DIVISION 8
MISCELLANEOUS CONSTRUCTION

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.3 Construction Requirements

8.01.3(1) General

(April 12, 2018 CFW GSP)

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

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

8-01.3(1)A Submittals

(April 12, 2018 CFW GSP)

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

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

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

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

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

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

Narrative discussing and justifying erosion control decisions (12 elements)

Drawings illustrating BMPs types and locations

Engineering calculations for ponds and vaults used for erosion control

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

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

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

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

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

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

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

Turbidity and pH Exceedances

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

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

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

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

8-01.3(1)B Erosion and Sediment Control (ESC) Lead
(October 3, 2022 WSDOT GSP, OPTION 1)

Item number 3 and 4 in the second paragraph of Section 8-01.3(1)B are revised to read:

3. Submit to the Engineer no later than the end of the next working day following the inspection a TESC Inspection Report that includes:

a. When, where, and how BMPs were installed, maintained, modified, and removed.

b. Observations of BMP effectiveness and proper placement.

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

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

8-02 ROADSIDE RESTORATION

8-02.3 Construction Requirements

8-02.3(1) Responsibility During Construction

(April 12, 2018 CFW GSP)

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

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

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

8-02.3(5) Planting Area Preparation

(April 12, 2018 CFW GSP)

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

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

Scarified subgrade shall be inspected and approved by the Engineer prior to placement of topsoil. Upon approval of the subgrade, Topsoil A shall be installed to a minimum depth of 4 inches lightly compacted depth in all seeded areas, unless otherwise noted on plans.

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

(March 22, 2023 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 in 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 in the Plans. Evenly space the fertilizer tablets around the perimeter of, and immediately adjacent to the root system. Carefully place water and compact planting topsoil, filling all voids. Tree root crowns to be 1" higher than finished grade to allow for settlement.

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

The contractor shall apply 3 inches of pea gravel flush with bottom of tree grates in tree wells per City Standard Detail 3-31.

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(17) Protection of Private Property and Property Restoration
(March 22, 2023 CFW GSP)
Section 8-02.3(17) is a new section:

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

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

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

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

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

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

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

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

8-02.4 Measurement
(April 12, 2018 CFW GSP)
Section 8-02.4 is supplemented with the following:

"Sod Lawn, Incl. 4 In Topsoil" per square yard. The unit contract price will include all preparation, fertilizer, establishment, topsoil and mowing as called for in the specifications.

"Property Restoration" per force account.

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:

"Sod Lawn, Incl. 4 In Topsoil" per square yard. The unit contract price will include all preparation, fertilizer, establishment, topsoil and mowing as called for in the specifications.

"Property Restoration" per force account.

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:

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.

8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements
(March 22, 2023 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 in the Plans, the concrete curb will be ramped for wheel chairs as shown in the City Standard Plan Details.

Where shown in the plans, the Contractor shall paint the curbs with 2-coats of yellow paint. Paint and application shall conform to the Standard Specifications for traffic paint striping.

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways
(December 16, 2022 CFW GSP)

Section 8-04.3(1) is supplemented with the following:

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

8-04.4 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.

8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES

8-06.3 Construction Requirements
(December 16, 2022 CFW GSP)

Section 8-06.3 is supplemented with the following:

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

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.

8-07.2 Materials

(August 9, 2014 CFW GSP)

Section 8-07.2 is supplemented with the following:

Block Traffic Curb 9-18.3

8-07.3 Construction Requirements

8-07.3(1) Installing Curbs

(March 30, 2018 CFW GSP)

Section 8-07.3(1) is supplemented with the following:

For both types of curb, nosing pieces, connecting dividers, and radial sections, as detailed in the Plans, will be required at the ends of the curb lines, at transitions from Type C traffic curb to Type A traffic curb, and at Type A traffic curb installation with radii less than 10 feet.

8-09 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.

8-09.4 Measurement
(December 1, 2021 CFW GSP)
Section 8-09.4 is supplemented with the following:
"Hydrant Marker, Type 2BB" shall be measured per each.

8-09.5 Payment
(December 1, 2021 CFW GSP)
Section 8-09.5 is supplemented with the following:
"Hydrant Marker, Type 2BB", per each.

