



**CONTRACT DOCUMENTS  
FOR THE CONSTRUCTION OF**

**2024 4<sup>th</sup> Street and Highland Road Traffic Signal PROJECT**

**FOR THE**

**CITY OF LA CENTER**

**August 7, 2024**

**LA CENTER JOB NUMBER: PW 2024-02**

**FEDERAL AID NO.: HLP-SR23(020)**

**CONTRACT NO.: TA-8036**

**Prepared By:**

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City Engineer  
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**AND**

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**Authorized for Advertisement/Bidding/Construction by:**

08/01/2024

*Anthony De Cooper*  
\_\_\_\_\_  
City Engineer

# **CITY OF La Center 2024 4<sup>th</sup> Street and Highland Road Traffic Signal PROJECT**

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## PART I-BIDDING DOCUMENTS

## **INSTRUCTIONS TO BIDDERS**

### **1. Intent of Plans and Specifications**

It is the intention of these specifications to provide for careful, thorough and workmanlike construction procedures in the installation of materials and equipment and in the manufacture and delivery of such materials and equipment. The bidder to whom the contract is awarded shall furnish all the material and labor necessary to complete said contract in accordance with all of its terms and conditions.

The plans and specifications shall be considered and used together. Anything appearing as a requirement of either shall be accepted as applicable to both even though not so stated therein or shown. The City may furnish supplemental plans and specifications to define more clearly any requirement of the original documents; these shall be accepted by the Contractor as of the same force and effect as though they had been included among the listed drawings and in case of any conflict between the listed and the supplemental drawings, the latter shall govern. The Contractor shall not be entitled to extra payment because of his compliance with the requirements of such supplemental drawings unless they contain new requirements involving costs which clearly could not have been anticipated by an experienced contractor in his examination of the original listed drawings or could not reasonably be inferred there from the requirements of the contract.

All specifications and notes appearing on the plans shall have the same force and effect as though they were repeated herein and by this reference are incorporated herein and made a part hereof.

### **2. Examination of the Contract Documents**

Each bidder shall thoroughly examine and be familiar with legal and procedural documents, general conditions, special provisions, specifications, drawings and addenda (if any). The submission of a proposal shall constitute an acknowledgment that the bidder has thoroughly examined and is familiar with the contract documents. The failure or neglect of a bidder to receive or examine any of the contract documents shall in no way relieve him from any obligations with respect to his proposal or to the contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any contract document, and the Owner will in no case be responsible for any loss or for unanticipated costs that may be suffered by the Contractor as a result of conditions pertaining to the work.

### **3. Examination of Site and Conditions**

Before making a proposal, the bidder shall examine the site of the work and ascertain for himself all the physical conditions in relation thereto. Failure to take this precaution shall not release him from his obligation as implied by the proposal he submits nor excuse him from performing the work in strict accordance with the requirements of the contract documents.

No statement made by any officer, agent, or employee of the Owner pertaining to the site of the work or the conditions under which the work must be performed will be binding on the Owner.

#### **4. Inclement Weather**

The City of La Center is subject to inclement weather through the winter and spring months. Severe rain and wind storms may occur in addition to snow and ice. The Contractor should be aware of the potential for inclement weather and plan the project accordingly.

#### **5. Addenda and Interpretations of Documents**

No interpretation of meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally. Every request for such interpretation shall be submitted in writing, addressed to City of La Center, and to be given consideration, shall be received at least five working days prior to date fixed for opening bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be mailed, faxed or otherwise delivered to each prospective bidder. Failure of any bidder to receive any such addendum shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become a part of the contract documents. Where changes to plans, specifications or both or supplemental information of significant importance, additional bid time will be provided.

#### **6. Preparation of Proposal**

Bids must be submitted by filling in with ink (or typing), on the Form headed "Bid Proposal," each and every blank on each schedule for which the bidder has submitted a proposal. If the bidder is required to provide a special form appropriate to the nature of his bid, then such form shall be complete in all respects as required by the specifications if it is to merit consideration by the Owner.

All bid prices must be equal to the Bidders estimated cost to perform the work. Prices which are weighted and disproportionate to the actual cost, as may be compared to other Bidders and evaluation by the Engineer, may be considered non-responsive and their bid rejected. If the proposal is made by a partnership, it should contain the name of each partner and should be signed in the firm name, followed by the signature of partner or that of a person duly authorized to act for and on behalf of such partnership. If made by a corporation, the proposal should be signed with the name of the corporation and the state in which incorporated, followed by the written signature of the qualified officer and the designation of the office he holds in the corporation. The address of the person, firm or corporation in whose behalf the proposal is submitted shall be given. The bidder shall comply with all other specific requirements of the proposal form.

#### **7. Alteration of Documents Prohibited**

Except as may be provided otherwise herein, proposals which are incomplete, are conditioned in any way which the plans or specifications do not authorize, contain unverified erasures or alterations, include items which are not named in the proposal form or which are unlawful, may be rejected as non-responsive.

