | 16.88 |

CARPENTER & DIVER CLASSIFICATIONS:

GROUP 1: Carpenter

GROUP 2: Millwright, Machine Erector

GROUP 3: Piledriver - includes driving, pulling, cutting,
 placing collars, setting, welding, or creosote treated
 material, on all piling

GROUP 4: Bridge, Dock, and Wharf carpenters

GROUP 5: Diver Wet

GROUP 6: Diver Tender, Manifold Operator, ROV Operator

GROUP 7: Diver Standby

GROUP 8: Assistant Diver Tender, ROV Tender/Technician

GROUP 9: Manifold Operator-Mixed Gas

ZONE PAY:

| | | |
|--------|----------------|-----------------|
| ZONE 1 | 0-45 MILES | FREE |
| ZONE 2 | 45-100 | \$4.00/PER HOUR |
| ZONE 3 | OVER 100 MILES | \$6.00/PER HOUR |

DISPATCH POINTS:

CARPENTERS/MILLWRIGHTS: PASCO (515 N Neel Street) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS/PILEDRIIVER: SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: MOSCOW (306 N. JACKSON) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

DEPTH PAY FOR DIVERS BELOW WATER SURFACE:

50-100 feet \$2.00 per foot
 101-150 feet \$3.00 per foot
 151-220 feet \$4.00 per foot
 221 feet and deeper \$5.00 per foot

PREMIUM PAY FOR DIVING IN ENCLOSURES WITH NO VERTICAL ASCENT:

0-25 feet Free
 26-300 feet \$1.00 per Foot

SATURATION DIVING:

The standby rate applies until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. the diver rate shall be paid for all saturation hours.

WORK IN COMBINATION OF CLASSIFICATIONS:

Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

HAZMAT PROJECTS:

Anyone working on a HAZMAT job (task), where HAZMAT certification is required, shall be compensated at a premium, in addition to the classification working in as follows:

LEVEL D + \$.25 per hour - This is the lowest level of protection. No respirator is used and skin protection is minimal.

LEVEL C + \$.50 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B + \$.75 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit".

LEVEL A +\$1.00 per hour - This level utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line.

 CARP0770-003 06/01/2020

WEST OF 120TH MERIDIAN FOR THE FOLLOWING COUNTIES:
 CHELAN, DOUGLAS, GRANT, KITTITAS, OKANOGAN, and YAKIMA

| | Rates | Fringes |
|---|-----------|---------|
| CARPENTER | | |
| CARPENTERS ON CREOSOTE | | |
| MATERIAL..... | \$ 47.02 | 18.02 |
| CARPENTERS..... | \$ 46.92 | 18.02 |
| DIVERS TENDER..... | \$ 51.89 | 18.02 |
| DIVERS..... | \$ 100.78 | 18.02 |
| MILLWRIGHT AND MACHINE | | |
| ERECTORS..... | \$ 48.42 | 18.02 |
| PILEDRIIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED | | |
| MATERIAL, ALL PILING..... | \$ 47.17 | 18.02 |

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

| | | |
|------------------|--------------|--------------|
| Seattle | Olympia | Bellingham |
| Auburn | Bremerton | Anacortes |
| Renton | Shelton | Yakima |
| Aberdeen-Hoquiam | Tacoma | Wenatchee |
| Ellensburg | Everett | Port Angeles |
| Centralia | Mount Vernon | Sunnyside |
| Chelan | Pt. Townsend | |

Zone Pay:

| | |
|----------------------|-------------|
| 0 -25 radius miles | Free |
| 26-35 radius miles | \$1.00/hour |
| 36-45 radius miles | \$1.15/hour |
| 46-55 radius miles | \$1.35/hour |
| Over 55 radius miles | \$1.55/hour |

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

0 -25 radius miles Free
 26-45 radius miles \$.70/hour
 Over 45 radius miles \$1.50/hour

 * ELEC0046-001 02/21/2021

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

| | Rates | Fringes |
|--------------------|----------|----------|
| CABLE SPLICER..... | \$ 66.90 | 3%+23.66 |
| ELECTRICIAN..... | \$ 60.82 | 3%+23.66 |

 * ELEC0048-003 01/01/2021

CLARK, KLICKITAT AND SKAMANIA COUNTIES

| | Rates | Fringes |
|--------------------|----------|---------|
| CABLE SPLICER..... | \$ 44.22 | 21.50 |
| ELECTRICIAN..... | \$ 50.35 | 25.48 |

HOURLY ZONE PAY:

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Portland, The Dalles, Hood River, Tillamook, Seaside and Astoria

Zone Pay:

Zone 1: 31-50 miles \$1.50/hour
 Zone 2: 51-70 miles \$3.50/hour
 Zone 3: 71-90 miles \$5.50/hour
 Zone 4: Beyond 90 miles \$9.00/hour

*These are not miles driven. Zones are based on Delorme Street Atlas USA 2006 plus.

 ELEC0048-029 01/01/2021

COWLITZ AND WAHAKIAKUM COUNTY

| | Rates | Fringes |
|--------------------|----------|---------|
| CABLE SPLICER..... | \$ 44.22 | 21.50 |
| ELECTRICIAN..... | \$ 50.35 | 25.48 |

 ELEC0073-001 07/01/2020

ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN
 COUNTIES

| | Rates | Fringes |
|--------------------|----------|---------|
| CABLE SPLICER..... | \$ 34.10 | 16.68 |
| ELECTRICIAN..... | \$ 37.65 | 19.68 |

ELEC0076-002 08/31/2020

GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON
 COUNTIES

| | Rates | Fringes |
|--------------------|----------|---------|
| CABLE SPLICER..... | \$ 53.15 | 23.81 |
| ELECTRICIAN..... | \$ 48.32 | 23.67 |

ELEC0112-005 06/01/2020

ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA
 WALLA, YAKIMA COUNTIES

| | Rates | Fringes |
|--------------------|----------|---------|
| CABLE SPLICER..... | \$ 50.45 | 22.27 |
| ELECTRICIAN..... | \$ 48.05 | 22.12 |

ELEC0191-003 06/01/2020

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

| | Rates | Fringes |
|--------------------|----------|---------|
| CABLE SPLICER..... | \$ 44.23 | 17.73 |
| ELECTRICIAN..... | \$ 47.95 | 26.16 |

ELEC0191-004 06/01/2018

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

| | Rates | Fringes |
|--------------------|----------|---------|
| CABLE SPLICER..... | \$ 40.82 | 17.63 |
| ELECTRICIAN..... | \$ 42.45 | 21.34 |

ENGI0302-003 06/01/2020

CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, KITTITAS, MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, SKAGIT, SNOHOMISH, WHATCOM AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES

Zone 1 (0-25 radius miles):

| | Rates | Fringes |
|--------------------------|----------|---------|
| POWER EQUIPMENT OPERATOR | | |
| Group 1A..... | \$ 48.41 | 22.47 |
| Group 1AA..... | \$ 49.13 | 22.47 |
| Group 1AAA..... | \$ 49.83 | 22.47 |
| Group 1..... | \$ 47.70 | 22.47 |
| Group 2..... | \$ 47.08 | 22.47 |
| Group 3..... | \$ 46.55 | 22.47 |
| Group 4..... | \$ 43.54 | 22.47 |

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) - \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom
(including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom
(including jib with attachments); Tower crane over 175 ft
in height, base to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom
(including jib with attachments); Crane-overhead, bridge
type, 100 tons and over; Tower crane up to 175 ft in height
base to boom; Loaders-overhead, 8 yards and over; Shovels,
excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead 6 yards to, but not including 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9, HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self propelled 45 yards and over; Slipform pavers; Transporters, all truck or track type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-Concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-overhead, bridge type-20 tons through 44 tons; Chipper; Concrete Pump-truck mount with boom attachment; Crusher; Deck Engineer/Deck Winches (power); Drilling machine; Excavator, shovel, backhoe-3yards and under; Finishing Machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Horizontal/directional drill operator; Loaders-overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics-all; Mixers-asphalt plant; Motor patrol graders-finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self propelled, hard tail end dump, articulating off-road equipment-under 45 yards; Subgrade trimmer; Tractors, backhoes-over 75 hp; Transfer material service machine-shuttle buggy, blaw knox-roadtec; Truck crane oiler/driver-100 tons and over; Truck Mount portable conveyor; Yo Yo Pay dozer

GROUP 3 - Conveyors; Cranes-thru 19 tons with attachments; A-frame crane over 10 tons; Drill oilers-auger type, truck or crane mount; Dozers-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loader-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pumps-concrete; Roller, plant mix or multi-lift materials; Saws-concrete; Scrapers-concrete and carry-all; Service engineer-equipment; Trenching machines; Truck Crane Oiler/Driver under 100 tons; Tractors, backhoe 75 hp and under

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete finish machine-laser screed; Cranes-A frame-10 tons and under; Elevator and Manlift-permanent or shaft type; Gradechecker, Stakehop; Forklifts under 3000 lbs. with attachments; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger, mechanical; Power plant; Pumps, water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

HANDLING OF HAZARDOUS WASTE MATERIALS:

Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing

H-2 Class "C" Suit - Base wage rate plus \$.25 per hour.

H-3 Class "B" Suit - Base wage rate plus \$.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$.75 per hour.

ENGI0370-002 07/01/2019

ADAMS, ASOTIN, BENTON, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

ZONE 1:

| | Rates | Fringes |
|--------------------------|----------|---------|
| POWER EQUIPMENT OPERATOR | | |
| GROUP 1..... | \$ 28.46 | 17.25 |
| GROUP 2..... | \$ 28.78 | 17.25 |
| GROUP 3..... | \$ 29.39 | 17.25 |
| GROUP 4..... | \$ 29.55 | 17.25 |
| GROUP 5..... | \$ 29.71 | 17.25 |
| GROUP 6..... | \$ 29.99 | 17.25 |
| GROUP 7..... | \$ 30.26 | 17.25 |
| GROUP 8..... | \$ 31.36 | 17.25 |

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - \$2.00

Zone 1: Within 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled); Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginaw or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment(8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operatr (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers)(Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver; Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Roller (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel(under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragline; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform Trailers (Goldhofer, Shaurerly and Similar); Ultra High Pressure Waterjet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead, rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

BOOM PAY: (All Cranes, Including Tower)
 180 ft to 250 ft \$.50 over scale
 Over 250 ft \$.80 over scale

NOTE:

In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:

Anyone working on HAZMAT jobs, working with supplied air shall receive \$1.00 an hour above classification.

 ENGI0612-001 06/01/2020

PIERCE County

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

| | Rates | Fringes |
|--------------------------|----------|---------|
| POWER EQUIPMENT OPERATOR | | |
| GROUP 1A..... | \$ 49.50 | 22.47 |
| GROUP 1AA..... | \$ 50.22 | 22.47 |
| GROUP 1AAA..... | \$ 50.94 | 22.47 |
| GROUP 1..... | \$ 48.77 | 22.47 |
| GROUP 2..... | \$ 48.15 | 22.47 |
| GROUP 3..... | \$ 47.60 | 22.47 |
| GROUP 4..... | \$ 44.55 | 22.47 |

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) = \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom
(including jib with attachments)

GROUP 1AA - Cranes- 200 tons to 300 tons, or 250 ft of boom
(including jib with attachments; Tower crane over 175 ft in
height, base to boom)

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom
(including jib with attachments); Crane-overhead, bridge
type, 100 tons and over; Tower crane up to 175 ft in height
base to boom; Loaders-overhead, 8 yards and over; Shovels,
excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft
of boom (including jib with attachments); Crane-overhead,
bridge type, 45 tons thru 99 tons; Derricks on building
work; Excavator, shovel, backhoes over 3 yards and under 6
yards; Hard tail end dump articulating off-road equipment
45 yards and over; Loader- overhead, 6 yards to, but not
including, 8 yards; Mucking machine, mole, tunnel, drill
and/or shield; Quad 9 HD 41, D-10; Remote control operator
on rubber tired earth moving equipment; Rollagon; Scrapers-
self-propelled 45 yards and over; Slipform pavers;
Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-
concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with
attachments; Crane-Overhead, bridge type, 20 tons through
44 tons; Chipper; Concrete pump-truck mount with boom
attachment; Crusher; Deck engineer/deck winches (power);
Drilling machine; Excavator, shovel, backhoe-3 yards and
under; Finishing machine, Bidwell, Gamaco and similar
equipment; Guardrail punch; Loaders, overhead under 6
yards; Loaders-plant feed; Locomotives-all; Mechanics- all;
Mixers, asphalt plant; Motor patrol graders, finishing;
Piledriver (other than crane mount); Roto-mill, roto-
grinder; Screedman, spreader, topside operator-Blaw Knox,
Cedar Rapids, Jaeger, Caterpillar, Barbar Green;
Scraper-self- propelled, hard tail end dump, articulating
off-road equipment- under 45 yards; Subgrader trimmer;
Tractors, backhoe over 75 hp; Transfer material service
machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane
oiler/driver-100 tons and over; Truck Mount Portable
Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than \$1.5 million excluding mechanical, electrical, and utility portions of the contract.
2. Projects of less than \$1 million where no building is involved. Surfacing and paving included, but utilities excluded.
3. Marine projects (docks, wharfs, etc.) less than \$150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class "D" Suit - Base wage rate plus \$.50 per hour.

H-2 Class "C" Suit - Base wage rate plus \$1.00 per hour.

H-3 Class "B" Suit - Base wage rate plus \$1.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$2.00 per hour.

ENGI0612-012 06/01/2020

LEWIS, PACIFIC (portion lying north of a parallel line extending west from the northern boundary of Wahkaikum County to the sea) AND THURSTON COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

| | Rates | Fringes |
|--------------------------|----------|---------|
| POWER EQUIPMENT OPERATOR | | |
| GROUP 1A..... | \$ 48.41 | 22.47 |
| GROUP 1AA..... | \$ 49.13 | 22.47 |
| GROUP 1AAA..... | \$ 49.83 | 22.47 |
| GROUP 1..... | \$ 47.70 | 22.47 |
| GROUP 2..... | \$ 47.08 | 22.47 |
| GROUP 3..... | \$ 46.55 | 22.47 |
| GROUP 4..... | \$ 43.54 | 22.47 |

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) = \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than \$1.5 million excluding mechanical, electrical, and utility portions of the contract.
2. Projects of less than \$1 million where no building is involved. Surfacing and paving included, but utilities excluded.
3. Marine projects (docks, wharfs, etc.) less than \$150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class "D" Suit - Base wage rate plus \$.50 per hour.

H-2 Class "C" Suit - Base wage rate plus \$1.00 per hour.

H-3 Class "B" Suit - Base wage rate plus \$1.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$2.00 per hour.

 ENGI0701-002 01/01/2018

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

POWER EQUIPMENT OPERATORS: ZONE 1

| | Rates | Fringes |
|--------------------------|----------|---------|
| POWER EQUIPMENT OPERATOR | | |
| GROUP 1..... | \$ 41.65 | 14.35 |
| GROUP 1A..... | \$ 43.73 | 14.35 |
| GROUP 1B..... | \$ 45.82 | 14.35 |
| GROUP 2..... | \$ 39.74 | 14.35 |
| GROUP 3..... | \$ 38.59 | 14.35 |
| GROUP 4..... | \$ 37.51 | 14.35 |
| GROUP 5..... | \$ 36.27 | 14.35 |
| GROUP 6..... | \$ 33.05 | 14.35 |

Zone Differential (add to Zone 1 rates):

Zone 2 - \$3.00

Zone 3 - \$6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or projects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens "Blast Zone" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1

Concrete Batch Plan and or Wet mix three (3) units or more; Crane, Floating one hundred and fifty (150) ton but less than two hundred and fifty (250) ton; Crane, two hundred (200) ton through two hundred ninety nine (299) ton with two hundred foot (200') boom or less (including jib, inserts and/or attachments); Crane, ninety (90) ton through one hundred ninety nine (199) ton with over two hundred (200') boom Including jib, inserts and/or attachments); Crane, Tower Crane with one hundred seventy five foot (175') tower or less and with less than two hundred foot (200') jib; Crane, Whirley ninety (90) ton and over; Helicopter when used in erecting work

Group 1A

Crane, floating two hundred fifty (250) ton and over; Crane, two hundred (200) ton through two hundred ninety nine (299) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Crane, three hundred (300) ton through three hundred ninety nine (399) ton; Crane, Tower Crane with over one hundred seventy five foot (175') tower or over two hundred foot (200') jib; Crane, tower Crane on rail system or 2nd tower or more in work radius

Group 1B

Crane, three hundred (300) ton through three hundred ninety nine (399) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Floating crane, three hundred fifty (350) ton and over; Crane, four hundred (400) ton and over

Group 2

Asphalt Plant (any type); Asphalt Roto-Mill, pavement profiler eight foot (8') lateral cut and over; Auto Grader or "Trimmer"; Blade, Robotic; Bulldozer, Robotic Equipment (any type); Bulldozer, over one hundred twenty thousand (120,000) lbs. and above; Concrete Batch Plant and/or Wet Mix one (1) and two (2) drum; Concrete Diamond Head Profiler; Canal Trimmer; Concrete, Automatic Slip Form Paver (Assistant to the Operator required); Crane, Boom Truck fifty (50) ton and with over one hundred fifty foot (150') boom and over; Crane, Floating (derrick barge) thirty (30) ton but less than one hundred fifty (150) ton; Crane, Cableway twenty-five (25) ton and over; Crane, Floating Clamshell three (3) cu. Yds. And over; Crane, ninety (90) ton through one hundred ninety nine (199) ton up to and including two hundred foot (200') of boom (including jib inserts and/or attachments); Crane, fifty (50) ton through eighty nine (89) ton with over one hundred fifty foot (150') boom (including jib inserts and/or attachments); Crane, Whirley under ninety (90) ton; Crusher Plant; Excavator over one hundred thirty thousand (130,000) lbs.; Loader one hundred twenty thousand (120,000) lbs. and above; Remote Controlled Earth Moving Equipment; Shovel, Dragline, Clamshell, five (5) cu. Yds. And over; Underwater Equipment remote or otherwise, when used in construction work; Wheel Excavator any size

Group 3

Bulldozer, over seventy thousand (70,000) lbs. up to and including one hundred twenty thousand (120,000) lbs.; Crane, Boom Truck fifty (50) ton and over with less than one hundred fifty foot (150') boom; Crane, fifty (50) ton through eighty nine (89) ton with one hundred fifty foot (150') boom or less (including jib inserts and/or attachments); Crane, Shovel, Dragline or Clamshell three (3) cu. yds. but less than five (5) cu. Yds.; Excavator over eighty thousand (80,000) lbs. through one hundred thirty thousand (130,000) lbs.; Loader sixty thousand (60,000) lbs. and less than one hundred twenty thousand (120,000) lbs.

Group 4

Asphalt, Screed; Asphalt Paver; Asphalt Roto-Mill, pavement profiler, under eight foot (8') lateral cut; Asphalt, Material Transfer Vehicle Operator; Back Filling Machine; Backhoe, Robotic, track and wheel type up to and including twenty thousand (20,000) lbs. with any attachments; Blade (any type); Boatman; Boring Machine; Bulldozer over twenty thousand (20,000) lbs. and more than one hundred (100) horse up to seventy thousand (70,000) lbs.; Cable-Plow (any type); Cableway up to twenty five (25) ton; Cat Drill (John Henry); Chippers; Compactor, multi-engine; Compactor, Robotic; Compactor with blade self-propelled; Concrete, Breaker; Concrete, Grout Plant; Concrete, Mixer Mobile; Concrete, Paving Road Mixer; Concrete, Reinforced Tank Banding Machine; Crane, Boom Truck twenty (20) ton and under fifty (50) ton; Crane, Bridge Locomotive, Gantry and Overhead; Crane, Carry Deck; Crane, Chicago Boom and similar types; Crane, Derrick Operator, under one hundred (100) ton; Crane, Floating Clamshell, Dragline, etc. Operator, under three (3) cu. yds. Or less than thirty (30) ton; Crane, under fifty (50) ton; Crane, Quick Tower under one hundred foot (100') in height and less than one hundred fifty foot (150') jib (on rail included); Diesel-Electric Engineer (Plant or Floating); Directional Drill over twenty thousand (20,000) lbs. pullback; Drill Cat Operator; Drill Doctor and/or Bit Grinder; Driller, Percussion, Diamond, Core, Cable, Rotary and similar type; Excavator Operator over twenty thousand (20,000) lbs. through eighty thousand (80,000) lbs.; Generator Operator; Grade-all; Guardrail Machines, i.e. punch, auger, etc.; Hammer Operator (Piledriver); Hoist, stiff leg, guy derrick or similar type, fifty (50) ton and over; Hoist, two (2) drums or more; Hydro Axe (loader mounted or similar type); Jack Operator, Elevating Barges, Barge Operator, self-unloading; Loader Operator, front end and overhead, twenty five thousand (25,000) lbs. and less than sixty thousand (60,000) lbs.; Log Skidders; Piledriver Operator (not crane type); Pipe, Bending, Cleaning, Doping and Wrapping Machines; Rail, Ballast Tamper Multi-Purpose; Rubber-tired Dozers and Pushers; Scraper, all types; Side-Boom; Skip Loader, Drag Box; Strump Grinder (loader mounted or similar type); Surface Heater and Planer; Tractor, rubber-tired, over fifty (50) HP Flywheel; Trenching Machine three foot (3') depth and deeper; Tub Grinder (used for wood debris); Tunnel Boring Machine Mechanic; Tunnel, Mucking Machine; Ultra High Pressure Water Jet Cutting Tool System Operator; Vacuum Blasting Machine Operator; Water pulls, Water wagons

Group 5

Asphalt, Extrusion Machine; Asphalt, Roller (any asphalt mix); Asphalt, Roto-Mill pavement profiler ground man; Bulldozer, twenty thousand (20,000) lbs. or less, or one hundred (100) horse or less; Cement Pump; Chip Spreading Machine; Churn Drill and Earth Boring Machine; Compactor, self-propelled without blade; Compressor, (any power) one thousand two hundred fifty (1,250) cu. ft. and over, total capacity; Concrete, Batch Plant Quality control; Concrete, Combination Mixer and compressor operator, gunite work; Concrete, Curb Machine, Mechanical Berm, Curb and/or Curb and Gutter; Concrete, Finishing Machine; Concrete, Grouting Machine; Concrete, Internal Full Slab Vibrator Operator; Concrete, Joint Machine; Concrete, Mixer single drum, any capacity; Concrete, Paving Machine eight foot (8') or less; Concrete, Planer; Concrete, Pump; Concrete, Pump Truck; Concrete, Pumpcrete Operator (any type); Concrete, Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Conveyored Material Hauler; Crane, Boom Truck under twenty (20) tons; Crane, Boom Type lifting device, five (5) ton capacity or less; Drill, Directional type less than twenty thousand (20,000) lbs. pullback; Fork Lift, over ten (10) ton or Robotic; Helicopter Hoist; Hoist Operator, single drum; Hydraulic Backhoe track type up to and including twenty thousand (20,000) lbs.; Hydraulic Backhoe wheel type (any make); Laser Screed; Loaders, rubber-tired type, less than twenty five thousand (25,000) lbs.; Pavement Grinder and/or Grooving Machine (riding type); Pipe, cast in place Pipe Laying Machine; Pulva-Mixer or similar types; Pump Operator, more than five (5) pumps (any size); Rail, Ballast Compactor, Regulator, or Tamper machines; Service Oiler (Greaser); Sweeper Self-Propelled; Tractor, Rubber-Tired, fifty (50) HP flywheel and under; Trenching Machine Operator, maximum digging capacity three foot (3') depth; Tunnel, Locomotive, Dinkey; Tunnel, Power Jumbo setting slip forms, etc.

Group 6

Asphalt, Pugmill (any type); Asphalt, Raker; Asphalt, Truck Mounted Asphalt Spreader, with Screed; Auger Oiler; Boatman; Bobcat, skid steer (less than one (1) yard); Broom, self-propelled; Compressor Operator (any power) under 1,250 cu. ft. total capacity; Concrete Curing Machine (riding type); Concrete Saw; Conveyor Operator or Assistant; Crane, Tugger; Crusher Feeder; Crusher Oiler; Deckhand; Drill, Directional Locator; Fork Lift; Grade Checker; Guardrail Punch Oiler; Hydrographic Seeder Machine, straw, pulp or seed; Hydrostatic Pump Operator; Mixer Box (CTB, dry batch, etc.); Oiler; Plant Oiler; Pump (any power); Rail, Brakeman, Switchman, Motorman; Rail, Tamping Machine, mechanical, self-propelled; Rigger; Roller grading (not asphalt); Truck, Crane Oiler-Driver

IRON0014-005 07/01/2020

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN,
GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE,
STEVENS, WALLA WALLA AND WHITMAN COUNTIES

| | Rates | Fringes |
|-----------------|----------|---------|
| IRONWORKER..... | \$ 34.59 | 30.10 |

IRON0029-002 07/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKAIKUM
COUNTIES

| | Rates | Fringes |
|-----------------|----------|---------|
| IRONWORKER..... | \$ 39.10 | 29.75 |

IRON0086-002 07/01/2020

YAKIMA, KITTITAS AND CHELAN COUNTIES

| | Rates | Fringes |
|-----------------|----------|---------|
| IRONWORKER..... | \$ 34.59 | 30.10 |

IRON0086-004 07/01/2020

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS,
MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

| | Rates | Fringes |
|-----------------|----------|---------|
| IRONWORKER..... | \$ 43.95 | 31.00 |

LABO0238-004 06/01/2020

PASCO AREA: ADAMS, BENTON, COLUMBIA, DOUGLAS (East of 120th Meridian), FERRY, FRANKLIN, GRANT, OKANOGAN, WALLA WALLA

SPOKANE AREA: ASOTIN, GARFIELD, LINCOLN, PEND OREILLE, SPOKANE, STEVENS & WHITMAN COUNTIES

| | Rates | Fringes |
|-------------------|----------|---------|
| LABORER (PASCO) | | |
| GROUP 1..... | \$ 26.69 | 13.65 |
| GROUP 2..... | \$ 28.79 | 13.65 |
| GROUP 3..... | \$ 29.06 | 13.65 |
| GROUP 4..... | \$ 29.33 | 13.65 |
| GROUP 5..... | \$ 29.61 | 13.65 |
| LABORER (SPOKANE) | | |
| GROUP 1..... | \$ 26.69 | 13.65 |
| GROUP 2..... | \$ 28.79 | 13.65 |
| GROUP 3..... | \$ 29.06 | 13.65 |
| GROUP 4..... | \$ 29.33 | 13.65 |
| GROUP 5..... | \$ 29.61 | 13.65 |

Zone Differential (Add to Zone 1 rate): \$2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: 45 radius miles and over from the main post office.

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer; Scaleman; Traffic Control Maintenance Laborer (to include erection and maintenance of barricades, signs and relief of flagperson); Window Washer/Cleaner (detail cleanup, such as, but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezecrete or similar machine, 6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class "A" (to include

all bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

GROUP 3: Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, Paving; Grade Checker using level; Hazardous Waste Worker, Level C (uses a chemical "splash suit" and air purifying respirator); Jackhammer Operator; Miner, Class "B" (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi-plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow (power driven)

GROUP 4: Air and Hydraulic Track Drill; Asphalt Raker; Brush Machine (to include horizontal construction joint cleanup brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when laborers working on free standing concrete stacks for smoke or fume control above 40 feet high); Guniting (to include operation of machine and nozzle); Hazardous Waste Worker, Level B (uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Laser Beam Operator (to include grade checker and elevation control); Miner, Class C (to include miner, nozzleman for concrete, laser beam operator and rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power propelled, sandblast nozzle); Pavement Breaker (90 lbs. and over); Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer); Pipewrapper; Plasterer Tender; Vibrators (all)

GROUP 5 - Drills with Dual Masts; Hazardous Waste Worker, Level A (utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line); Miner Class "D", (to include raise and shaft miner, laser beam operator on riases and shafts)

 LABO0238-006 06/01/2019

COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON,
 CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT,
 LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA,
 WHITMAN

| | Rates | Fringes |
|------------------|----------|---------|
| Hod Carrier..... | \$ 27.95 | 12.90 |

LABO0242-003 06/01/2020

KING COUNTY

| | Rates | Fringes |
|---------------|----------|---------|
| LABORER | | |
| GROUP 1..... | \$ 27.78 | 12.35 |
| GROUP 2A..... | \$ 31.82 | 12.35 |
| GROUP 3..... | \$ 39.81 | 12.35 |
| GROUP 4..... | \$ 40.77 | 12.35 |
| GROUP 5..... | \$ 41.43 | 12.35 |
| Group 6..... | \$ 41.43 | 12.35 |

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
 TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
 TOWNSEND, PT. ANGELES, AND BREMERTON

- ZONE 1 - Projects within 25 radius miles of the respective city hall
- ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
- ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$1.00
 ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

- ZONE 1 - Projects within 25 radius miles of the respective city hall
- ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2A: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

Group 6: Miner

LABO0252-010 06/01/2020

CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC
(EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES

| | Rates | Fringes |
|--------------|----------|---------|
| LABORER | | |
| GROUP 1..... | \$ 27.78 | 12.44 |
| GROUP 2..... | \$ 31.82 | 12.44 |
| GROUP 3..... | \$ 39.81 | 12.44 |
| GROUP 4..... | \$ 40.77 | 12.44 |
| GROUP 5..... | \$ 41.43 | 12.44 |

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window
Washer/Cleaner (detail clean-up, such as but not limited to
cleaning floors, ceilings, walls, windows, etc., prior to
final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer;
Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Grade Checker and Transit Person; High Scaler; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0292-008 06/01/2020

ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES

| | Rates | Fringes |
|--------------|----------|---------|
| LABORER | | |
| GROUP 1..... | \$ 27.78 | 12.44 |
| GROUP 2..... | \$ 31.82 | 12.44 |
| GROUP 3..... | \$ 39.81 | 12.44 |
| GROUP 4..... | \$ 40.77 | 12.44 |
| GROUP 5..... | \$ 41.43 | 12.44 |

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
 ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
 ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$1.00
 ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
 ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0335-001 06/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

| | Rates | Fringes |
|--------------|----------|---------|
| Laborers: | | |
| ZONE 1: | | |
| GROUP 1..... | \$ 34.93 | 12.44 |
| GROUP 2..... | \$ 35.65 | 12.44 |
| GROUP 3..... | \$ 36.20 | 12.44 |
| GROUP 4..... | \$ 36.66 | 12.44 |
| GROUP 5..... | \$ 31.93 | 12.44 |
| GROUP 6..... | \$ 29.01 | 12.44 |
| GROUP 7..... | \$ 25.14 | 12.44 |

Zone Differential (Add to Zone 1 rates):

Zone 2 \$ 0.65
 Zone 3 - 1.15
 Zone 4 - 1.70
 Zone 5 - 2.75

BASE POINTS: LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city all.
 ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.
 ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
 ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
 ZONE 5: More than 80 miles from the respective city hall.

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Plant Laborers; Asphalt Spreaders; Batch Weighman; Broomers; Brush Burners and Cutters; Car and Truck Loaders; Carpenter Tender; Change-House Man or Dry Shack Man; Choker Setter; Clean-up Laborers; Curing, Concrete; Demolition, Wrecking and Moving Laborers; Dumpers, road oiling crew; Dumpmen (for grading crew); Elevator Feeders; Median Rail Reference Post, Guide Post, Right of Way Marker; Fine Graders; Fire Watch; Form Strippers (not swinging stages); General Laborers; Hazardous Waste Worker; Leverman or Aggregate Spreader (Flaherty and similar types); Loading Spotters; Material Yard Man (including electrical); Pittsburgh Chipper Operator or Similar Types; Railroad Track Laborers; Ribbon Setters (including steel forms); Rip Rap Man (hand placed); Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers; Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring; Timber Faller and Bucker (hand labor); Toolroom Man (at job site); Tunnel Bullgang (above ground); Weight-Man- Crusher (aggregate when used)

GROUP 2: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunite Nozzleman Tender; Gunite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 3: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunite Nozzleman; High Scalers, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Pwdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 4: Asphalt Raker; Concrete Saw Operator (walls); Concrete Nozzelman; Grade Checker; Pipelayer; Laser Beam (pipelaying)-applicable when employee assigned to move, set up, align; Laser Beam; Tunnel Miners; Motorman-Dinky Locomotive-Tunnel; Powderman-Tunnel; Shield Operator-Tunnel

GROUP 5: Traffic Flaggers

GROUP 6: Fence Builders

GROUP 7: Landscaping or Planting Laborers

LABO0335-019 06/01/2020

| | Rates | Fringes |
|------------------|----------|---------|
| Hod Carrier..... | \$ 34.93 | 12.44 |

LABO0348-003 06/01/2020

CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA
COUNTIES

| | Rates | Fringes |
|--------------|----------|---------|
| LABORER | | |
| GROUP 1..... | \$ 23.68 | 12.44 |
| GROUP 2..... | \$ 27.17 | 12.44 |
| GROUP 3..... | \$ 29.74 | 12.44 |
| GROUP 4..... | \$ 30.46 | 12.44 |
| GROUP 5..... | \$ 30.99 | 12.44 |

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window
Washer/Cleaner (detail clean-up, such as but not limited to
cleaning floors, ceilings, walls, windows, etc., prior to
final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer;
Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

PAIN0005-002 07/01/2020

STATEWIDE EXCEPT CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH),
SKAMANIA, AND WAHAKIYAKUM COUNTIES

| | Rates | Fringes |
|---------------|----------|---------|
| Painters: | | |
| STRIPERS..... | \$ 31.90 | 17.23 |

PAIN0005-004 03/01/2009

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS,
MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND
WHATCOM COUNTIES

| | Rates | Fringes |
|--------------|----------|---------|
| PAINTER..... | \$ 20.82 | 7.44 |

* PAIN0005-006 07/01/2018

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE);
CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS,
LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA,
WHITMAN AND YAKIMA COUNTIES

| | Rates | Fringes |
|------------------------------|----------|---------|
| PAINTER | | |
| Application of Cold Tar | | |
| Products, Epoxies, Polyure | | |
| thanes, Acids, Radiation | | |
| Resistant Material, Water | | |
| and Sandblasting..... | \$ 30.19 | 11.71 |
| Over 30'/Swing Stage Work.. | \$ 22.20 | 7.98 |
| Brush, Roller, Striping, | | |
| Steam-cleaning and Spray.... | \$ 22.94 | 11.61 |
| Lead Abatement, Asbestos | | |
| Abatement..... | \$ 21.50 | 7.98 |

*\$.70 shall be paid over and above the basic wage rates
listed for work on swing stages and high work of over 30
feet.