8-13 MONUMENT CASES

8-13.1 Description
(*March 13, 1995 WSDOT GSP, OPTION 1*)
Section 8-13.1 is deleted and replaced by the following:
This work shall consist of furnishing and placing monument cases, covers, and pipes in accordance with the Standard Plans and these Specifications, in conformity with the lines and locations shown in the Plans or as staked by the Engineer.

8-13.2 Materials
(March 13, 1995 WSDOT GSP, OPTION 1)
Section 8-13.2 is supplemented with the following:
The pipe shall be Schedule 40 galvanized pipe.

8-13.3 Construction Requirements
(April 12, 2018 CFW GSP)
The last paragraph of Section 8-13.3 is revised to read:
The Contractor will be responsible for placing the concrete core and tack or wire inside the pipe.

Section 8-13.3 is supplemented with the following:
Where shown in the Plans or where directed by the Engineer, existing monument case and covers shall be adjusted to grade as designated by the Engineer. The existing monument shall be carefully protected so as not to disturb its location in any way. The Contractor shall have a licensed professional land surveyor locate the monument prior to the case and cover adjustment if any disturbance of the existing monument is probable. The existing cast iron ring and cover shall first be removed and thoroughly cleaned for reinstalling at the new elevation. From that point, the existing structure shall be raised or lowered to the required elevation. The materials and method of construction shall conform to the requirements of the Standard Plan as approved by the Engineer.

8-13.3(2)B Reinstalling Monument Case and Cover
(December 16, 2022 CFW GSP)
Section 8-13.3(2)B is supplemented with the following:
The concrete class requirements listed are applicable for Type I/II Portland cement. See Section 9.01.2(1)B for requirements for Type 1L cement.

8-13.4 Measurement
(*March 22, 2023 CFW GSP*)
Section 8-13.4 is supplemented with the following:

Measurement of monument case, cover, and pipe will be by the unit for each monument case, cover, and pipe furnished and set. Incidental to this bid item is the completion of a Record of Survey by a Professional Land Surveyor and filing of all required permits with the State Department of Natural Resources.

8-13.5 Payment

(March 22, 2023 CFW GSP)

Section 8-13.5 is supplemented with the following:

"Monument Case, Cover, and Pipe", per each.

8-14 CEMENT CONCRETE SIDEWALKS

8-14.2 Materials

(December 16, 2022 CFW GSP)

Section 8-14.2 is supplemented with the following:

The Cement Concrete Sidewalk and curb ramps shall be constructed of Class 4000 concrete or greater if Type I/II Portland cement is used. If Type 1L Blended hydraulic cement is used, see 9-01.2(1)B.

Concrete Mix Design Criteria

- The cementitious content, including pozzolans if used, shall be between 450 and 550 pounds per cubic yard.
- Total void content shall be greater than 15 percent and less than 25 percent, as measured by ASTM C 1688.
- The water/cementitous material ratio, by weight, shall be between 0.27 and 0.35.
- Cement: Portland Cement Type I or II conforming to ASTM C 150, Portland Cement Type IP or IS conforming to ASTM C 595, or Portland Cement Type IL conforming to Section 9-01.
- Aggregate: Use crushed gravel, stone meeting No. 8 coarse aggregate or No. 89 coarse aggregate per ASTM D 448. If other gradation of aggregate is to be used, submit data on proposed material to the Engineer for approval at least 7 working days prior to performing the work.
- Water: Comply with ASTM C 94

8-14.3 Construction Requirements

(December 16, 2022 CFW GSP)

Section 8-14.3 is supplemented with the following:

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

(*April 3, 2017 WSDOT GSP, OPTION 1*)

Section 8-14.3 is supplemented with the following:

The Contractor shall request a pre-meeting with the Engineer to be held 2 to 5 working days before any work can start on cement concrete sidewalks, curb ramps or other pedestrian access routes to discuss construction requirements. Those attending shall include:

1. The Contractor and Subcontractor in charge of constructing forms, and placing, and finishing the cement concrete.
2. Engineer (or representative) and Project Inspectors for the cement concrete sidewalk, curb ramp or pedestrian access route Work.