## **9. Modification of Proposal**

Change in a proposal already delivered will be permitted only if a request for the privilege of making such modification is made in writing signed by the bidder and the specific modification itself is stated prior to the scheduled closing time for the receipt of proposals. To be effective, every modification must be made in writing over the signature of the bidder; no other form of procedure will be accepted.

## **10. Substitutions**

Approval of materials to be used on the project and possible substitutions thereof shall not be addressed during the bidding process. Materials shall meet the specifications and the bids shall be based on specified items.

## **12. Withdrawal of Proposal**

A proposal may be withdrawn at any time prior to the scheduled closing time for filing bids. This may be done by the bidder in person or upon his telegraphic or written request. A telephone request for withdrawal of a proposal will not be recognized for this purpose. If withdrawal is made personal, a written acknowledgment thereof will be required. After the scheduled closing time for filing bids, no bidder will be permitted to withdraw his proposal unless no award of contract has been made prior to the expiration of forty-five (45) days immediately following the time when bids are submitted. Bids received after the scheduled closing time will be returned to the bidder unopened.

## **13. Opening Bids**

All bid proposals received prior to the scheduled closing time and which are not withdrawn as above provided, will be publicly opened and read aloud even though there may be irregularities or informalities therein, except that any form required as part of the proposal (see Bidder's Checklist below) which is not signed, said proposal will not be read and consequently, **will** be rejected without consideration.

## **14. Award of Contract**

Within forty-five (45) calendar days after the opening of the proposals, the Owner will accept one or more of the proposals or reject one or more bids for good cause. Performance and Payment Bonds in the amount of one-hundred percent of the contract price, with a Corporate Surety approved by the Owner, will be required for the faithful performance of the contract. The bond forms contained in the contract documents must be utilized. In addition, all contractual forms contained in the Contract Documents will be required for the faithful performance of the contract.

## **15. Basis of Award**

If the owner awards the contract, the award will be given to the lowest responsive, responsible, qualified Bidder submitting the lowest Bid Proposal acceptable to the Owner. The city reserves the right to select one or both of the alternatives in the bid proposal.

## **16. Rejection of Bids**

The Owner reserves the right before or after opening to reject any or all bids or to waive any informality therein if it is believed that the best interest of the Owner will be served thereby.

## **17. Soils Investigations**

The bidder is responsible for conducting his own subsurface investigations, if he deems it prudent or necessary.

## **18. Bidder's Risk**

The submission of bid shall constitute an acknowledgment that the bidder has thoroughly examined and is familiar with the contract documents, and has reviewed and inspected all applicable statutes, regulations, ordinances and resolutions dealing with or related to the service 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 to the contract. 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.

## **19. Bidder's Checklist**

Bidder shall complete the following forms and shall submit them with the Bid Proposal:

Instructions to Bidders

Local Agency Signature Page

Non-Collusion Affidavit

Bid Proposal

Local Agency Proposal Bond

Local Agency Subcontractor list



## La Center Bid Documents

Sealed bids will be received by the (City of La Center), at the reception desk located in City Hall at 210 E. 4<sup>th</sup> Street in La Center, Washington until 3:00 p.m. on September 4<sup>th</sup>, 2024 and will then and there be opened and publicly read for the construction of the improvement(s).

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check, or surety bond in an amount equal to five percent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the (City of La Center).

The right is reserved to reject any and all bids and to waive informalities in the bidding. Maps, plans, and specifications may be obtained from J2 Blueprint Supply Company in Vancouver Washington.

Informational copies of maps, plans and specifications are on file for inspection in the Office of the City Engineer, (City Of La Center), Washington.

The following is applicable to this Safe Routes to School project:

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

The SRTS GRANT for the 4<sup>th</sup> Street and Highland Road Signal and Electronic Sign Project is supported with funding from Washington's Climate Commitment Act. The CCA supports Washington's climate action efforts by putting cap-and-invest dollars to work reducing climate pollution, creating jobs, and improving public health. Information about the CCA is available at [www.climate.wa.gov](http://www.climate.wa.gov).

The improvement for which bids will be received is described below:

**PROJECT NAME:** 4<sup>th</sup> Street and Highland Road Signal SRTS Project

**PROJECT DESCRIPTION:** Project consists of installing a traffic signal at the intersection of 4<sup>th</sup> Street and Highland Road, a Rapid Flashing Beacon, a speed feedback sign and a 20-mph flashing beacon school sign.

This project is financed through a Safe Routes to School funds. This project is subject to Labor and Industry predetermined minimum wage.

The issuing office for Contract Documents is City of La Center Community Development Department, 210 East 4<sup>th</sup> Street, La Center, WA 98629, (360) 263-7665. Plans will be available at J2 Blueprint Company starting August 7<sup>th</sup>, 2024. Technical inquiries regarding the project should be directed to Tony Cooper, City Engineer, at City of La Center Public Works, 210 East 4<sup>th</sup> Street, La Center, WA 98629, (360) 263-2889. Work shall be completed within **100** working days after receipt of Notice to Proceed.

**Prevailing Wage**

This is a public works project subject to state prevailing wage requirements. The Contractor agrees that all laborers, workers, or mechanics employed by it or by any subcontractor in the work of this Contract will be paid not less than the prevailing rate of wage for an hours work in accordance with the provisions of the Revised Code of Washington, Chapter 39.12, and all rules and regulations promulgated pursuant thereto.