PAIN0055-003 07/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM
COUNTIES

| | Rates | Fringes |
|-----------------------------|----------|---------|
| PAINTER | | |
| Brush & Roller..... | \$ 26.56 | 13.40 |
| Spray and Sandblasting..... | \$ 26.56 | 13.40 |

All high work over 60 ft. = base rate + \$0.75

PAIN0055-006 03/01/2020

CLARK, COWLITZ, KLICKITAT, SKAMANIA and WAHKIAKUM COUNTIES

| | Rates | Fringes |
|-----------------------|----------|---------|
| Painters: | | |
| HIGHWAY & PARKING LOT | | |
| STRIPER..... | \$ 35.87 | 13.40 |

PLAS0072-004 06/01/2020

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY,
FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND
OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA
COUNTIES

| | Rates | Fringes |
|--------------------------------|----------|---------|
| CEMENT MASON/CONCRETE FINISHER | | |
| ZONE 1..... | \$ 31.30 | 15.53 |

Zone Differential (Add to Zone 1 rate): Zone 2 - \$2.00

BASE POINTS: Spokane, Pasco, Lewiston; Wenatchee
Zone 1: 0 - 45 radius miles from the main post office
Zone 2: Over 45 radius miles from the main post office

PLAS0528-001 06/01/2020

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING,
KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT,
SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

| | Rates | Fringes |
|--|----------|---------|
| CEMENT MASON | | |
| CEMENT MASON..... | \$ 45.80 | 18.54 |
| COMPOSITION, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE..... | \$ 46.30 | 18.54 |
| TROWELING MACHINE OPERATOR ON COMPOSITION..... | \$ 46.30 | 18.54 |

PLAS0555-002 07/01/2019

CLARK, KLICKITAT AND SKAMANIA COUNTIES

ZONE 1:

| | Rates | Fringes |
|--|----------|---------|
| CEMENT MASON | | |
| CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD.. | \$ 37.32 | 18.77 |
| CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD..... | \$ 36.58 | 18.77 |
| CEMENT MASONS..... | \$ 35.85 | 18.77 |
| COMPOSITION WORKERS AND POWER MACHINERY OPERATORS... | \$ 36.58 | 18.77 |

Zone Differential (Add To Zone 1 Rates):

- Zone 2 - \$0.65
- Zone 3 - 1.15
- Zone 4 - 1.70
- Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND,
SALEM, THE DALLES, VANCOUVER

- ZONE 1: Projects within 30 miles of the respective city hall
- ZONE 2: More than 30 miles but less than 40 miles from the
respective city hall.
- ZONE 3: More than 40 miles but less than 50 miles from the
respective city hall.
- ZONE 4: More than 50 miles but less than 80 miles from the
respective city hall.
- ZONE 5: More than 80 miles from the respective city hall

TEAM0037-002 06/01/2020

CLARK, COWLITZ, KLUCKITAT, PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), SKAMANIA, AND WAHAKIAKUM COUNTIES

| | Rates | Fringes |
|----------------|----------|---------|
| Truck drivers: | | |
| ZONE 1 | | |
| GROUP 1..... | \$ 29.33 | 16.40 |
| GROUP 2..... | \$ 29.46 | 16.40 |
| GROUP 3..... | \$ 29.60 | 16.40 |
| GROUP 4..... | \$ 29.89 | 16.40 |
| GROUP 5..... | \$ 30.03 | 16.40 |
| GROUP 6..... | \$ 30.31 | 16.40 |
| GROUP 7..... | \$ 30.53 | 16.40 |

Zone Differential (Add to Zone 1 Rates):

Zone 2 - \$0.65
 Zone 3 - 1.15
 Zone 4 - 1.70
 Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lift truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts (all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman, Wash Rack, Steam Cleaner or combinations; Team Driver; Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane; Challenger; Dumpsters or similar equipment all sizes; Dump Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer or doubles transporting equipment or wet or dry materials; Lumber Carrier, Driver-Straddle Carrier (used in loading, unloading and transporting of materials on job site); Oil Distributor Driver or Leverman; Transit mix and wet or dry mix trucks: over 5 cu. yds. and including 7 cu. yds.; Vacuum Trucks; Water truck/Wagons (rated capacity) over 3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 10 cu. yds. and including 30 cu. yds. includes Articulated Dump Trucks; Self-Propelled Street Sweeper; Transit mix and wet or dry mix truck: over 7 cu yds. and including 11 cu yds.; Truck Mechanic-Welder-Body Repairman; Utility and Clean-up Truck; Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom dumps, including Semi-Trucks and Trains or combinations thereof: over 30 cu. yds. and including 50 cu. yds. includes Articulated Dump Trucks; Fire Guard; Transit Mix and Wet or Dry Mix Trucks, over 11 cu. yds. and including 15 cu. yds.; Water Wagon (rated capacity) over 10,000 gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 50 cu. yds. and including 60 cu. yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch concrete Mix Trucks; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains of combinations thereof: over 60 cu. yds. and including 80 cu. yds., and includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

* TEAM0174-001 06/01/2020

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

| | Rates | Fringes |
|----------------|----------|---------|
| Truck drivers: | | |
| ZONE A: | | |
| GROUP 1:..... | \$ 42.88 | 20.92 |
| GROUP 2:..... | \$ 42.04 | 20.92 |
| GROUP 3:..... | \$ 39.23 | 20.92 |
| GROUP 4:..... | \$ 34.26 | 20.92 |
| GROUP 5:..... | \$ 42.43 | 20.92 |

ZONE B (25-45 miles from center of listed cities*): Add \$.70 per hour to Zone A rates.

ZONE C (over 45 miles from centr of listed cities*): Add \$1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

| | | | |
|------------|---------------|------------|-----------|
| BELLINGHAM | CENTRALIA | RAYMOND | OLYMPIA |
| EVERETT | SHELTON | ANACORTES | BELLEVUE |
| SEATTLE | PORT ANGELES | MT. VERNON | KENT |
| TACOMA | PORT TOWNSEND | ABERDEEN | BREMERTON |

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - "A-frame or Hydralift" trucks and Boom trucks or similar equipment when "A" frame or "Hydralift" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series, Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards \$.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra, Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired)(when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by \$2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C: +\$.25 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B: +\$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."

LEVEL A: +\$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0690-004 01/01/2019

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

| | Rates | Fringes |
|---|----------|---------|
| Truck drivers: (AREA 1: SPOKANE ZONE CENTER: Adams, Chelan, Douglas, Ferry, Grant, Kittitas, Lincoln, Okanogan, Pen Oreille, Spokane, Stevens, and Whitman Counties | | |
| AREA 1: LEWISTON ZONE CENTER: Asotin, Columbia, and Garfield Counties | | |
| AREA 2: PASCO ZONE CENTER: Benton, Franklin, Walla Walla and Yakima Counties) | | |
| AREA 1: | | |
| GROUP 1..... | \$ 23.91 | 17.40 |
| GROUP 2..... | \$ 26.18 | 17.40 |
| GROUP 3..... | \$ 26.68 | 17.40 |
| GROUP 4..... | \$ 27.01 | 17.40 |
| GROUP 5..... | \$ 27.12 | 17.40 |
| GROUP 6..... | \$ 27.29 | 17.40 |
| GROUP 7..... | \$ 27.82 | 17.40 |
| GROUP 8..... | \$ 28.18 | 17.40 |
| AREA 2: | | |
| GROUP 1..... | \$ 26.05 | 17.40 |
| GROUP 2..... | \$ 28.69 | 17.40 |
| GROUP 3..... | \$ 28.80 | 17.40 |
| GROUP 4..... | \$ 29.13 | 17.40 |
| GROUP 5..... | \$ 29.24 | 17.40 |
| GROUP 6..... | \$ 29.24 | 17.40 |
| GROUP 7..... | \$ 29.78 | 17.40 |
| GROUP 8..... | \$ 30.10 | 17.40 |

Zone Differential (Add to Zone 1 rate: Zone 1 + \$2.00)

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: Outside 45 radius miles from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraulic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self-loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi-end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable operated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom end dump (over 40 yds. to & including 100 yds.); Truck Mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

Footnote A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C-D: - \$.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - \$1.00 PER HOUR (Uses supplied air in conjunction with a chemical splash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

NOTE:

Trucks Pulling Equipment Trailers: shall receive \$.15/hour over applicable truck rate

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the

classifications was union data. EXAMPLE: UAVG-OH-0010
08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

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: 11/12/2021

| <u>County</u> | <u>Trade</u> | <u>Job Classification</u> | <u>Wage</u> | <u>Holiday</u> | <u>Overtime</u> | <u>Note</u> | <u>*Risk Class</u> |
|---------------|-----------------------------------|---------------------------------------|-------------|----------------|-----------------|-------------|--------------------|
| King | <u>Asbestos Abatement Workers</u> | Journey Level | \$54.62 | <u>5D</u> | <u>1H</u> | | <u>View</u> |
| King | <u>Boilermakers</u> | Journey Level | \$70.79 | <u>5N</u> | <u>1C</u> | | <u>View</u> |
| King | <u>Brick Mason</u> | Journey Level | \$63.32 | <u>7E</u> | <u>1N</u> | | <u>View</u> |
| King | <u>Brick Mason</u> | Pointer-Caulker-Cleaner | \$63.32 | <u>7E</u> | <u>1N</u> | | <u>View</u> |
| King | <u>Building Service Employees</u> | Janitor | \$26.28 | <u>5S</u> | <u>2F</u> | | <u>View</u> |
| King | <u>Building Service Employees</u> | Traveling Waxer/Shampooer | \$26.63 | <u>5S</u> | <u>2F</u> | | <u>View</u> |
| King | <u>Building Service Employees</u> | Window Cleaner (Non-Scaffold) | \$29.98 | <u>5S</u> | <u>2F</u> | | <u>View</u> |
| King | <u>Building Service Employees</u> | Window Cleaner (Scaffold) | \$30.98 | <u>5S</u> | <u>2F</u> | | <u>View</u> |
| King | <u>Cabinet Makers (In Shop)</u> | Journey Level | \$22.74 | | <u>1</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Acoustical Worker | \$64.94 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Bridge, Dock And Wharf Carpenters | \$64.94 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Carpenter | \$64.94 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Carpenters on Stationary Tools | \$65.07 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Creosoted Material | \$65.07 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Floor Finisher | \$64.94 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Floor Layer | \$64.94 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Carpenters</u> | Scaffold Erector | \$64.94 | <u>7A</u> | <u>4C</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Application of all Composition Mastic | \$67.41 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Application of all Epoxy Material | \$66.91 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Application of all Plastic Material | \$67.41 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Application of Sealing Compound | \$66.91 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Application of Underlayment | \$67.41 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Building General | \$66.91 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Composition or Kalman Floors | \$67.41 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Concrete Paving | \$66.91 | <u>7A</u> | <u>4U</u> | | <u>View</u> |
| King | <u>Cement Masons</u> | Curb & Gutter Machine | \$67.41 | <u>7A</u> | <u>4U</u> | | <u>View</u> |

| | | | | | | | |
|------|--|---|----------|--------------------|--------------------|--------------------|----------------------|
| King | Cement Masons | Curb & Gutter, Sidewalks | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Curing Concrete | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Finish Colored Concrete | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Floor Grinding | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Floor Grinding/Polisher | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Green Concrete Saw, self-powered | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Grouting of all Plates | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Grouting of all Tilt-up Panels | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Gunite Nozzleman | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Hand Powered Grinder | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Journey Level | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Patching Concrete | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Pneumatic Power Tools | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Power Chipping & Brushing | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Sand Blasting Architectural Finish | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Screed & Rodding Machine | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Spackling or Skim Coat Concrete | \$66.91 | 7A | 4U | | View |
| King | Cement Masons | Troweling Machine Operator | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Troweling Machine Operator on Colored Slabs | \$67.41 | 7A | 4U | | View |
| King | Cement Masons | Tunnel Workers | \$67.41 | 7A | 4U | | View |
| King | Divers & Tenders | Bell/Vehicle or Submersible Operator (Not Under Pressure) | \$118.80 | 7A | 4C | | View |
| King | Divers & Tenders | Dive Supervisor/Master | \$81.98 | 7A | 4C | | View |
| King | Divers & Tenders | Diver | \$118.80 | 7A | 4C | 8V | View |
| King | Divers & Tenders | Diver On Standby | \$76.98 | 7A | 4C | | View |
| King | Divers & Tenders | Diver Tender | \$69.91 | 7A | 4C | | View |
| King | Divers & Tenders | Manifold Operator | \$69.91 | 7A | 4C | | View |
| King | Divers & Tenders | Manifold Operator Mixed Gas | \$74.91 | 7A | 4C | | View |
| King | Divers & Tenders | Remote Operated Vehicle Operator/Technician | \$69.91 | 7A | 4C | | View |
| King | Divers & Tenders | Remote Operated Vehicle Tender | \$65.19 | 7A | 4C | | View |
| King | Dredge Workers | Assistant Engineer | \$73.62 | 5D | 3F | | View |
| King | Dredge Workers | Assistant Mate (Deckhand) | \$73.05 | 5D | 3F | | View |
| King | Dredge Workers | Boatmen | \$73.62 | 5D | 3F | | View |
| King | Dredge Workers | Engineer Welder | \$75.03 | 5D | 3F | | View |
| King | Dredge Workers | Leverman, Hydraulic | \$76.53 | 5D | 3F | | View |
| King | Dredge Workers | Mates | \$73.62 | 5D | 3F | | View |
| King | Dredge Workers | Oiler | \$73.05 | 5D | 3F | | View |
| King | Drywall Applicator | Journey Level | \$67.54 | 5D | 1H | | View |
| King | Drywall Tapers | Journey Level | \$67.91 | 5P | 1E | | View |
| King | Electrical Fixture Maintenance Workers | Journey Level | \$33.19 | 5L | 1E | | View |
| King | Electricians - Inside | Cable Splicer | \$92.57 | 7C | 4E | | View |

| | | | | | | | |
|------|--|--|----------|---------------------|---------------------|--------------------|----------------------|
| King | Electricians - Inside | Cable Splicer (tunnel) | \$99.46 | 7C | 4E | | View |
| King | Electricians - Inside | Certified Welder | \$89.44 | 7C | 4E | | View |
| King | Electricians - Inside | Certified Welder (tunnel) | \$96.02 | 7C | 4E | | View |
| King | Electricians - Inside | Construction Stock Person | \$44.78 | 7C | 4E | | View |
| King | Electricians - Inside | Journey Level | \$86.30 | 7C | 4E | | View |
| King | Electricians - Inside | Journey Level (tunnel) | \$92.57 | 7C | 4E | | View |
| King | Electricians - Motor Shop | Journey Level | \$47.53 | 5A | 1B | | View |
| King | Electricians - Powerline Construction | Cable Splicer | \$82.39 | 5A | 4D | | View |
| King | Electricians - Powerline Construction | Certified Line Welder | \$75.64 | 5A | 4D | | View |
| King | Electricians - Powerline Construction | Groundperson | \$49.17 | 5A | 4D | | View |
| King | Electricians - Powerline Construction | Heavy Line Equipment Operator | \$75.64 | 5A | 4D | | View |
| King | Electricians - Powerline Construction | Journey Level Lineperson | \$75.64 | 5A | 4D | | View |
| King | Electricians - Powerline Construction | Line Equipment Operator | \$64.54 | 5A | 4D | | View |
| King | Electricians - Powerline Construction | Meter Installer | \$49.17 | 5A | 4D | 8W | View |
| King | Electricians - Powerline Construction | Pole Sprayer | \$75.64 | 5A | 4D | | View |
| King | Electricians - Powerline Construction | Powderperson | \$56.49 | 5A | 4D | | View |
| King | Electronic Technicians | Journey Level | \$55.32 | 7E | 1E | | View |
| King | Elevator Constructors | Mechanic | \$100.51 | 7D | 4A | | View |
| King | Elevator Constructors | Mechanic In Charge | \$108.53 | 7D | 4A | | View |
| King | Fabricated Precast Concrete Products | All Classifications - In-Factory Work Only | \$18.25 | 5B | 1R | | View |
| King | Fence Erectors | Fence Erector | \$46.29 | 7A | 4V | 8Y | View |
| King | Fence Erectors | Fence Laborer | \$46.29 | 7A | 4V | 8Y | View |
| King | Flaggers | Journey Level | \$46.29 | 7A | 4V | 8Y | View |
| King | Glaziers | Journey Level | \$72.41 | 7L | 1Y | | View |
| King | Heat & Frost Insulators And Asbestos Workers | Journey Level | \$82.02 | 15H | 11C | | View |
| King | Heating Equipment Mechanics | Journey Level | \$91.83 | 7F | 1E | | View |
| King | Hod Carriers & Mason Tenders | Journey Level | \$46.42 | 7A | 4V | 8Y | View |
| King | Industrial Power Vacuum Cleaner | Journey Level | \$13.69 | | 1 | | View |
| King | Inland Boatmen | Boat Operator | \$61.41 | 5B | 1K | | View |
| King | Inland Boatmen | Cook | \$56.48 | 5B | 1K | | View |
| King | Inland Boatmen | Deckhand | \$57.48 | 5B | 1K | | View |
| King | Inland Boatmen | Deckhand Engineer | \$58.81 | 5B | 1K | | View |
| King | Inland Boatmen | Launch Operator | \$58.89 | 5B | 1K | | View |
| King | Inland Boatmen | Mate | \$57.31 | 5B | 1K | | View |
| King | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Cleaner Operator, Foamer Operator | \$31.49 | | 1 | | View |
| King | Inspection/Cleaning/Sealing Of | Grout Truck Operator | \$13.69 | | 1 | | View |

| | | | | | | | |
|------|--|--|---------|--------------------|--------------------|--------------------|----------------------|
| | Sewer & Water Systems By Remote Control | | | | | | |
| King | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Head Operator | \$24.91 | | 1 | | View |
| King | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Technician | \$19.33 | | 1 | | View |
| King | Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control | Tv Truck Operator | \$20.45 | | 1 | | View |
| King | Insulation Applicators | Journey Level | \$64.94 | 7A | 4C | | View |
| King | Ironworkers | Journeyman | \$78.53 | 7N | 10 | | View |
| King | Laborers | Air, Gas Or Electric Vibrating Screed | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Airtrac Drill Operator | \$56.31 | 7A | 4V | 8Y | View |
| King | Laborers | Ballast Regular Machine | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Batch Weighman | \$46.29 | 7A | 4V | 8Y | View |
| King | Laborers | Brick Pavers | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Brush Cutter | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Brush Hog Feeder | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Burner | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Caisson Worker | \$56.31 | 7A | 4V | 8Y | View |
| King | Laborers | Carpenter Tender | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Cement Dumper-paving | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Cement Finisher Tender | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Change House Or Dry Shack | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Chipping Gun (30 Lbs. And Over) | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Chipping Gun (Under 30 Lbs.) | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Choker Setter | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Chuck Tender | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Clary Power Spreader | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Clean-up Laborer | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Concrete Dumper/Chute Operator | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Concrete Form Stripper | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Concrete Placement Crew | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Concrete Saw Operator/Core Driller | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Crusher Feeder | \$46.29 | 7A | 4V | 8Y | View |
| King | Laborers | Curing Laborer | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Demolition: Wrecking & Moving (Incl. Charred Material) | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Ditch Digger | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Diver | \$56.31 | 7A | 4V | 8Y | View |
| King | Laborers | Drill Operator (Hydraulic, Diamond) | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Dry Stack Walls | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Dump Person | \$54.62 | 7A | 4V | 8Y | View |

| | | | | | | | |
|------|--------------------------|---|---------|--------------------|--------------------|--------------------|----------------------|
| King | Laborers | Epoxy Technician | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Erosion Control Worker | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Faller & Bucker Chain Saw | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Fine Graders | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Firewatch | \$46.29 | 7A | 4V | 8Y | View |
| King | Laborers | Form Setter | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Gabian Basket Builders | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | General Laborer | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Grade Checker & Transit Person | \$46.42 | 7A | 4V | 8Y | View |
| King | Laborers | Grinders | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Grout Machine Tender | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Groutmen (Pressure) Including Post Tension Beams | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Guardrail Erector | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Hazardous Waste Worker (Level A) | \$56.31 | 7A | 4V | 8Y | View |
| King | Laborers | Hazardous Waste Worker (Level B) | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Hazardous Waste Worker (Level C) | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | High Scaler | \$56.31 | 7A | 4V | 8Y | View |
| King | Laborers | Jackhammer | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Laserbeam Operator | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Maintenance Person | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Manhole Builder-Mudman | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Material Yard Person | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Motorman-Dinky Locomotive | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster) | \$46.42 | 7A | 4V | 8Y | View |
| King | Laborers | Pavement Breaker | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Pilot Car | \$46.29 | 7A | 4V | 8Y | View |
| King | Laborers | Pipe Layer (Lead) | \$46.42 | 7A | 4V | 8Y | View |
| King | Laborers | Pipe Layer/Tailor | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Pipe Pot Tender | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Pipe Reliner | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Pipe Wrapper | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Pot Tender | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Powderman | \$56.31 | 7A | 4V | 8Y | View |
| King | Laborers | Powderman's Helper | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Power Jacks | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Railroad Spike Puller - Power | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Raker - Asphalt | \$46.42 | 7A | 4V | 8Y | View |
| King | Laborers | Re-timberman | \$56.31 | 7A | 4V | 8Y | View |
| King | Laborers | Remote Equipment Operator | \$55.62 | 7A | 4V | 8Y | View |

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|------|--------------------------|---|----------|--------------------|--------------------|--------------------|----------------------|
| King | Laborers | Rigger/Signal Person | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Rip Rap Person | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Rivet Buster | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Rodder | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Scaffold Erector | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Scale Person | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Sloper (Over 20") | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Sloper Sprayer | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Spreader (Concrete) | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Stake Hopper | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Stock Piler | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Swinging Stage/Boatswain Chair | \$46.29 | 7A | 4V | 8Y | View |
| King | Laborers | Tamper & Similar Electric, Air & Gas Operated Tools | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Tamper (Multiple & Self-propelled) | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Timber Person - Sewer (Lagger, Shorer & Cribber) | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Toolroom Person (at Jobsite) | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Topper | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Track Laborer | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Track Liner (Power) | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Traffic Control Laborer | \$49.50 | 7A | 4V | 9C | View |
| King | Laborers | Traffic Control Supervisor | \$52.45 | 7A | 4V | 9C | View |
| King | Laborers | Truck Spotter | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers | Tugger Operator | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 0-30 psi | \$142.82 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 30.01-44.00 psi | \$147.85 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 44.01-54.00 psi | \$151.53 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 54.01-60.00 psi | \$157.23 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 60.01-64.00 psi | \$159.35 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 64.01-68.00 psi | \$164.45 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 68.01-70.00 psi | \$166.35 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 70.01-72.00 psi | \$168.35 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Compressed Air Worker 72.01-74.00 psi | \$170.35 | 7A | 4V | 9B | View |
| King | Laborers | Tunnel Work-Guage and Lock Tender | \$57.41 | 7A | 4V | 8Y | View |
| King | Laborers | Tunnel Work-Miner | \$57.41 | 7A | 4V | 8Y | View |
| King | Laborers | Vibrator | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Vinyl Seamer | \$54.62 | 7A | 4V | 8Y | View |

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|------|--|---|----------|---------------------|---------------------|--------------------|----------------------|
| King | Laborers | Watchman | \$42.08 | 7A | 4V | 8Y | View |
| King | Laborers | Welder | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Well Point Laborer | \$55.62 | 7A | 4V | 8Y | View |
| King | Laborers | Window Washer/Cleaner | \$42.08 | 7A | 4V | 8Y | View |
| King | Laborers - Underground Sewer & Water | General Laborer & Topman | \$54.62 | 7A | 4V | 8Y | View |
| King | Laborers - Underground Sewer & Water | Pipe Layer | \$55.62 | 7A | 4V | 8Y | View |
| King | Landscape Construction | Landscape Construction/Landscaping Or Planting Laborers | \$42.08 | 7A | 4V | 8Y | View |
| King | Landscape Construction | Landscape Operator | \$72.28 | 7A | 3K | 8X | View |
| King | Landscape Maintenance | Groundskeeper | \$17.87 | | 1 | | View |
| King | Lathers | Journey Level | \$67.54 | 5D | 1H | | View |
| King | Marble Setters | Journey Level | \$63.32 | 7E | 1N | | View |
| King | Metal Fabrication (In Shop) | Fitter/Certified Welder | \$40.39 | 15I | 11E | | View |
| King | Metal Fabrication (In Shop) | General Laborer | \$28.86 | 15I | 11E | | View |
| King | Metal Fabrication (In Shop) | Mechanic | \$41.78 | 15I | 11E | | View |
| King | Metal Fabrication (In Shop) | Welder/Burner | \$37.64 | 15I | 11E | | View |
| King | Millwright | Journey Level | \$66.44 | 7A | 4C | | View |
| King | Modular Buildings | Cabinet Assembly | \$13.69 | | 1 | | View |
| King | Modular Buildings | Electrician | \$13.69 | | 1 | | View |
| King | Modular Buildings | Equipment Maintenance | \$13.69 | | 1 | | View |
| King | Modular Buildings | Plumber | \$13.69 | | 1 | | View |
| King | Modular Buildings | Production Worker | \$13.69 | | 1 | | View |
| King | Modular Buildings | Tool Maintenance | \$13.69 | | 1 | | View |
| King | Modular Buildings | Utility Person | \$13.69 | | 1 | | View |
| King | Modular Buildings | Welder | \$13.69 | | 1 | | View |
| King | Painters | Journey Level | \$47.70 | 6Z | 2B | | View |
| King | Pile Driver | Crew Tender | \$69.91 | 7A | 4C | | View |
| King | Pile Driver | Crew Tender/Technician | \$69.91 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI | \$80.76 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI | \$85.76 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI | \$89.76 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI | \$94.76 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI | \$97.26 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI | \$102.26 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - | \$104.26 | 7A | 4C | | View |

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|------|--|---|----------|--------------------|--------------------|--------------------|----------------------|
| | | Compressed Air Worker 68.01 - 70.00 PSI | | | | | |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI | \$106.26 | 7A | 4C | | View |
| King | Pile Driver | Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI | \$108.26 | 7A | 4C | | View |
| King | Pile Driver | Journey Level | \$65.19 | 7A | 4C | | View |
| King | Plasterers | Journey Level | \$64.14 | 7Q | 1R | | View |
| King | Plasterers | Nozzleman | \$67.64 | 7Q | 1R | | View |
| King | Playground & Park Equipment Installers | Journey Level | \$13.69 | | 1 | | View |
| King | Plumbers & Pipefitters | Journey Level | \$93.69 | 6Z | 1G | | View |
| King | Power Equipment Operators | Asphalt Plant Operators | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Assistant Engineer | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Barrier Machine (zipper) | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Batch Plant Operator: concrete | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Bobcat | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Brokk - Remote Demolition Equipment | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Brooms | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Bump Cutter | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cableways | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Chipper | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Compressor | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Concrete Finish Machine - Laser Screed | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Concrete Pump: Truck Mount With Boom Attachment Over 42 M | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Concrete Pump: Truck Mount With Boom Attachment Up To 42m | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Conveyors | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes friction: 200 tons and over | \$75.72 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments) | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes: 20 Tons Through 44 Tons With Attachments | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments | \$74.99 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes: 300 tons and over or 300' of boom including jib with attachments | \$75.72 | 7A | 3K | 8X | View |

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|------|---|--|---------|--------------------|--------------------|--------------------|----------------------|
| King | Power Equipment Operators | Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments) | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes: A-frame - 10 Tons And Under | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes: Friction cranes through 199 tons | \$74.99 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Cranes: through 19 tons with attachments, A-frame over 10 tons | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Crusher | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Deck Engineer/Deck Winches (power) | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Derricks, On Building Work | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Dozers D-9 & Under | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Drill Oilers: Auger Type, Truck Or Crane Mount | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Drilling Machine | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Elevator And Man-lift: Permanent And Shaft Type | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Finishing Machine, Bidwell And Gamaco & Similar Equipment | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Forklift: 3000 Lbs And Over With Attachments | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Forklifts: Under 3000 Lbs. With Attachments | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Grade Engineer: Using Blue Prints, Cut Sheets, Etc | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Gradechecker/Stakeman | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Guardrail Punch | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Horizontal/Directional Drill Locator | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Horizontal/Directional Drill Operator | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Hydralifts/Boom Trucks Over 10 Tons | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Hydralifts/Boom Trucks, 10 Tons And Under | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Loader, Overhead 8 Yards. & Over | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Loader, Overhead, 6 Yards. But Not Including 8 Yards | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Loaders, Overhead Under 6 Yards | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Loaders, Plant Feed | \$72.84 | 7A | 3K | 8X | View |

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| King | Power Equipment Operators | Loaders: Elevating Type Belt | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Locomotives, All | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Material Transfer Device | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic) | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Motor Patrol Graders | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Oil Distributors, Blower Distribution & Mulch Seeding Operator | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Outside Hoists (Elevators And Manlifts), Air Tuggers, Strato | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Overhead, Bridge Type Crane: 20 Tons Through 44 Tons | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Overhead, Bridge Type: 100 Tons And Over | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Overhead, Bridge Type: 45 Tons Through 99 Tons | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Pavement Breaker | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Pile Driver (other Than Crane Mount) | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Plant Oiler - Asphalt, Crusher | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Posthole Digger, Mechanical | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Power Plant | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Pumps - Water | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Quad 9, Hd 41, D10 And Over | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Quick Tower - No Cab, Under 100 Feet In Height Based To Boom | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Remote Control Operator On Rubber Tired Earth Moving Equipment | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Rigger and Bellman | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Rigger/Signal Person, Bellman (Certified) | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Rollagon | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Roller, Other Than Plant Mix | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Roller, Plant Mix Or Multi-lift Materials | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Roto-mill, Roto-grinder | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Saws - Concrete | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Scraper, Self Propelled Under 45 Yards | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Scrapers - Concrete & Carry All | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Scrapers, Self-propelled: 45 Yards And Over | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Service Engineers - Equipment | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Shotcrete/Gunite Equipment | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Shovel, Excavator, Backhoe, | \$72.28 | 7A | 3K | 8X | View |

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| | | Tractors Under 15 Metric Tons | | | | | |
| King | Power Equipment Operators | Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Shovel, Excavator, Backhoes: Over 90 Metric Tons | \$74.99 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Slipform Pavers | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Spreader, Topsider & Screedman | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Subgrader Trimmer | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Tower Bucket Elevators | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Tower Crane Up To 175' In Height Base To Boom | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Tower Crane: over 175' through 250' in height, base to boom | \$74.99 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Tower Cranes: over 250' in height from base to boom | \$75.72 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Transporters, All Track Or Truck Type | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Trenching Machines | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Truck Crane Oiler/driver - 100 Tons And Over | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Truck Crane Oiler/Driver Under 100 Tons | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Truck Mount Portable Conveyor | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Welder | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Wheel Tractors, Farmall Type | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators | Yo Yo Pay Dozer | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Asphalt Plant Operators | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Assistant Engineer | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Barrier Machine (zipper) | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Batch Plant Operator, Concrete | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Bobcat | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Brokk - Remote Demolition Equipment | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Brooms | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Bump Cutter | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Cableways | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- Underground Sewer & Water | Chipper | \$72.84 | 7A | 3K | 8X | View |

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| | <u>Underground Sewer & Water</u> | | | | | | |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Compressor | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Concrete Finish Machine - Laser Screed | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Concrete Pump: Truck Mount With Boom Attachment Over 42 M | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Concrete Pump: Truck Mount With Boom Attachment Up To 42m | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Conveyors | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes friction: 200 tons and over | \$75.72 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments) | \$74.22 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: 20 Tons Through 44 Tons With Attachments | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments | \$74.99 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: 300 tons and over or 300' of boom including jib with attachments | \$75.72 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments) | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: A-frame - 10 Tons And Under | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: Friction cranes through 199 tons | \$74.99 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Cranes: through 19 tons with attachments, A-frame over 10 tons | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Crusher | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Deck Engineer /Deck Winches (power) | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Derricks, On Building Work | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Dozers D-9 & Under | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Drill Oilers: Auger Type, Truck Or Crane Mount | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Drilling Machine | \$74.22 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-</u> | Elevator And Man-lift: | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |

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|------|---|--|---------|-----------|-----------|-----------|-------------|
| | <u>Underground Sewer & Water</u> | Permanent And Shaft Type | | | | | |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Finishing Machine, Bidwell And Gamaco & Similar Equipment | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Forklift: 3000 Lbs And Over With Attachments | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Forklifts: Under 3000 Lbs. With Attachments | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Grade Engineer: Using Blue Prints, Cut Sheets, Etc | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Gradechecker/Stakeman | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Guardrail Punch | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Horizontal/Directional Drill Locator | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Horizontal/Directional Drill Operator | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Hydralifts/Boom Trucks Over 10 Tons | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Hydralifts/Boom Trucks, 10 Tons And Under | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Loader, Overhead 8 Yards. & Over | \$74.22 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Loader, Overhead, 6 Yards. But Not Including 8 Yards | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Loaders, Overhead Under 6 Yards | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Loaders, Plant Feed | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Loaders: Elevating Type Belt | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Locomotives, All | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Material Transfer Device | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic) | \$74.22 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Motor Patrol Graders | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Oil Distributors, Blower Distribution & Mulch Seeding Operator | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators- Underground Sewer & Water</u> | Outside Hoists (Elevators And Manlifts), Air Tuggers, Strato | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |

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|------|---|--|---------|--------------------|--------------------|--------------------|----------------------|
| King | Power Equipment Operators-Underground Sewer & Water | Overhead, Bridge Type Crane: 20 Tons Through 44 Tons | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Overhead, Bridge Type: 100 Tons And Over | \$74.22 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Overhead, Bridge Type: 45 Tons Through 99 Tons | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Pavement Breaker | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Pile Driver (other Than Crane Mount) | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Plant Oiler - Asphalt, Crusher | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Posthole Digger, Mechanical | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Power Plant | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Pumps - Water | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Quad 9, Hd 41, D10 And Over | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Quick Tower - No Cab, Under 100 Feet In Height Based To Boom | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Remote Control Operator On Rubber Tired Earth Moving Equipment | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Rigger and Bellman | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Rigger/Signal Person, Bellman (Certified) | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Rollagon | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Roller, Other Than Plant Mix | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Roller, Plant Mix Or Multi-lift Materials | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Roto-mill, Roto-grinder | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Saws - Concrete | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Scraper, Self Propelled Under 45 Yards | \$72.84 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Scrapers - Concrete & Carry All | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Scrapers, Self-propelled: 45 Yards And Over | \$73.49 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Service Engineers - Equipment | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Shotcrete/Gunite Equipment | \$69.12 | 7A | 3K | 8X | View |
| King | Power Equipment Operators-Underground Sewer & Water | Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons | \$72.28 | 7A | 3K | 8X | View |
| King | Power Equipment Operators- | Shovel, Excavator, Backhoe: | \$73.49 | 7A | 3K | 8X | View |

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| | <u>Underground Sewer & Water</u> | Over 30 Metric Tons To 50 Metric Tons | | | | | |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons | \$74.22 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Shovel, Excavator, Backhoes: Over 90 Metric Tons | \$74.99 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Slipform Pavers | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Spreader, Topsider & Screedman | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Subgrader Trimmer | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Tower Bucket Elevators | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Tower Crane Up To 175' In Height Base To Boom | \$74.22 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Tower Crane: over 175' through 250' in height, base to boom | \$74.99 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Tower Cranes: over 250' in height from base to boom | \$75.72 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Transporters, All Track Or Truck Type | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Trenching Machines | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Truck Crane Oiler/driver - 100 Tons And Over | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Truck Crane Oiler/Driver Under 100 Tons | \$72.28 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Truck Mount Portable Conveyor | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Welder | \$73.49 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Wheel Tractors, Farmall Type | \$69.12 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Equipment Operators-Underground Sewer & Water</u> | Yo Yo Pay Dozer | \$72.84 | <u>7A</u> | <u>3K</u> | <u>8X</u> | <u>View</u> |
| King | <u>Power Line Clearance Tree Trimmers</u> | Journey Level In Charge | \$55.03 | <u>5A</u> | <u>4A</u> | | <u>View</u> |
| King | <u>Power Line Clearance Tree Trimmers</u> | Spray Person | \$52.24 | <u>5A</u> | <u>4A</u> | | <u>View</u> |
| King | <u>Power Line Clearance Tree Trimmers</u> | Tree Equipment Operator | \$55.03 | <u>5A</u> | <u>4A</u> | | <u>View</u> |
| King | <u>Power Line Clearance Tree Trimmers</u> | Tree Trimmer | \$49.21 | <u>5A</u> | <u>4A</u> | | <u>View</u> |
| King | <u>Power Line Clearance Tree Trimmers</u> | Tree Trimmer Groundperson | \$37.47 | <u>5A</u> | <u>4A</u> | | <u>View</u> |
| King | <u>Refrigeration & Air Conditioning Mechanics</u> | Journey Level | \$88.51 | <u>6Z</u> | <u>1G</u> | | <u>View</u> |
| King | <u>Residential Brick Mason</u> | Journey Level | \$63.32 | <u>7E</u> | <u>1N</u> | | <u>View</u> |
| King | <u>Residential Carpenters</u> | Journey Level | \$36.44 | | <u>1</u> | | <u>View</u> |