Items to be discussed in this meeting shall include, at a minimum, the following:

1. Slopes shown on the Plans
2. Inspection
3. Traffic control
4. Pedestrian control, access routes and delineation
5. Accommodating utilities
6. Form work
7. Installation of detectable warning surfaces
8. Contractor ADA survey and ADA Feature as-built requirements
9. Cold Weather Protection

(January 7, 2019 WSDOT GSP, OPTION 2)

Section 8-14.3 is supplemented with the following:

Timing Restrictions

Curb ramps shall be constructed on one leg of the intersection at a time. The curb ramps shall be completed and open to traffic within five calendar days before construction can begin on another leg of the intersection unless otherwise allowed by the Engineer.

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)C Surface Applied Detectable Warning Surface
(*December 16, 2022 CFW GSP*)
Section 8-14.3(5)C is replaced with the following:

MMA-Style Truncated Dome Detectable Warning Surfaces applied to asphalt surfaces for permanent installations shall be liquid-applied Vanguard ADA Systems, or approved equal.

8-14.4 Measurement
(April 12, 2018 CFW GSP)
Section 8-14.4 is supplemented with the following:

"Reinforced Cement Conc. Sidewalk" will be measured by square yard.

"Reinforced Cement Conc. Perpendicular Curb Ramp" will be measured per each.

"Black Detectable Warning Surface" will be measured per square foot.

8-14.5 Payment
(April 12, 2018 CFW GSP)
Section 8-14.5 is supplemented with the following:

Payment for "Cement Conc. Curb Ramp Type ____" will not be made until the City has verified that the ramp(s) meet ADA requirements.

"Reinforced Cement Conc. Sidewalk", per square yard.

"Reinforced Cement Conc. Perpendicular Curb Ramp", per each.

"Black Detectable Warning Surface", per square foot.

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

8-20.1 Description

8-20.1(1) Regulations and Code
(March 13, 2012 CFW GSP)
Section 8-20.1(1) is supplemented with the following:

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

8-20.1(2) Industry Codes and Standards
(March 13, 2012 CFW GSP)
The following is added at the end of the first paragraph of this section:

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

8-20.1(3) Permitting and Inspections

(April 12, 2018 CFW GSP)

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

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

8-20.2 Materials

Section 8-20.2 is supplemented with the following:

(March 13, 2012 CFW GSP)

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

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

8-20.2(1) Equipment List And Drawings

(January 26, 2012 CFW GSP)

The first paragraph is deleted and replaced with the following:

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

8-20.3 Construction Requirements

8-20.3(1) General

(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.

(January 26, 2012 CFW GSP)

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

Signal Display Installation

Signal displays shall be installed no more than 30 days prior to scheduled signal turn on or changeover. Signal displays and reflectorized backplates when installed prior to signal turn-on or changeover shall be covered and not visible to vehicular traffic at any time.

(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

(March 22, 2023 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. Bedding and backfill materials for electrical trenches shall be as follows:

Electrical conduit trench depth shall be a minimum of 24 inches cover over conduits.

Bedding material for trenches 18 inches or less in width shall be crushed surfacing top course. Bedding material for trenches greater than 18 inches or for joint utility trenches shall be pit run sand. Bedding material shall be placed two inches below the conduit(s) and shall extend to two inches above the conduit(s).

Backfill material for trenches located within the roadway limits (back of curb to back of curb), including perpendicular crossings of roadways and underneath driveways shall be controlled density fill (CDF), vibrated in place.

Backfill material for trenches located outside of roadway and driveway limits shall be Bank Run Gravel for Trench Backfill conforming to WSDOT 9-03.19, unless the engineer determines that native material is suitable.

3. 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.

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

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

The Contractor shall be responsible for potholing for conflicts with underground utility locations prior to determining exact locations of signal and 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
(March 22, 2023 CFW GSP)

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

The concrete class requirements in paragraph one are applicable for Type I/II Portland cement. See Section 9.01.22(1)B for requirements for Type 1L cement.