In case any dispute arises as to what the prevailing rates of wages for work of a similar nature are and such dispute cannot be adjusted by the parties involved, the matter shall be referred to the director of the Department of Labor and Industries of the State of Washington and the US Department of Labor for arbitration, and the director's decision therein shall be final and conclusive and binding on all parties involved in the dispute.

The Contractor is obligated to pay the wage rates determined by the Washington State Department of Labor and Industries Prevailing Wages, Rates for Clark County, effective September 4, 2024.

The applicable prevailing wage rates for this project, which is located in Clark County, may be found at the following website address of the Department of Labor and Industries:

<https://secure.lni.wa.gov/wagelookup/>

## BID INSTRUCTION PAGES FORM

All contractors doing business within the City of La Center are required to have (or obtain) a City of La Center business license. The license can be obtained on the DOR website at [www.dor.wa.gov](http://www.dor.wa.gov) and apply for the business license for La Center.

### Wage Law Intents and Affidavits

If awarded the project, the contractor and each subcontractor shall complete or have on file a current "Statement of Intent to Pay Prevailing Wages" (Form L&I Number F700-029-000) before payment will be made for work performed. An "Affidavit of Wages Paid" (Form L&I Number F700-007-000) shall be required upon final acceptance of the public works project by the City. These forms are available from Washington State Department of Labor & Industries and can be filed electronically at:

<http://www.lni.wa.gov/TradesLicensing/PrevWage/IntentAffidavits/File/default.asp>

**The undersigned declares that before preparing their bid, they read carefully the specifications and requirements for bidders and that their bid is made with the full knowledge of the kind, quality and quantity of services and equipment to be furnished, and their said bid is as stated on these pages.**

---

Authorized Official (Signature)

---

Date

---

Print Name of Authorized Official

---

Title of Authorized Official

---

Company Name

---

Telephone Number

---

Address

---

City, State, Zip

The bidder shall attest by signing this statement in accordance with chapter [5.50](#) RCW verifying under penalty of perjury that the bidder is in compliance with the responsible bidder criteria requirements below:

Within the three-year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the 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 chapter [49.46](#), 49.48, or [49.52](#) RCW.

---

Authorized Official (Signature)

---

Date

---

Print Name of Authorized Official

---

Title of Authorized Official

---

(Attorney-in-fact)

Failure to return this Declaration as part of the bid proposal package will make the bid nonresponsive and ineligible for award.

### **NON-COLLUSION DECLARATION**

**I, by signing the proposal, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:**

1. That the undersigned 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 the project for which this proposal is submitted.
- 1 That by signing the signature page of this proposal, I am deemed to have signed and to have agreed to the provisions of this declaration

## BID PROPOSAL FORM

TO: City of La Center  
210 East 4th Street  
La Center, Washington 98629

FROM: Bidder \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone \_\_\_\_\_

The undersigned, as bidder, declares that we have examined all of the contract documents and that we will contract with the City of La Center to do everything necessary to complete the work as outlined on the plans and specifications for the 4<sup>th</sup> Street and Highland Road Traffic Signal Project, PW 2024-02

We acknowledge that addenda numbers \_\_\_\_\_ to \_\_\_\_\_ have been delivered to us and have been examined as part of the contract documents. We agree that the Bid Bond, and the Qualification of Bidder, shall form a part of this proposal.

Attached is a bid bond duly completed by a guaranty company authorized to carry on business in the State of Washington, in the amount of at least five percent (5%) of the total amount of our proposal, or alternatively, there is attached a certified or cashier's check payable to the City of La Center in the amount of at least five percent (5%) of the total amount of our proposal.

If our BID is accepted, we agree to sign the contract form and to furnish the contract bond and the required evidences of insurance within ten (10) calendar days after receiving written notice of the award of contract.

We further agree, if our BID is accepted and a contract for performance of work is entered into with the City of La Center, to so plan the work and to prosecute it with such diligence that all of the work shall be completed within the time period stated in the contract. We understand that the City of La Center reserves the right to reject any or all bids and to determine which proposal is, in the judgment of the City of La Center, the lowest responsible bid, and which proposal, if any, should be accepted in the best interests of the City of La Center and that the City of La Center also reserves the right to waive any informalities in any proposal or bid.

We further state that we 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 such contract.

Bidder agrees that the work will be completed within 100 working days after the date when the notice to proceed is received from the City of La Center.

We propose to perform the work at the prices listed in the following bid schedule(s):

Notes:

- (2) See Special Provisions and the Standard Specifications for State sales tax requirements.
- (3) The City reserves the right to adjust the scope of this work to match available funds.
- (4) The City reserves the right to reject any or all bids.
- (5) The table below provides a list of items required to complete the project. It is the contractor's responsibility to complete the project scope to all required standards and specifications.
- (6) The low bid will be the lowest bid alternative that is in the owner's best interest.