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| King | Residential Cement Masons | Journey Level | \$46.64 | | 1 | View |
| King | Residential Drywall Applicators | Journey Level | \$64.94 | 7A | 4C | View |
| King | Residential Drywall Tapers | Journey Level | \$36.36 | | 1 | View |
| King | Residential Electricians | Journey Level | \$48.80 | | 1 | View |
| King | Residential Glaziers | Journey Level | \$28.93 | | 1 | View |
| King | Residential Insulation Applicators | Journey Level | \$28.18 | | 1 | View |
| King | Residential Laborers | Journey Level | \$29.73 | | 1 | View |
| King | Residential Marble Setters | Journey Level | \$27.38 | | 1 | View |
| King | Residential Painters | Journey Level | \$23.47 | | 1 | View |
| King | Residential Plumbers & Pipefitters | Journey Level | \$93.69 | 6Z | 1G | View |
| King | Residential Refrigeration & Air Conditioning Mechanics | Journey Level | \$88.51 | 6Z | 1G | View |
| King | Residential Sheet Metal Workers | Journey Level | \$91.83 | 7F | 1E | View |
| King | Residential Soft Floor Layers | Journey Level | \$51.91 | 5A | 3J | View |
| King | Residential Sprinkler Fitters (Fire Protection) | Journey Level | \$53.04 | 5C | 2R | View |
| King | Residential Stone Masons | Journey Level | \$63.32 | 7E | 1N | View |
| King | Residential Terrazzo Workers | Journey Level | \$57.71 | 7E | 1N | View |
| King | Residential Terrazzo/Tile Finishers | Journey Level | \$24.39 | | 1 | View |
| King | Residential Tile Setters | Journey Level | \$21.04 | | 1 | View |
| King | Roofers | Journey Level | \$57.30 | 5A | 3H | View |
| King | Roofers | Using Irritable Bituminous Materials | \$60.30 | 5A | 3H | View |
| King | Sheet Metal Workers | Journey Level (Field or Shop) | \$91.83 | 7F | 1E | View |
| King | Shipbuilding & Ship Repair | New Construction Boilermaker | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Carpenter | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Crane Operator | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Electrician | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Heat & Frost Insulator | \$82.02 | 15H | 11C | View |
| King | Shipbuilding & Ship Repair | New Construction Laborer | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Machinist | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Operating Engineer | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Painter | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Pipefitter | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Rigger | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Sheet Metal | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Shipfitter | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Warehouse/Teamster | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | New Construction Welder / Burner | \$39.58 | 7V | 1 | View |
| King | Shipbuilding & Ship Repair | Ship Repair Boilermaker | \$47.45 | 7X | 4J | View |

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|------|---|--------------------------------------|---------|---------------------|---------------------|--------------------|----------------------|
| King | Shipbuilding & Ship Repair | Ship Repair Carpenter | \$47.35 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Crane Operator | \$45.06 | 7Y | 4K | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Electrician | \$47.42 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Heat & Frost Insulator | \$82.02 | 15H | 11C | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Laborer | \$47.35 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Machinist | \$47.35 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Operating Engineer | \$45.06 | 7Y | 4K | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Painter | \$47.35 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Pipefitter | \$47.35 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Rigger | \$47.45 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Sheet Metal | \$47.35 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Shipwright | \$47.35 | 7X | 4J | | View |
| King | Shipbuilding & Ship Repair | Ship Repair Warehouse / Teamster | \$45.06 | 7Y | 4K | | View |
| King | Sign Makers & Installers (Electrical) | Journey Level | \$51.56 | 0 | 1 | | View |
| King | Sign Makers & Installers (Non-Electrical) | Journey Level | \$33.20 | 0 | 1 | | View |
| King | Soft Floor Layers | Journey Level | \$51.91 | 5A | 3J | | View |
| King | Solar Controls For Windows | Journey Level | \$13.69 | | 1 | | View |
| King | Sprinkler Fitters (Fire Protection) | Journey Level | \$87.99 | 5C | 1X | | View |
| King | Stage Rigging Mechanics (Non Structural) | Journey Level | \$13.69 | | 1 | | View |
| King | Stone Masons | Journey Level | \$63.32 | 7E | 1N | | View |
| King | Street And Parking Lot Sweeper Workers | Journey Level | \$19.09 | | 1 | | View |
| King | Surveyors | Assistant Construction Site Surveyor | \$72.28 | 7A | 3K | 8X | View |
| King | Surveyors | Chainman | \$69.12 | 7A | 3K | 8X | View |
| King | Surveyors | Construction Site Surveyor | \$73.49 | 7A | 3K | 8X | View |
| King | Telecommunication Technicians | Journey Level | \$55.32 | 7E | 1E | | View |
| King | Telephone Line Construction - Outside | Cable Splicer | \$38.27 | 5A | 2B | | View |
| King | Telephone Line Construction - Outside | Hole Digger/Ground Person | \$25.66 | 5A | 2B | | View |
| King | Telephone Line Construction - Outside | Telephone Equipment Operator (Light) | \$31.96 | 5A | 2B | | View |
| King | Telephone Line Construction - Outside | Telephone Lineperson | \$36.17 | 5A | 2B | | View |
| King | Terrazzo Workers | Journey Level | \$57.71 | 7E | 1N | | View |
| King | Tile Setters | Journey Level | \$57.71 | 7E | 1N | | View |
| King | Tile, Marble & Terrazzo Finishers | Finisher | \$48.54 | 7E | 1N | | View |
| King | Traffic Control Stripers | Journey Level | \$50.51 | 7A | 1K | | View |
| King | Truck Drivers | Asphalt Mix Over 16 Yards | \$64.55 | 5D | 4Y | 8L | View |
| King | Truck Drivers | Asphalt Mix To 16 Yards | \$63.71 | 5D | 4Y | 8L | View |
| King | Truck Drivers | Dump Truck | \$63.71 | 5D | 4Y | 8L | View |
| King | Truck Drivers | Dump Truck & Trailer | \$64.55 | 5D | 4Y | 8L | View |

| | | | | | | | |
|------|--|---------------------------|---------|--------------------|--------------------|--------------------|----------------------|
| King | Truck Drivers | Other Trucks | \$64.55 | 5D | 4Y | 8L | View |
| King | Truck Drivers - Ready Mix | Transit Mix | \$64.55 | 5D | 4Y | 8L | View |
| King | Well Drillers & Irrigation Pump Installers | Irrigation Pump Installer | \$17.71 | | 1 | | View |
| King | Well Drillers & Irrigation Pump Installers | Oiler | \$13.69 | | 1 | | View |
| King | Well Drillers & Irrigation Pump Installers | Well Driller | \$18.00 | | 1 | | View |

DAHP INDEPENDENT DISCOVERY PLAN

CITY OF FEDERAL WAY

**LAKOTA SRTS
PROJECT #204 / RFB #21-003**



INADVERTENT DISCOVERY PLAN PLAN AND PROCEDURES FOR THE DISCOVERY OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

To request ADA accommodation, including materials in a format for the visually impaired, call Ecology at 360-407-6000 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with a speech disability may call TTY at 877-833-6341.

Site Name(s):

Location:

Project Lead/Organization:

County:

If this Inadvertent Discovery Plan (IDP) is for multiple (batched) projects, ensure the location information covers all project areas.

1. INTRODUCTION

The IDP outlines procedures to perform in the event of a discovery of archaeological materials or human remains, in accordance with applicable state and federal laws. An IDP is required, as part of Agency Terms and Conditions for all grants and loans, for any project that creates disturbance above or below the ground. An IDP is not a substitute for a formal cultural resource review (Executive 05-05 or Section 106).

Once completed, **the IDP should always be kept at the project site** during all project activities. All staff, contractors, and volunteers should be familiar with its contents and know where to find it.

2. CULTURAL RESOURCE DISCOVERIES

A cultural resource discovery could be prehistoric or historic. Examples include (see images for further examples):

- An accumulation of shell, burned rocks, or other food related materials.
- Bones, intact or in small pieces.
- An area of charcoal or very dark stained soil with artifacts.
- Stone tools or waste flakes (for example, an arrowhead or stone chips).
- Modified or stripped trees, often cedar or aspen, or other modified natural features, such as rock drawings.
- Agricultural or logging materials that appear older than 50 years. These could include equipment, fencing, canals, spillways, chutes, derelict sawmills, tools, and many other items.
- Clusters of tin cans or bottles, or other debris that appear older than 50 years.
- Old munitions casings. **Always assume these are live and never touch or move.**
- Buried railroad tracks, decking, foundations, or other industrial materials.
- Remnants of homesteading. These could include bricks, nails, household items, toys, food containers, and other items associated with homes or farming sites.

The above list does not cover every possible cultural resource. When in doubt, assume the material is a cultural resource.

3. ON-SITE RESPONSIBILITIES

If any employee, contractor, or subcontractor believes that they have uncovered cultural resources or human remains at any point in the project, take the following steps to **Stop-Protect-Notify**. **If you suspect that the discovery includes human remains, also follow Sections 5 and 6.**

STEP A: Stop Work.

All work must stop immediately in the vicinity of the discovery.

STEP B: Protect the Discovery.

Leave the discovery and the surrounding area untouched and create a clear, identifiable, and wide boundary (30 feet or larger) with temporary fencing, flagging, stakes, or other clear markings. Provide protection and ensure integrity of the discovery until cleared by the Department of Archaeological and Historical Preservation (DAHP) or a licensed, professional archaeologist.

Do not permit vehicles, equipment, or unauthorized personnel to traverse the discovery site. Do not allow work to resume within the boundary until the requirements of this IDP are met.

STEP C: Notify Project Archaeologist (if applicable).

If the project has an archaeologist, notify that person. If there is a monitoring plan in place, the archaeologist will follow the outlined procedure.

STEP D: Notify Project and Washington Department of Ecology (Ecology) contacts.

Project Lead Contacts

Primary Contact

Name:

Phone:

Email:

Alternate Contact

Name:

Phone:

Email:

Ecology Contacts (completed by Ecology Project Manager)

Ecology Project Manager

Name:

Program:

Phone:

Email:

Alternate or Cultural Resource Contact

Name:

Program:

Phone:

Email:

STEP E: Ecology will notify DAHP.

Once notified, the Ecology Cultural Resource Contact or the Ecology Project Manager will contact DAHP to report and confirm the discovery. To avoid delay, the Project Lead/Organization will contact DAHP if they are not able to reach Ecology.

DAHP will provide the steps to assist with identification. DAHP, Ecology, and Tribal representatives may coordinate a site visit following any necessary safety protocols. DAHP may also inform the Project Lead/Organization and Ecology of additional steps to further protect the site.

Do not continue work until DAHP has issued an approval for work to proceed in the area of, or near, the discovery.

DAHP Contacts:

Name: Rob Whitlam, PhD
Title: State Archaeologist
Cell: 360-890-2615
Email: Rob.Whitlam@dahp.wa.gov
Main Office: 360-586-3065

Human Remains/Bones:

Name: Guy Tasa, PhD
Title: State Anthropologist
Cell: 360-790-1633 (24/7)
Email: Guy.Tasa@dahp.wa.gov

4. TRIBAL CONTACTS

In the event cultural resources are discovered, the following tribes will be contacted. See Section 10 for Additional Resources.

| | |
|--------|--------|
| Tribe: | Tribe: |
| Name: | Name: |
| Title: | Title: |
| Phone: | Phone: |
| Email: | Email: |
| Tribe: | Tribe: |
| Name: | Name: |
| Title: | Title: |
| Phone: | Phone: |
| Email: | Email: |

Please provide contact information for additional tribes within your project area, if needed, in Section 11.

5. FURTHER CONTACTS (if applicable)

If the discovery is confirmed by DAHP as a cultural or archaeological resource, or as human remains, and there is a partnering federal or state agency, Ecology or the Project Lead/Organization will ensure the partnering agency is immediately notified.

Federal Agency:

Agency:

Name:

Title:

Phone:

Email:

State Agency:

Agency

Name:

Title:

Phone:

Email:

6. SPECIAL PROCEDURES FOR THE DISCOVERY OF HUMAN SKELETAL MATERIAL

Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect. Follow the steps under **Stop-Protect-Notify**. For specific instructions on how to handle a human remains discovery, see: [RCW 68.50.645: Skeletal human remains—Duty to notify—Ground disturbing activities—Coroner determination—Definitions](#).

Suggestion: If you are unsure whether the discovery is human bone or not, contact Guy Tasa with DAHP, for identification and next steps. Do not pick up the discovery.

Guy Tasa, PhD State Physical Anthropologist

Guy.Tasa@dahp.wa.gov

(360) 790-1633 (Cell/Office)

For discoveries that are confirmed or suspected human remains, follow these steps:

1. Notify law enforcement and the Medical Examiner/Coroner using the contacts below. **Do not call 911** unless it is the only number available to you.

Enter contact information below (required):

- Local Medical Examiner or Coroner name and phone:
 - Local Law Enforcement main name and phone:
 - Local Non-Emergency phone number (911 if without a non-emergency number):
2. The Medical Examiner/Coroner (with assistance of law enforcement personnel) will determine if the remains are human or if the discovery site constitutes a crime scene and will notify DAHP.
 3. **DO NOT speak with the media, allow photography or disturbance of the remains, or release any information about the discovery on social media.**
 4. If the remains are determined to be non-forensic, Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection and to shield them from being photographed by others or disturbed.

Further activities:

- Per [RCW 27.44.055](#), [RCW 68.50](#), and [RCW 68.60](#), DAHP will have jurisdiction over non-forensic human remains. Ecology staff will participate in consultation. Organizations may also participate in consultation.
- Documentation of human skeletal remains and funerary objects will be agreed upon through the consultation process described in [RCW 27.44.055](#), [RCW 68.50](#), and [RCW 68.60](#).
- When consultation and documentation activities are complete, work in the discovery area may resume as described in Section 8.

If the project occurs on federal lands (such as a national forest or park or a military reservation) the provisions of the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) apply and the responsible federal agency will follow its provisions. Note that state highways that cross federal lands are on an easement and are not owned by the state.

If the project occurs on non-federal lands, the Project Lead/Organization will comply with applicable state and federal laws, and the above protocol.

7. DOCUMENTATION OF ARCHAEOLOGICAL MATERIALS

Archaeological resources discovered during construction are protected by state law [RCW 27.56](#) and assumed eligible for inclusion in the National Register of Historic Places under Criterion D until a formal Determination of Eligibility is made.

The Project Lead/Organization must ensure that proper documentation and field assessment are made of all discovered cultural resources in cooperation with all parties: the federal agencies (if any), DAHP, Ecology, affected tribes, and the archaeologist.

The archaeologist will record all prehistoric and historic cultural material discovered during project construction on a standard DAHP archaeological site or isolate inventory form. They will photograph site overviews, features, and artifacts and prepare stratigraphic profiles and soil/sediment descriptions for minimal subsurface exposures. They will document discovery locations on scaled site plans and site location maps.

Cultural features, horizons, and artifacts detected in buried sediments may require the archaeologist to conduct further evaluation using hand-dug test units. They will excavate units in a controlled fashion to expose features, collect samples from undisturbed contexts, or to interpret complex stratigraphy. They may also use a test unit or trench excavation to determine if an intact occupation surface is present. They will only use test units when necessary to gather information on the nature, extent, and integrity of subsurface cultural deposits to evaluate the site's significance. They will conduct excavations using standard archaeological techniques to precisely document the location of cultural deposits, artifacts, and features.

The archaeologist will record spatial information, depth of excavation levels, natural and cultural stratigraphy, presence or absence of cultural material, and depth to sterile soil, regolith, or bedrock for each unit on a standard form. They will complete test excavation unit level forms, which will include plan maps for each excavation level and artifact counts and material types, number, and vertical provenience (depth below

surface and stratum association where applicable) for all recovered artifacts. They will draw a stratigraphic profile for at least one wall of each test excavation unit.

The archaeologist will screen sediments excavated for purposes of cultural resources investigation through 1/8-inch mesh, unless soil conditions warrant 1/4-inch mesh.

The archaeologist will analyze, catalogue, and temporarily curate all prehistoric and historic artifacts collected from the surface and from probes and excavation units. The ultimate disposition of cultural materials will be determined in consultation with the federal agencies (if any), DAHP, Ecology, and the affected tribe(s).

Within 90 days of concluding fieldwork, the archaeologist will provide a technical report describing any and all monitoring and resultant archaeological excavations to the Project Lead/Organization, who will forward the report to Ecology, the federal agencies (if any), DAHP, and the affected tribe(s) for review and comment.

If assessment activities expose human remains (burials, isolated teeth, or bones), the archaeologist and Project Lead/Organization will follow the process described in **Section 6**.

8. PROCEEDING WITH WORK

The Project Lead/Organization shall work with the archaeologist, DAHP, and affected tribe(s) to determine the appropriate discovery boundary and where work can continue.

Work may continue at the discovery location only after the process outlined in this plan is followed and the Project Lead/Organization, DAHP, any affected tribe(s), Ecology, and the federal agencies (if any) determine that compliance with state and federal laws is complete.

9. ORGANIZATION RESPONSIBILITY

The Project Lead/Organization is responsible for ensuring:

- This IDP has complete and accurate information.
- This IDP is immediately available to all field staff at the sites and available by request to any party.
- This IDP is implemented to address any discovery at the site.
- That all field staff, contractors, and volunteers are instructed on how to implement this IDP.

10. ADDITIONAL RESOURCES

Informative Video

Ecology recommends that all project staff, contractors, and volunteers view this informative video explaining the value of IDP protocol and what to do in the event of a discovery. The target audience is anyone working on the project who could unexpectedly find cultural resources or human remains while excavating or digging. The video is also posted on DAHP's inadvertent discovery language website.

[Ecology's IDP Video](https://www.youtube.com/watch?v=ioX-4cXfbDY) (<https://www.youtube.com/watch?v=ioX-4cXfbDY>)

Informational Resources

[DAHP \(https://dahp.wa.gov\)](https://dahp.wa.gov)

[Washington State Archeology \(DAHP 2003\)](https://dahp.wa.gov/sites/default/files/Field%20Guide%20to%20WA%20Arch_0.pdf)

[\(https://dahp.wa.gov/sites/default/files/Field%20Guide%20to%20WA%20Arch_0.pdf\)](https://dahp.wa.gov/sites/default/files/Field%20Guide%20to%20WA%20Arch_0.pdf)

[Association of Washington Archaeologists \(https://www.archaeologyinwashington.com\)](https://www.archaeologyinwashington.com)

Potentially Interested Tribes

[Interactive Map of Tribes by Area](https://dahp.wa.gov/archaeology/tribal-consultation-information)

[\(https://dahp.wa.gov/archaeology/tribal-consultation-information\)](https://dahp.wa.gov/archaeology/tribal-consultation-information)

[WSDOT Tribal Contact Website](https://wsdot.wa.gov/tribal/TribalContacts.htm)

[\(https://wsdot.wa.gov/tribal/TribalContacts.htm\)](https://wsdot.wa.gov/tribal/TribalContacts.htm)

11. ADDITIONAL INFORMATION

Please add any additional contact information or other information needed within this IDP.

Implement the IDP if you see...

Chipped stone artifacts.

Examples are:

- Glass-like material.
- Angular material.
- “Unusual” material or shape for the area.
- Regularity of flaking.
- Variability of size.



Stone artifacts from Oregon.



Stone artifacts from Washington.



Biface-knife, scraper, or pre-form found in NE Washington. Thought to be a well knapped object of great antiquity. Courtesy of Methow Salmon Rec. Foundation.

Implement the IDP if you see...

Ground stone artifacts.

Examples are:

- Unusual or unnatural shapes or unusual stone.
- Striations or scratching.
- Etching, perforations, or pecking.
- Regularity in modifications.
- Variability of size, function, or complexity.



Above: Fishing Weight - credit [CRITFC Treaty Fishing Rights website](#).



Artifacts from unknown locations (left and right images).



Implement the IDP if you see...

Bone or shell artifacts, tools, or beads.

Examples are:

- Smooth or carved materials.
- Unusual shape.
- Pointed as if used as a tool.
- Wedge shaped like a “shoehorn”.
- Variability of size.
- Beads from shell (‘dentalium’) or tusk.



Upper Left: Bone Awls from Oregon.

Upper Center: Bone Wedge from California.

Upper Right: Plateau dentalium choker and bracelet, from Nez Perce National Historical Park, 19th century, made using Antalis pretiosa shells Credit: Nez Perce - Nez Perce National Historical Park, NEPE 8762, [Public Domain](#).

Above: Tooth Pendants. Right: Bone Pendants. Both from Oregon and Washington.



Implement the IDP if you see...

Culturally modified trees, fiber, or wood artifacts.

Examples are:

- Trees with bark stripped or peeled, carvings, axe cuts, de-limbing, wood removal, and other human modifications.
- Fiber or wood artifacts in a wet environment.
- Variability of size, function, and complexity.



Left and Below: *Culturally modified tree and an old carving on an aspen (Courtesy of DAHP).*

Right, Top to Bottom: *Artifacts from Mud Bay, Olympia: Toy war club, two strand cedar rope, wet basketry.*



Implement the IDP if you see...

Strange, different, or interesting looking dirt, rocks, or shells.

Human activities leave traces in the ground that may or may not have artifacts associated with them. Examples are:

- “Unusual” accumulations of rock (especially fire-cracked rock).
- “Unusual” shaped accumulations of rock (such as a shape similar to a fire ring).
- Charcoal or charcoal-stained soils, burnt-looking soils, or soil that has a “layer cake” appearance.
- Accumulations of shell, bones, or artifacts. Shells may be crushed.
- Look for the “unusual” or out of place (for example, rock piles in areas with otherwise few rocks).



Shell Midden pocket in modern fill discovered in sewer trench.



Underground oven. Courtesy of DAHP.

Shell midden with fire cracked rock.



Hearth excavated near Hamilton, WA.

Implement the IDP if you see...

Historic period artifacts (historic archaeology considered older than 50 years).

Examples are:

- Agricultural or logging equipment. May include equipment, fencing, canals, spillways, chutes, derelict sawmills, tools, etc.
- Domestic items including square or wire nails, amethyst colored glass, or painted stoneware.



Left: Top to Bottom: *Willow pattern serving bowl and slip joint pocket knife discovered during Seattle Smith Cove shantytown (45-KI-1200) excavation.*



Right: *Collections of historic artifacts discovered during excavations in eastern Washington cities.*



Implement the IDP if you see...

Historic period artifacts (historic archaeology considered older than 50 years).

Examples are:

- Railway tokens, coins, and buttons.
- Spectacles, toys, clothing, and personal items.
- Items helping to understand a culture or identity.
- Food containers and dishware.



Main Image: *Dishes, bottles, workboot found at the North Shore Japanese bath house (ofuro) site, Courtesy Bob Muckle, Archaeologist, Capilano University, B.C. This is an example of an above ground resource.*



Right, from Top to Bottom: *Coins, token, spectacles and Montgomery Ward pitchfork toy discovered during Seattle Smith Cove shantytown (45-KI-1200) excavation.*



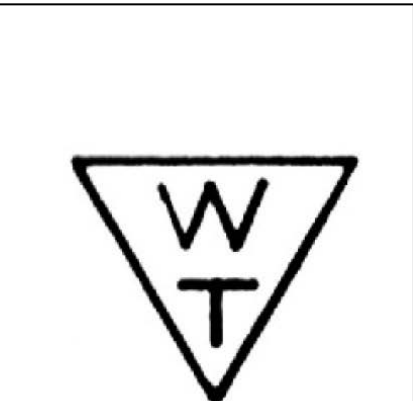
Implement the IDP if you see...

- Old munition casings – if you see ammunition of any type – ***always assume they are live and never touch or move!***
- Tin cans or glass bottles with an older manufacturer's technique – maker's mark, distinct colors such as turquoise, or an older method of opening the container.



Far Left: .303 British cartridge found by a WCC planting crew on Skagit River. Don't ever touch something like this!
Left: Maker's mark on bottom of old bottle.

Right: Old beer can found in Oregon. ACME was owned by Olympia Brewery. Courtesy of Heather Simmons.



Logo employed by Whithall Tatum & Co. between 1924 to 1938 (Lockhart et al. 2016).



Can opening dates, courtesy of W.M. Schroeder.

Implement the IDP if you see...

You see historic foundations or buried structures.

Examples are:

- Foundations.
- Railroad and trolley tracks.
- Remnants of structures.



Counter Clockwise, Left to Right: *Historic structure 45KI924, in WSDOT right of way for SR99 tunnel. Remnants of Smith Cove shantytown (45-KI-1200) discovered during Ecology CSO excavation, City of Spokane historic trolley tracks uncovered during stormwater project, intact foundation of historic home that survived the Great Ellensburg Fire of July 4, 1889, uncovered beneath parking lot in Ellensburg.*

Implement the IDP if you see...

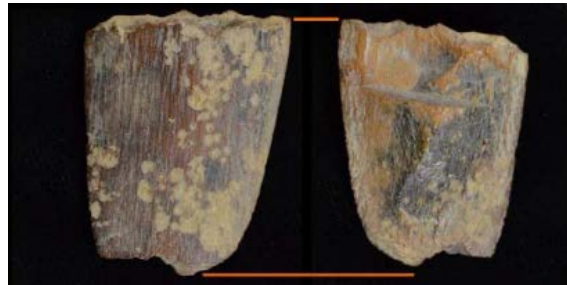
Potential human remains.

Examples are:

- Grave headstones that appear to be older than 50 years.
- Bones or bone tools--intact or in small pieces. It can be difficult to differentiate animal from human so they must be identified by an expert.
- These are all examples of animal bones and are not human.

Center: *Bone wedge tool, courtesy of Smith Cove Shantytown excavation (45KI1200).*

Other images (Top Right, Bottom Left, and Bottom) Center: Courtesy of DAHP.



Directly Above: This is a real discovery at an Ecology sewer project site.

What would you do if you found these items at a site? Who would be the first person you would call?

Hint: Read the plan!

NPDES CSWGP

CITY OF FEDERAL WAY

**LAKOTA SRTS
PROJECT #204 / RFB #21-003**

Issuance Date: November 18, 2020
Effective Date: January 1, 2021
Expiration Date: December 31, 2025

CONSTRUCTION STORMWATER GENERAL PERMIT

National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge
General Permit for Stormwater Discharges Associated with Construction Activity

State of Washington
Department of Ecology
Olympia, Washington 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)
and
Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

Until this permit expires, is modified, or revoked, Permittees that have properly
obtained coverage under this general permit are authorized to discharge in accordance
with the special and general conditions that follow.



Vincent McGowan, P.E.
Water Quality Program Manager
Washington State Department of Ecology

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SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

Table 1 Summary of Required Submittals

| Permit Section | Submittal | Frequency | First Submittal Date |
|---|---|----------------|---|
| S5.A and S8 | High Turbidity/Transparency Phone Reporting | As Necessary | Within 24 hours |
| S5.B | Discharge Monitoring Report | Monthly* | Within 15 days following the end of each month |
| S5.F and S8 | Noncompliance Notification – Telephone Notification | As necessary | Within 24 hours |
| S5.F | Noncompliance Notification – Written Report | As necessary | Within 5 Days of non-compliance |
| S9.D | Request for Chemical Treatment Form | As necessary | Written approval from Ecology is required prior to using chemical treatment (with the exception of dry ice, CO ₂ or food grade vinegar to adjust pH) |
| G2 | Notice of Change in Authorization | As necessary | |
| G6 | Permit Application for Substantive Changes to the Discharge | As necessary | |
| G8 | Application for Permit Renewal | 1/permit cycle | No later than 180 days before expiration |
| S2.A | Notice of Permit Transfer | As necessary | |
| G19 | Notice of Planned Changes | As necessary | |
| G21 | Reporting Anticipated Non-compliance | As necessary | |

NOTE: *Permittees must submit electronic Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology monthly, regardless of site discharge, for the full duration of permit coverage. Refer to Section S5.B of this General Permit for more specific information regarding DMRs.

Table 2 Summary of Required On-site Documentation

| Document Title | Permit Conditions |
|--|-----------------------|
| Permit Coverage Letter | See Conditions S2, S5 |
| Construction Stormwater General Permit (CSWGP) | See Conditions S2, S5 |
| Site Log Book | See Conditions S4, S5 |
| Stormwater Pollution Prevention Plan (SWPPP) | See Conditions S5, S9 |
| Site Map | See Conditions S5, S9 |

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Permit Area

This Construction Stormwater General Permit (CSWGP) covers all areas of Washington State, except for federal operators and Indian Country as specified in Special Condition S1.E.3 and 4.

B. Operators Required to Seek Coverage Under this General Permit

1. Operators of the following construction activities are required to seek coverage under this CSWGP:
 - a. Clearing, grading and/or excavation that results in the disturbance of one or more acres (including off-site disturbance acreage related to construction-support activity as authorized in S1.C.2) and discharges stormwater to surface waters of the State; and clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.
 - i. This category includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, and discharge to surface waters of the State (that is, forest practices that prepare a site for construction activities); and
 - b. Any size construction activity discharging stormwater to waters of the State that the Washington State Department of Ecology (Ecology):
 - i. Determines to be a significant contributor of pollutants to waters of the State of Washington.
 - ii. Reasonably expects to cause a violation of any water quality standard.
2. Operators of the following activities are not required to seek coverage under this CSWGP (unless specifically required under Special Condition S1.B.1.b, above):
 - a. Construction activities that discharge all stormwater and non-stormwater to groundwater, sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.
 - b. Construction activities covered under an Erosivity Waiver (Special Condition S1.F).
 - c. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

C. Authorized Discharges

1. **Stormwater Associated with Construction Activity.** Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge stormwater associated with construction activity to surface waters of the State or to a storm sewer system that drains to surface waters of the State. (Note that “surface waters of the

State” may exist on a construction site as well as off site; for example, a creek running through a site.)

2. **Stormwater Associated with Construction Support Activity.** This permit also authorizes stormwater discharge from support activities related to the permitted construction site (for example, an on-site portable rock crusher, off-site equipment staging yards, material storage areas, borrow areas, etc.) provided:
 - a. The support activity relates directly to the permitted construction site that is required to have an NPDES permit; and
 - b. The support activity is not a commercial operation serving multiple unrelated construction projects, and does not operate beyond the completion of the construction activity; and
 - c. Appropriate controls and measures are identified in the Stormwater Pollution Prevention Plan (SWPPP) for the discharges from the support activity areas.
3. **Non-Stormwater Discharges.** The categories and sources of non-stormwater discharges identified below are authorized conditionally, provided the discharge is consistent with the terms and conditions of this permit:
 - a. Discharges from fire-fighting activities.
 - b. Fire hydrant system flushing.
 - c. Potable water, including uncontaminated water line flushing.
 - d. Hydrostatic test water.
 - e. Uncontaminated air conditioning or compressor condensate.
 - f. Uncontaminated groundwater or spring water.
 - g. Uncontaminated excavation dewatering water (in accordance with S9.D.10).
 - h. Uncontaminated discharges from foundation or footing drains.
 - i. Uncontaminated or potable water used to control dust. Permittees must minimize the amount of dust control water used.
 - j. Routine external building wash down that does not use detergents.
 - k. Landscape irrigation water.

The SWPPP must adequately address all authorized non-stormwater discharges, except for discharges from fire-fighting activities, and must comply with Special Condition S3. At a minimum, discharges from potable water (including water line flushing), fire hydrant system flushing, and pipeline hydrostatic test water must undergo the following: dechlorination to a concentration of 0.1 parts per million (ppm) or less, and pH adjustment to within 6.5 – 8.5 standard units (su), if necessary.

D. Prohibited Discharges

The following discharges to waters of the State, including groundwater, are prohibited:

1. Concrete wastewater
2. Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials.
3. Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.2 (See Appendix A of this permit).
4. Slurry materials and waste from shaft drilling, including process wastewater from shaft drilling for construction of building, road, and bridge foundations unless managed according to Special Condition S9.D.9.j.
5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
6. Soaps or solvents used in vehicle and equipment washing.
7. Wheel wash wastewater, unless managed according to Special Condition S9.D.9.
8. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to Special Condition S9.D.10.

E. Limits on Coverage

Ecology may require any discharger to apply for and obtain coverage under an individual permit or another more specific general permit. Such alternative coverage will be required when Ecology determines that this CSWGP does not provide adequate assurance that water quality will be protected, or there is a reasonable potential for the project to cause or contribute to a violation of water quality standards.

The following stormwater discharges are not covered by this permit:

1. Post-construction stormwater discharges that originate from the site after completion of construction activities and the site has undergone final stabilization.
2. Non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance, from which there is natural runoff as excluded in 40 CFR Subpart 122.
3. Stormwater from any federal operator.
4. Stormwater from facilities located on **Indian Country** as defined in 18 U.S.C.§1151, except portions of the Puyallup Reservation as noted below.

Indian Country includes:

- a. All land within any Indian Reservation notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation. This includes all federal, tribal, and Indian and non-Indian privately owned land within the reservation.
- b. All off-reservation Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
- c. All off-reservation federal trust lands held for Native American Tribes.

Puyallup Exception: Following the *Puyallup Tribes of Indians Land Settlement Act of 1989*, 25 U.S.C. §1773; the permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

5. Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.
6. Stormwater from a site where an applicable Total Maximum Daily Load (TMDL) requirement specifically precludes or prohibits discharges from construction activity.

F. Erosivity Waiver

Construction site operators may qualify for an Erosivity Waiver from the CSWGP if the following conditions are met:

1. The site will result in the disturbance of fewer than five (5) acres and the site is not a portion of a common plan of development or sale that will disturb five (5) acres or greater.
2. Calculation of Erosivity “R” Factor and Regional Timeframe:
 - a. The project’s calculated rainfall erosivity factor (“R” Factor) must be less than five (5) during the period of construction activity, (See the CSWGP homepage <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html> for a link to the EPA’s calculator and step by step instructions on computing the “R” Factor in the *EPA Erosivity Waiver Fact Sheet*). The period of construction activity starts when the land is first disturbed and ends with final stabilization. In addition:
 - b. The entire period of construction activity must fall within the following timeframes:
 - i. For sites west of the Cascades Crest: June 15 – September 15.
 - ii. For sites east of the Cascades Crest, excluding the Central Basin: June 15 – October 15.
 - iii. For sites east of the Cascades Crest, within the Central Basin: no timeframe restrictions apply. The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches. For a map of the Central Basin (Average Annual Precipitation Region 2), refer to: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/resourcesguidance.html>.
3. Construction site operators must submit a complete Erosivity Waiver certification form at least one week before disturbing the land. Certification must include statements that the operator will:
 - a. Comply with applicable local stormwater requirements; and
 - b. Implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.
4. This waiver is not available for facilities declared significant contributors of pollutants as defined in Special Condition S1.B.1.b or for any size construction activity that could

reasonably expect to cause a violation of any water quality standard as defined in Special Condition S1.B.1.b.ii.

5. This waiver does not apply to construction activities which include non-stormwater discharges listed in Special Condition S1.C.3.
6. If construction activity extends beyond the certified waiver period for any reason, the operator must either:
 - a. Recalculate the rainfall erosivity “R” factor using the original start date and a new projected ending date and, if the “R” factor is still under 5 *and* the entire project falls within the applicable regional timeframe in Special Condition S1.F.2.b, complete and submit an amended waiver certification form before the original waiver expires; *or*
 - b. Submit a complete permit application to Ecology in accordance with Special Condition S2.A and B before the end of the certified waiver period.

S2. APPLICATION REQUIREMENTS

A. Permit Application Forms

1. *Notice of Intent Form*

- a. Operators of new or previously unpermitted construction activities must submit a complete and accurate permit application (Notice of Intent, or NOI) to Ecology.
- b. Operators must apply using the electronic application form (NOI) available on Ecology’s website (<http://ecy.wa.gov/programs/wq/stormwater/construction/index.html>). Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, Washington 98504-7696

- c. The operator must submit the NOI at least 60 days before discharging stormwater from construction activities and must submit it prior to the date of the first public notice (See Special Condition S2.B, below, for details). The 30-day public comment period begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, coverage under the general permit will automatically commence on the 31st day following receipt by Ecology of a *completed* NOI, or the issuance date of this permit, whichever is later; unless Ecology specifies a later date in writing as required by WAC173-226-200(2). See S8.B for Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters.
- d. If an applicant intends to use a Best Management Practice (BMP) selected on the basis of Special Condition S9.C.4 (“demonstrably equivalent” BMPs), the applicant must notify Ecology of its selection as part of the NOI. In the event the applicant selects BMPs after submission of the NOI, the applicant must provide notice of the

selection of an equivalent BMP to Ecology at least 60 days before intended use of the equivalent BMP.