Excavation for foundations shall be completed by vactor excavation. This excavation shall be incidental to the 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 in 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(4A) Controller Foundations

(March 22, 2023 CFW GSP)

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

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

Additionally, the pad mount shall conform to the following:

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

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

8-20.3(5) Conduit

8-20.3(5)A General

(March 16, 2011 CFW GSP)

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

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

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

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 – Lumen

COMCAST(AT&T)/C – Cable
COMCAST(AT&T)/F – Fiber
SIC – City Signal Interconnect
City Spare – City spares
Cobra – COBRA luminaire system

8-20.3(5)B Conduit Type
(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(6) Junction Boxes, Cable Vaults, and Pull Boxes
(March 22, 2023 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.

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

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 in the Plans except that field adjustments may be made at the time of construction by the Engineer to better fit existing field conditions.

Junction boxes for 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 in 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 in 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.

(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 in 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(9) Bonding and Grounding

(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 grounding wires between junction boxes.

Ground rods shall be copper clad steel, ¾-inch in diameter by 10-feet long, connections shall be made with thermite welds.

At points where wiring shields of shielded conductors are grounded, the shields shall be neatly wired and terminated on suitable grounding lugs.

8-20.3(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.

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
(March 22, 2023 CFW GSP)

Section 8-21.3(18) is a new section:

Where noted in 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.

8-20.3(19) Pedestrian Pushbuttons
(April 12, 2018 CFW GSP)

8-20.3(19)A Materials
Section 8-20.3(19)A is supplemented with the following:

The Signal Modification system shall consist of the following components:

1. Foundation, including excavation, haul, and forms
2. Pole assembly and hardware
3. Pushbutton and sign assembly
4. Trenching, installation of new conduits, backfill, and surface restoration
5. Wiring and enclosures

8-20.3(19)B Construction Requirements
Section 8-20.3(19)B is supplemented with the following:

The Contractor shall remove and construct Accessible Pedestrian Pushbuttons for the following locations:

S 348th St and 9th Ave S – Ramp 1 and 2 (NW Corner)

1. Construct 1 new Pedestrian Signal (PS) pole and foundation for each curb ramp. Install new APS pushbuttons on new PS poles per WSDOT Standard Plan J-20.16-02 and J-20.20-02.
2. Remove existing pedestrian signal heads and reinstall on new PS poles. Plan sheet 12.
3. Remove and dispose existing foundations.
4. Salvage existing PS poles and PPBs to KC.

S 348th St and 9th Ave S – Ramp 3 and 4 (SW Corner)

1. Construct 1 new Type 1 signal pole and foundation for each curb ramp. Install new APS pushbuttons on new Type 1 signal poles per WSDOT Standard Plan J-21.10-04 and J-21.15-01, Plan sheet 13.
2. Remove existing pedestrian signal heads and vehicle signal heads and reinstall on new Type 1 signal poles.

3. Remove and dispose existing Type 1 signal poles and foundations.
4. Salvage existing Type 1 signal poles and PPBs to KC.

S 348th St and 9th Ave S – Ramp 5 (NE Corner)

1. Replace two existing PPBs with new APS pushbuttons on existing traffic signal pole per WSDOT Standard Plan J-20.26-01, Plan sheet 14.
2. Remove / salvage existing PPBs to KC.

S 348th St and 9th Ave S – Ramp 6 and 7 (SE Corner)

1. Construct 1 new Pedestrian Pushbutton (PPB) pole and foundation for each curb ramp. Install new APS pushbuttons on new PPB poles per WSDOT Standard Plan J-20.10-04 and J-20.26-01, Plan sheet 15.
2. Remove/salvage existing PPBs to KC and plug traffic signal pole.

8-20.4 Measurement

(April 12, 2018 CFW GSP)

Section 8-20.4 is replaced with the following:

Adjust Junction box will be measured per each.

"Signal Modification – S 348th St and 9th Ave S, Complete" shall be measured per lump sum.

The Contractor shall provide and install accessible pedestrian pushbuttons as shown on the plans. The position of the accessible pedestrian pushbuttons shall be 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 Signals (APS) or Pedestrian Pushbutton (PPB) shall be mounted to the poles by means of stainless steel bolts. All mountings shall be securely fastened as approved by the Engineer. Installation shall be per WSDOT Standard Plans J-20.16- 02, J-21.15-01, and J-20.26-01.