**BID PROPOSAL:**

Item No.	STD, GSP, SP / SPEC REF NO	Description	Est. Quantity	Unit	Unit Price	Total Price
1	STD / 1-09.7	MOBILIZATION	All	LS		
2	STD / 2-01	CLEARING AND GRUBBING	0.1	ACRE		
3	STD / 1-04	MINOR CHANGE	1	CALC	\$5,000	\$5,000
4	STD / GSP / 2-02	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	LS		
5	STD / 8-22	REMOVING PAINT LINE	672	LF		
6	STD / 8-22	REMOVING PAINTED TRAFFIC MARKING	3	EACH		
7	STD / 8-22	REMOVING PAINTED CROSSWALK LINE	560	SF		
8	SP / 2-02	REMOVING CHAIN LINK FENCE	120	LF		

9	SP	TREE REMOVAL	2	EACH		
10	1-10 SP	WORK ZONE SAFETY CONTINGENCY	1	F.A.		
11	SP	TRAFFIC CONTROL SUPERVISOR	1	LS		
12	SP	CONSTRUCTION SIGNS CLASS A	130	SF		
13	SP	CONSTRUCTION STAGING AND ACCESS PLAN	1	LS		
14	SP	TEMPORARY PEDESTRIAN ACCESS AND MANAGEMENT	1	LS		
15	SP	ROADWAY EXCAVATION INCL. HAUL	160	C.Y.		
16	STD / 7-04	SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	135	LF		
17	STD / 7-04 SP	CONNECTION TO EXISTING STORM PIPE	1	EACH		
18	STD / 7-05	CATCH BASIN TYPE 1	1	EACH		
19	STD / 7-05 SP	CATCH BASIN TYPE 1 WITH SOLID LOCKING LID	1	EACH		
20	STD / 7-05 SP	PVC CATCH BASIN 24" DIAM. W/ SOLID GRATE	1	EACH		
21	STD / 7-05 SP	CONNECT TO EXISTING DRAINAGE STRUCTURE	1	EACH		
22	STD / 4-04	CRUSHED SURFACING BASE COURSE	58	TON		
23	STD / GSP / 5-04	HMA CL. 1/2 IN. PG58H-22	42	TON		
24	STD / 8-01	SILT FENCE	290	LF		
25	STD / 8-02	SEEDING, FERTILIZER AND MULCHING - SITE ROADSIDE	2300	SF		
26	STD / 8-01	INLET PROTECTION	6	EACH		
27	STD / 8-01	EROSION CONTROL AND WATER POLLUTION PREVENTION	1	LS		
28	STD / 8-04	CEMENT CONC. TRAFFIC CURB AND GUTTER	180	LF		



29	STD / 8-04	CEMENT CONC. TRAFFIC CURB	50	LF		
30	STD / 8-04	CEMENT CONC. PEDESTRIAN CURB	90	LF		
31	STD / 8-20	TRAFFIC SIGNAL SYSTEM	1	LS		
32	STD / 8-21	PERMANENT SIGNING	1	LS		
33	STD / 8-22	PAINTED WHITE LINE	150	LF		
34	STD / 8-22	PAINTED YELLOW LINE	185	LF		
35	STD / 8-22	PAINTED WIDE EDGE LINE, WHITE	350	LF		
36	STD / 8-22	PLASTIC TRAFFIC ARROW	2	EACH		
37	STD / 8-22	PLASTIC CROSSWALK LINE	560	SF		
38	STD / 8-22	PLASTIC STOP LINE	120	LF		
39	STD / 8-22	PLASTIC BICYCLE LANE SYMBOL	1	EACH		
40	GSP / 1-10	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS		
41	STD / 8-23	TEMPORARY PAVEMENT MARKING - LONG DURATION	2550	LF		
42	SP / 7-05	ADJUST CATCH BASIN	2	EACH		
43	GSP / 1-05	ROADWAY SURVEYING	1	LS		
44	STD / 8-14	CEMENT CONC. SIDEWALK	60	S.Y.		
45	STD / 8-14	CEMENT CONC. CURB RAMP TYPE PERPENDICULAR	1	EACH		

46	STD / 8-14	CEMENT CONC. CURB RAMP TYPE PARALLEL	5	EACH		
47	STD / 8-14	DETECTABLE WARNING SURFACE	10	SF		
48	GSP / 8-12	COATED CHAIN LINK FENCE TYPE 4	120	LF		
49	GSP / 8-12	COATED END, GATE, CORNER, PULLPOST FOR CHAIN LINK FENCE	2	EACH		
50	GSP / 8-12	REMOVE AND RESET EXISTING FENCE	30	LF		
51	SP / 8-14	CEMENT CONC. SIDEWALK (THICKENED)	160	S.Y.		
52	SP	RECTANGULAR RAPID FLASHING BEACON	1	LS		
53	SP	SCHOOL FLASHER SYSTEM	1	LS		
54	SP	RADAR SPEED FEEDBACK SIGN	1	LS		
<b>Bid Total</b>					\$	

## BID BOND

### NOW, THEREFORE,

- a) If said Bid shall be rejected, or
- b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the form of contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

**IN WITNESS WHEREOF**, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
**Principal**                      **Title**                      (LS)