- e. Applicants must notify Ecology if they are aware of contaminated soils and/or groundwater associated with the construction activity. Provide detailed information with the NOI (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth), as well as pollution prevention and/or treatment BMPs proposed to control the discharge of soil and/or groundwater contaminants in stormwater. Examples of such detail may include, but are not limited to:
 - i. List or table of all known contaminants with laboratory test results showing concentration and depth,
 - ii. Map with sample locations,
 - iii. Related portions of the Stormwater Pollution Prevention Plan (SWPPP) that address the management of contaminated and potentially contaminated construction stormwater and dewatering water,
 - iv. Dewatering plan and/or dewatering contingency plan.

2. ***Transfer of Coverage Form***

The Permittee can transfer current coverage under this permit to one or more new operators, including operators of sites within a Common Plan of Development, provided:

- i. The Permittee submits a complete Transfer of Coverage Form to Ecology, signed by the current and new discharger and containing a specific date for transfer of permit responsibility, coverage and liability (including any Administrative Orders associated with the permit); and
- ii. Ecology does not notify the current discharger and new discharger of intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

When a current discharger (Permittee) transfers a portion of a permitted site, the current discharger must also indicate the remaining permitted acreage after the transfer. Transfers do not require public notice.

3. ***Modification of Coverage Form***

Permittees must notify Ecology regarding any changes to the information provided on the NOI by submitting an Update/Modification of Permit Coverage form in accordance with General Conditions G6 and G19. Examples of such changes include, but are not limited to:

- i. Changes to the Permittee's mailing address,
- ii. Changes to the on-site contact person information, and
- iii. Changes to the area/acreage affected by construction activity.

B. Public Notice

For new or previously unpermitted construction activities, the applicant must publish a public notice at least one time each week for two consecutive weeks, at least 7 days apart, in a newspaper with general circulation in the county where the construction is to take place. The notice must be run after the NOI has been submitted and must contain:

1. A statement that *“The applicant is seeking coverage under the Washington State Department of Ecology’s Construction Stormwater NPDES and State Waste Discharge General Permit.”*
2. The name, address, and location of the construction site.
3. The name and address of the applicant.
4. The type of construction activity that will result in a discharge (for example, residential construction, commercial construction, etc.), and the total number of acres to be disturbed over the lifetime of the project.
5. The name of the receiving water(s) (that is, the surface water(s) to which the site will discharge), or, if the discharge is through a storm sewer system, the name of the operator of the system and the receiving water(s) the system discharges to.
6. The statement: *Any persons desiring to present their views to the Washington State Department of Ecology regarding this application, or interested in Ecology’s action on this application, may notify Ecology in writing no later than 30 days of the last date of publication of this notice. Ecology reviews public comments and considers whether discharges from this project would cause a measurable change in receiving water quality, and, if so, whether the project is necessary and in the overriding public interest according to Tier II antidegradation requirements under WAC 173-201A-320. Comments can be submitted to: Department of Ecology, PO Box 47696, Olympia, Washington 98504-7696 Attn: Water Quality Program, Construction Stormwater.*

S3. COMPLIANCE WITH STANDARDS

- A. **Discharges must not** cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the Federal water quality criteria applicable to Washington. (40 CFR Part 131.45) Discharges that are not in compliance with these standards are prohibited.
- B. **Prior to the discharge** of stormwater and non-stormwater to waters of the State, the Permittee must apply All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.
- C. **Ecology presumes** that a Permittee complies with water quality standards unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully:

1. Comply with all permit conditions, including; planning, sampling, monitoring, reporting, and recordkeeping conditions.
 2. Implement stormwater BMPs contained in stormwater management manuals published or approved by Ecology, or BMPs that are demonstrably equivalent to BMPs contained in stormwater management manuals published or approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the *Phase I Municipal Stormwater Permit* are approved by Ecology.)
- D. Where construction sites** also discharge to groundwater, the groundwater discharges must also meet the terms and conditions of this CSWGP. Permittees who discharge to groundwater through an injection well must also comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.

S4. MONITORING REQUIREMENTS, BENCHMARKS, AND REPORTING TRIGGERS

A. Site Log Book

The Permittee must maintain a site log book that contains a record of the implementation of the SWPPP and other permit requirements, including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.

B. Site Inspections

Construction sites one (1) acre or larger that discharge stormwater to surface waters of the State must have site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL). Sites less than one (1) acre may have a person without CESCL certification conduct inspections. (See Special Conditions S4.B.3 and B.4, below, for detailed requirements of the Permittee's CESCL.)

Site inspections must include all areas disturbed by construction activities, all BMPs, and all stormwater discharge points under the Permittee's operational control.

1. The Permittee must have staff knowledgeable in the principles and practices of erosion and sediment control. The CESCL (sites one acre or more) or inspector (sites less than one acre) must have the skills to assess the:
 - a. Site conditions and construction activities that could impact the quality of stormwater; and
 - b. Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges. The SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times. The CESCL (sites one (1) acre or more) must obtain this certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology. (See BMP C160 in the manual, referred to in Special Condition S9.C.1 and 2.)
2. The CESCL or inspector must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen. BMP effectiveness must be evaluated to

determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

Based on the results of the inspection, the Permittee must correct the problems identified, by:

- a. Reviewing the SWPPP for compliance with Special Condition S9 and making appropriate revisions within 7 days of the inspection.
 - b. Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs, within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
 - c. Documenting BMP implementation and maintenance in the site log book.
3. The CESCL or inspector must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one (1) day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one (1) inspection is required that week.) Inspection frequency may be reduced to once every calendar month for inactive sites that are temporarily stabilized.
4. The Permittee must summarize the results of each inspection in an inspection report or checklist and enter the report/checklist into, or attach it to, the site log book. At a minimum, each inspection report or checklist must include:
- a. Inspection date and time.
 - b. Weather information.
 - c. The general conditions during inspection.
 - d. The approximate amount of precipitation since the last inspection.
 - e. The approximate amount of precipitation within the last 24 hours.
 - f. A summary or list of all implemented BMPs, including observations of all erosion/sediment control structures or practices.
 - g. A description of:
 - i. BMPs inspected (including location).
 - ii. BMPs that need maintenance and why.
 - iii. BMPs that failed to operate as designed or intended, and
 - iv. Where additional or different BMPs are needed, and why.
 - h. A description of stormwater discharged from the site. The Permittee must note the presence of suspended sediment, turbidity, discoloration, and oil sheen, as applicable.

- i. Any water quality monitoring performed during inspection.
- j. General comments and notes, including a brief description of any BMP repairs, maintenance, or installations made following the inspection.
- k. An implementation schedule for the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.
- l. A summary report of the inspection.
- m. The name, title, and signature of the person conducting the site inspection, a phone number or other reliable method to reach this person, and the following statement:
I certify that this report is true, accurate, and complete to the best of my knowledge and belief.

Table 3 Summary of Primary Monitoring Requirements

| Size of Soil Disturbance ¹ | Weekly Site Inspections | Weekly Sampling w/ Turbidity Meter | Weekly Sampling w/ Transparency Tube | Weekly pH Sampling ² | CESCL Required for Inspections? |
|--|-------------------------|--|--------------------------------------|---------------------------------|---------------------------------|
| Sites that disturb less than 1 acre, but are part of a larger Common Plan of Development | Required | Not Required | Not Required | Not Required | No |
| Sites that disturb 1 acre or more, but fewer than 5 acres | Required | Sampling Required – either method ³ | | Required | Yes |
| Sites that disturb 5 acres or more | Required | Required | Not Required ⁴ | Required | Yes |

¹ Soil disturbance is calculated by adding together all areas that will be affected by construction activity. Construction activity means clearing, grading, excavation, and any other activity that disturbs the surface of the land, including ingress/egress from the site.

² If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (1,000 cubic yards of concrete or recycled concrete placed or poured over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer stormwater collection system that drains to other surface waters of the State, the Permittee must conduct pH sampling in accordance with Special Condition S4.D.

³ Sites with one or more acres, but fewer than 5 acres of soil disturbance, must conduct turbidity or transparency sampling in accordance with Special Condition S4.C.4.a or b.

⁴ Sites equal to or greater than 5 acres of soil disturbance must conduct turbidity sampling using a turbidity meter in accordance with Special Condition S4.C.4.a.

C. Turbidity/Transparency Sampling Requirements

1. Sampling Methods

- a. If construction activity involves the disturbance of five (5) acres or more, the Permittee must conduct turbidity sampling per Special Condition S4.C.4.a, below.
- b. If construction activity involves one (1) acre or more but fewer than five (5) acres of soil disturbance, the Permittee must conduct either transparency sampling *or* turbidity sampling per Special Condition S4.C.4.a or b, below.

2. Sampling Frequency

- a. The Permittee must sample all discharge points at least once every calendar week when stormwater (or authorized non-stormwater) discharges from the site or enters any on-site surface waters of the state (for example, a creek running through a site); sampling is not required on sites that disturb less than an acre.
- b. Samples must be representative of the flow and characteristics of the discharge.
- c. Sampling is not required when there is no discharge during a calendar week.
- d. Sampling is not required outside of normal working hours or during unsafe conditions.
- e. If the Permittee is unable to sample during a monitoring period, the Permittee must include a brief explanation in the monthly Discharge Monitoring Report (DMR).
- f. Sampling is not required before construction activity begins.
- g. The Permittee may reduce the sampling frequency for temporarily stabilized, inactive sites to once every calendar month.

3. Sampling Locations

- a. Sampling is required at all points where stormwater associated with construction activity (or authorized non-stormwater) is discharged off site, including where it enters any on-site surface waters of the state (for example, a creek running through a site).
- b. The Permittee may discontinue sampling at discharge points that drain areas of the project that are fully stabilized to prevent erosion.
- c. The Permittee must identify all sampling point(s) in the SWPPP and on the site map and clearly mark these points in the field with a flag, tape, stake or other visible marker.
- d. Sampling is not required for discharge that is sent directly to sanitary or combined sewer systems.
- e. The Permittee may discontinue sampling at discharge points in areas of the project where the Permittee no longer has operational control of the construction activity.

4. Sampling and Analysis Methods

- a. The Permittee performs turbidity analysis with a calibrated turbidity meter (turbidimeter) either on site or at an accredited lab. The Permittee must record the results in the site log book in nephelometric turbidity units (NTUs).
- b. The Permittee performs transparency analysis on site with a 1¾ inch diameter, 60 centimeter (cm)-long transparency tube. The Permittee will record the results in the site log book in centimeters (cm).

Table 4 Monitoring and Reporting Requirements

| Parameter | Unit | Analytical Method | Sampling Frequency | Benchmark Value |
|--------------|------|--|------------------------|-----------------|
| Turbidity | NTU | SM2130 | Weekly, if discharging | 25 NTUs |
| Transparency | Cm | Manufacturer instructions, or Ecology guidance | Weekly, if discharging | 33 cm |

5. Turbidity/Transparency Benchmark Values and Reporting Triggers

The benchmark value for turbidity is 25 NTUs. The benchmark value for transparency is 33 centimeters (cm). Note: Benchmark values do not apply to discharges to segments of water bodies on Washington State’s 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus; these discharges are subject to a numeric effluent limit for turbidity. Refer to Special Condition S8 for more information and follow S5.F – Noncompliance Notification for reporting requirements applicable to discharges which exceed the numeric effluent limit for turbidity.

- a. Turbidity 26 – 249 NTUs, or Transparency 32 – 7 cm:

If the discharge turbidity is 26 to 249 NTUs; or if discharge transparency is 32 to 7 cm, the Permittee must:

- i. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs, and no later than 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- ii. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
- iii. Document BMP implementation and maintenance in the site log book.

- b. Turbidity 250 NTUs or greater, or Transparency 6 cm or less:

If a discharge point’s turbidity is 250 NTUs or greater, or if discharge transparency is less than or equal to 6 cm, the Permittee must complete the reporting and adaptive

management process described below. For discharges which are subject to a numeric effluent limit for turbidity, see S5.F – Noncompliance Notification.

- i. Within 24 hours, telephone or submit an electronic report to the applicable Ecology Region’s Environmental Report Tracking System (ERTS) number (or through Ecology’s Water Quality Permitting Portal [WQWebPortal] – Permit Submittals when the form is available), in accordance with Special Condition S5.A.
 - **Central Region** (Okanogan, Chelan, Douglas, Kittitas, Yakima, Klickitat, Benton): (509) 575-2490
 - **Eastern Region** (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400
 - **Northwest Region** (Kitsap, Snohomish, Island, King, San Juan, Skagit, Whatcom): (425) 649-7000
 - **Southwest Region** (Grays Harbor, Lewis, Mason, Thurston, Pierce, Clark, Cowlitz, Skamania, Wahkiakum, Clallam, Jefferson, Pacific): (360) 407-6300

These numbers and a link to the ERTS reporting page are also listed at the following website: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>.

- ii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- iii. Sample discharges daily until:
 - a) Turbidity is 25 NTUs (or lower); or
 - b) Transparency is 33 cm (or greater); or
 - c) The Permittee has demonstrated compliance with the water quality standard for turbidity:
 - 1) No more than 5 NTUs over background turbidity, if background is less than 50 NTUs, or
 - 2) No more than 10% over background turbidity, if background is 50 NTUs or greater; or

*Note: background turbidity in the receiving water must be measured immediately upstream (upgradient) or outside of the area of influence of the discharge.
 - d) The discharge stops or is eliminated.
- iv. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within seven (7) days of the date the discharge exceeded the benchmark.

- v. Document BMP implementation and maintenance in the site log book.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with permit benchmarks.

D. pH Sampling Requirements – Significant Concrete Work or Engineered Soils

If construction activity results in the disturbance of 1 acre or more, *and* involves significant concrete work (significant concrete work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer system that drains to surface waters of the State, the Permittee must conduct pH sampling as set forth below. Note: In addition, discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for high pH are subject to a numeric effluent limit for pH; refer to Special Condition S8.

1. The Permittee must perform pH analysis on site with a calibrated pH meter, pH test kit, or wide range pH indicator paper. The Permittee must record pH sampling results in the site log book.
2. During the applicable pH monitoring period defined below, the Permittee must obtain a representative sample of stormwater and conduct pH analysis at least once per week.
 - a. For sites with significant concrete work, the Permittee must begin the pH sampling period when the concrete is first placed or poured and exposed to precipitation, and continue weekly throughout and after the concrete placement, pour and curing period, until stormwater pH is in the range of 6.5 to 8.5 (su).
 - b. For sites with recycled concrete where monitoring is required, the Permittee must begin the weekly pH sampling period when the recycled concrete is first exposed to precipitation and must continue until the recycled concrete is fully stabilized with the stormwater pH in the range of 6.5 to 8.5 (su).
 - c. For sites with engineered soils, the Permittee must begin the pH sampling period when the soil amendments are first exposed to precipitation and must continue until the area of engineered soils is fully stabilized.
3. The Permittee must sample pH in the sediment trap/pond(s) or other locations that receive stormwater runoff from the area of significant concrete work or engineered soils before the stormwater discharges to surface waters.
4. The benchmark value for pH is 8.5 standard units. Anytime sampling indicates that pH is 8.5 or greater, the Permittee must either:
 - a. Prevent the high pH water (8.5 or above) from entering storm sewer systems or surface waters of the state; *or*
 - b. If necessary, adjust or neutralize the high pH water until it is in the range of pH 6.5 to 8.5 (su) using an appropriate treatment BMP such as carbon dioxide (CO₂) sparging, dry ice or food grade vinegar. The Permittee must obtain written approval from Ecology before using any form of chemical treatment other than CO₂ sparging, dry ice or food grade vinegar.

S5. REPORTING AND RECORDKEEPING REQUIREMENTS

A. High Turbidity Reporting

Anytime sampling performed in accordance with Special Condition S4.C indicates turbidity has reached the 250 NTUs or more (or transparency less than or equal to 6 cm), high turbidity reporting level, the Permittee must notify Ecology within 24 hours of analysis either by calling the applicable Ecology Region's Environmental Report Tracking System (ERTS) number by phone or by submitting an electronic ERTS report (through Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals when the form is available). See the CSWGP website for links to ERTS and the WQWebPortal. (<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>) Also, see phone numbers in Special Condition S4.C.5.b.i.

B. 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 (for example, 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 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.

C. Records Retention

The Permittee must retain records of all monitoring information (site log book, sampling results, inspection reports/checklists, etc.), Stormwater Pollution Prevention Plan, copy of the permit coverage letter (including Transfer of Coverage documentation) and any other documentation of compliance with permit requirements for the entire life of the construction project and for a minimum of five (5) years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this permit. This period of retention must be extended during

the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

D. Recording Results

For each measurement or sample taken, the Permittee must record the following information:

1. Date, place, method, and time of sampling or measurement.
2. The first and last name of the individual who performed the sampling or measurement.
3. The date(s) the analyses were performed.
4. The first and last name of the individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

E. Additional Monitoring by the Permittee

If the Permittee samples or monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 of this permit, the sampling results for this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.

F. Noncompliance Notification

In the event the Permittee is unable to comply with any part of the terms and conditions of this permit, and the resulting noncompliance may cause a threat to human health or the environment (such as but not limited to spills or fuels or other materials, catastrophic pond or slope failure, and discharges that violate water quality standards), or exceed numeric effluent limitations (see S8 – Discharges to 303(d) or TMDL Waterbodies), the Permittee must, upon becoming aware of the circumstance:

1. Notify Ecology within 24 hours of the failure to comply by calling the applicable Regional office ERTS phone number (refer to Special Condition S4.C.5.b.i, or go to <https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue> to find contact information for the regional offices.)
2. Immediately take action to prevent the discharge/pollution, or otherwise stop or correct the noncompliance, and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to Ecology within five (5) days of becoming aware of the violation (See S5.F.3, below, for details on submitting results in a report).
3. Submit a detailed written report to Ecology within five (5) days of the time the Permittee becomes aware of the circumstances, unless requested earlier by Ecology. The report must be submitted using Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals, unless a waiver from electronic reporting has been granted according to S5.B. The report must contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Permittee must report any unanticipated bypass and/or upset that exceeds any effluent limit in the permit in accordance with the 24-hour reporting requirement contained in 40 C.F.R. 122.41(l)(6).

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Upon request of the Permittee, Ecology may waive the requirement for a written report on a case-by-case basis, if the immediate notification is received by Ecology within 24 hours.

G. Access to Plans and Records

1. The Permittee must retain the following permit documentation (plans and records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology or the local jurisdiction:
 - a. General Permit
 - b. Permit Coverage Letter
 - c. Stormwater Pollution Prevention Plan (SWPPP)
 - d. Site Log Book
 - e. Erosivity Waiver (if applicable)
2. The Permittee must address written requests for plans and records listed above (Special Condition S5.G.1) as follows:
 - a. The Permittee must provide a copy of plans and records to Ecology within 14 days of receipt of a written request from Ecology.
 - b. The Permittee must provide a copy of plans and records to the public when requested in writing. Upon receiving a written request from the public for the Permittee's plans and records, the Permittee must either:
 - i. Provide a copy of the plans and records to the requester within 14 days of a receipt of the written request; *or*
 - ii. Notify the requester within 10 days of receipt of the written request of the location and times within normal business hours when the plans and records may be viewed; and provide access to the plans and records within 14 days of receipt of the written request; *or*

Within 14 days of receipt of the written request, the Permittee may submit a copy of the plans and records to Ecology for viewing and/or copying by the requester at an Ecology office, or a mutually agreed location. If plans and records are viewed and/or copied at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which a reasonable fee may be charged. The Permittee must notify the requester within 10 days of receipt of the request where the plans and records may be viewed and/or copied.

S6. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for stormwater discharges covered under this permit are established by Chapter 173-224 WAC. Ecology continues to assess permit fees until the permit is terminated in accordance with Special Condition S10 or revoked in accordance with General Condition G5.

S7. SOLID AND LIQUID WASTE DISPOSAL

The Permittee must handle and dispose of solid and liquid wastes generated by construction activity, such as demolition debris, construction materials, contaminated materials, and waste materials from maintenance activities, including liquids and solids from cleaning catch basins and other stormwater facilities, in accordance with:

- A. Special Condition S3, Compliance with Standards.
- B. WAC 173-216-110.
- C. Other applicable regulations.

S8. DISCHARGES TO 303(d) OR TMDL WATERBODIES

A. Sampling and Numeric Effluent Limits For Certain Discharges to 303(d)-Listed Water Bodies

1. Permittees who discharge to segments of water bodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorus, must conduct water quality sampling according to the requirements of this section, and Special Conditions S4.C.2.b-f and S4.C.3.b-d, and must comply with the applicable numeric effluent limitations in S8.C and S8.D.
2. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current listing by Ecology of impaired waters (Category 5) that exists on January 1, 2021, or the date when the operator's complete permit application is received by Ecology, whichever is later.

B. Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters

Construction sites that discharge to a TMDL or 303(d)-listed waterbody are not eligible for coverage under this permit *unless* the operator:

1. Prevents exposing stormwater to pollutants for which the waterbody is impaired, and retains documentation in the SWPPP that details procedures taken to prevent exposure on site; *or*
2. Documents that the pollutants for which the waterbody is impaired are not present at the site, and retains documentation of this finding within the SWPPP; *or*
3. Provides Ecology with data indicating the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retains such data on site with the SWPPP. The operator must provide data and other technical information to Ecology that sufficiently demonstrate:
 - a. For discharges to waters without an EPA-approved or -established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; *or*
 - b. For discharges to waters with an EPA-approved or -established TMDL, that there is sufficient remaining wasteload allocation in the TMDL to allow construction stormwater discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

Operators of construction sites are eligible for coverage under this permit only after Ecology makes an affirmative determination that the *discharge will not cause or contribute to the existing impairment or exceed the TMDL.*

C. Sampling and Numeric Effluent Limits for Discharges to Water Bodies on the 303(d) List for Turbidity, Fine Sediment, or Phosphorus

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus must conduct turbidity sampling in accordance with Special Condition S4.C.2 and comply with either of the numeric effluent limits noted in Table 5 below.
2. As an alternative to the 25 NTUs effluent limit noted in Table 5 below (applied at the point where stormwater [or authorized non-stormwater] is discharged off-site), Permittees may choose to comply with the surface water quality standard for turbidity. The standard is: no more than 5 NTUs over background turbidity when the background turbidity is 50 NTUs or less, or no more than a 10% increase in turbidity when the background turbidity is more than 50 NTUs. In order to use the water quality standard requirement, the sampling must take place at the following locations:
 - a. Background turbidity in the 303(d)-listed receiving water immediately upstream (upgradient) or outside the area of influence of the discharge.
 - b. Turbidity at the point of discharge into the 303(d)-listed receiving water, inside the area of influence of the discharge.
3. Discharges that exceed the numeric effluent limit for turbidity constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

Table 5 Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed Waters

| Parameter identified in 303(d) listing | Parameter Sampled | Unit | Analytical Method | Sampling Frequency | Numeric Effluent Limit ¹ |
|--|-------------------|------|-------------------|------------------------|--|
| <ul style="list-style-type: none"> • Turbidity • Fine Sediment • Phosphorus | Turbidity | NTU | SM2130 | Weekly, if discharging | 25 NTUs, at the point where stormwater is discharged from the site; <i>OR</i> In compliance with the surface water quality standard for turbidity (S8.C.2.a) |

¹ Permittees subject to a numeric effluent limit for turbidity may, at their discretion, choose either numeric effluent limitation based on site-specific considerations including, but not limited to, safety, access and convenience.

D. Discharges to Water Bodies on the 303(d) List for High pH

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for high pH must conduct pH sampling in accordance with the table below, and comply with the numeric effluent limit of pH 6.5 to 8.5 su (Table 6).

Table 6 pH Sampling and Limits for 303(d)-Listed Waters

| Parameter identified in 303(d) listing | Parameter Sampled/Units | Analytical Method | Sampling Frequency | Numeric Effluent Limit |
|--|-------------------------|-------------------|------------------------|------------------------------|
| High pH | pH /Standard Units | pH meter | Weekly, if discharging | In the range of 6.5 – 8.5 su |

2. At the Permittee’s discretion, compliance with the limit shall be assessed at one of the following locations:
 - a. Directly in the 303(d)-listed waterbody segment, inside the immediate area of influence of the discharge; *or*
 - b. Alternatively, the Permittee may measure pH at the point where the discharge leaves the construction site, rather than in the receiving water.
3. Discharges that exceed the numeric effluent limit for pH (outside the range of 6.5 – 8.5 su) constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

E. Sampling and Limits for Sites Discharging to Waters Covered by a TMDL or another Pollution Control Plan

1. Discharges to a waterbody that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus must be consistent with the TMDL. Refer to <http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html> for more information on TMDLs.
 - a. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges must be consistent with any specific waste load allocations or requirements established by the applicable TMDL.
 - i. The Permittee must sample discharges weekly, unless otherwise specified by the TMDL, to evaluate compliance with the specific waste load allocations or requirements.
 - ii. Analytical methods used to meet the monitoring requirements must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.
 - iii. Turbidity and pH methods need not be accredited or registered unless conducted at a laboratory which must otherwise be accredited or registered.
 - b. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but has not identified specific requirements, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - c. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - d. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

S9. STORMWATER POLLUTION PREVENTION PLAN

The Permittee must prepare and properly implement an adequate Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with the requirements of this permit beginning with initial soil disturbance and until final stabilization.

A. The Permittee's SWPPP must meet the following objectives:

1. To identify best management practices (BMPs) which prevent erosion and sedimentation, and to reduce, eliminate or prevent stormwater contamination and water pollution from construction activity.
2. To prevent violations of surface water quality, groundwater quality, or sediment management standards.
3. To control peak volumetric flow rates and velocities of stormwater discharges.

B. General Requirements

1. The SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:
 - a. Information about existing site conditions (topography, drainage, soils, vegetation, etc.).
 - b. Potential erosion problem areas.
 - c. The 13 elements of a SWPPP in Special Condition S9.D.1-13, including BMPs used to address each element.
 - d. Construction phasing/sequence and general BMP implementation schedule.
 - e. The actions to be taken if BMP performance goals are not achieved—for example, a contingency plan for additional treatment and/or storage of stormwater that would violate the water quality standards if discharged.
 - f. Engineering calculations for ponds, treatment systems, and any other designed structures. When a treatment system requires engineering calculations, these calculations must be included in the SWPPP. Engineering calculations do not need to be included in the SWPPP for treatment systems that do not require such calculations.
2. The Permittee must modify the SWPPP if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The Permittee must then:
 - a. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the inspection or investigation.
 - b. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than 10 days from the inspection or investigation. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
 - c. Document BMP implementation and maintenance in the site log book.

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

C. Stormwater Best Management Practices (BMPs)

BMPs must be consistent with:

1. *Stormwater Management Manual for Western Washington* (most current approved edition at the time this permit was issued), for sites west of the crest of the Cascade Mountains; or

2. *Stormwater Management Manual for Eastern Washington* (most current approved edition at the time this permit was issued), for sites east of the crest of the Cascade Mountains; *or*
3. Revisions to the manuals listed in Special Condition S9.C.1 & 2, or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230; *or*
4. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable stormwater management manuals, including:
 - a. The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.
 - b. An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

D. SWPPP – Narrative Contents and Requirements

The Permittee must include each of the 13 elements below in Special Condition S9.D.1-13 in the narrative of the SWPPP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the SWPPP.

1. Preserve Vegetation/Mark Clearing Limits
 - a. Before beginning land-disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.
 - b. Retain the duff layer, native topsoil, and natural vegetation in an undisturbed state to the maximum degree practicable.
2. Establish Construction Access
 - a. Limit construction vehicle access and exit to one route, if possible.
 - b. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking sediment onto roads.
 - c. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
 - d. If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or pickup and transport of the sediment to a controlled sediment disposal area.
 - e. Conduct street washing only after sediment removal in accordance with Special Condition S9.D.2.d.
 - f. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.

3. Control Flow Rates

- a. Protect properties and waterways downstream of construction sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site, as required by local plan approval authority.
- b. Where necessary to comply with Special Condition S9.D.3.a, construct stormwater infiltration or detention BMPs as one of the first steps in grading. Assure that detention BMPs function properly before constructing site improvements (for example, impervious surfaces).
- c. If permanent infiltration ponds are used for flow control during construction, protect these facilities from sedimentation during the construction phase.

4. Install Sediment Controls

The Permittee must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the Permittee must:

- a. Construct sediment control BMPs (sediment ponds, traps, filters, infiltration facilities, etc.) as one of the first steps in grading. These BMPs must be functional before other land disturbing activities take place.
- b. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.
- c. Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of Special Condition S9.D.3.a.
- d. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.
- e. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.
- f. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

5. Stabilize Soils

- a. The Permittee must stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion

control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.

- b. The Permittee must control stormwater volume and velocity within the site to minimize soil erosion.
- c. The Permittee must control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.
- d. Depending on the geographic location of the project, the Permittee must not allow soils to remain exposed and unworked for more than the time periods set forth below to prevent erosion.

West of the Cascade Mountains Crest

During the dry season (May 1 - September 30): 7 days

During the wet season (October 1 - April 30): 2 days

East of the Cascade Mountains Crest, except for Central Basin*

During the dry season (July 1 - September 30): 10 days

During the wet season (October 1 - June 30): 5 days

The Central Basin*, East of the Cascade Mountains Crest

During the dry Season (July 1 - September 30): 30 days

During the wet season (October 1 - June 30): 15 days

***Note: The Central Basin** is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches.

- e. The Permittee must stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.
 - f. The Permittee must stabilize soil stockpiles from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.
 - g. The Permittee must minimize the amount of soil exposed during construction activity.
 - h. The Permittee must minimize the disturbance of steep slopes.
 - i. The Permittee must minimize soil compaction and, unless infeasible, preserve topsoil.
6. Protect Slopes
- a. The Permittee must design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).
 - b. The Permittee must divert off-site stormwater (run-on) or groundwater away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.
 - c. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.

- i. West of the Cascade Mountains Crest: Temporary pipe slope drains must handle the peak 10-minute flow rate from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate predicted by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "landscaped area."
 - ii. East of the Cascade Mountains Crest: Temporary pipe slope drains must handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.
 - d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
 - e. Place check dams at regular intervals within constructed channels that are cut down a slope.
7. Protect Drain Inlets
- a. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
 - b. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).
8. Stabilize Channels and Outlets
- a. Design, construct and stabilize all on-site conveyance channels to prevent erosion from the following expected peak flows:
 - i. West of the Cascade Mountains Crest: Channels must handle the peak 10-minute flow rate from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate indicated by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the WWHM to predict flows, bare soil areas should be modeled as "landscaped area."
 - ii. East of the Cascade Mountains Crest: Channels must handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.
 - b. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the outlets of all conveyance systems.

9. Control Pollutants

Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. The Permittee must:

- a. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site in a manner that does not cause contamination of stormwater.
- b. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. Minimize storage of hazardous materials on-site. Safety Data Sheets (SDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume of the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.
- c. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.
- d. Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer with local sewer district approval.
- e. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.
- f. Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, recycled concrete stockpiles, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters. (Also refer to the definition for "concrete wastewater" in Appendix A – Definitions.)
- g. Adjust the pH of stormwater or authorized non-stormwater if necessary to prevent an exceedance of groundwater and/or surface water quality standards.
- h. Assure that washout of concrete trucks is performed off-site or in designated concrete washout areas only. Do not wash out concrete truck drums onto the ground, or into storm drains, open ditches, streets, or streams. Washout of small concrete handling equipment may be disposed of in a formed area awaiting concrete where it will not contaminate surface or groundwater. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge directly to groundwater or surface waters of the State is

prohibited. At no time shall concrete be washed off into the footprint of an area where an infiltration BMP will be installed.

- i. Obtain written approval from Ecology before using any chemical treatment, with the exception of CO₂, dry ice or food grade vinegar, to adjust pH.
- j. Uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations may be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters. Prior to infiltration, water from water-only based shaft drilling that comes into contact with curing concrete must be neutralized until pH is in the range of 6.5 to 8.5 (su).

10. Control Dewatering

- a. Permittees must discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, in conjunction with BMPs to reduce sedimentation before discharge to a sediment trap or sediment pond.
- b. Permittees may discharge clean, non-turbid dewatering water, such as well-point groundwater, to systems tributary to, or directly into surface waters of the State, as specified in Special Condition S9.D.8, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through stormwater sediment ponds. Note that "surface waters of the State" may exist on a construction site as well as off site; for example, a creek running through a site.
- c. Other dewatering treatment or disposal options may include:
 - i. Infiltration
 - ii. Transport off site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.
 - iii. Ecology-approved on-site chemical treatment or other suitable treatment technologies (See S9.D.9.i, regarding chemical treatment written approval).
 - iv. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option.
 - v. Use of a sedimentation bag with discharge to a ditch or swale for small volumes of localized dewatering.
- d. Permittees must handle highly turbid or contaminated dewatering water separately from stormwater.

11. Maintain BMPs

- a. Permittees must maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.
- b. Permittees must remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

12. Manage the Project

- a. Phase development projects to the maximum degree practicable and take into account seasonal work limitations.
- b. Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with Special Condition S4.
- c. Maintain, update, and implement the SWPPP in accordance with Special Conditions S3, S4, and S9.

13. Protect Low Impact Development (LID) BMPs

The primary purpose of on-site LID Stormwater Management is to reduce the disruption of the natural site hydrology through infiltration. LID BMPs are permanent facilities.

- a. Permittees must protect all LID BMPs (including, but not limited to, Bioretention and Rain Garden facilities) from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the Bioretention and/or Rain Garden facilities. Restore the BMPs to their fully functioning condition if they accumulate sediment during construction. Restoring the facility must include removal of sediment and any sediment-laden bioretention/ rain garden soils, and replacing the removed soils with soils meeting the design specification.
- b. Permittees must maintain the infiltration capabilities of LID BMPs by protecting against compaction by construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.
- c. Permittees must control erosion and avoid introducing sediment from surrounding land uses onto permeable pavements. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment-laden runoff onto permeable pavements or base materials.
- d. Permittees must clean permeable pavements fouled with sediments or no longer passing an initial infiltration test using local stormwater manual methodology or the manufacturer's procedures.
- e. Permittees must keep all heavy equipment off existing soils under LID BMPs that have been excavated to final grade to retain the infiltration rate of the soils.

E. SWPPP – Map Contents and Requirements

The Permittee's SWPPP must also include a vicinity map or general location map (for example, a USGS quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

The SWPPP must also include a legible site map (or maps) showing the entire construction site. The following features must be identified, unless not applicable due to site conditions.

1. The direction of north, property lines, and existing structures and roads.
2. Cut and fill slopes indicating the top and bottom of slope catch lines.

3. Approximate slopes, contours, and direction of stormwater flow before and after major grading activities.
4. Areas of soil disturbance and areas that will not be disturbed.
5. Locations of structural and nonstructural controls (BMPs) identified in the SWPPP.
6. Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas.
7. Locations of all surface water bodies, including wetlands.
8. Locations where stormwater or non-stormwater discharges off-site and/or to a surface waterbody, including wetlands.
9. Location of water quality sampling station(s), if sampling is required by state or local permitting authority.
10. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.
11. Location or proposed location of LID facilities.

S10. NOTICE OF TERMINATION

Partial terminations of permit coverage are not authorized.

- A.** The site is eligible for termination of coverage when it has met any of the following conditions:
1. The site has undergone final stabilization, the Permittee has removed all temporary BMPs (except biodegradable BMPs clearly manufactured with the intention for the material to be left in place and not interfere with maintenance or land use), and all stormwater discharges associated with construction activity have been eliminated; *or*
 2. All portions of the site that have not undergone final stabilization per Special Condition S10.A.1 have been sold and/or transferred (per Special Condition S2.A), and the Permittee no longer has operational control of the construction activity; *or*
 3. For residential construction only, the Permittee has completed temporary stabilization and the homeowners have taken possession of the residences.
- B.** When the site is eligible for termination, the Permittee must submit a complete and accurate Notice of Termination (NOT) form, signed in accordance with General Condition G2, to:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

When an electronic termination form is available, the Permittee may choose to submit a complete and accurate Notice of Termination (NOT) form through the Water Quality Permitting Portal rather than mailing a hardcopy as noted above.