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%).

8-20.5 Payment

(December 1, 2021 CFW GSP)

Section 8-20.5 is deleted and replaced with the following:

Payment will be made in accordance with the following:

"Adjust Junction box", per each.

"Signal Modification – S 348th St and 9th Ave S, Complete", per lump sum.

The lump sum price for " Signal Modification – S 348th St and 9th Ave S, 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, vehicular and pedestrian signal heads, pedestrian pushbuttons, 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. The lump sum bid price shall include all costs associated with the construction of the cement concrete pads around signal poles. Removal of an existing signal system 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.

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

8-21.3 Construction Requirements

8-21.3(5) Sign Relocation

(December 1, 2021 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.

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

"Tubular Marker" will be measured by each.

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.
“Tubular Markers”, per each.

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
(August 27, 2021 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.

Section 8-22.2 is supplemented with the following:

Glass beads for Type D plastic and Reflective Elements shall be per Section 9-34.4.

8-22.3 Construction Requirements
(March 22, 2023 CFW GSP)
Section 8-22.3 is supplemented with the following:

Permanent pavement markings shall be installed within 30 calendar days after paving. If a project contains paving on multiple streets (i.e. schedules of work), this requirement applies to the paving date for each street / schedule individually.

8-22.3(3) Marking Application

8-22.3(3)E Installation
(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.

Reflective 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
(March 22, 2023 CFW GSP)
Section 8-22.3(6) is supplemented with the following:

As indicated in the plans, the Contractor shall remove existing pavement markings that may consist of paint, plastic and raised pavement markings.

8-22.4 Measurement

(December 16, 2022 CFW GSP)

Paragraphs 12 and 13 of Section 8-22.4 are replaced with the following:

Measurement for the removal of all pavement markings will be per lump sum.

8-22.5 Payment

(December 16, 2022 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", lump sum.

8-23 TEMPORARY PAVEMENT MARKINGS

8-23.1 Description

(March 22, 2023 CFW GSP)

Section 8-23.1 is supplemented with the following:

Temporary pavement markings shall be installed and maintained by the Contractor prior to traffic being released onto public streets when the installation of permanent pavement markings is not yet completed. All pavement markings including lines, symbols, and raised pavement markers shown on the plans and details shall be provided as temporary pavement markings until such time that permanent pavement markings are installed. Temporary pavement markings shall generally follow the alignment for the permanent pavement markings.

8-23.2 Low VOC Waterborne Paint

(March 22, 2023 CFW GSP)

Section 8-23.2 is replaced with the following:

The City of Federal Way does not allow Low VOC Waterborne Paint for temporary or permanent pavement markings.

8-23.3 Construction Requirements

(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, Dwg 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.

8-23.3(4)A Temporary Pavement Markings – Short Duration
(March 22, 2023 CFW GSP)

Paragraph 2 of Section 8-23.3(4)A is modified as follows:

Temporary Center Line (Double Yellow Center Line) – Two SOLID lines used to delineate adjacent lanes of traffic moving in opposite directions. Temporary raised pavement markings should be installed on both sides of the yellow lines at 40-foot intervals.

Temporary Center Line (Skip Center Line) – A BROKEN line used to delineate adjacent lanes of traffic moving in opposite directions. The broken pattern shall be based on a 10-foot unit, consisting of a 1-foot line with a 9-foot gap.

8-23.4 Measurement
(March 22, 2023 CFW GSP)

Section 8-23.4 is supplemented with the following:

Temporary Flexible Raised Pavement Markers are incidental to Temporary Pavement Markings. No separate measurement or payment will be made.

Traffic control (Flaggers, Traffic Control Supervisor, Other Traffic Control, etc.) for the initial installation of Temporary Pavement Markings shall be measured and paid per the respective Traffic Control Bid Items. Traffic control associated with the subsequent maintenance of Temporary Pavement Markings shall be incidental to the temporary pavement making bid items and no additional payment will be made.

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.

END OF DIVISION 8