\_\_\_\_\_  
**Surety**

By: \_\_\_\_\_

**IMPORTANT:** Surety Companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located

## BIDDER QUALIFICATIONS

**Project:** 4<sup>th</sup> Street and Highland Road Traffic Signal Project, **PW 2024-02**

If the above contract is awarded to our company, the following persons will be authorized to sign change orders, progress payments and similar documents for the company: (names and positions)

\_\_\_\_\_  
—  
\_\_\_\_\_  
—

The contractor's superintendent at the job site per Article 1-05.13 of the Standard Specifications will be (give full name): \_\_\_\_\_

The last three projects completed or substantially completed by our company involving similar construction work are as follows:

1. Project Name: \_\_\_\_\_

Dollar amount of Contract: \$ \_\_\_\_\_

Owner: \_\_\_\_\_

Owner's Representative: \_\_\_\_\_ Phone no.: \_\_\_\_\_

Contractor's Superintendent on this project: \_\_\_\_\_

Brief Description of Project Scope: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2. Project Name: \_\_\_\_\_

Dollar amount of Contract: \$ \_\_\_\_\_

Owner: \_\_\_\_\_

Owner's Representative: \_\_\_\_\_ Phone no.: \_\_\_\_\_

Contractor's Superintendent on this project: \_\_\_\_\_

Brief Description of Project Scope: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

3. Project Name: \_\_\_\_\_

Dollar amount of Contract: \$ \_\_\_\_\_

Owner: \_\_\_\_\_

Owner's Representative: \_\_\_\_\_ Phone no.: \_\_\_\_\_

Contractor's Superintendent on this project: \_\_\_\_\_

Brief Description of Project Scope: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Title of Person completing this form \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Phone No. \_\_\_\_\_

## PART II-CONTRACT FORMS

## AGREEMENT

**THIS AGREEMENT**, made this \_\_\_\_\_ day of \_\_\_\_\_, 2024, by and between the City of La Center, Washington, hereinafter called "Owner," and of \_\_\_\_\_, doing business as (an individual) or (a partnership) or (a corporation), hereinafter called "Contractor."

**WITNESSETH:** that for and in consideration of the payments and agreements hereafter mentioned:

The Contractor will furnish all of the material, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the project described herein.

PROJECT DESCRIPTION: Consists of installing a traffic signal at the intersection of E.4<sup>th</sup> Street and Highland Road. RRFB flashing pedestrian beacon adjacent to the city parking lot by the high school, a speed feedback sign east of the signal, and a flashing school zone sign by the high school on 339<sup>th</sup> Street.

This project is financed through a Safe Routes to School Grant.

The Contractor will commence the work required by the Contract Documents within ten (10) calendar days after the date of the Notice to Proceed and will complete all work required by the Contract Documents within 100 working days of the same date unless the period for completion is extended otherwise by the Contract Documents.

The Contractor agrees to perform all of the work described in the Contract Documents including and comply with the terms therein for the total price of \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents (\$ \_\_\_\_\_, \_\_\_\_\_).

The term "Contract Documents" means and includes the following:

Invitation to Bid Instructions to Bidders Bid Proposal Form Non-Collusion Affidavit Bid Bond Agreement Payment Bond Performance Bond Notice of Award	Notice to Proceed Change Order City of La Center Special Provisions Contract Bid Items Contract Drawings Prepared or Issued by the City of La Center Standard Plans Addendum: All items included within these Contract Documents.
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The Owner will pay to the Contractor in the manner and at such times as set forth in the General Conditions such amounts as required by the Contract Documents.

This Agreement shall be binding upon all parties hereto and their respective heir, executors, administrators, successors, and assigns.

**IN WITNESS WHEREOF**, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate, each of which shall be deemed an original, on the date first above written.

**OWNER:**

By: \_\_\_\_\_

(SEAL)

Typed Name: \_\_\_\_\_

Title: \_\_\_\_\_

ATTEST:

\_\_\_\_\_

Typed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**CONTRACTOR:**

By: \_\_\_\_\_

(SEAL)

Typed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

ATTEST:

\_\_\_\_\_

Typed Name: \_\_\_\_\_

Title: \_\_\_\_\_



## PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That, WHEREAS, the City of La Center, State of Washington, on has awarded to \_\_\_\_\_, hereinafter designated as "Principal," a Contract for construction of the **4<sup>th</sup> Street and Highland Road Traffic Signal PROJECT, PW 2024-02**, the terms and provisions of which contract are incorporated herein by reference, and;

WHEREAS, said Principal is required to furnish a bond in connection with this said Contract, providing that if said Principal, or any of his or its subcontractors, shall fail to pay for any materials, provisions, provender or other supplies or teams used in, upon, for, or about the performance of the work contracted to be done, or any other work or labor done thereon of any kind, the Surety of this body will pay the same to extend hereinafter set forth;

NOW,                    THEREFORE,                    we                    the                    Principal and \_\_\_\_\_, as Surety, are held and firmly bound unto the City of La Center, State of Washington, in the penal sum of \_\_\_\_\_ (\$ \_\_\_\_\_), lawful money of the United States, being one hundred percent (100%) of the Contract amount for the payment of which sum well and truly to be made, we bond ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