The termination is effective on the 31st calendar day following the date Ecology receives a complete NOT form, unless Ecology notifies the Permittee that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A.

Permittees are required to comply with all conditions and effluent limitations in the permit until the permit has been terminated.

Permittees transferring the property to a new property owner or operator/Permittee are required to complete and submit the Notice of Transfer form to Ecology, but are not required to submit a Notice of Termination form for this type of transaction.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant more frequent than or at a level in excess of that identified and authorized by the general permit must constitute a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

- A.** All permit applications must bear a certification of correctness to be signed:
1. In the case of corporations, by a responsible corporate officer.
 2. In the case of a partnership, by a general partner of a partnership.
 3. In the case of sole proprietorship, by the proprietor.
 4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.
- B.** All reports required by this permit and other information requested by Ecology (including NOIs, NOTs, and Transfer of Coverage forms) must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described above and submitted to Ecology.
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.
- C.** Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D.** Certification. Any person signing a document under this section must make the following certification:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A.** To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.
- B.** To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
- C.** To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D.** To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

- A.** When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.
- B.** When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.
- C.** When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or
- D.** When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the Director may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

- A.** Violation of any term or condition of this permit.
- B.** Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.
- C.** A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- D.** Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- E.** A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.
- F.** Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.

- G.** Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

The Director may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the construction activity or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit. The Permittee must reapply using the electronic application form (NOI) available on Ecology's website. Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

G9. REMOVED SUBSTANCE

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to the final effluent stream for discharge to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G11. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G14. UPSET

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in Special Condition S5.F, and; 4) the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G15. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G16. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G17. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G18. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

G19. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, give notice to Ecology of planned physical alterations, modifications or additions to the permitted construction activity. The Permittee should be aware that, depending on the nature and size of the changes to the original permit, a new public notice and other permit process requirements may be required. Changes in activities that require reporting to Ecology include those that will result in:

- A.** The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
- B.** A significant change in the nature or an increase in quantity of pollutants discharged, including but not limited to: a 20% or greater increase in acreage disturbed by construction activity.
- C.** A change in or addition of surface water(s) receiving stormwater or non-stormwater from the construction activity.
- D.** A change in the construction plans and/or activity that affects the Permittee's monitoring requirements in Special Condition S4.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G20. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of

operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G22. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT

Any discharger authorized by this permit may request to be excluded from coverage under the general permit by applying for an individual permit. The discharger must submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons will fully document how an individual permit will apply to the applicant in a way that the general permit cannot. Ecology may make specific requests for information to support the request. The Director will either issue an individual permit or deny the request with a statement explaining the reason for the denial. When an individual permit is issued to a discharger otherwise subject to the construction stormwater general permit, the applicability of the construction stormwater general permit to that Permittee is automatically terminated on the effective date of the individual permit.

G23. APPEALS

- A.** The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B.** The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.
- C.** The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G24. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G25. BYPASS PROHIBITED

A. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited for stormwater events below the design criteria for stormwater management. Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, 3 or 4) is applicable.

- 1. Bypass of stormwater is consistent with the design criteria and part of an approved management practice in the applicable stormwater management manual.
- 2. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health.

3. Bypass of stormwater is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
 - b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.
 - c. Ecology is properly notified of the bypass as required in Special Condition S5.F of this permit.
4. A planned action that would cause bypass of stormwater and has the potential to result in noncompliance of this permit during a storm event.

The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

- a. A description of the bypass and its cause
 - b. An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - c. A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - d. The minimum and maximum duration of bypass under each alternative.
 - e. A recommendation as to the preferred alternative for conducting the bypass.
 - f. The projected date of bypass initiation.
 - g. A statement of compliance with SEPA.
 - h. A request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated.
 - i. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
5. For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above must be considered during

preparation of the Stormwater Pollution Prevention Plan (SWPPP) and must be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following before issuing an administrative order for this type bypass:

- a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve, conditionally approve, or deny the request. The public must be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under RCW 90.48.120.

B. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

APPENDIX A – DEFINITIONS

AKART is an acronym for “All Known, Available, and Reasonable methods of prevention, control, and Treatment.” AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which was completed and approved by EPA before January 1, 2021, or before the date the operator’s complete permit application is received by Ecology, whichever is later. TMDLs completed after a complete permit application is received by Ecology become applicable to the Permittee only if they are imposed through an administrative order by Ecology, or through a modification of permit coverage.

Applicant means an *operator* seeking coverage under this permit.

Benchmark means a pollutant concentration used as a permit threshold, below which a pollutant is considered unlikely to cause a water quality violation, and above which it may. When pollutant concentrations exceed benchmarks, corrective action requirements take effect. Benchmark values are not water quality standards and are not numeric effluent limitations; they are indicator values.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer means an area designated by a local jurisdiction that is contiguous to and intended to protect a sensitive area.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Calendar Day A period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

Calendar Week (same as **Week**) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

Certified Erosion and Sediment Control Lead (CESCL) means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (See BMP C160 in the SWMM).

Chemical Treatment means the addition of chemicals to stormwater and/or authorized non-stormwater prior to filtration and discharge to surface waters.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Combined Sewer means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Common Plan of Development or Sale means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; 3) projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and 4) linear projects such as roads, pipelines, or utilities. If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

Composite Sample means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots).

Concrete Wastewater means any water used in the production, pouring and/or clean-up of concrete or concrete products, and any water used to cut, grind, wash, or otherwise modify concrete or concrete products. Examples include water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing). When stormwater combines with concrete wastewater, the resulting water is considered concrete wastewater and must be managed to prevent discharge to waters of the State, including groundwater.

Construction Activity means land disturbing operations including clearing, grading or excavation which disturbs the surface of the land (including off-site disturbance acreage related to construction-support activity). Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, site preparation, soil compaction, movement and stockpiling of topsoils, and demolition activity.

Construction Support Activity means off-site acreage that will be disturbed as a direct result of the construction project and will discharge stormwater. For example, off-site equipment staging yards, material storage areas, borrow areas, and parking areas.

Contaminant means any hazardous substance that does not occur naturally or occurs at greater than natural background levels. See definition of "hazardous substance" and WAC 173-340-200.

Contaminated soil means soil which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Contaminated groundwater means groundwater which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Demonstrably Equivalent means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:

1. The method and reasons for choosing the stormwater BMPs selected.
2. The pollutant removal performance expected from the BMPs selected.

3. The technical basis supporting the performance claims for the BMPs selected, including any available data concerning field performance of the BMPs selected.
4. An assessment of how the selected BMPs will comply with state water quality standards.
5. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment (AKART).

Department means the Washington State Department of Ecology.

Detention means the temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.

Dewatering means the act of pumping groundwater or stormwater away from an active construction site.

Director means the Director of the Washington State Department of Ecology or his/her authorized representative.

Discharger means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration or surface waters as may be present.

Ecology means the Washington State Department of Ecology.

Engineered Soils means the use of soil amendments including, but not limited, to Portland cement treated base (CTB), cement kiln dust (CKD), or fly ash to achieve certain desirable soil characteristics.

Equivalent BMPs means operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from the SWMM.

Erosion means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and Sediment Control BMPs means BMPs intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.

Federal Operator is an entity that meets the definition of "Operator" in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

Final Stabilization (same as **fully stabilized** or **full stabilization**) means the completion of all soil disturbing activities at the site and the establishment of permanent vegetative cover, or equivalent permanent stabilization measures (such as pavement, riprap, gabions, or geotextiles) which will prevent erosion. See the applicable Stormwater Management Manual for more information on vegetative cover expectations and equivalent permanent stabilization measures.

Groundwater means water in a saturated zone or stratum beneath the land surface or a surface waterbody.

Hazardous Substance means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous substance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment. The term hazardous substance does not include any of the following when contained in an underground storage tank from which there is not a release: crude oil or any fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

Injection Well means a well that is used for the subsurface emplacement of fluids. (See **Well**.)

Jurisdiction means a political unit such as a city, town or county; incorporated for local self-government.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Notice of Intent (NOI) means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

Notice of Termination (NOT) means a request for termination of coverage under this general permit as specified by Special Condition S10 of this permit.

Operator means any party associated with a construction project that meets either of the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

Permittee means individual or entity that receives notice of coverage under this general permit.

pH means a liquid's measure of acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

pH Monitoring Period means the time period in which the pH of stormwater runoff from a site must be tested a minimum of once every seven days to determine if stormwater pH is between 6.5 and 8.5.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See the Fact Sheet for further explanation)

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Process Wastewater means any non-stormwater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. If stormwater commingles with process wastewater, the commingled water is considered process wastewater.

Receiving Water means the waterbody at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the waterbody to which the storm system discharges. Systems designed primarily for other purposes such as for groundwater drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Representative means a stormwater or wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate *composite sample*, or a flow proportionate sample. Ecology's Construction Stormwater Monitoring Manual provides guidance on representative sampling.

Responsible Corporate Officer for the purpose of signatory authority means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sanitary Sewer means a sewer which is designed to convey domestic wastewater.

Sediment means the fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation means the depositing or formation of sediment.

Sensitive Area means a waterbody, wetland, stream, aquifer recharge area, or channel migration zone.

SEPA (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Significant Amount means an amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a reasonable potential to cause a violation of surface or groundwater quality or sediment management standards.

Significant Concrete Work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project.

Significant Contributor of Pollutants means a facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

Site means the land or water area where any "facility or activity" is physically located or conducted.

Source Control BMPs means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

Stabilization means the application of appropriate BMPs to prevent the erosion of soils, such as, temporary and permanent seeding, vegetative covers, mulching and matting, plastic covering and sodding. See also the definition of Erosion and Sediment Control BMPs.

Storm Drain means any drain which drains directly into a *storm sewer system*, usually found along roadways or in parking lots.

Storm Sewer System means a means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater. This does not include systems which are part of a *combined sewer* or Publicly Owned Treatment Works (POTW), as defined at 40 CFR 122.2.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface waterbody, or a constructed infiltration facility.

Stormwater Management Manual (SWMM) or Manual means the technical Manual published by Ecology for use by local governments that contain descriptions of and design criteria for BMPs to prevent, control, or treat pollutants in stormwater.

Stormwater Pollution Prevention Plan (SWPPP) means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Temporary Stabilization means the exposed ground surface has been covered with appropriate materials to provide temporary stabilization of the surface from water or wind erosion. Materials include, but are not limited to, mulch, riprap, erosion control mats or blankets and temporary cover crops. Seeding alone is not considered stabilization. Temporary stabilization is not a substitute for the more permanent "final stabilization."

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the waterbody can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for reasonable variation in water quality.

Transfer of Coverage (TOC) means a request for transfer of coverage under this general permit as specified by Special Condition S2.A of this permit.

Treatment BMPs means BMPs that are intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

Transparency means a measurement of water clarity in centimeters (cm), using a 60 cm transparency tube. The transparency tube is used to estimate the relative clarity or transparency of water by noting the depth at which a black and white Secchi disc becomes visible when water is released from a value in the bottom of the tube. A transparency tube is sometimes referred to as a "turbidity tube."

Turbidity means the clarity of water expressed as nephelometric turbidity units (NTUs) and measured with a calibrated turbidimeter.

Uncontaminated means free from any contaminant. See definition of "contaminant" and WAC 173-340-200.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste Load Allocation (WLA) means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2[h]).

Water-Only Based Shaft Drilling is a shaft drilling process that uses water only and no additives are involved in the drilling of shafts for construction of building, road, or bridge foundations.

Water Quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt

waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Well means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension. (See **Injection Well**.)

Wheel Wash Wastewater means any water used in, or resulting from the operation of, a tire bath or wheel wash (BMP C106: Wheel Wash), or other structure or practice that uses water to physically remove mud and debris from vehicles leaving a construction site and prevent track-out onto roads. When stormwater combines with wheel wash wastewater, the resulting water is considered wheel wash wastewater and must be managed according to Special Condition S9.D.9.

APPENDIX B – ACRONYMS

| | |
|--------------|--|
| AKART | All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment |
| BMP | Best Management Practice |
| CESCL | Certified Erosion and Sediment Control Lead |
| CFR | Code of Federal Regulations |
| CKD | Cement Kiln Dust |
| cm | Centimeters |
| CPD | Common Plan of Development |
| CTB | Cement-Treated Base |
| CWA | Clean Water Act |
| DMR | Discharge Monitoring Report |
| EPA | Environmental Protection Agency |
| ERTS | Environmental Report Tracking System |
| ESC | Erosion and Sediment Control |
| FR | Federal Register |
| LID | Low Impact Development |
| NOI | Notice of Intent |
| NOT | Notice of Termination |
| NPDES | National Pollutant Discharge Elimination System |
| NTU | Nephelometric Turbidity Unit |
| RCW | Revised Code of Washington |
| SEPA | State Environmental Policy Act |
| SWMM | Stormwater Management Manual |
| SWPPP | Stormwater Pollution Prevention Plan |
| TMDL | Total Maximum Daily Load |
| UIC | Underground Injection Control |
| USC | United States Code |
| USEPA | United States Environmental Protection Agency |
| WAC | Washington Administrative Code |
| WQ | Water Quality |
| WWHM | Western Washington Hydrology Model |

LAKEHAVEN SPECIAL PROVISIONS

CITY OF FEDERAL WAY

LAKOTA SRTS
PROJECT #204 / RFB #21-003

Lakota Middle School SRTS Water Main Replacement

SPECIAL PROVISIONS

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SPECIAL PROVISIONS

INTRODUCTION

(LWSD, October 15, 2019)

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 shall be included within the City of Federal Way's "Lakota Middle School Safe Route to School Project, Project #204, RFB #21-003" bid and contract documents and specifications, and shall pertain to the water facility improvements. These Special Provisions, including the Construction Standards, have been developed for use in conjunction with the "Standard Specifications for Road, Bridge, and Municipal Construction, M41-10" 2021 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." 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:

(*****)

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.*
- *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 Public Works Development Standards (in City of Federal Way).*
- *City of Federal Way Addendum to the King County Surface Water Design Manual (in City of Federal Way).*
- *King County Surface Water Design Manual (in City of Federal Way).*

Contractors are responsible for obtaining a copy of applicable referenced publications at their own expense.

Appendices A through D as included in these Contract Documents are incorporated herein by reference as part of these Special Provisions.

SPECIAL PROVISIONS

DIVISION 1 – GENERAL REQUIREMENTS

DESCRIPTION OF WORK

(*****)

Schedule B – Water Main Improvements

The work in this schedule provides for LWSD water system modifications both required for and associated with the improvements in Schedule A, including but not limited to removing and disposing eight-inch (8") and twelve-inch (12") asbestos-cement and eight-inch (8") and twelve-inch (12") diameter ductile iron pipe water main; installing eight-inch (8") and twelve-inch (12") diameter ductile iron pipe water main; removing and salvaging valves and fire hydrant assemblies, installing new valves and fire hydrant assemblies, removing the existing and installing a replacement water service connection; permitting; and other related work all in accordance with the Contract Provisions herein.

1-01 DEFINITIONS AND TERMS

1-01.2 Abbreviations

1-01.2(1) Associations and Miscellaneous

(*****)

Supplement this subsection with the following:

| | |
|-------------------|------------------------------------|
| CFW or COFW | City of Federal Way |
| LWSD, or District | Lakehaven Water and Sewer District |
| NSF | National Science Foundation |

Add the following new section:

1-02.1(1) Supplemental Qualifications Criteria

In accordance with RCW 39.04.350(3), the Contracting Agency has established Contracting Agency-specific and/or project-specific supplemental criteria for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in the Instructions to Bidders and the Special Provisions hereunder.

1-02.6 Preparation of Proposal

Supplement this section with the following:

The bid proposal documents shall include the completed "Asbestos-Cement (AC) Pipe / Material Processing Certification" form.

SPECIAL PROVISIONS

1-02.14 Disqualification of Bidders

Supplement this Section of the “CFW Special Provisions” with the following:

8. Asbestos Training and Certification

A. Criterion:

The Bidder, or its proposed Subcontractor(s), who will be performing the Work associated with handling, processing, hauling and/or disposing asbestos cement pipe and associated materials at a permitted disposal site, shall meet the minimum training and certification requirements under Regulation III, Article 4 of the Puget Sound Clean Air Agency, and established by the Washington State Department of Labor and Industries, including the requirements of Chapter 296-65 WAC.

B. Documentation:

The Bidder shall submit a list for the proposed contractor, supervisor(s) and laborer(s) associated with the asbestos cement pipe Work, of the certifications, including expiration dates. If any of the certifications will expire during the term of the Contract, the list shall include an explanation of the Contractor’s or subcontractor’s plan to ensure that the certificate remains valid during performance of the asbestos cement pipe Work under the Contract.

1-04 SCOPE OF THE WORK

1-04.4 Changes

1-04.4(1) Minor Changes

(*****)

Supplement this Section of the “CFW Special Provisions” with the following for the water main improvements under Schedule B:

Payments or credits for changes for items of Work under Schedule B amounting to \$25,000 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 Change for Water Facilities may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes.

The Contractor will be provided a copy of the completed order for Minor Change for Water Facilities. The agreement for the Minor Change for Water Facilities will be documented by signature of the Contractor, or notation of verbal agreement. If the Contractor is in disagreement with anything required by the order for Minor Change for Water Facilities, the Contractor may protest the order as provided in Section 1-04.5.

1-05 CONTROL OF WORK

1-05.4 Conformity With and Deviations From Plans and Stakes

(*****)

Supplement the enumerated sub-paragraphs under Paragraph 6 of the August 7, 2017 WSDOT General Special Provision (GSP), Option 2 in the “CFW Special Provisions” with the following:

Roadway Surveying for Water Facilities

For the water main improvements referenced in sub-paragraph ‘9’ above, the survey work shall include supplemental survey control, staking and marking, both horizontal and vertical, including reference and offset stakes, necessary to accommodate the Contractor’s performance of the Work for the water main

SPECIAL PROVISIONS

improvements, and to assure placement of project elements conforms to the Plans. At a minimum, this shall include staking and marking the following as shown on the Plans or as may be directed by the Engineer:

- Connection points of the new water main(s) to the existing water mains.
- Water main alignment at 50-foot maximum intervals, and at fitting locations, including tees, crosses, reducer, and horizontal and vertical bends, deflections, valves, hydrants, permanent blowoff assemblies, tapping sleeve and valve assemblies, meters, and other water main appurtenances.

The Contractor shall ensure surveying accuracy within the following tolerances:

| | <u>Vertical</u> | <u>Horizontal</u> |
|--|-----------------|-------------------|
| Horizontal alignment of new water main | 0.1 ft. | 0.1 ft. |
| Connection of new to existing main: | | |
| Fitting | 0.1 ft. | 0.1 ft. |
| Valve box | 0.1 ft. | 0.1 ft. |
| Fire hydrant | 0.1 ft. | 0.1 ft. |
| Permanent blowoff assembly (meter box) | 0.1 ft. | 0.1 ft. |
| Meter box | 0.1 ft. | 0.1 ft. |

As-Built Survey and Record Drawings for Water Facilities

During construction, the Contractor shall maintain redline prints documenting the installed elements of the water main improvements, including horizontal and vertical alignment of the water mains and hydrant laterals, top-of-pipe elevations of the water mains and hydrant laterals, locations of fittings and points of connection, valves, hydrants, and meter boxes. Measurements shall be taken at 100-foot maximum intervals, and at deflections, bends, and breaks in surface grade, and shall be by GPS or equivalent measuring device to allow correlation of the underground and surface features of the water main improvements with the completed street and street-edge improvements. Measurements shall have the same accuracy and tolerance as specified for construction surveying and staking. A copy of the redline information shall be available at each Progress Meeting, and shall be furnished to the Engineer following physical completion of the Work, and as one condition for acceptance of the project.

After completing construction of the project improvements, the Contractor shall perform an as-built survey of the completed improvements, incorporating the specified underground facility measurements. Survey information shall be based on and use the same control, datum, monument, and coordinate system as used for the Plans. Location information for surface features shall be at the center of the feature (e.g., valve can lid, fire hydrant, meter box, etc.).

In addition to the information above, the record drawings shall include the following, at a minimum:

- All changes to the Plans.
- Pothole information obtained by the Contractor.
- Existing utility location information that differs from the locations shown on the Plans.

As-built survey information shall be submitted to the Engineer for review on two (2) full-size prints together with an electronic copy in AutoCAD 2016 or newer format, including the point file. The Contractor's surveyor or engineer shall incorporate the Engineer's review comments, make necessary corrections, and submit one (1) final print copy of the as-built record drawing with the professional seal of the Contractor's surveyor or engineer, and an electronic copy in AutoCAD 2016 or newer format, including point file.

1-06 CONTROL OF MATERIAL

SPECIAL PROVISIONS

1-06.2 Acceptance of Materials

1-06.2(1) Samples and Tests for Acceptance

(*****)

Revise the first paragraph to read:

The Contractor shall deliver material testing and source information (from the Contractor, Producer, Vendor, Material Testing Lab / WSDOT, or Manufacturer / Fabricator) to the Engineer without charge before incorporating the material into the Work. In providing this information to the Engineer, the Contractor shall provide the Engineer with sufficient time, and sufficiently complete and reliable source information, for review prior to delivery of the material. The Engineer may require samples at any time. Samples not taken by or in the presence of the Engineer will not be accepted for test, unless the Engineer permits otherwise.

1-06.2(2) Statistical Evaluation of Materials for Acceptance

(*****)

Delete this subsection in its entirety.

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.

Add the following new subsection:

(NEW SUBSECTION)

1-07.5(5) Noise

(*****)

Work on this project is subject to the CFW's rules and regulations regarding noise. The Contractor shall be responsible for all costs for compliance with the City's noise control requirements.

SPECIAL PROVISIONS

1-07.6 Permits and Licenses

(*****)

Supplement this section with the following:

The Contractor shall coordinate with the Contracting Agency and LWSD in completing, and shall complete and submit applications for, and shall be responsible for compliance with the provisions of, the following:

City of Federal Way:

Temporary Noise Variance request, as necessary.

Puget Sound Clean Air Agency:

Asbestos / Demolition Notification for Contractors and Property Owners

State of Washington Department of Labor and Industries:

Notice of Asbestos Abatement Project

Preliminary copies of the notification forms for the Puget Sound Clean Air Agency, and the State of Washington Department of Labor and Industries, are included in Appendix B of these Special Provisions.

1-07.15 Temporary Water Pollution Prevention

(*****)

Supplement this section with the following:

The provisions under this section shall apply to the Work for both Schedules A and B of the Contract. Measurement and payment for the portion of the SPCC pertaining to the water main improvements shall be in accordance with and included in the lump sum contract bid item amount for "SPCC Plan" in Schedule A.

1-08 PROSECUTION AND PROGRESS

1-08.4 Notice to Proceed and Prosecution of Work

(*****)

Section 1-08.4 of the Contracting Agency's Special Provisions is supplemented by the following new subsections:

1-08.4(1) Construction Sequence

The Contractor shall be responsible for the planning, scheduling and sequencing of the Work for the Water Main Improvements. A potential sequence of activities is included in these contract documents and shown on the plans. The potential construction sequence is intended to illustrate a method for completing the water main improvements while maintaining water service to the extent practical and meeting LWSD's requirements for water facility construction.

The Contractor shall develop at their own cost and expense a proposal for construction sequencing for the water main improvements that is suitable for their operations while meeting the requirements for water service disruptions and LWSD's requirements for water facility construction as set forth in these contract documents.

Such alternative staging concept(s) shall be submitted to the Contracting Agency at the Preconstruction meeting. Acceptance of alternative staging concepts shall be at the sole discretion of LWSD, and the Contractor shall not presume that alternatives will be accepted. Water facility work shall not commence prior to LWSD's approval of the Contractor's proposed construction sequence for the work.

SPECIAL PROVISIONS

1-8.4(1)A Allowable Water Service Disruption and Notice

Water service to Lakota Middle School (School) shall be maintained at all times Monday through Friday when Federal Way Public Schools District classes are in session. Disruption of water service to the School, when classes are in session during the week, shall only occur on a Saturday.

Any proposed disruption shall be contingent on coordination with LWSD, the School and the Federal Way Public Schools District a minimum of seven business days in advance of the proposed disruption, written confirmation from the School and Federal Way Public Schools District a minimum of three (3) days in advance of the proposed disruption that there are no conflicting events or activities, and approval by LWSD. If the disruption will interfere with a scheduled event or activities at the School, the Contractor shall propose a different Saturday, and adjust the schedule of the work accordingly. In no event shall water service to the School (including fire hydrants and domestic water supply) be disrupted for more than one, 8-hour period for either the temporary cut and cap, or reconnection, of the lateral mains.

For allowable working hours, refer to Section 1-08.0(2) of the CFW Special Provisions.

1-08.4(1)B Schedule Development

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 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 LWSD's testing laboratory. These sampling days allow LWSD's laboratory to obtain 48-hour test results (laboratory operations are typically Monday through Saturday, excluding holidays).

Pressure testing, disinfecting, draining, filling, flushing, and connecting new or temporary water facilities shall be coordinated with and be performed at the direction of the LWSD Inspector. Flushing of disinfected mains and appurtenances follows satisfactory completion of the 24-hour minimum chlorine solution contact time, and is performed until a satisfactory chlorine residual level for bacteriological testing has been achieved as determined by the LWSD Inspector. In the "swab and go" process, flushing of mains and appurtenances after connection to an active main continues 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 LWSD inspector. Additional details are specified in Section 7-09.

The contract duration and outlined work sequence in Appendix A of these contract documents anticipate that it may be necessary for certain tasks and activities to be performed concurrently at more than one location during a work shift, and that it may be necessary for some work, such as sawcutting, excavating, and placing temporary anchored temporary steel plates, be performed in advance of water facility removal or installation.

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, or special monitoring by Puget Sound Energy of proximate gas mains, during trench work for removal and installation of water facilities in the vicinity of those Puget Sound Energy facilities.

SPECIAL PROVISIONS

DIVISION 2 - EARTHWORK

2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

(*****)

Replace the Section title with the following:

2-01 CLEARING, GRUBBING, ROADSIDE CLEANUP, AND SITE RESTORATION

2-01.1 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; and
- 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.

Supplement this section with the following:

"Site Restoration" means removing and disposing debris, unused materials, and temporary or other construction-related materials, tools and equipment not designated to become a part of the completed Work, and the repair or replacement of permanent improvements damaged by the Contractor's operations that are not designated to be incorporated into the improvements as shown on the Plans.

2-01.2 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.

2-01.3 Construction Requirements

(*****)

SPECIAL PROVISIONS

Supplement this section with the following:

Clearing and grubbing debris shall not be incorporated into the completed Work or right-of-way. All such materials shall be disposed in accordance with Section 2-01.2(2).

The Contractor shall preserve and protect existing trees, shrubs, rockeries, retaining walls, 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:

2-01.3(5) Site Restoration

Following completion of the other items of Work, the Contractor shall:

1. 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.
2. Restore to pre-construction condition, landscape materials and/or surface improvements not identified for removal. Special materials and work will be necessary to restore the following to match both the pre-existing conditions and the adjacent undisturbed improvements.
3. 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.
4. Repair or restore, to the satisfaction of the City of Federal Way, surface or subsurface features, including landscaping or plantings, utilities, and/or street system improvements damaged or disturbed by the Contractor's operations.
5. Install roadway cross section (asphalt pavement and base course) where watermain trench is outside of City of Federal Way's restoration limits and called out on the watermain plans.
6. Remove and reset existing signs to remain where required by installation of new watermain.

Removed materials shall be hauled to and disposed 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.

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.1 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 2-02.5. The Proposal also contains a lump sum Bid item "Removal of Structures and Obstructions" to cover all other removal items.

SPECIAL PROVISIONS

Record drawings indicate the existence of a 6" abandoned steel water main 34.0' south of the South Dash pt Rd centerline. See Appendix D – Reference information, CRD-W1592 for 1966 As-Built. This watermain shall be removed where it conflicts with the storm sewer, illumination and or other proposed facilities. It shall be cut and capped where ends are exposed.

The Work shall include removal of miscellaneous traffic items and temporary storage and reinstallation of permanent signage.

HMA removal included in "Removal of Structures and Obstructions" shall be full depth.

2-02.2 Vacant

(*****)

Revise this section, including heading, to read:

2-02.2 Materials

Materials shall meet the requirements of the following sections:

| | |
|-----------------|--------|
| Location Wire | 9-37.1 |
| Locate Station | 9-37.2 |
| Grounding Anode | 9-37.3 |

2-02.3 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 2-03.3(7)C.

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

Delete the first two 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 full depth and 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.

SPECIAL PROVISIONS

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) foot 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, or 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.

2-02.3(4) Asbestos Cement Pipe Removal, Handling and Disposal

Supplement Section 2-02.3 with the following subsection:

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. 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."

Asbestos Handling and Disposal

The Contractor shall ensure that the removal, 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, 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.

SPECIAL PROVISIONS

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 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 has 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.

SPECIAL PROVISIONS

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, or to be transshipped to an intermediate off-site storage area, or comingled with other materials. The Contractor shall dispose asbestos within 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 original copy of the completed Waste Shipment Record form(s) to the Engineer within 10-calendar day following disposal.

2-02.3(5) Removing Existing Water Facilities

(*****)

Add the following new subsection:

2-02.3(5)A 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, 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 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.

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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 necessary. A domestically sourced brass 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 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 at a permitted site.

Sawcutting (full depth) of existing asphalt concrete pavement, Portland cement concrete including sidewalks, driveways and cement concrete curb and gutter, as required for pipe removal shall be in accordance with Section 2-02.3(3).

Trench excavation for the removal of water facilities shall be unclassified, and as otherwise provided in Section 2-09.3(3)G, including implementation of a trench safety system.

In public rights-of-way, excavated materials shall be removed, hauled and disposed 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 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).

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 2-02.3(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, or water service connection, the Contractor shall perform one 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 10; 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:

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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.

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 Crushed Surfacing Top Course for Trench Backfill, compacted in accordance with Method C compaction as provided in Section 2-03.3, 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 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 2-03.3(14)C. 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 2-03.3(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 and 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 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.

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2-03 ROADWAY EXCAVATION AND EMBANKMENT

2-03.3(7) Disposal of Surplus Material

2-03.3(7)A General

(*****)

This subsection is revised to read:

The Contractor shall remove, haul to, and dispose materials from roadway excavation at a site permitted to receive such materials.

Add the following new subsection:

2-09 STRUCTURE EXCAVATION

2-09.3(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 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 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 therefore.

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,

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procedures, or for the Contractor's failure to properly perform the Work necessary for proper trench excavation safety.

2-09.3(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), the Contractor shall excavate below subgrade and replace the unstable material with compacted gravel backfill as provided in Section 7-09.3(8).

2-09.3(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 unit Contract 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 2-09.3(1)E.

2-09.3(1)E Backfilling

Delete the second sentence in the first paragraph and insert the following:

Backfill material shall be as specified in the respective sections for the item of work involved, and as shown on the Plans.

2-09.3(3) Construction Requirements, Structure Excavation, Class A

(*****)

2-09.3(3)D Shoring and Cofferdams

Replace the first numbered item under the eighteenth 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:

2-09.3(3)F Trench Restoration and Temporary Protection

All trenches shall be closed up and fully backfilled with compacted trench backfill to subgrade, and permanent surfacing as shown on the Plans, or graded level and surfaced with temporary compacted crushed surfacing top course and/or pavement, or 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.

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In areas subject to traffic, trenches not backfilled, protected with anchored temporary 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 shall be welded together when left in use longer than 24 continuous hours., 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 or surfacing, 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:

2-09.3(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 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 (2½) 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.

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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 main 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.

7-09.2 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. All pipe and fittings for water main shall have restrained joints utilizing thrust restraint systems 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 | 2-09.3(1)E |

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 feet (2') 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

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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.

Roadways, streets and appurtenances, including driveways and sidewalks, shall be cleaned at the conclusion of each day's operations and at such other times as deemed necessary by the Engineer to ensure the safety of the traveling and pedestrian public and to prevent inconvenience to the Contracting Agency, the public and owners of private property adjacent to the Project. The Contracting Agency reserves the right to restrict the Contractor to various sites and times of construction during the entire Project. 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.

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 aggregate material which 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.

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 which 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:

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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 under the current project under "Connect to Existing Water Main In. 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:

- Forty-two inches (42 inches) for 10 inch diameter and smaller water pipes,
- Forty-eight inches (48 inches) for 12 inch to 18 inch diameter water pipes,

over the top of the pipe, or a minimum of twelve (12) inches over all valve nuts, 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 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.

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As provided for in RCW 19.122, "reasonable accuracy" in field-locating (marking) underground utility facilities means a field mark within twenty-four (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. The minimum vertical clearance/spacing between walls of water main pipelines and pipeline/cable/conduits of other utility facilities, except sanitary sewers and storm drains, shall be twelve (12) inches, except as may be shown on the Plans or as may be authorized by the Engineer. Where vertical separation is less than six (6) 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. For water mains crossing over sanitary sewers or storm drains, a minimum vertical clearance/spacing between the walls of these pipelines shall be eighteen (18) inches, as measured at the intersection thereof, unless a narrower clearance/spacing is shown on the Plans, in which case certain pipe protection measures shall be 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 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.

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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:

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 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. Trench widths to one (1) foot above the top of the pipe shall not exceed thirty (30) inches maximum or one and one-half (1 1/2) times the outside diameter of the pipe plus eighteen (18) inches, whichever is greater. Standard excavating equipment shall be adjusted so as to excavate the narrowest trench possible.

Trench excavation shall be not more than two hundred (200) 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

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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 inches (2") in diameter. Specialized equipment and excavation methods, including but not limited to 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 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 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).

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 dechlorinating and controlling turbidity.

7-09.3(7)B Rock Excavation

(*****)

Revise this subsection to read:

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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 and one-half (1½) inches, or boulders, shall be removed to provide a minimum clearance of four inches (4") 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 which 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.

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 foot (1') 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 foot (1') 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 suitable 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

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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 Crushed Surfacing Base Course.

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 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, the Contractor aggregate material meeting the requirements of Section 9-03.9(3) "Crushed Surfacing Top 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 Top Course for Trench Backfill, compacted in accordance with Method C compaction as provided in Section 2-03.3, and graded to provide a firm, smooth and uniform surface for placement of subsequent surfacing materials to finish grade.

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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 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 2-03.3(14)C. 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 2-03.3(14)C, and graded to provide a firm, smooth and uniform surface for placement of subsequent surfacing materials to finish grade.

A minimum three (3) inch sand cushion, or neoprene pad or high-density polyethylene closed-cell foam with a minimum density of 9.5 lb/cf shall be placed between the water main and existing pipelines, conduits, or other facilities when encountered during construction and as directed by the Engineer.

Native excavated material in excess of the quantity needed for compacted trench backfill shall be removed and disposed as provided in Section 7-09.3(8), "Removal and Replacement of Unsuitable Materials."

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 ninety-five percent (95%) of the maximum density as specified in Section 2-03.3(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 inches (12") 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 inches (6") 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 than the unsupported weight of the machine's pad and boom, all to achieve the required compaction density without overloading the pipe or structure.

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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, or 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 to supplement Contractor provided material testing. 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 damaged pipe, fitting or appurtenance that is damaged or defective, or whose 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 works.

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

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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 one quarter inch (1/4") 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 one quarter inch (1/4") spacing limitation provided herein.

All fittings and pipe which 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 water tight, 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 twenty percent (20%) 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 through the City of Seattle in accordance with the City of Seattle's testing procedures and requirements. Such testing shall be subject to the City of Seattle'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

(*****)

Delete the 1st 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.

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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 one percent (1%) 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.

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,

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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, coupling, 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:

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 connection to the existing water system shall be made within ninety-six (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 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 twenty-four (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.

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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 twenty-four (24) hours, but preferably forty-eight (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, one (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.

"Swab-and-Go" Procedure

The Contractor shall use the "swab-and-go" process as outlined below for connecting a new section or segment of water main to the existing ("active") water system, or installing a segment of new water main between existing sections of existing water main, 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 20 feet, or one full standard length of water pipe, or less, except as provided below;
3. The section of new water main as described in Items '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; and

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,

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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, one (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.

In certain situations, lengths of pipe in excess of 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.

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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.