NOW, THEREFORE, if the above bounden Principal or any of his subcontractor shall promptly make payment to all persons supplying labor and material or amounts due in the prosecution of the work provided for in said Contract, and any and all duly authorized modifications of said Contract that may hereafter be made, then this obligation shall be void; otherwise, this obligation shall remain in full force and virtue; and if the bounden Principal or any of his subcontractors fails to promptly pay any of the persons or amounts due with respect to work or labor performed by any such claimant, the Surety will pay for the same, in an amount not exceeding the sum specified in this bond, and also in case suit brought upon this bond, a reasonable attorney's fee, be fixed by the court; and this bond shall insure to the benefit of any persons so as to give a right of action to such persons or their assigns in any suit brought upon

this bond.

The bond shall insure to the benefit of any all persons, companies and corporations entitle to file claims, so as to give a right of action to them or their assigns in any suit brought upon this bond.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed hereunder, or the Specifications accompanying the same shall in any wise affect its obligations on this bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the work or to the Specifications.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this \_\_\_\_\_ day of \_\_\_\_\_, 2024, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attorney-in-Fact, Surety

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Principal

\_\_\_\_\_  
\_\_\_\_\_

Name and Address  
Local Office of Agent

NOTE: Date of Bond must not be prior to date of contract. If Contractor is Partnership, all partners should execute bond.

**IMPORTANT: Surety Companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.**

## PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That, WHEREAS, the City of La Center, State of Washington, on \_\_\_\_\_, has awarded to \_\_\_\_\_, hereinafter designated as "Principal," a Contract for construction of the 4<sup>th</sup> Street and Highland Road Traffic Signal PROJECT, **PW 2024-02**, the terms and provisions of which contract are incorporated herein by reference, and;

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract;

NOW, THEREFORE, we the Principal and \_\_\_\_\_, as Surety, are held and firmly bound unto the City of La Center, State of Washington, in the penal sum of \_\_\_\_\_ (\$ \_\_\_\_\_), lawful money of the United States, being one hundred percent (100%) of the Contract amount for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bound Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and faithfully perform the covenants, conditions, and agreements in the said Contract and any alterations made as therein provided, on his or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the said Contract, the above obligation to the amount of \_\_\_\_\_ (\$ \_\_\_\_\_), shall hold good for a period of one (1) year after the completion and acceptance of the said work, during which time if the above bounden Principal, his or its heirs, executors, administrators, successors or assigns shall fail to make full, complete and satisfactory repair and replacements or totally protect the said from loss or damage made evident during said period of one (1) year from the date of acceptance of said work, and resulting from or caused by defective materials or faulty workmanship in the prosecution of the work done, the above obligation in the

said sum of \_\_\_\_\_  
(\$ \_\_\_\_\_), shall remain in full force and virtue; otherwise the above obligation shall be void.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration of addition to the terms of the Contract or to the work to be performed hereunder or the Specifications accompanying the same shall in any wise affect its obligations on this bond; and it does hereby waive notice of any such change, extension of time alteration or addition to the terms of the Contract, or to the work, or to the Specifications.

In the event the City of La Center or its successors or assigns, shall be the prevailing party in an action brought upon this bond, then in addition to the penal sum hereinabove specified, we agree to pay to said, or its successors or assigns, a reasonable sum on account of attorney's fees in such action, which sum shall be fixed by the court.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this \_\_\_\_\_ day of \_\_\_\_\_, 2024, the name and corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attorney-in-Fact, Surety

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Principal

\_\_\_\_\_  
Name and Address  
Local Office of Agent

NOTE: Date of Bond must not be prior to date of contract. If Contractor is Partnership, all partners should execute bond.

**IMPORTANT: Surety Companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.**

## NOTICE OF AWARD

DATE:

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROJECT NAME:** 4<sup>th</sup> Street and Highland Road Traffic Signal, **PW 2024-02**

The Owner has considered the Bid submitted by you for the above described work in response to its Advertisement for Bids dated \_\_\_\_\_, and Contract Documents.

You are hereby notified that your bid has been accepted for items in the amount of \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents (\$ \_\_\_\_\_).

You are required by the Bidding Documents to execute the Agreement and furnish the required Contractor's Performance Bond, Payment Bond, and Certificates of Insurance (including complete insurance coverage for the Owner and City of La Center) within ten (10) calendar days from the date of this notice to you.

Intent to pay prevailing wages shall be demonstrated before Notice to Proceed is executed.

If you fail to execute said Agreement and to furnish said Bonds within ten (10) calendar days from the date of this notice, said Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2024.

City of La Center  
Owner

By: \_\_\_\_\_

Title: \_\_\_\_\_

### **ACCEPTANCE OF NOTICE**

Receipt of the above **NOTICE TO AWARD** is hereby acknowledged.