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 twenty-four (24) hours prior to the hydrostatic pressure test, to allow the concrete to sufficiently hydrate.

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. Pipe-laying shall not be continued more than an additional 1,000 feet until the first section has been tested successfully.

Prior to requesting the Engineer, or a representative from the Contracting Agency, 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:

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 feet (60') 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.

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Where the length of pipe between the existing water system and the new water system exceeds sixty feet (60'), 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.

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 or representative of the Contracting Agency or a representative from the Contracting Agency.

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.

This "make-up" water shall contain a minimum concentration of approximately fifty parts per million (50 ppm) of free chlorine by the addition of a twelve percent (12%) hypochlorite solution. All pumps and 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 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 twenty-four (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:

SPECIAL PROVISIONS

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

P =average test pressure during the leak test in pounds per square inch (gauge) (PSIG)

(Table 7-09.3(12)-A 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.

(Continued on Next Page)

SPECIAL PROVISIONS

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 (FEET) | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|---------------------------------|--|----------|---------|---------|---------------------------|----------------|
| | (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.

SPECIAL PROVISIONS

TABLE 7-09.3(23)E
MAXIMUM ALLOWABLE LEAKAGE/"MAKE-UP" WATER VOLUME (L)
FOR 15-MINUTE HYDROSTATIC PRESSURE TEST

$$L = \frac{ND(P)^{0.5}}{29,600}$$

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 (FEET) | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|---------------------------------|--|----------|---------|---------|---------------------------|----------------|
| | (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.

SPECIAL PROVISIONS

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 (FEET) | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|---------------------------------|--|----------|---------|---------|---------------------------|----------------|
| | (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 |

SPECIAL PROVISIONS

| LENGTH OF MAIN | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|-------------------|--|-----------|----------|---------|---------------------------|-------------------|
| | (FEET) | (GALLONS) | (QUARTS) | (PINTS) | (CU IN) | DECIMAL 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.

SPECIAL PROVISIONS

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 (FEET) | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|---------------------------------|--|----------|---------|---------|---------------------------|----------------|
| | (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 |

SPECIAL PROVISIONS

| LENGTH OF MAIN | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|-------------------|--|-----------|----------|---------|---------------------------|------------------|
| | (FEET) | (GALLONS) | (QUARTS) | (PINTS) | (CU IN) | (DECIMAL 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.

SPECIAL PROVISIONS

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 (FEET) | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|---------------------------------|--|----------|---------|---------|---------------------------|----------------|
| | (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 |

SPECIAL PROVISIONS

| LENGTH OF MAIN | MAX ALLOWABLE LEAKAGE/ "MAKE-UP" WATER VOLUME | | | | DEPTH IN GARBAGE CAN * | |
|-------------------|--|-----------|----------|---------|---------------------------|---------------------|
| | (FEET) | (GALLONS) | (QUARTS) | (PINTS) | (CU IN) | (DECIMAL INCHES) |
| 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 |
| 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.

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 workmanship, 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 workmanship, 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

(*****)

SPECIAL PROVISIONS

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.

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 "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.

Add the following new subsections:

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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 and Contracting Agency shall be borne by the Contractor in accordance with the Contracting Agency's latest fee schedule.

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 of two 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 two and one-half (2½) inch diameter inlet hose adaptable to a two and one-half (2½) diameter NST hose thread, and is equipped with a meter and double check valve assembly. A power source with a minimum capacity of one hundred ten (110) volts A.C. and five hundred (500) watts shall be supplied by the Contractor to operate the pump. The flushing box is also provided with a short section of two and one-half (2½) diameter inlet hose adaptable to a two and one-half inch (2½) 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 two and one-half (2½) 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.

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

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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 twelve percent (12%) 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.

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. Lakehaven 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.

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.

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 parts per million (50 ppm), but not more than one hundred 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 one percent (1%) 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".

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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 twenty-four (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 or representative of the Contracting Agency. The test will be deemed acceptable if the residual measured at the designated non-source sample points is no lower than forty 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."

7-09.3(24)U Discharge of Disinfection Solution

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.

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 eighty counts per milliliter (80/ml). The maximum allowable HPC population count for samples from any of the designated non-source sample points shall be no greater than twenty counts per milliliter (20/ml) above the highest HPC population count from a source sample.

The HPC population count from any source sample that exceeds eighty counts per milliliter (80/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.

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, the flow from the source tap(s) and the

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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 twenty-four (24) hours, but no longer than forty-eight (48) hours after the initial bacteriological samples were collected. However, the subsequent bacteriological samples may be collected later than forty-eight (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 "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.

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 two-inch (2") and providing the minimum size as follows:

- 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, one percent (1%) hypochlorite solution mixed in a clean container, before they are installed. At the conclusion of main cleaning, the Contractor shall remove and dispose 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.

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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.

7-09.3(25) Surface and Subsurface Facility Preservation and Restoration

(*****)

Add the following new subsections:

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 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, 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 which 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 base course and 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.

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Immediately following spreading and final shaping, each layer of surfacing shall be compacted to at least ninety-five percent (95%) 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.

Unless required sooner by the City, County, or State governmental agency having jurisdiction, the permanent shoulder restoration shall be completed within seventy-two (72) consecutive hours after the initial trench excavation which disturbed and/or damaged the existing street improvement.

7-09.3(26) Placing New Water Facilities Into Operation

(*****)

Add the new subsection:

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.

7-10 VACANT

Revise this section, including heading, to read:

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7-10 TEMPORARY WATER SERVICE AND CONSTRUCTION SEQUENCING

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" and Under) | 9-30.1(4)B |
| Polyvinyl Chloride (PVC) Pressure Pipe (under 4 inches) | 9-30.1(5)B |
| Polyethylene Pressure Pipe (under 4 inches) | 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" 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(2) |
| Tapping Sleeve and Valve Assembly | 9-30.3(8) |
| End Connections | 9-30.3(9) |
| Gate Valves (2" - 12") | 9-30.3(10) |
| Bronze Gate Valves (Under 3") | 9-30.3(15) |
| Ball Valves for Temporary Water Main and Service Connections | 9-30.9(1) |
| Water Service Connections (2-inches and Smaller) | 9-30.6 |
| Saddles | 9-30.6(1) |
| Corporation Stops | 9-30.6(2) |
| Polyethylene Tubing | 9-30.6(3)B |
| Service Fittings | 9-30.6(4) |
| Brass Nipples and Fittings | 9-30.6(6) |
| 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.

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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 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. 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 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.

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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 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.

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, and drainage form 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, and disinfected and subjected to bacteriological testing as otherwise provided in Section 7-09. If authorized by the Contract 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 one (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

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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 not be on 1st Ave S and shall be completely within the right-of-way.

Drained or stored water shall not be discharged to sanitary or storm sewer systems and shall be treated including dechlorination, and 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(4) |
| Combination Air Release/Air Vacuum Valves | 9-30.3(7) |
| Tapping Sleeve and Valve Assembly | 9-30.3(8) |
| End Connections | 9-30.3(9) |
| Gate Valves (2" - 12") | 9-30.3(10) |
| Resilient-Seated Gate Valves (4" - 12") | 9-30.3(11) |
| Resilient-Seated Gate Valves (16") | 9-30.3(12) |
| Gate Valves (24") | 9-30.3(13) |
| Bronze Gate Valves | 9-30.3(14) |
| Check Valves | 9-30.3(15) |
| Precast Concrete Vaults | 9-30.8(1) |
| Flow Strainers | 9-30.8(3) |
| Pressure Gauges | 9-30.8(4) |
| Low-density Polyethylene Foam | 9-30.8(5) |

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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."

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 2-01.3(5) "Site 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.

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

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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 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) Asphalt Valve Box Protective Pad Installation

All valves with valve boxes located outside a paved surface shall be provided with an asphalt valve box protective pad. The asphalt valve box protective pad shall be constructed to the dimensions shown and otherwise in accordance with the Standard Plans. 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.

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 | 9-30.5(3) |
| Hydrant Restraints | 9-30.5(4) |
| Traffic Flanges | 9-30.5(5) |
| Guard Posts | 9-30.5(6) |
| Hydrant Nozzles | 9-30.5(7) |
| Operating Nuts | 9-30.5(8) |
| Pipe for Water Main | 9-30.1 |
| Ductile Iron Pipe | 9-30.1(1) |
| Fittings | 9-30.2 |

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| | |
|--|------------|
| Ductile Iron Pipe | 9-30.2(1) |
| Restrained Joints | 9-30.2(6) |
| Bolted, Sleeve-Type Couplings for Plain End Pipe | 9-30.2(7) |
| Valves | 9-30.3(11) |
| Gravel Backfill for Drywells | 9-03.12(5) |
| Construction Geotextile for Underground Drainage | 9-33 |
| Low-density Polyethylene Foam | 9-30.8(5) |

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 2-01.3(5) "Site Restoration".

Hydrant laterals shall be constructed with six-inch (6") diameter ductile iron pipe Special Thickness Class 52 and have restrained joints. A thrust block shall be placed at the hydrant tee; 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 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 three-foot (3') radius unobstructed, level working area shall be provided around all hydrants. Hydrants shall be installed plumb (vertical) with the hydrant pumper (steamer) 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.

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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 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, one percent (1%) 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.

After all installation and testing procedures are satisfactorily completed, the exposed portion of the fire hydrant, except the Storz adapter, shall be painted with two (2) coats of Sherwin/Williams industrial enamel paint, Gloss Safety Yellow No. B54Y37.

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 six-inch (6") 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:

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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 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."

7-14.3(2)C Hydrant Guard Posts

Revise this subsection to read:

Fire hydrant guard posts shall be constructed at the locations shown on the Plans. The exposed portion of each fire hydrant guard post shall be painted with two (2) coats of Sherwin/Williams industrial enamel paint, Gloss Safety Yellow No. B54Y37.

7-14.3(6) Hydrant Extensions

Revise this subsection to read:

The Contractor shall furnish and install fire hydrant vertical barrel extensions where required due to an unanticipated greater-than-normal water main depth, or the surface grade is raised. The fire hydrant barrel extensions, operating stems for the hydrant main valve, and traffic flanges shall conform to AWWA C502 in design, material, and workmanship. After installation, the extended fire hydrant shall be painted as specified in Section 7-14.3(1) "Setting Hydrants," and shall be subjected to a hydrostatic pressure test and disinfection procedure as specified in Section 7-09.3(24) "Disinfection of Water Mains" and Section 7-09.3(23) "Hydrostatic Pressure Test."

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 "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 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 Cast Iron Fittings".

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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)B |
| Service Fittings | 9-30.6(4) |
| Meter Setters | 9-30.6(5) |
| Bronze 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 |

Revise this section to read:

7-15.3 Construction Requirements

Add the following subsection:

7-15.3(3) 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

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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 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 one-inch (1") 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 which 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 domestically sourced brass pipe plug. If the existing water service connection is on a water main which 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 which 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 domestically sourced brass 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(4) 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 effect 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

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visible leaks detected on the customer supply line installed by the Contractor shall be corrected by the Contractor, and witnessed by the Contracting Agency, at no additional expense to the Contracting Agency.

Add the following subsection:

7-15.3(5) 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 which 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 domestically sourced brass pipe plug. If the existing water service connection is on a water main which 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 which 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 domestically sourced brass pipe plug.

Where water service connections will not remain connected to an active water main, or where shown the Plans, or when the Contracting Agency inspector determines that a portion of water service connection designated for removal is not accessible

Excavating and backfilling, for removing and decommissioning water service connections shall be as specified in the applicable portions of Section 7-09 "Water Mains."

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DIVISION 8 - MISCELLANEOUS CONSTRUCTION

(*****)

Add the following new section:

SECTION 8-31 UNDERGROUND UTILITIES

8-31.1 Description

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 had performed the work with the authority of and due notice to the Engineer.

8-31.3 (1) Utility Potholes

At the general locations as shown in the Plans, and/or at such locations as may be directed by the Engineer, 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, 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 2-03.3(14)D, or as the Engineer may direct. For potholes outside the limits of Project improvements, 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).

8-31.3 (2) Resolution of Utility Conflicts

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.
 - a) 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:
 - (1) 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.
 - (2) 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 unit contract 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.

DIVISION 9 - MATERIALS

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, except as provided in Sections 9-03.21(1)A and B.

9-03.25 Pea Gravel

(*****)

Add the following new section:

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" | 100% |
| 3/8" | 85-100 |
| #4 | 10-30 |
| #8 | 0-10 |
| #16 | 0-15 |

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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.

9-30.1(1) Ductile Iron Pipe

Revise this subsection to read:

All materials for water distribution and transmission shall be new and undamaged. Prior to ordering any pipe and fittings to be used in a potable water supply, the Contractor shall submit the material source as required by Section 1-06.1 of the Standard Specifications. All direct and indirect drinking water system components which come in contact with potable water shall have National Sanitation Foundation (NSF) certification. All pipe and fittings shall be clearly marked with the manufacturer's name, type, class, and thickness as applicable and shall be marked on the component at the place of manufacture. Marking shall be legible and permanent under normal conditions of handling and storage.

Ductile iron pipe shall be centrifugally cast conforming to AWWA C151 and shall have a double thick cement-mortar lining and 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 fifteen (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 City of Seattle in accordance with the City of Seattle's testing procedures and requirements. Such testing shall be subject to the City of Seattle'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.

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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 4-inch 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.

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.

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:

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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 one-eighth inch (1/8") 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.

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 Standards 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.

9-30.2(12) Transition, Reducing and Flexible Couplings

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 conforming to ASTM A47, grade 32510 or 35018 and shall be pressure class 300. End rings/followers shall be

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ductile iron conforming to ASTM A536, grade 65-45-12 or malleable iron conforming to ASTM A47, grade 32510 or 35018 and shall be pressure class 300.

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.

The long pattern solid sleeve coupling (MJ) shall be minimum 12-inch length for pipe diameters equal to or less than 12-inch and for pipe diameters greater than 12-inch, shall be a minimum 15-inch length.

The long body transition couplings (Romac 501, Hymax 2 or approved equal) shall be minimum 12-inch length for pipe diameters equal to or less than 12-inch and for pipe diameters greater than 12-inch, shall be a minimum 14-inch length.

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

(*****)

Revise 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 workmanlike 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 five (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, the 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.

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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 one half (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.

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."

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. 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 two-inch (2") 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 Inches)

Resilient-seated gate valves sixteen (16) inches in size shall conform to the requirements of AWWA C509 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) inches in size shall incorporate O-rings for the stem seal.

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Resilient-seated gate valves sixteen (16) 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) inches in size shall be equipped with standard two-inch (2") wrench nuts. Non-buried valves shall be equipped with hand wheels, unless otherwise shown on the Plans.

9-30.3(8) Gate Valves (24 Inches)

Gate valves twenty-four (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.

Buried horizontal gate valves shall be equipped with standard two-inch (2") 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.

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.

9-30.5 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.

To minimize requirements for spare parts and maintenance tools and expertise, fire hydrants shall be:

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- "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 from the bottom of the connecting pipe to the ground line of the hydrant, as shown in the Standard Plans, shall be forty-three (43) inches. The maximum nominal bury length shall be fifty-five (55) inches 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 six (6) inches.

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.

9-30.5(6) Guard Posts

Guard posts for fire hydrants shall be provided only where shown on the Plans and spaced as shown in the Standard Plans. Guard posts shall be reinforced concrete, six (6) feet in length by nine (9) inches in diameter. Reinforcing shall consist of a minimum of four (4) No. 3 reinforcing steel bars. Painting of the exposed portion of the post shall be as specified in Section 7-14.3(2)C "Fire Hydrant Guard Posts."

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9-30.5(7) Hydrant Nozzles

Each fire hydrant shall be provided with one (1) four-inch (4") diameter steamer nozzle and two (2) two-and-one-half-inch (2.5") diameter hose nozzles. Fire hydrants in the City of Auburn shall be provided with one (1) four-and-one-half-inch (4.5") diameter pumper port and two (2) two-and-one-half-inch (2.5") diameter hose ports. All nozzles shall be equipped with domestically sourced brass nipples screwed into the hydrant barrel and locked into place.

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 four-inch (4") rigid female x four-inch (4") Storz smooth-faced adapter with a four-inch (4") 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 five-inch (5") 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 eighteen-inch (18") length of one-eighth-inch (1/8") 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-inches and Smaller)

(*****)

Revise this section and subsections, including titles, to read:

9-30.6(1) Saddles

Service saddles shall meet the requirements of the Standard Plans. 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:

- "Style 101, 101S, 202, or 202S" as manufactured by Romac Industries, Inc., of Seattle, Washington.
- For one-inch (1") taps on ductile iron and asbestos cement water mains twelve (12) inches and smaller, single strap saddles shall be used. For one-inch (1") taps on PVC water mains twelve (12) inches and smaller, bolted/banded service saddles shall be used.

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- For one-inch (1") taps on ductile iron and asbestos cement water mains larger than twelve (12) inches, double strap service saddles shall be used. For one-inch (1") taps on PVC water mains larger than twelve (12) inches, double bolted/banded service saddles shall be used.
- For service taps larger than one (1) inch on ductile iron and asbestos cement water mains larger than twelve (12) inches, double strap service saddles shall be used. For service taps larger than one (1) inch on PVC water mains larger than twelve (12) inches, double bolted/banded service saddles shall be used.
- The threads on the service tap on the saddle body shall be CC (AWWA taper) for one-inch (1.5") size and Female Iron Pipe thread for service taps equal to or larger than one-inch (1.5") size.

9-30.6(2) Corporation Stops

Corporation stops shall meet the requirements of the Standard Plans and these Specifications.

Corporation stops shall be:

- "Model 1-inch H-15008, 1-1/2-inch H-9969, or 2-inch H-9969" as manufactured by Mueller Company of Decatur, Illinois.
- "Type 1-inch F1000G 'GripJoint,' 1-1/2-inch FB500, or 2-inch FB500" as manufactured by the Ford Meter Box Company, Inc., of Wabash, Indiana.
- "Model 1-inch 4701T, 1-1/2-inch 3131B, or 2-inch 3131B" as manufactured by A. Y. McDonald Mfg. Company of Dubuque, Iowa.

Corporation stops shall be made of bronze alloy.

For one-inch (1") service taps, the inlet connection shall be CC (AWWA taper) male thread. For service taps larger than one-inch (1"), the inlet connection shall be Male Iron Pipe thread.

For one-inch (1") 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 one-inch (1"), 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 Standard Plan corresponding to the bid Proposal item.
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 domestically sourced brass 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

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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 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.
- "Model 4753T or 4754T with Insert Stiffeners #6133T (3/4-inch to 2-inch size)" as manufactured by A. Y. McDonald Mfg. Company of Dubuque, Iowa.

Couplings and adapters for water service connections shall be made of brass alloy (domestically sourced). 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.

Meter setters shall be:

- "Model VH72-12WC, VH74-12WC, VH76-12-11-66 (with O-ring groove machined in face of flanges), or VH77-12-11-77 (with O-ring groove machined in face of flanges)" as manufactured by the Ford Meter Box Company, Inc., of Wabash, Indiana.
- "Model H-1404-2x12-inch with two (2) H-14222 ends for 5/8 x 3/4-inch and 1-inch meters, and B-2422-2-12x13" for 1-1/2-inch meter (grooved for O-ring gaskets on both flanges), and B-2422-2-12x17-inch for 2-inch meter (grooved for O-ring gaskets on both flanges)" as manufactured by Mueller Company of Decatur, Illinois.

For a one-inch (1") 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 one-inch (1") 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" meter setters require a swivel joint.

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The back side of meter setters must be domestically sourced brass and meet the following:

- 3/4" and 5/8" service shall be an 8" nipple
- 1" service shall be an 8" nipple
- 1-1/2" and 2" shall be a 12" nipple

9-30.6(6) Bronze Nipples and Fittings

Domestically sourced brass nipples and fittings shall be installed where shown in the Standard Plans and shall meet the requirements of ANSI B-16.15, ASA 125 pound class.

9-30.6(7) Meter Boxes

Meter boxes for a particular installation shall meet the requirements of the applicable Standard Plans.

Meter boxes and covers shall be polymer concrete:

- 5/8" x 3/4" Meter: Armorcast A600485 (11"x18") and cover w/ hinged reader lid rated for traffic loads (A600484TR)
- 1" Meter: Armorcast A6001946PCX12 (13"x24") and cover w/ hinged reader lid rated for traffic loads (A6001969R)

Meter box covers shall be non-skid, bolt-down, with hinged meter reading lids

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" M.I.P. thread straight line. The inlet shall be conductive compression for 1" CTS O.D. copper or polyethylene service pipe. Maintain a branch spacing minimum of 13-1/2 inches between the outlets.

9-30.7 Flow Detection/Backflow Prevention Devices

(*****)

Add the following new Section:

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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.

The detector water meter shall be:

- "Model PDR-10-100FS Remote-Reading 5/8x3/4-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 5/8x3/4-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 [three-inch (3") 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.

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9-30.7(7)B. Atmospheric Vacuum Breaker (AVB)

The atmospheric vacuum breaker is a device which 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.

9-30.8 Miscellaneous Water Distribution Materials

(*****)

Add the following new Section:

9-30.8 Miscellaneous Water Distribution Materials

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 two inches (2") 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 lens; four-and-one-half-inch (4.5") dial; and a one-half-inch-(1/2") 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% of span in middle half of scale, with the balance of the scale ±2% 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.

9-30.9 Temporary Water Facilities

(*****)

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, ½ In. (13 mm) Through 3 In. (76 mm), for Water Service," or AWWA C904-06 "Cross-Linked Polyethylene (PEX) Press Pipe, ½ 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, ½ In. (13 mm) Through 3 In. (76 mm), for Water Service," or AWWA C904-06 "Cross-Linked

SPECIAL PROVISIONS

Polyethylene (PEX) Press Pipe, ½ 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.

SPECIAL PROVISIONS

DIVISION 10 – MEASUREMENT AND PAYMENT – UNIT PRICE BID

(*****)

(New Division)

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 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”, to provide a common basis for all bidders, the District 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 District 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.

Bid Schedule Items

The following subsections correspond to the items on the bid schedule 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.

Schedule B - Lakota Middle School SRTS Water Main Replacement

Roadway Surveying (1-05)

See schedule A for measurement and payment.

As-Built Survey and Record Drawings (1-05)

See schedule A for measurement and payment.

Material Testing (1-06)

See schedule A for measurement and payment.

Bid Item No. B1 – Permits (1-07)

No specific unit of measurement will apply to the lump sum item of “Permits.”

SPECIAL PROVISIONS

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. Permits included within this work, but not limited to include the following:

City of Federal Way – See Schedule A special provisions for ROW Permit Requirements

- Work will be completed under a City of Federal Way ROW permit and shall adhere to requirements as and if noted in Schedule A work.

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. The work for the Construction Stormwater General Permit will be paid under the Bid Item for “Temporary Water Pollution and Prevention”.

Bid Item No. B2 – COVID-19 Health and Safety Plan (CHSP) (1-07)

See schedule A for measurement and payment.

Bid Item No. B3 – COVID-19 Added Measures (Without Overhead & Profit) (1-07)

Measurement and payment for “COVID-19 Added Measures (Without Overhead & Profit)” shall be by force account per 1-09.6 of the Standard Specifications.

No specific unit of measurement will apply to the of “COVID-19 Added Measures (Without Overhead & Profit.”

Payment will be made in accordance with Section 1-04.1 for the following Bid Item:

“COVID-19 Added Measures (Without Overhead & Profit), est.

Payment will include the direct costs for the added health and safety measures necessitated by the plan, including additional materials and PPE. No overhead or profit will be included. To provide a common proposal for all Bidders, the Contracting Agency has entered in an amount in the Proposal to become part of the Contractor’s total Bid.

Should reporting as required by the Governor’s requirements be necessary, all direct labor associated with said reporting shall be paid for as force account in accordance with section 1-09.6.

Any loss of production associated with implementation of the plan, or as precipitated by the Governor’s Phase 1 Construction Restart COVID-19 job Site Requirements, shall be included and accounted for when developing the Bid package.

SPECIAL PROVISIONS

Mobilization **(1-09)**

See schedule A for measurement and payment.

Temporary Traffic Control **(1-10)**

See schedule A for measurement and payment.

Bid Item No. B4 – Site Restoration **(2-01)**

No specific unit of measurement will apply to the lump sum item of "Site Restoration."

"Site Restoration", lump sum.

The lump sum unit contract price for "Site Restoration" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work as specified, including any supplemental materials, permits, and Contracting Agency coordination, for surface restoration described in this section that is not paid for by other Bid items in the proposal.

| <u>ITEM DESCRIPTION</u> | <u>APPROX. QUANTITY</u> |
|---|-----------------------------|
| HMA ½" PG 58H-22 | 20 TN |
| Crushed Surfacing Base Course | 12 TN |
| Remove and reset existing sign near Station 15+45, RT | 1 EA |
| 4" topsoil and grass seed outside of COFW restoration near Station 15+40 RT | 30 SY |

Removed materials shall be hauled to and disposed at a site authorized and permitted for resource recovery, salvage, or disposal of the respective material as appropriate.

Bid Item No. B5 – Removal of Structures and Obstructions **(2-02)**

No specific unit of measurement will apply to the lump sum item of

"Removal of Structure and Obstruction."

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 Bid Item contains specific items to be removed, including work incidental to listed items as described in this section. Included in this item is Roadway Excavation per Section 2-03. Following is a partial list of items to be included in the lump sum Bid item "Removal of Structures and Obstructions" that is provided for the convenience of the Contractor. This is not meant to be an all inclusive list and is intended to bring attention to major items or work in this item.

| <u>ITEM DESCRIPTION</u> | <u>APPROX. QUANTITY</u> |
|--|-----------------------------|
| Sawcutting (Outside of COFW sawcut Limits, Full Depth) | 155 LF |
| HMA removal, Roadway pavement (full depth) | 360 SF |

SPECIAL PROVISIONS

| <u>ITEM DESCRIPTION</u> | <u>APPROX. QUANTITY</u> |
|--|-----------------------------|
| Thrust blocks at water main fittings (e.g., At all existing bends, tees and dead ends) | 5 EA |
| Valve Markers/Posts | 2 EA |
| Removed Abandoned Steel Water Main (6-Inch)* | 550 LF |

The Work shall include removal of miscellaneous traffic items and temporary storage and reinstallation of permanent signage.

Bid Item No. B6 – Remove Water Valve ([nominal pipe diameters]-Inch) (2-02)

“Remove Water Valve (6-Inch & 8-Inch)” will be measured per each.

Payment shall be made for the following bid item:

“Remove Water Valve (8-Inch & 12-Inch)”, per each.

The unit Contract price per each for “Remove Water Valve (8-Inch & 12-Inch) shall be full compensation for all costs to remove the existing water valve as specified in Section 2-02.3(5)A.

Bid Item No. B7 – Remove AC Water Main (8-Inch, & 12-Inch) (2-02)

“Remove AC Water Main (8-Inch, & 12-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 (8-Inch, & 12-Inch)”, per linear foot.

The unit Contract price per linear foot for “Remove AC Water Main (8-Inch, & 12-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, and compacted trench backfill
- asbestos cement removal and abatement per permit and contract requirements
- removal of service lines
- removal of valves
- 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, backfilling the trench with crushed surfacing top course as specified

SPECIAL PROVISIONS

- material handling, processing, salvaging if specified, and haul to and disposal at a site permitted to receive removed material
- trench dewatering
- if required, install, maintain and remove trench safety systems

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; 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
- restoring the surface as shown on the Plans.

Payment will be in accordance with the unit contract price, irrespective of the pipe material, pressure rating, and size, and the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B8 – Remove [Material] Water Main ([nominal pipe diameters]-Inch) (2-02)

“Remove Ductile Iron / Cast Iron 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 items:

“Remove Ductile Iron / Cast Iron Water Main (8-Inch)”, per linear foot. The unit Contract price per linear foot for “Remove [Material] Water Main [nominal pipe diameters],” shall be full compensation for all costs incurred to perform the Work described in Section 2-02.3(5), including:

- removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, and associated corporation stops and saddles for water service lines
- compacted trench backfill
- The unit contract 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.”
- Also included shall be coordinating with Lakehaven Water & 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,
- backfilling the trench with crushed surfacing top course as specified,
- Material handling, processing, salvaging if specified,
- and haul to and disposal at a site permitted to receive removed material

SPECIAL PROVISIONS

Payment will be in accordance with the unit contract price, irrespective of the pipe material, pressure rating, and size, and the handling, processing, disposal, and permit compliance requirements, as applicable.

Bid Item No. B9 – Remove Hydrant Assembly

(2-02)

“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 unit Contract price per each for “Remove Hydrant Assembly” shall be full compensation for all costs incurred to perform the Work described in Section 2-02.3(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, thrust block (if any),
- 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.
- 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. B10 – Trench Safety System

(2-09)

No Unit of measurement shall apply to the lump sum price for “Trench Safety System”.

Payment shall be made for the following bid item:

“Trench Safety System”, lump sum.

The lump sum contract price for “Trench Safety System” shall be full pay for all temporary shoring or equivalent trench stabilization and worker protection method and materials, and will include all design and engineering fees; furnishing, constructing, and removing all temporary shoring or equivalent trench safety system, complete, and as may be required under the provisions of any permits, and in accordance with the requirements of this section. If a separate Contract bid item is included for Shoring or Extra Excavation Class A or Class B, or Shoring or Extra Excavation Trench, Trench Safety System shall apply to all, temporary shoring or equivalent trench safety system, and extra excavation for trenching that is not included in the other contract Shoring or Extra Excavation bid item or

SPECIAL PROVISIONS

items including water work associated with existing watermain or service connection removal, new water service installations and installation of temporary watermains and blowoffs.

Bid Item No. B11 – Shoring or Extra Excavation Cl. B

(2-09)

“Shoring or Extra Excavation Cl. B” will be measured by the square foot.

Payment shall be made for the following bid item:

“Shoring or Extra Excavation Cl. B” shall be per square foot.

The unit Contract price per square foot for “Shoring or Extra Excavation Cl. B” shall be full pay for installing the new water main and shall include the following items:

- furnishing, placing, moving, and removing temporary shoring, or equivalent trench stabilization and worker protection system,
- all excavation, backfill, compaction, and other Work required when extra excavation is used in lieu of such temporary shoring or equivalent trench safety system as necessary to install the water main, water main lateral connections
- select backfill material as required for backfilling within the limits of the extra excavation.

Shoring or Extra excavation Cl. B used as part of removing the existing watermain and/or removing and installing water services shall not be considered for measurement and payment will be considered incidental to the bid item “Trench Safety Systems” per SP 2-02.

Bid Item No. B12 – 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.

Included in the cost per ton for “Temporary Pavement” shall be placement and compaction of hot mix asphalt, cold mix asphalt, additives, roadway excavation to proposed subgrade depths, haul and disposal of temporary pavement. Cold mix asphalt shall be used for shoulders only and is not allowed to be used in traveled lanes..

Bid Item No. B13 – Minor Change For Water Improvements (For Bid Purposes Use \$18,000) (7-09)

Payment will be made in accordance with Section 1-04.1 and as provided in this section for the following bid item(s) when included in the proposal:

“Minor Change for Water Improvements (For Bid Purposes Use \$18,000),” per estimated (Est.).

To provide a common proposal for all bidders, the Contracting Agency has estimated the amount for “Minor Change for Water Improvements” 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.

SPECIAL PROVISIONS

Bid Item No. B14 & B15 – Ductile Iron Pipe for Water Main ___-Inch Diameter

(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 item in the Proposal:

“Ductile Iron Pipe for Water Main 8-Inch Diameter.”, per linear foot.

“Ductile Iron Pipe for Water Main 12-Inch Diameter.”, per linear foot.

The unit Contract price per linear foot for each size of “Ductile Iron Pipe for Water Main ___-Inch Diameter.” 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 unit Contract price(s) for water main as included in the Proposal:

- locating existing utilities
- furnishing and installing pipe and fittings as shown on the plans and details
- 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
- sawcutting up to 12” depth
- structure excavation class B including haul
- hydro excavate where called out in the plans
- trench dewatering
- furnishing and installing restrained joints, concrete thrust blocking, thrust collars or dead-man blocks/anchors as shown on the Plans, details or as may be required for the work
- furnishing and installing pipe zone bedding and backfill
- stockpiling including haul and protecting stockpiled excavated trench materials if designated for trench backfill
- hauling and disposing removed or excess materials
- compacting and grading the pipe zone bedding and backfill
- furnishing, installing, maintaining, and removing temporary pavement
- filling, flushing, draining, hydrostatic pressure testing, disinfecting, bacteriological testing, taste and odor testing
- furnishing, installing, maintaining, and removing temporary caps, flanges, and blowoffs, 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.

SPECIAL PROVISIONS

Bid Item No. B16 – 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” 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 which 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 unit Contract 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). No additional payment shall be made for fittings and couplings which would be normally anticipated in the Work shown on the Plans, even though said fittings and couplings were not specifically shown on the Plans.

Bid Item No. B17 & B18 – 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.

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

“Connect to Existing Water Main 8-Inch Diameter”, per each.

“Connect to Existing Water Main 12-Inch Diameter”, per each.

The unit contract 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 unit contract 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:

- excavation including sawcutting, haul, and exposing the existing water main
- dewatering the trench within the connection excavation
- install, adjust and provide temporary blowoffs and blocking
- furnish and place pea gravel under existing asbestos cement water main
- compacting and grading bedding and backfill
- furnishing, installing, maintaining, and removing temporary pavement

SPECIAL PROVISIONS

- complete the 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. B19 – 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 unit Contract 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 2-03.3(14) Unsuitable Foundation Excavation & 7-09.3(8) Removal and Replacement of Unsuitable Materials and per the details shown in the Contract plans.

Bid Item No. B20 – Crushed Surfacing Top Course for Trench Backfill (7-09)

Crushed Surfacing Top 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 Water Main Trench 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 cubic yard.

The unit Contract price per cubic yard for "Crushed Surfacing Top Course for Trench Backfill" shall be full payment for all cost for the Work to furnish, place, and compact gravel base for trench backfill, as shown and noted in the Plans, including “Water Trench Section,” and as authorized in advance by the Engineer.

Bid Item No. B21 – 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”, lump sum.

The lump sum price for “Construction Sequencing” shall be full pay for all costs to prepare, submit, and revise plans for construction sequencing in accordance with Section 1-08.4, and to schedule, manage, and perform the Work in accordance with the approved Construction Sequence Plan(s), including notifications and coordination; furnishing, installing, activating, deactivating and removing temporary blowoffs as shown in the plans and details, other connections and terminations, and provisions for protecting the facilities and maintaining traffic access including anchored steel plating; steel roll off tanks (baker tank or approved equal) for storing and treating water; draining, filling, flushing and disinfecting water facilities; bacteriological sampling and testing if determined necessary by the Contracting Agency; preparing, submitting, and revising plans for temporary service, if applicable; installing,

SPECIAL PROVISIONS

managing and removing temporary water mains and appurtenances, pipe/hose ramps, and transferring such temporary water service(s) from existing and to permanent facilities in accordance with an approved Construction Sequencing plan as applicable.

Payment of 30 percent of the lump sum price will be made upon approval of the proposed Construction Sequence Plan. No separate measurement or payment will be made for preparation of or revisions to any Construction Sequence Plan, or for any other components of the Work as described under this Subsection.

Bid Item No. B22 & B23 – 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 which 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.

"Gate Valve, 12-Inch", per each.

The unit 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
- 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

Bid Item No. B24 – Hydrant Assembly (7-14)

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 unit Contract 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:

- excavating
- installing the hydrant assembly components
- placing and compacting backfill, asphalt or concrete valve box protective pad, and fire hydrant guard posts (if required)
- 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

Payment shall also include bends and associated restrained joints, and pipe segments as identified in the Plans. Bends not shown in the plans for the hydrant assembly lateral shall be measured and paid under "Additional Cast Iron Fittings," per pound. No separate measurement or payment will be made for the connecting segments of ductile iron pipe.

SPECIAL PROVISIONS

Bid Item No. B25 & B26– Service Replacement ([Type] ____-Inch)

(7-15)

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 items are provided, no differentiation will be made for traffic-rated meter boxes. A single (not double) service line shall be presumed unless a 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.

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 of removing and decommissioning of 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, 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 (Meter, 1.5-Inch)", per each.

"Service Replacement (Irrigation, 2-Inch)", per each.

The unit Contract price of the above item as included in the Contract Bid Proposal shall be full pay for all work to install the 2" 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, 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
- clearing and grubbing
- protection of existing utilities
- bedding and backfilling the pipe, backfilling the trench, compacting the backfill and bedding
- all surface and subsurface facility restoration
- dewatering the trench
- handling, cutting, laying, and cleaning the pipe, and assembling joints of pipe and fittings
- tapping the water main
- hydrostatic pressure testing, flushing, disinfection
- removing and decommissioning existing service connection tap
- boring of a new service connection
- If required, install, maintain and remove trench safety systems

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- reconnecting customers' customer supply line (if applicable) with a maximum of ten (10) linear feet of new pipe

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 unit Contract price of the above items also shall include the removal of the existing service line and setter and shall include, but not be limited to the following:

- removal of pipe, fittings, restrained joints, spools, sleeves, couplings, repair bands, meter setters, meter boxes, customer supply line (if applicable)
- excavation including haul and compacted trench backfill
- temporary stockpiling and stockpile protection
- backfilling the trench with crushed surfacing top course
- material handling, processing, salvaging if specified, and haul to and disposal at a site permitted to receive removed material

Payment will be in accordance with the unit contract price, irrespective of the pipe material, pressure rating, and size, and the handling, processing, disposal, and permit compliance requirements, as applicable.

Erosion Prevention Control & Water Pollution Prevention (8-01)

See schedule A for measurement and payment.

Bid Item No. B27 – Utility Pothole (8-31)

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 five 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 unit Contract 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 blow off assemblie(s). This will be considered incidental to “Construction Sequencing.”

When the Contract does not include a pay item for utility potholes, whether 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.

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Bid Item No. B28 – Resolution of Utility Conflicts (For Bid Purposes Use \$5,000)

(1-07)

Measurement and payment for “Resolution of Utility Conflicts (For Bid Purposes Use \$5,000)” 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 \$5,000),” est.

All costs for "Resolution of Utility Conflicts" 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” 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.

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SPECIAL PROVISIONS

APPENDICES

The following sub-appendices are included within the LWSD Special Provisions for Water Main Improvements, and are attached and made a part of this contract:

Appendix A: 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 B: Lakehaven Water and Sewer District Standard Plans

- 03 – Hydrant Assembly
- 04 – Hydrant Location in Cut or Fill
- 07.01 – Water Service Connection 5/8" x3/4" x 1"
- 07.02 – Water Service Connection 5/8" x3/4" x 1" Notes
- 10 – Temporary Blowoff Assembly
- 11.01 – Valve Box Appurtenances and Protective Pad

Appendix C: Washington State Department of Transportation Standard Plans

- | | |
|------------|---|
| B-30.20-04 | Rectangular Solid Metal Cover |
| B-90.40-01 | Concrete Thrust Block |
| B-90.50-00 | Concrete Thrust Block for Convex Vertical Bends |

Appendix D: Reference Information

- LWSD Construction Record Drawing W-0001
- LWSD Construction Record Drawing W-1592
- LWSD Construction Record Drawing S-0379
- LWSD Construction Record Drawing W-0107
- LWSD Construction Record Drawing W-0132
- LWSD Construction Record Drawing W-1326
- LWSD Construction Record Drawing S-1279
- LWSD Construction Record Drawing W-0105

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SPECIAL PROVISIONS

APPENDIX A

ASBESTOS HANDLING

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 3 rd 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) |
| | | | | BAG | - LF |
| | | | | BAG | - LF |
| | | | | 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. | |

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 if 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.

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 | | | |
|-----------|-------|-----------|-------|-----------|-------------------|-------|-----------|-----------|
| | | a.m./p.m. | | a.m./p.m. | From | To | a.m./p.m. | a.m./p.m. |
| Sunday | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Monday | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Tuesday | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Wednesday | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Thursday | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Friday | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Saturday | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |

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 | |

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 <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Educational <input type="checkbox"/> Industrial <input type="checkbox"/> Other: | | |
| Year of Construction | Prior Use | Size |
| Job Type <input type="checkbox"/> Remodel <input type="checkbox"/> Repair <input type="checkbox"/> Demolition <input type="checkbox"/> Maintenance | | |

Asbestos Project Details:

| | | |
|-------------|----------------------------------|---------------------------------------|
| Select one: | <input type="checkbox"/> Removed | <input type="checkbox"/> Encapsulated |
| Select one: | <input type="checkbox"/> Indoors | <input type="checkbox"/> Outdoors |

| | | |
|--|--|--|
| Quantity: square feet | | |
| <input type="checkbox"/> Fireproofing | <input type="checkbox"/> Popcorn ceiling/texture | <input type="checkbox"/> Cement Asbestos Board (CAB) |
| <input type="checkbox"/> Mastic | <input type="checkbox"/> Wall texture | <input type="checkbox"/> Sheet vinyl |
| <input type="checkbox"/> Boiler insulation | <input type="checkbox"/> Duct paper | <input type="checkbox"/> Vinyl Asbestos Tile (VAT) |
| <input type="checkbox"/> Roofing | <input type="checkbox"/> Asbestos paper | <input type="checkbox"/> Other: |

| | | |
|---|---|--|
| Quantity: linear feet | | |
| <input type="checkbox"/> Mag/mudded pipe insulation | <input type="checkbox"/> Air cell pipe insulation | <input type="checkbox"/> Ducting/duct insulation |
| <input type="checkbox"/> Cement asbestos pipe | <input type="checkbox"/> Duct tape | <input type="checkbox"/> Other: |

Control Measures:

| | |
|--|---|
| <input type="checkbox"/> Negative pressure enclosure | <input type="checkbox"/> Wrap and cut |
| <input type="checkbox"/> Glove bag | <input type="checkbox"/> Wet methods |
| <input type="checkbox"/> Mini-enclosure | <input type="checkbox"/> HEPA vacuum |
| <input type="checkbox"/> Critical barriers | <input type="checkbox"/> Manual methods |
| <input type="checkbox"/> Other: | <input type="checkbox"/> Other: |

Respiratory Protection:

| | |
|---|--|
| <input type="checkbox"/> ½ Mask — Air Purifying Respirator | <input type="checkbox"/> Type C continuous flow — Supplied Air |
| <input type="checkbox"/> Full Mask — Air Purifying Respirator | <input type="checkbox"/> Type C pressure demand — Supplied Air |
| <input type="checkbox"/> Powered Air Purifying Respirator | <input type="checkbox"/> Other: |



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

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.

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.

- 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.

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.

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 department.
- 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

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

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)

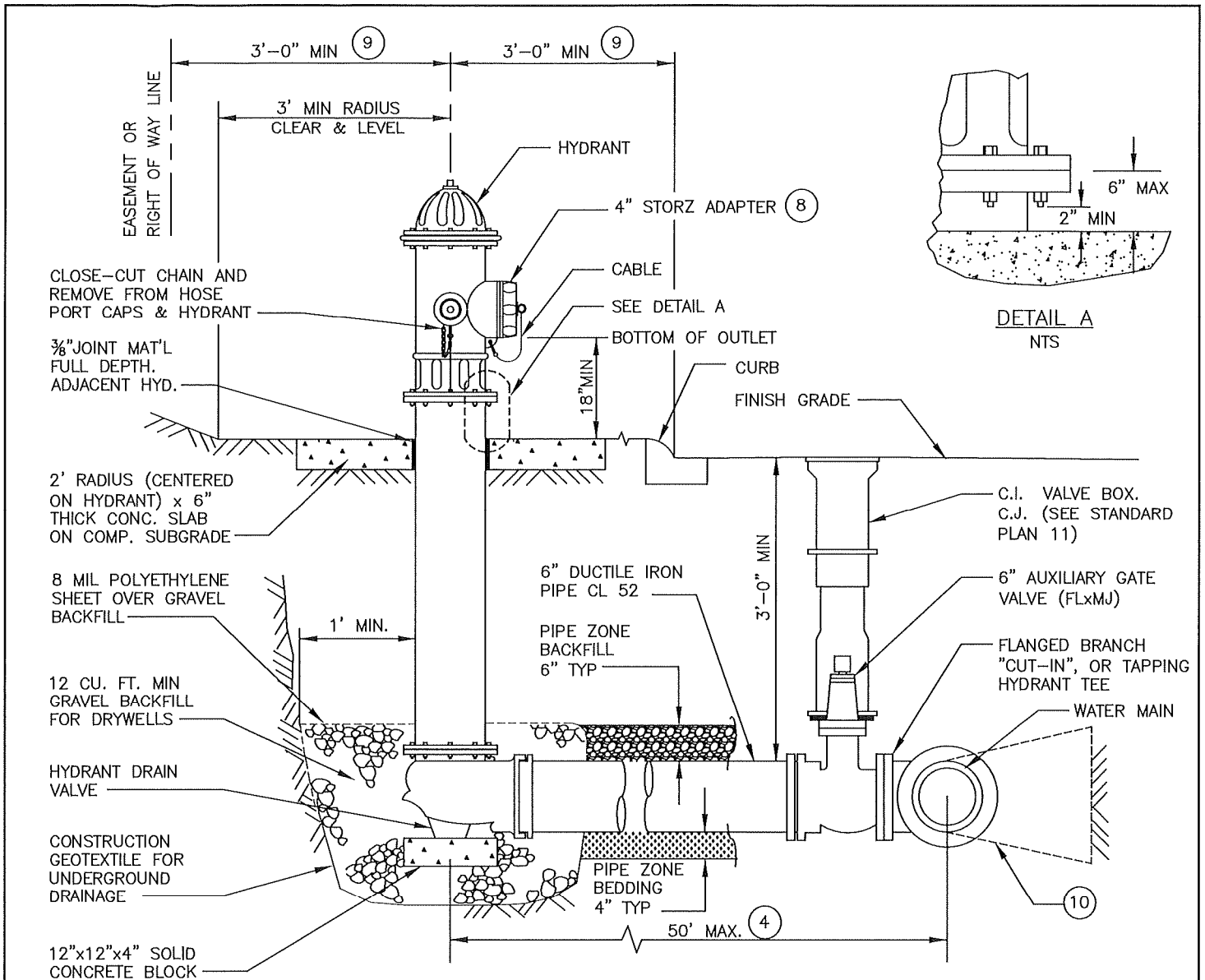
Employee Representatives: (Collective bargaining unit, safety committee or other designated representative for the employees affected by the project.)

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SPECIAL PROVISIONS

APPENDIX B

LAKEHAVEN WATER AND SEWER DISTRICT STANDARD
PLANS



NOTES:

1. HYDRANTS SHALL BE INSTALLED PLUMB.
2. HYDRANT PUMPER/STEAMER PORT SHALL FACE THE STREET, OR WHERE THE STREET CANNOT BE CLEARLY DEFINED OR RECOGNIZED, SHALL FACE THE MOST LIKELY ROUTE OF APPROACH AND LOCATION OF FIRE TRUCK WHILE PUMPING, AS DIRECTED BY THE DISTRICT.
3. DO NOT PLACE THRUST BLOCKING BEHIND TEE OR HYDRANT.
- (4) USE THRUST RESTRAINT SYSTEM FOR PUSH-ON OR MJ JOINTS PER SPECIFICATIONS. USE OF TIE/SHACKLE RODS IS NOT ACCEPTABLE
5. PAINT HYDRANT WITH 2 COATS OF SHERWIN-WILLIAMS PAINT, GLOSS SAFETY YELLOW, NO. 8S4Y37.
6. DO NOT BLOCK DRAIN.
- (7) IN CITY OF AUBURN: 2 - 2 1/2" HOSE PORTS (N.S.T.), 1 - 4 1/2" PUMPER PORT (N.S.T.) WITH S" STORZ ADAPTOR AND CAP.
- (8) LOCATION AND MIN. OFFSET, OR AS SHOWN ON PLANS, AS REQUIRED BY RIGHT OF WAY PERMIT OR DIRECTED BY DISTRICT.
- (9) IF THRUST BLOCK SHOWN ON PLAN, INSTALL PER WSDOT STANDARD PLAN.

STANDARD PLAN 03

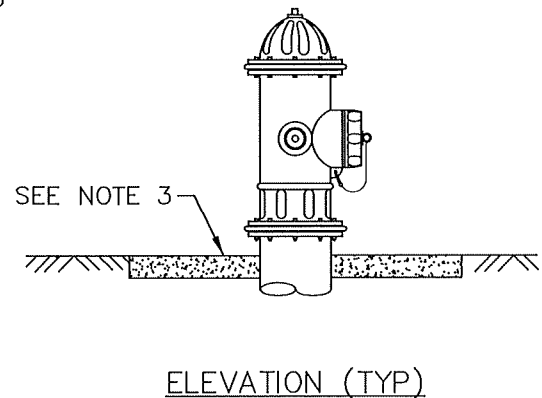
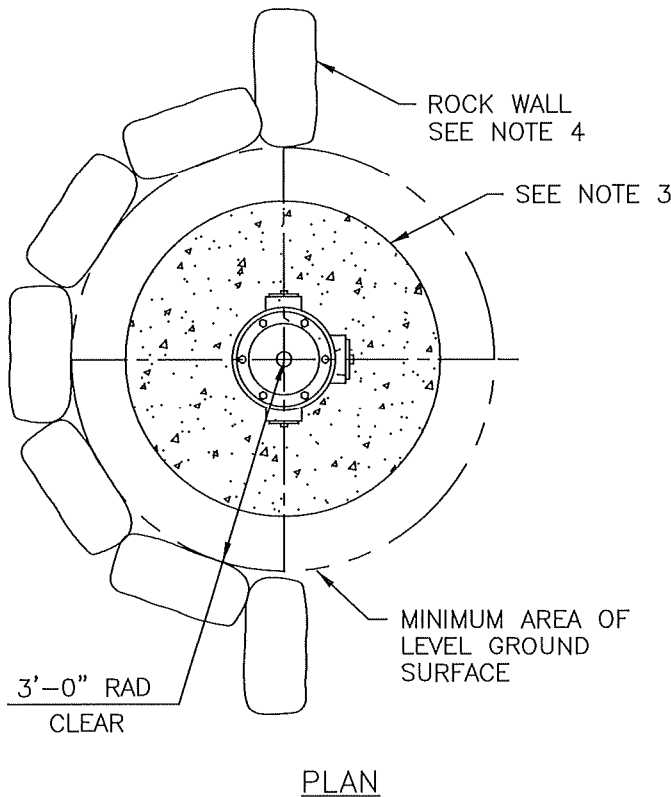
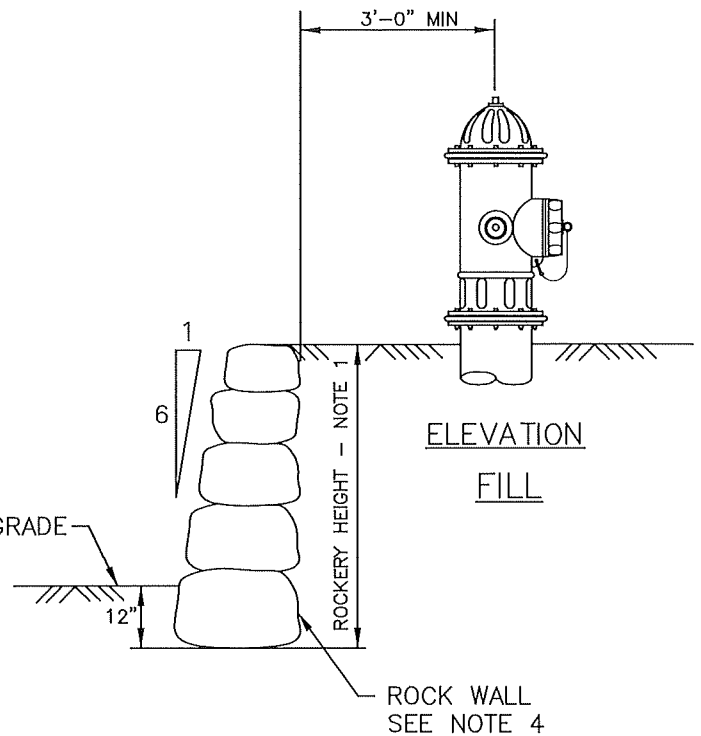
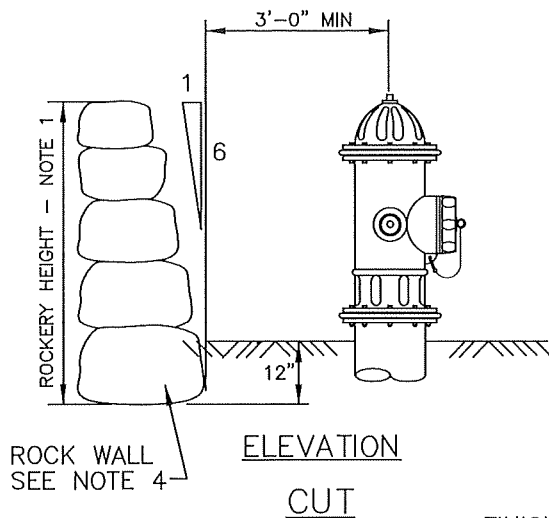
LAKEHAVEN UTILITY DISTRICT
KING COUNTY WASHINGTON

HYDRANT ASSEMBLY

DATE: 102-19
DRAWN: RSL
CHECKED: AVW
APPR: KRM



SCALE: NONE
SHEET 1
OF 1



NOTES:

1. ROCKERY HEIGHTS EXCEEDING 4 FEET, REFER TO RIGHT-OF-WAY AGENCY STANDARDS.
2. CONSTRUCT ROCKERY FACINGS TO RIGHT-OF-WAY AGENCY STANDARDS.
3. IN UNIMPROVED AREAS INSTALL 2' RADIUS BY 6" THICK CONCRETE PAD ON COMPACTED SUBGRADE.
4. CONTRACTOR MAY SUBSTITUTE ARCHITECTURAL BRICK IN PLACE OF ROCKERY AS APPROVED BY ENGINEER.

STANDARD PLAN 04

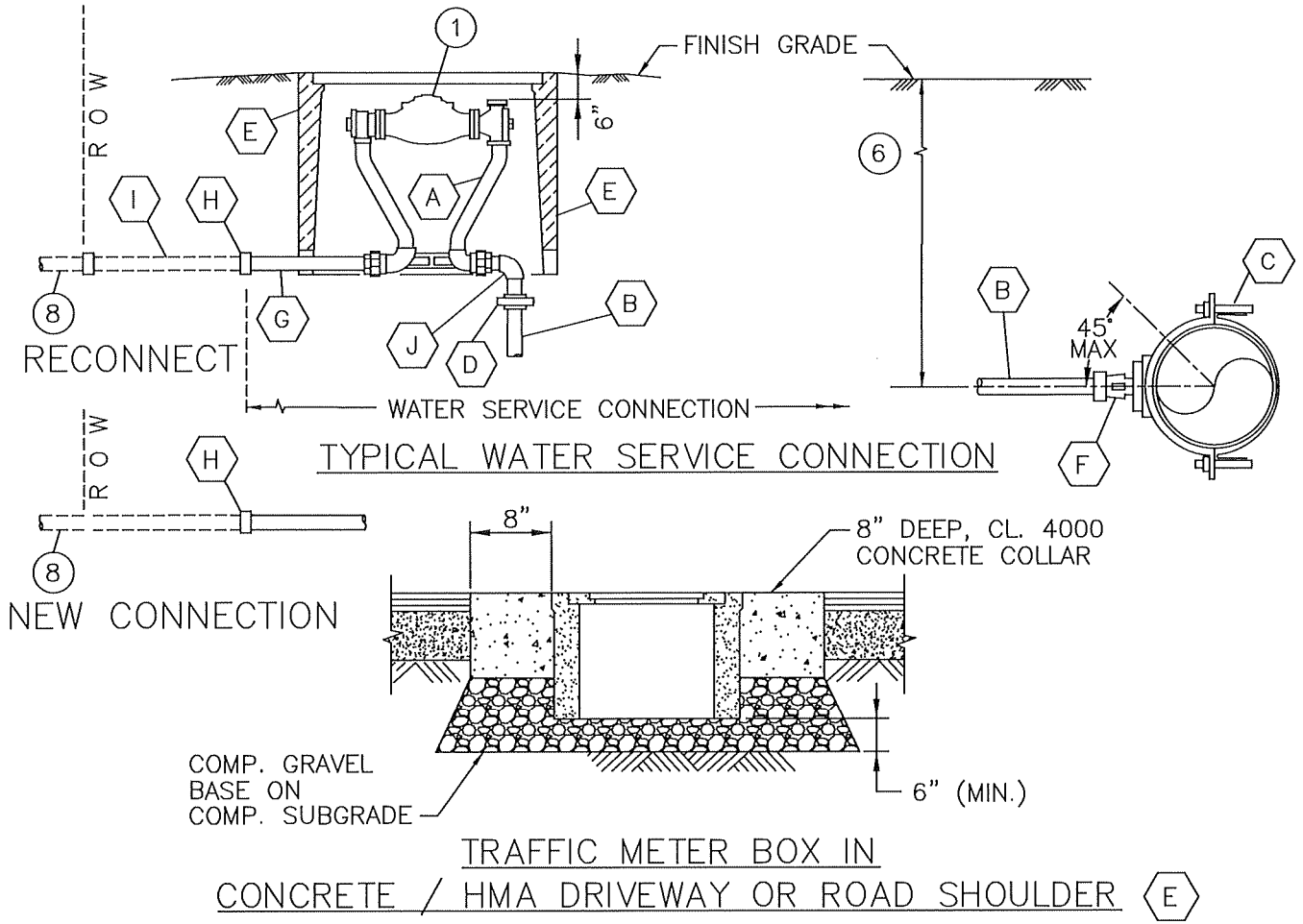
LAKEHAVEN UTILITY DISTRICT
KING COUNTY WASHINGTON

**HYDRANT LOCATION
IN CUT OR FILL**

DATE: 10-19
DRAWN: RSL
CHECKED: AWW
APPR: KLM



SCALE: NONE
SHEET 1
OF 1



NOTES:

- ① METER FURNISHED AND INSTALLED BY DISTRICT.
- 2. METER SETTER SHALL BE CENTERED WITHIN METER BOX (PLAN VIEW), BOTH HORIZONTAL DIMENSIONS.
- 3. WATER SERVICE CONNECTION AND CONFIGURATION SHALL BE INSTALLED AS SHOWN ON THE PLANS, OR AS MAY BE OTHERWISE DIRECTED BY THE DISTRICT.
- 4. 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 (COATED BLUE) W/ A 12-IN. LOOP EXPOSED IN THE METER BOX.
- 5. SERVICE LINES SHALL BE CONTINUOUS WITHOUT SPLICES.
- ⑥ DEPTH OF COVER OVER SERVICE LINE SHALL BE 36" MIN. EXCEPT AT TRANSITION TO/FROM SETTER.
- 7. FOR WATER SERVICE CONNECTIONS DESIGNATED FOR 2-IN. DIA. SERVICE LINES, SEE STANDARD PLAN 20.
- ⑧ CUSTOMER SUPPLY LINE (PRIVATE).

STANDARD PLAN 07.01

LAKEHAVEN UTILITY DISTRICT
 KING COUNTY WASHINGTON

WATER SERVICE CONNECTION
 5/8" x 3/4" & 1"

DATE: 10-19
 DRAWN: RSL
 CHECKED: AWV
 APPR: KRM



SCALE: NONE
 SHEET 1
 OF 2

MATERIAL LIST:

METER SETTER ⊗

(A)

- 5/8"x3/4" METER: FORD VH72-12WC, OR MUELLER H-1404-2x12" WITH TWO H-14222 ENDS.
- 1" METER: FORD VH74-12WC, OR MUELLER H-1404-2x12" WITH TWO H-14222 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.

SERVICE LINE PIPE ⊗

(B)

- 1" CTS POLYETHYLENE TUBING, SDR 9, 250 PSI PRESSURE RATING.
PE 4710 RESIN, JM EAGLE, OR EQUAL.

SERVICE SADDLE ⊗

(C)

- SINGLE SS STRAP, ROMAC 101 NS W/ 1" CC
(AWWA) TAP:

ADAPTER (USE STAINLESS STEEL PIPE INSERTS) ⊗

(D)

- 3/4" MIPT x 1" CTS COMPRESSION: MUELLER H-15428, OR FORD C84-34G "GRIP JOINT"
- 1" MIPT x 1" CTS COMPRESSION: MUELLER H-15428, OR FORD C84-44G "GRIP JOINT". USE STAINLESS STEEL PIPE STIFFENER.

METER BOX

(E)

- 5/8" x 3/4" METER: ARMORCAST A600485 (11"x18") AND COVER W/HINGED READER LID RATED FOR TRAFFIC LOADS (A600484TR)
- 1" METER: ARMORCAST A6001946PCX12 (13"x24") AND COVER W/HINGED READER LID RATED FOR TRAFFIC LOADS (A6001969R)

CORPORATION STOP ⊗

(F)

- 1" INLET AWWA TAPER (CC) THREAD x 1" CTS COMPRESSION. MUELLER H-15008, OR FORD F1000G "GRIP JOINT". USE STAINLESS STEEL PIPE STIFFENER.

BRASS NIPPLE ⊗

(G)

- 3/4" IPS x 8" LONG
- 1" IPS x 8" LONG.

PVC TEMPORARY CAP ⊗

(H)

- (HAND TIGHTENED) SEE (I) OR (8)
- 3/4" IPS
 - 1" IPS


EXTEND CUSTOMER SUPPLY LINE, AND CONNECT TO BRASS NIPPLE INCLUDING FITTINGS, REDUCERS, BUSHINGS, AND STIFFENERS AS NECESSARY. SEE (G) ⊗

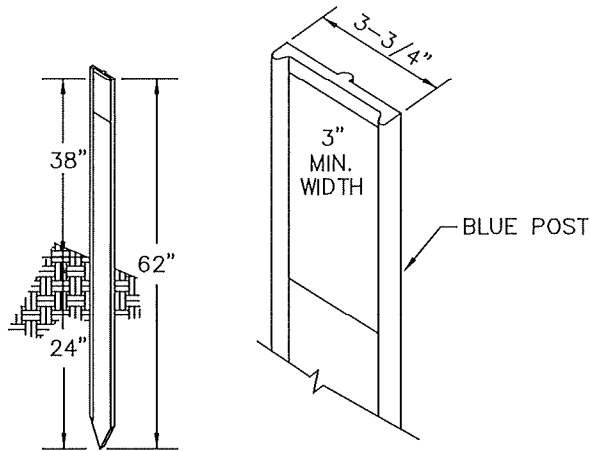
(I)

BRASS 3/4" OR 1"x 90' STREET ELL ⊗

(J)

⊗ NSF/ANSI 61 AND NSF/ANSI 372 COMPLIANT.

| | | |
|--|---|-------------|
| STANDARD PLAN 07.01 | | |
| LAKEHAVEN UTILITY DISTRICT KING COUNTY WASHINGTON | | |
| WATER SERVICE CONNECTION 5/8" x 3/4" & 1" | | |
| DATE: 10-19 |  | SCALE: NONE |
| DRAWN: RSL | | SHEET 2 |
| CHECKED: AVW | | OF 2 |
| APPR: KRM | | |

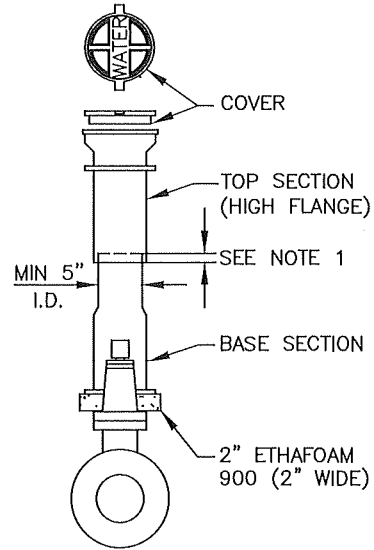


VALVE MARKER NOTES:

VALVE MARKERS SHALL BE EQUAL TO CARSONITE UTILITY MARKER WITH ANCHOR BARB

VALVE MARKER POST TO BE USED FOR ALL MAIN LINE VALVES OUTSIDE PAVED AREAS

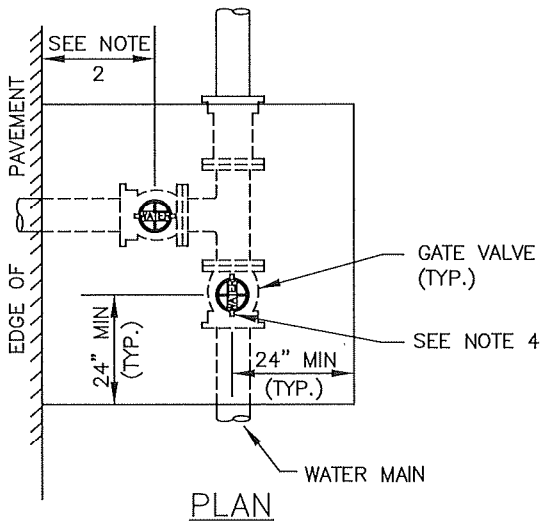
VALVE MARKER POST



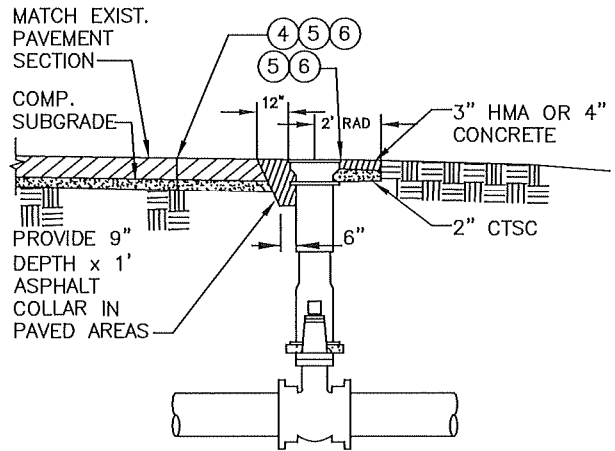
NOTES:

1. PROVIDE 6" MIN. VERTICAL ADJUSTMENT WHERE PRACTICAL.
2. THE WORD "WATER" SHALL BE CAST INTO THE COVER.
3. VALVE BOX RISERS (IF USED) SHALL BE GLUED.
4. INSTALL LOCKING LID IN TRAFFIC AREAS, (STYLE: STAINLESS STEEL CENTER BOLT W/PENTAGON SECURITY HEAD, SPREADER BAR & LOCKING CAMS.)

VALVE BOX



PLAN



PAVED AREA UNPAVED AREA
SECTION

NOTES:

- ①. PROTECTIVE PAD SHALL BE 4" MIN. DEPTH CONCRETE OR COMPACTED HMA TO MATCH ADJACENT PAVED SURFACE.
- ②. WHERE DISTANCE IS 42" OR LESS FROM VALVE, PAD SHALL EXTEND TO EDGE OF PAVEMENT. OTHERWISE, PAD SHALL EXTEND 24" MIN.
- ③. PAD SHALL BE CONTINUOUS AND RECTANGULAR FOR VALVE CLUSTER.
- ④. SQUARE EDGE OF PAVEMENT IF VALVE BOX PROTECTIVE PAD MEETS PAVEMENTS. MATCH FINISH GRADE.

- ⑤. APPLY ASPHALT TACK COAT FOR HMA, JOINT SEALANT FOR CONCRETE.
- ⑥. SEAL HMA EDGES WITH PG 58/22.
- ⑦. ALIGN LUG SLOTS PARALLEL TO WATER MAIN.

VALVE BOX PROTECTIVE PAD AND COVER ALIGNMENT

STANDARD PLAN 11.01

LAKEHAVEN UTILITY DISTRICT
KING COUNTY WASHINGTON

VALVE BOX APPURTENANCES & PROTECTIVE PAD

DATE: 10-19
DRAWN: RSL
CHECKED: AVW
APPR: KRM



SCALE: NONE
SHEET 1
OF 1

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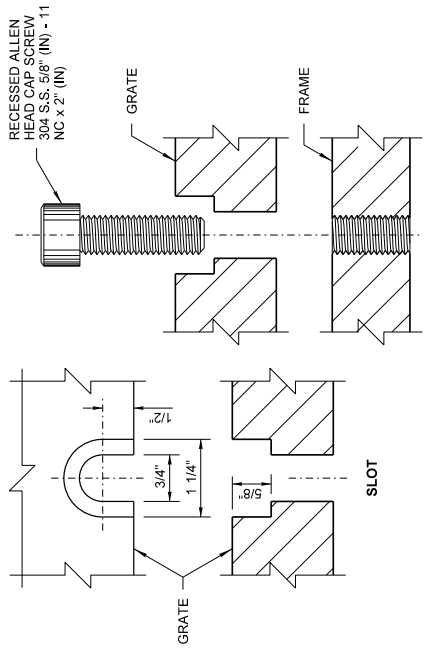
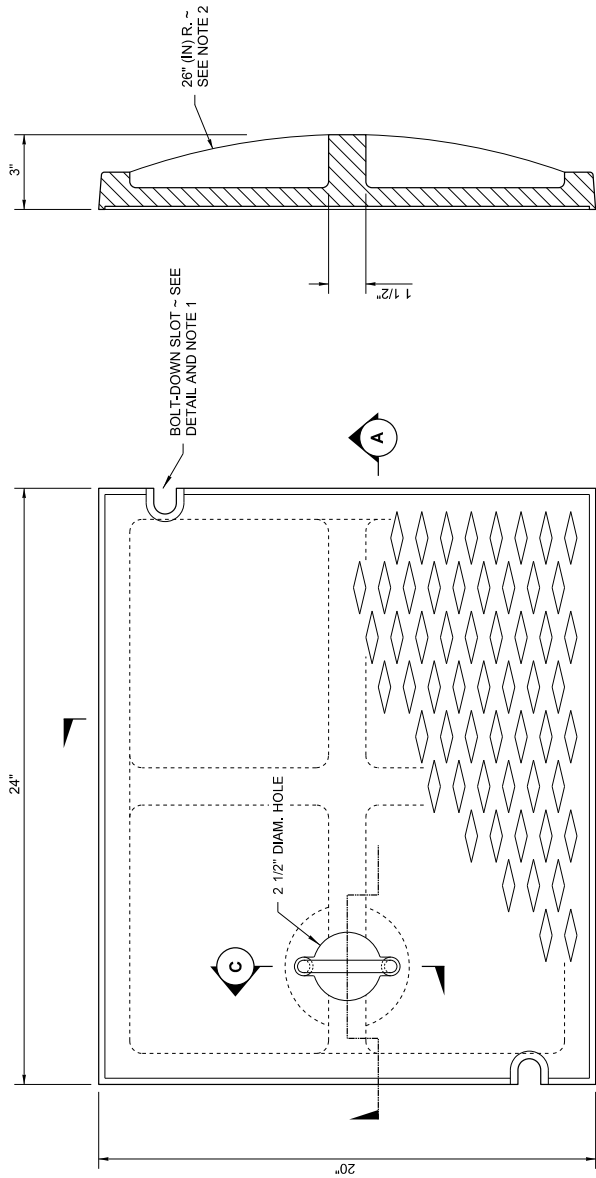
SPECIAL PROVISIONS

APPENDIX C

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
STANDARD PLANS

NOTES

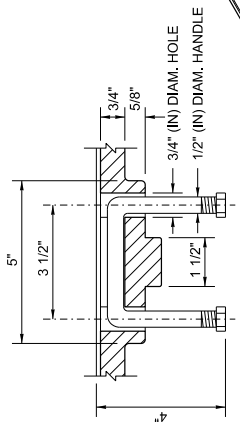
1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Alternative reinforcing designs are acceptable in lieu of the rib design.
3. Refer to **Standard Specification Section 9-05.15** and **9-05.15(2)** for additional requirements.
4. For frame details, see **Standard Plan B-30.10**.