Firm: \_\_\_\_\_, this the \_\_\_\_\_ day of \_\_\_\_\_, 2024

By: \_\_\_\_\_

Title: \_\_\_\_\_

## NOTICE TO PROCEED

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROJECT NAME: 4<sup>th</sup> Street and Highland Road Traffic Signal PROEJCT, PW 2024-02**

You are hereby notified to commence work in accordance with the Agreement dated \_\_\_\_\_, 2024, within ten (10) calendar days of the date of this notice, or \_\_\_\_\_, 2024, and you are to complete the work within 100 working days after the date of this notice. The date of completion is therefore \_\_\_\_\_, 2024.

City of La Center  
Owner

By: \_\_\_\_\_

Title: \_\_\_\_\_

## ACCEPTANCE OF NOTICE

Receipt of the above **NOTICE TO PROCEED** is hereby acknowledged.

Firm: \_\_\_\_\_, this Day of, 2024.

By: \_\_\_\_\_

Title: \_\_\_\_\_

## CHANGE ORDER

Change Order No. 1

Date: \_\_\_\_\_

Agreement Date: \_\_\_\_\_

NAME OF PROJECT:

4<sup>th</sup> Street and Highland Road Traffic Signal PROJECT, PW 2024-02

OWNER:

City of La Center

CONTRACTOR:

\_\_\_\_\_

The following changes are hereby made to the Contract:

Justification: \_\_\_\_\_

\_\_\_\_\_

Original Contract Price was: \$ \_\_\_\_\_

Previously Approved Change Order(s): \$0.00

Contract Price prior to this Change Order: \$

Contract Price for this Change Order will be (increased) (decreased) by: \$

New Contract Price including this Change Order will be: \$

The Contract Time will be (circle one) *increased* *decreased* (*unchanged*) by (\_\_\_\_) working days.

The date for substantial completion as of the date of this Change Order, therefore, is

\_\_\_\_\_ (Date).

To be effective, this Order must be approved by the federal agency if it changes the scope or objective of the Project, or as may otherwise be required by the Special Provisions.

Requested by: \_\_\_\_\_

Recommended by: \_\_\_\_\_

Ordered by: \_\_\_\_\_

Accepted by: \_\_\_\_\_

Federal Agency Approval: \_\_\_\_\_  
(when applicable)

## INTRODUCTION TO THE SPECIAL PROVISIONS

(\*\*\*\*\*)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2024 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications"). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

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

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

<i>(March 8, 2013 APWA GSP)</i>	<i>APWA General Special Provision</i>
<i>(April 1, 2013 WSDOT GSP)</i>	<i>WSDOT General Special Provision</i>
<i>(June 16, 2020 WSDOT SWR GSP)</i>	<i>WSDOT Southwest Region General Special Provision</i>
<i>(CCPW March 2006)</i>	<i>Clark County Public Works General Special Provision</i>
<i>(*****)</i>	<i>Project-Specific Special Provision</i>

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 La Center Public Works Engineering Standards for Construction*, current edition

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



## **Division 1 General Requirements**

### **DESCRIPTION OF WORK**

*(March 13, 1995 WSDOT GSP)*

This Contract provides for the improvement of \*\*\* Intersection of E 4<sup>th</sup> Street and NE Highland Drive. The Project includes roadway improvements, storm sewer conveyance, HMA paving, erosion control, traffic control, illumination, pavement marking, traffic signal and ITS systems, school flasher, RRFB\*\*\* and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

### **1-01 Definition and Terms**

#### **1-01.3 Definitions**

*(January 19, 2022 APWA GSP)*

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

#### **Dates**

##### ***Bid Opening Date***

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

##### ***Award Date***

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

##### ***Contract Execution Date***

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

##### ***Notice to Proceed Date***

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

##### ***Substantial Completion Date***

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

##### ***Physical Completion Date***

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

##### ***Completion Date***

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

***Final Acceptance Date***

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

Supplement this Section with the following:

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

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

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

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

**Additive**

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

**Alternate**

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

**Business Day**

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

**Contract Bond**

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

**Contract Documents**

See definition for "Contract".

**Contract Time**

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

**Notice of Award**

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

**Notice to Proceed**

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

**Traffic**

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

**1-02 Bid Procedures and Conditions****1-02.1 Prequalification of Bidders**

Delete this section and replace it with the following:

**1-02.1 Qualifications of Bidder**

*(January 24, 2011 APWA GSP)*

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

**1-02.2 Plans and Specifications**

Section 1-02.2 is supplemented with the following:

*(\*\*\*\*\*)*

*The City of La Center will provide review copies of the plans and specifications at:*

J2 Blueprint Supply Company in Vancouver will host the plans and contract electronically. The contractor will need to obtain copies of half size or full-size sets of plans for J2 from bidding and construction at the Contractor's expense.

**1-02.4 Examination of Plans, Specifications and Site of Work****1-02.4(1) General**

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

*(December 30, 2022 APWA GSP Option B)*

Prospective Bidders desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business 4 business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.