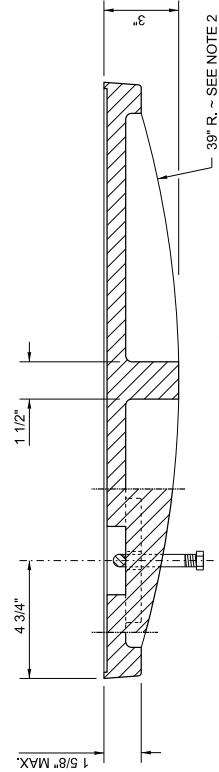
BOLT-DOWN DETAILS
SEE NOTE 1

SECTION B

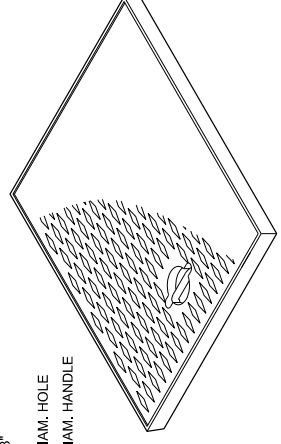
TOP



SECTION C



SECTION A



ISOMETRIC



RECTANGULAR SOLID METAL COVER
STANDARD PLAN B-30.20-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION



STATE DESIGN ENGINEER
Washington State Department of Transportation

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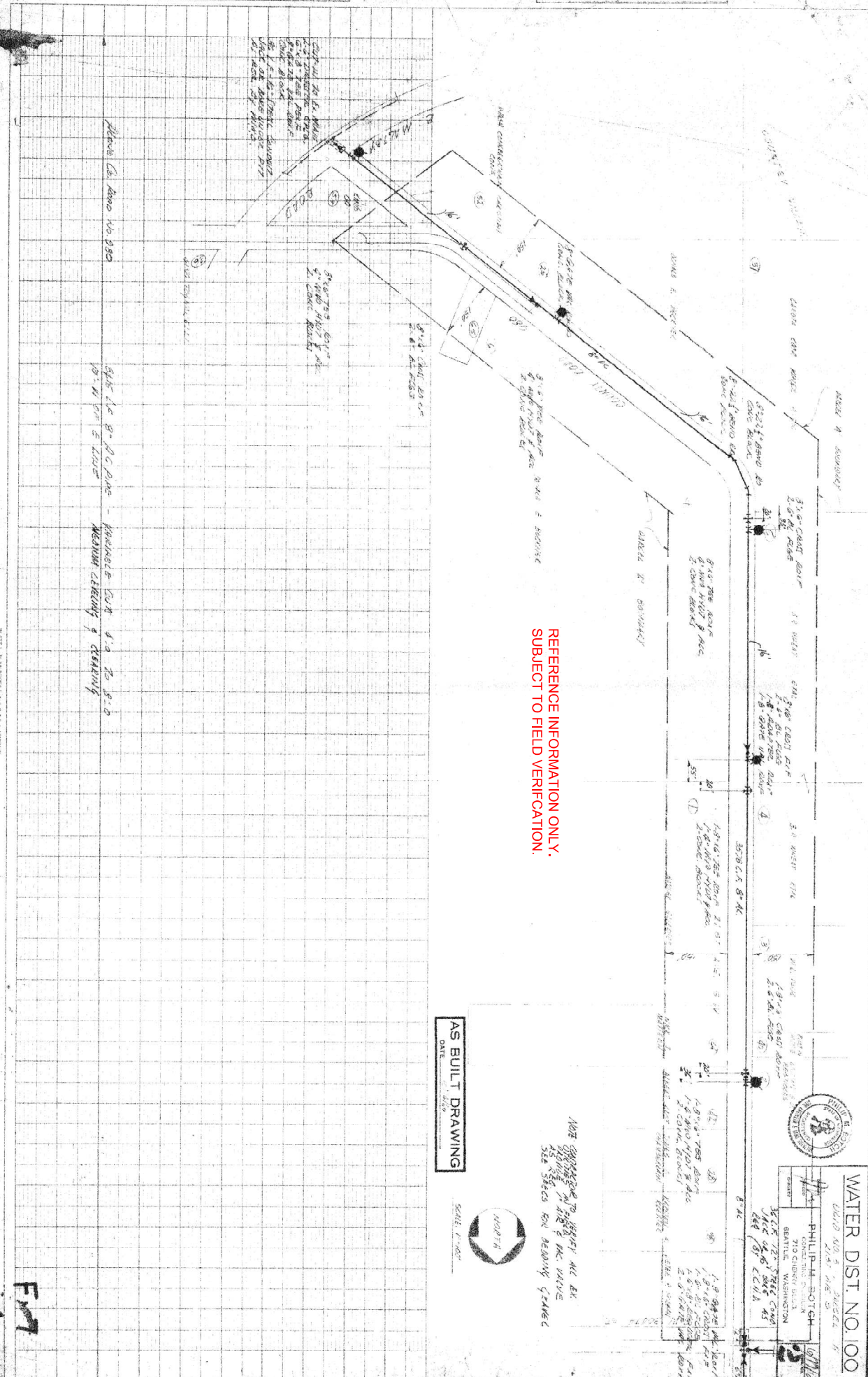
SPECIAL PROVISIONS

APPENDIX D

REFERENCE INFORMATION

| | | | |
|---------|------|-----|-----|
| PROFILE | DATE | BY | NO. |
| DATE | NO. | NO. | NO. |
| DATE | NO. | NO. | NO. |
| DATE | NO. | NO. | NO. |

| | | | |
|------|------|-----|-----|
| PLAN | DATE | BY | NO. |
| DATE | NO. | NO. | NO. |
| DATE | NO. | NO. | NO. |
| DATE | NO. | NO. | NO. |



REFERENCE INFORMATION ONLY.
SUBJECT TO FIELD VERIFICATION.

MINERAL CO. RING NO. 280
SITE AT B.P.C. PINE - MINERAL CO. RING NO. 280 TO B.P.C.
B.P.C. PINE - MINERAL CO. RING NO. 280

CONTRACT NO. 14-1-100
DATE 10/1/10
BY J. J. [unclear]
NO. [unclear]

AS BUILT DRAWING
DATE 10/1/10



SCALE 1"=100'

NOTE: CONTRACTOR TO VERIFY ALL EX. DIMENSIONS IN FIELD & IN VALVE SEE SHEETS FOR BEARING CHANGE



| | |
|---------------------|---------------------|
| WATER DIST. NO. 100 | |
| PHILIP M. SMITH | ENGINEER |
| 2715 CHERRY BLVD. | SEATTLE, WASHINGTON |
| 3/21/10 | 10/1/10 |
| 14157 | 14157 |

NO. 14157 - MINERAL CO. RING NO. 280 TO B.P.C. PINE

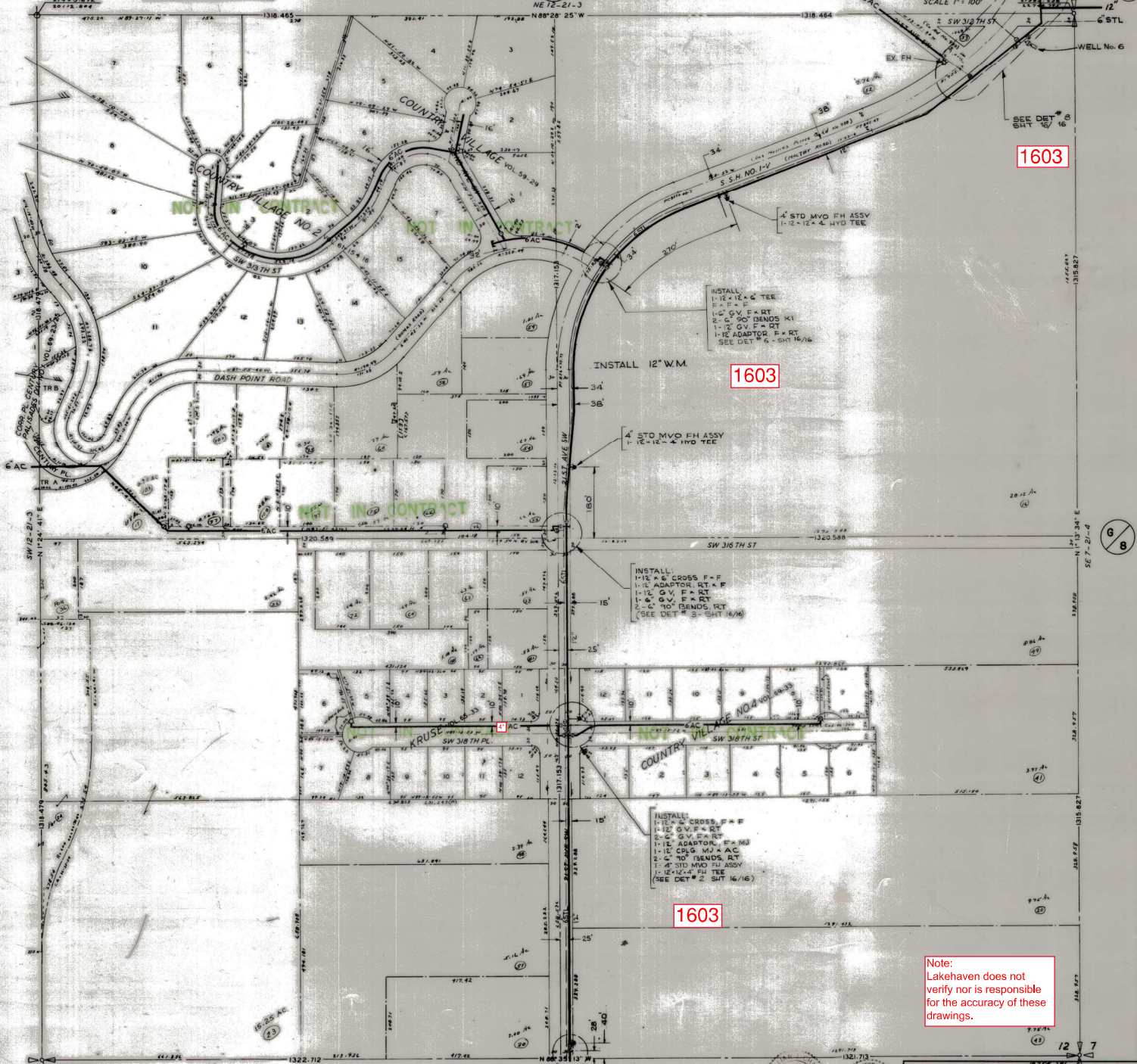
F17

THIS MAP IS FOR THE PURPOSE OF ASSISTING IN LOCATING ROAD PROPERTY AND IS NOT GUARANTEED TO SHOW ACCURATE MEASUREMENTS.

KING COUNTY ASSESSOR

SE 12-21-3

SCALE 1" = 100'



1603

1603

1603

Note:
Lakehaven does not verify nor is responsible for the accuracy of these drawings.

THIS DRAWING HAS BEEN REDUCED TO APPROXIMATELY ONE-HALF THE ORIGINAL SCALE

SE 12-21-3

INSTALL:
1-12 G.V. FL x RT
1-12 1/2 x 1/2 CROSS
FL x FL x FL x AC
2-12 BUILD FLGS
4- STD MVO FH ASSY
1- 12 x 12 x 4 HYD TEE
1- 12 ADAPTOR F x RT

| | | | |
|------|------|----|--|
| No. | DATE | BY | REVISION |
| 1592 | | | 1 10/25/19 RSL SIZE PER FIELD OBSERVATIONS |

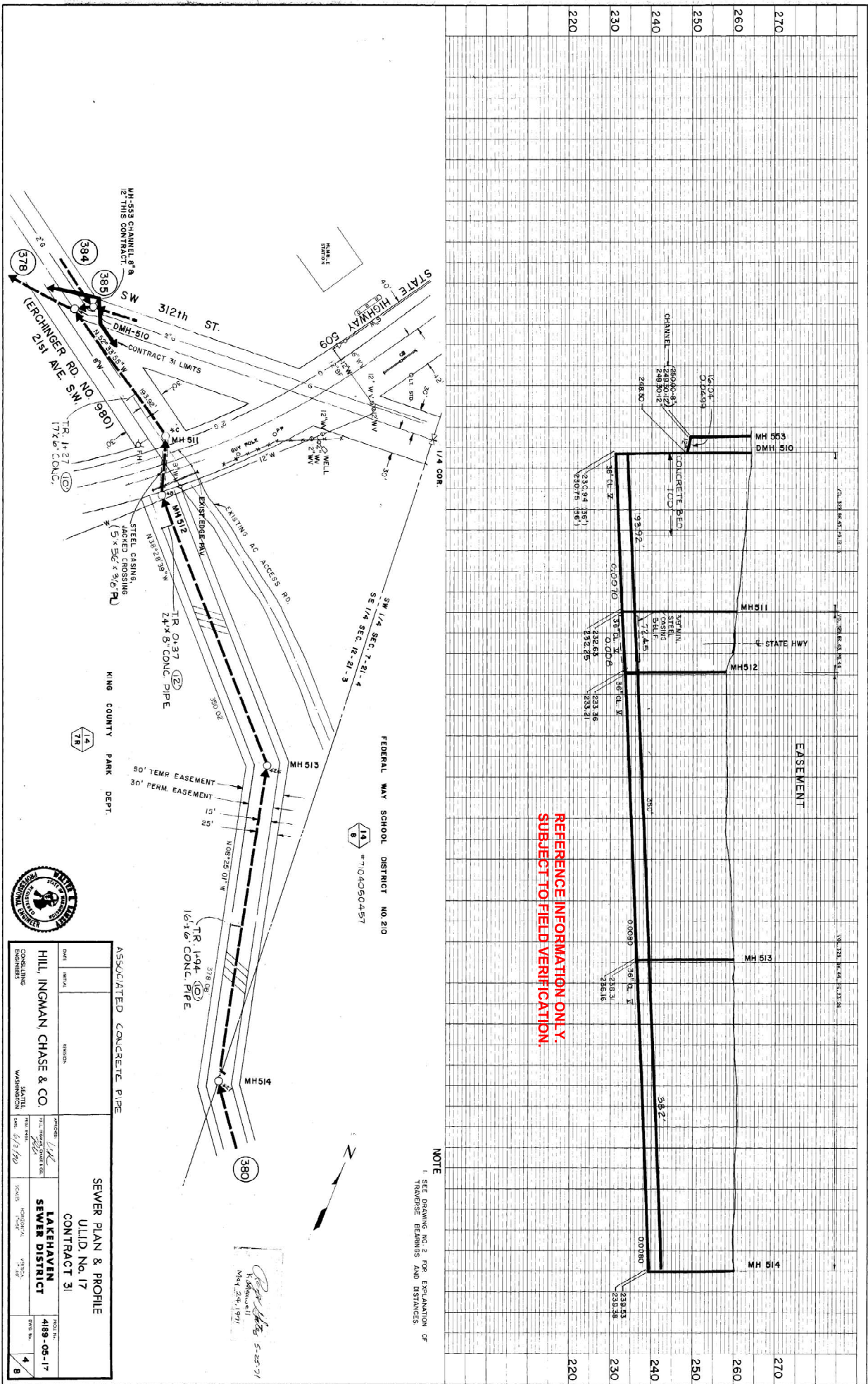
KING CO. WATER DISTRICT NO. 100
WEST SIDE IMPROVEMENTS
1966

HILL & INGMAN
CONSULTING ENGINEERS SEATTLE, WASHINGTON

Job No. 4342-T-3
Designed by WLC
Drawn by PD
Scale 1" = 100'
Checked by WR

Prof. Exp. JFR
Approved by JFR
Date 12-17-65

SHEET 5 OF 16



REFERENCE INFORMATION ONLY.
SUBJECT TO FIELD VERIFICATION.

NOTE
1. SEE DRAWING NO. 3 FOR EXPLANATION OF
TRANSVERSE EASIMENTS AND DISTANCES

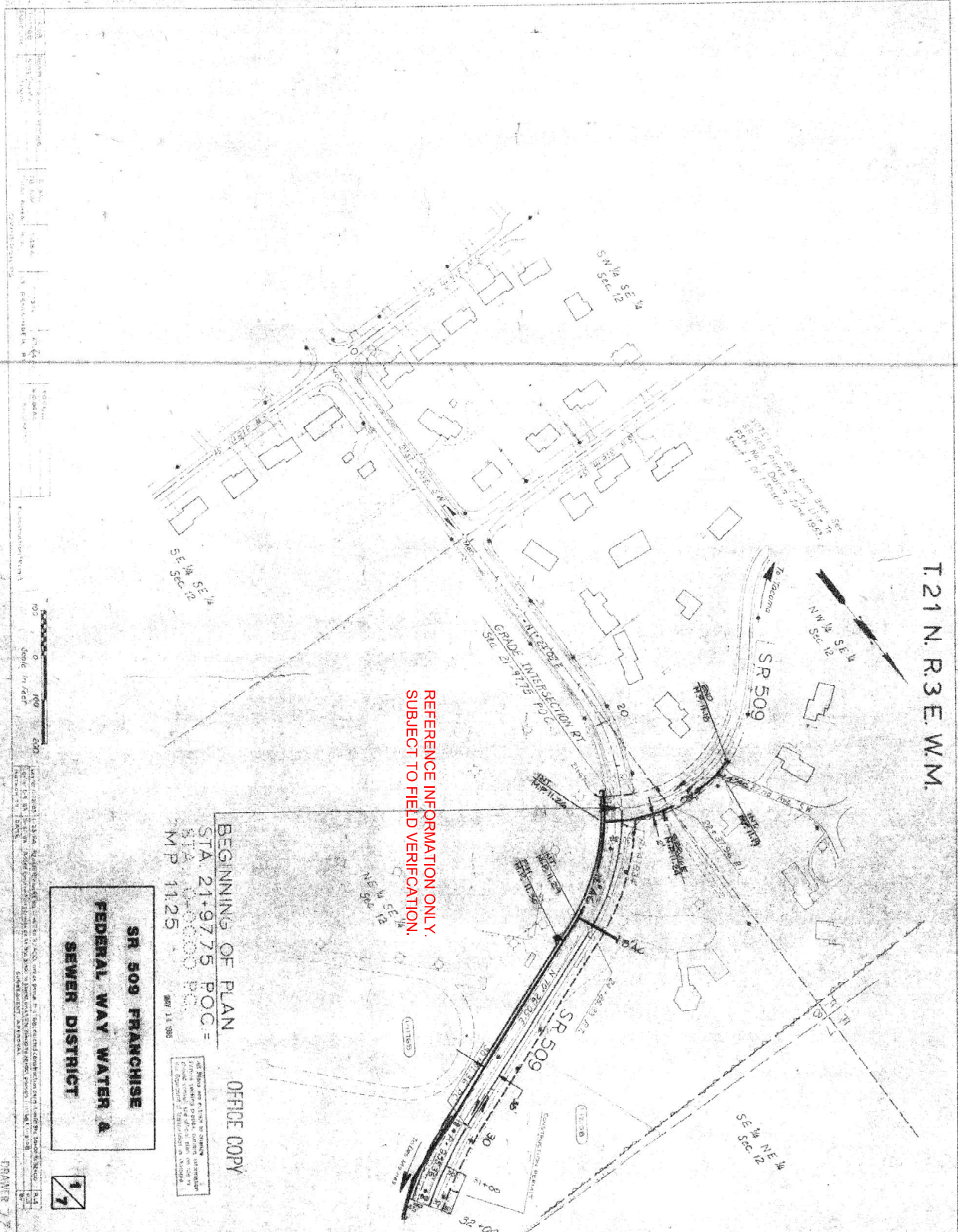
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|--|--|--------------------------|--|
| DATE: 1/17/10 | | DESIGNED BY: [Signature] | |
| DRAWN BY: [Signature] | | CHECKED BY: [Signature] | |
| CONSULTING ENGINEERS: HILL, INGMAN, CHASE & CO., SEATTLE, WASHINGTON | | PROJECT NO.: 4189-05-17 | |
| DATE: 1/17/10 | | CONTRACT NO.: 31 | |
| PROJECT: LAKEHAVEN SEWER DISTRICT | | SHEET NO.: 4 | |
| SCALE: 1"=40' | | DATE: 1/17/10 | |



| NO. | DATE | BY | REVISION |
|-----|------|----|----------|
| | | | |
| | | | |
| | | | |

DATE: 2/27/2018
 TIME: 10:00 AM
 USER: J...
 PROJECT: ...

PROJECT: ...
 SHEET: ...
 DATE: ...



T.21 N. R.3 E. W.M.

REFERENCE INFORMATION ONLY.
 SUBJECT TO FIELD VERIFICATION.

BEGINNING OF PLAN
 STA. 21+97.75 P.O.C.
 STA. 0+00.00 B.O.B.
 M.P. 11.25

**SR 509 FRANCHISE
 FEDERAL WAY WATER &
 SEWER DISTRICT**



DRAWN BY: 17

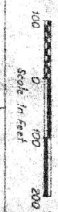
PROJECT DEVELOPMENT
 F-8
 107

SR 509
 M.R. 11.25 To M.R. 12.30
 Lakota Park to Pal. Ave. S.W.
 King County
 R.W. Plan
 Sheet 3 of 4 sheets

| | | |
|----------|-----|-----------|
| DATE | BY | APP. DATE |
| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |

| | | |
|----------|-----|-----------|
| DATE | BY | APP. DATE |
| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |

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| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |
| 11/11/11 | MMB | 11/11/11 |

**SR 509 FRANCHISE
 FEDERAL WAY WATER &
 SEWER DISTRICT**

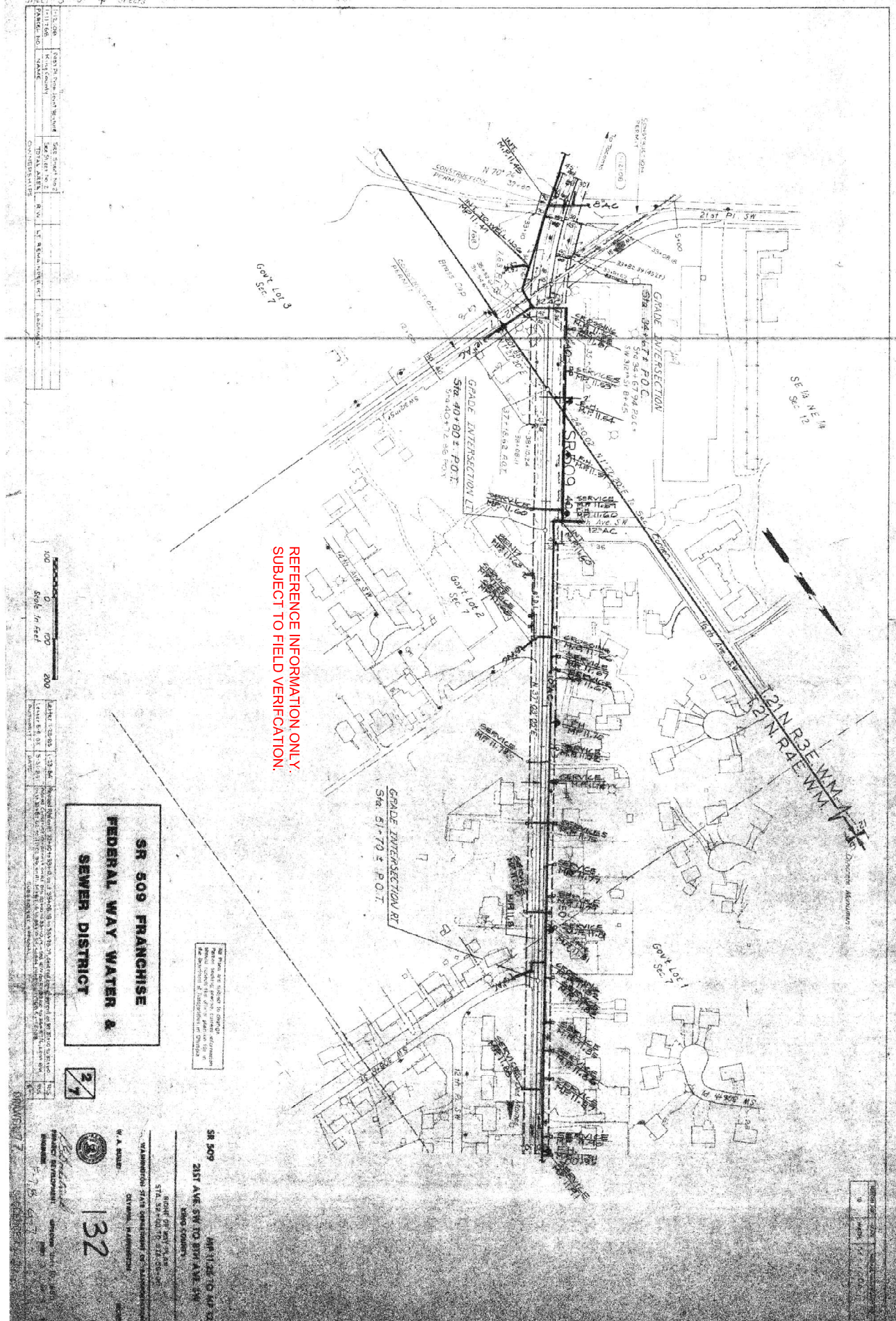


132

SEE PLAN FOR NOTES TO CONTRACTOR
 THESE NOTES ARE SUBJECT TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS OF THE CITY OF FEDERAL WAY, WASHINGTON
 WHICH ARE AVAILABLE AT THE OFFICE OF THE ENGINEER

SR 509
 21ST AVE SW TO 23RD AVE SW
 KING COUNTY
 11/11/11 TO 11/11/11
 11/11/11 TO 11/11/11
 11/11/11 TO 11/11/11

REFERENCE INFORMATION ONLY.
 SUBJECT TO FIELD VERIFICATION.

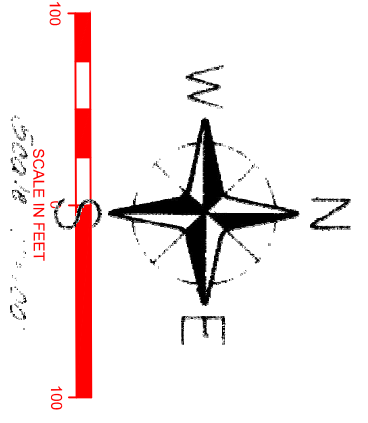
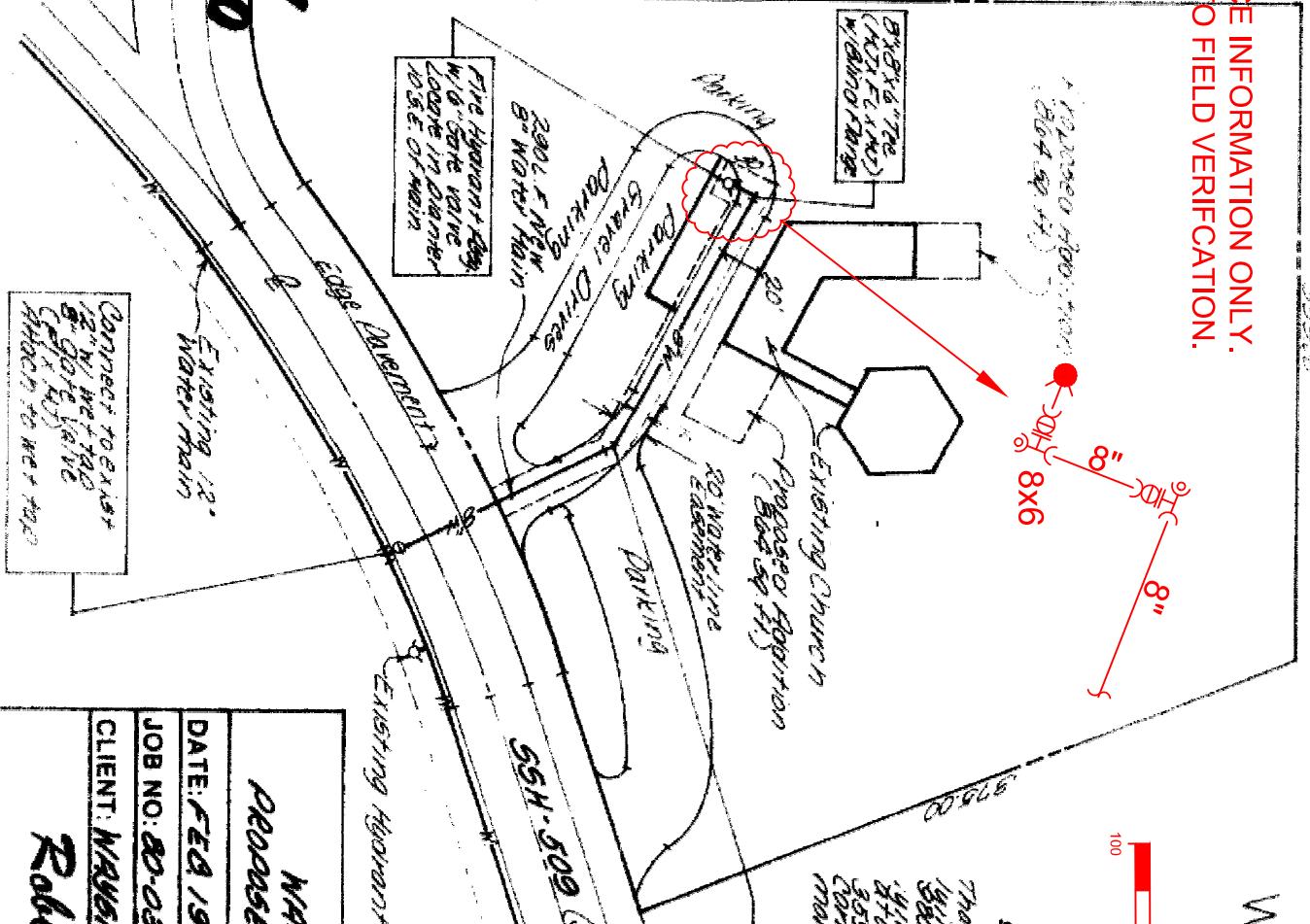




Modified per GPS Valve Inventory 8/14/17 RSL

REFERENCE INFORMATION ONLY.
SUBJECT TO FIELD VERIFICATION.

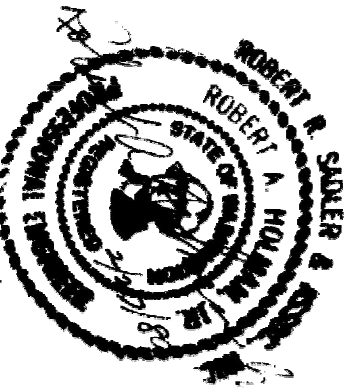
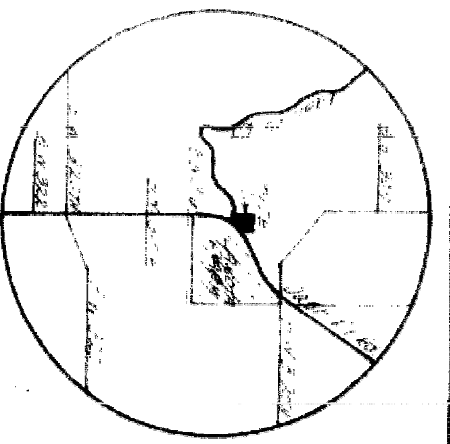
F/18
1326



LEGAL DESCRIPTION

That portion of the NE 1/4 of the SE 1/4 of Sec 12, T 21 N, R 3 E, lying Northwesterly of 55th 1/2" Southwesterly of County Rd 980, and Northerly of 5th Ave. East, E. 1/2 of that portion lying Northeasterly of the following described beginning at a point on the North line bounding of the property 350' ft. in an easterly direction from the Northwest corner and running about 200' East to a distance of 325' ft. more or less, to the North line of 55th St.

VICINITY MAP



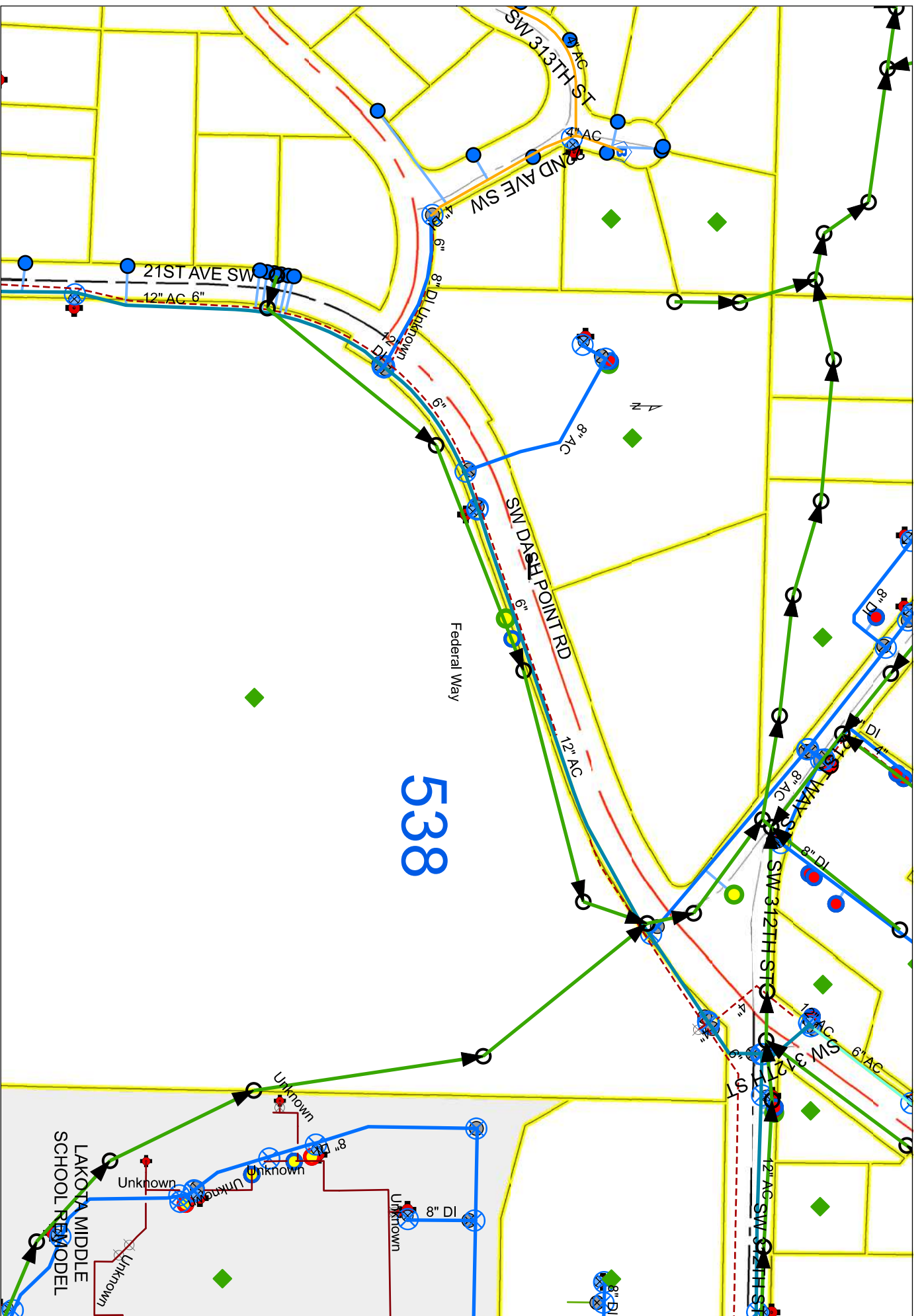
NOTE This project shall be constructed in accordance with King County Water District #124 Standard Specifications for Water Distribution Extensions approved by the State Dept. of Social and Health Services on Sept. 5, 1977.

| | |
|--|------------------------|
| WAGSIDE UNITED CHURCH OF CHRIST | |
| PROPOSED WATERMAIN EXTENSION - WATER DIST. #124 | |
| DATE: FEB 1980 | DRAWN: FUGSTAN |
| JOB NO. 80-032 | DESIGNED: R.L. JOHNSON |
| CHECKED: RAY | |
| CLIENT: WAGSIDE CHURCH 98 5th STOCKING 927-9122 | |

Robert R. Sadler & Associates, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
FEDERAL WAY, WA 98003 941-1599

SW DASH POINT ROAD (21st AVE. SW TO 21st WAY SW.)

538



* INFORMATION HAS BEEN COMPILED FROM MULTIPLE SOURCES, AND IS FOR REFERENCE ONLY.
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