Section 1-02.4(1) is supplemented with the following:

*(September 3, 2019 WSDOT GSP)*

The Reference Information for this project is available for review by the bidder at the following location:

\*\*\* City of La Center  
City Hall  
210 East 4<sup>th</sup> Street  
La Center, WA 98629 \*\*\*

The Reference Information includes the following:

\*\*\* *Geotechnical Engineering Report* by PBS Engineering + Environmental, Inc.  
dated September 3, 2020 \*\*\*

### **1-02.5 Proposal Forms**

Delete this section and replace it with the following:

*(July 31, 2017 APWA GSP)*

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 UDBE/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**

Supplement the second paragraph with the following:

*(January 4, 2024 APWA GSP, Option B)*

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

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

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 DBE 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 DBE requirements are to be satisfied through such an agreement.

*(November 20, 2023 WSDOT GSP)*

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

### **1-02.7 Bid Deposit**

Supplement this section with the following:

*(March 8, 2013 APWA GSP)*

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**

The first and second paragraph of Section 1-02.9 are revised to read as follows:

*(\*\*\*\*\*)*

The Proposal shall be sealed and submitted in the envelope provided with it at the location and time identified below. The Bidder shall fill in all blanks on this envelope to ensure proper handling and delivery. Bids are to be received no later than 3:00:00 P.M. Pacific time on the date of the bid opening:

City of La Center Community Development Office  
210 East 4<sup>th</sup> Street  
La Center, WA 98629

### **1-02.10 Withdrawing, Revising, or Supplementing Proposal**

Delete this section, and replace it with the following:

*(July 23, 2015 APWA GSP)*

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.

## **1-02.12 Public Opening of Proposals**

Section 1-02.12 is supplemented with the following:

(\*\*\*\*\*)

### **Date Of Opening Bids**

Sealed bids are to be received at the following locations prior to the time Specified:

1. City of La Center Community Development Office, 210 East 4<sup>th</sup> Street, La Center, WA 98629, until 3:00 P.M. of the bid opening date.

The bid opening date for this project is **September 4, 2024**. Bids received will be publicly opened and read after **3:00** P.M. on this date.

## **1-02.13 Irregular Proposals**

Delete this section and replace it with the following:

*(January 4, 2024 APWA GSP)*

1. A Proposal will be considered irregular and will be rejected if:
  - a. The Bidder is not prequalified when so required;
  - b. The Bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
  - c. A price per unit cannot be determined from the Bid Proposal;
  - d. The Proposal form is not properly executed;
  - e. The Bidder fails to submit or properly complete a subcontractor list (WSDOT Form 271-015), if applicable, as required in Section 1-02.6;
  - f. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification (WSDOT Form 272-056), if applicable, as required in Section 1-02.6;
  - g. The Bidder fails to submit Written Confirmations (WSDOT Form 422-031) 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;
  - h. 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 in accordance with Section 1-07.11;
  - i. The Bidder fails to submit a DBE Bid Item Breakdown (WSDOT Form 272-054), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
  - j. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.
2. A Proposal may be considered irregular and may be rejected if:
  - a. The Proposal does not include a unit price for every Bid item;
  - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
  - c. The authorized Proposal Form furnished by the Contracting Agency is not used or is altered;
  - d. The completed Proposal form contains unauthorized additions, deletions, alternate Bids, or conditions;
  - e. Receipt of Addenda is not acknowledged;
  - f. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
  - g. If Proposal form entries are not made in ink.

#### **1-02.14 Disqualification of Bidders**

(May 17, 2018 APWA GSP, Option A)

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.

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). To assess bidder responsibility, the Contracting Agency



reserves the right to request documentation as needed from the Bidder and third parties concerning the Bidder's compliance with the mandatory bidder responsibility criteria.

If the Contracting Agency determines the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1) 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.

### **1-02.15 Pre Award Information**

Revise this section to read:

(December 30, 2022 APWA GSP)

Before awarding any contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.
7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

### **1-03 Award and Execution of Contract**

#### **1-03.1 Consideration of Bids**

Revise the first paragraph to read:

(December 30, 2022 APWA GSP)

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**

Revise this section to read:

(December 30, 2022 APWA GSP)

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

### **1-03.3 Execution of Contract**

Revise this section to read:

(July 8, 2024 APWA GSP Option A)

Revise this section to read:

Within 3 calendar days of Award date (not including Saturdays, Sundays and Holidays), the successful Bidder shall provide the information necessary to execute the Contract to the Contracting Agency. The Bidder shall send the contact information, including the full name, email address, and phone number, for the authorized signer and bonding agent to the Contracting Agency.

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

Within 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the contract by the Contracting Agency, the successful bidder shall provide 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 10 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

#### **1-03.4 Contract Bond**

Delete the first paragraph and replace it with the following:

*(July 23, 2015 APWA GSP)*

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

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:

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

Section 1-03.4 is supplemented with the following:

(\*\*\*\*\*)

Release of Performance and Payment Bonds will be 60 days following Contracting Agency Final Acceptance of Contract, provided following conditions are met:

1. Payment to the State with respect to taxes imposed pursuant to Title 82, RCW on Contracts totaling more than \$35,000, a release has been obtained from the Washington State Department of Revenue.
2. Affidavits of Wages Paid for the Contractor and all Subcontractors are on file with the Contracting Agency (RCW 39.12.040).
3. A certificate of Payment of Contributions Penalties and Interest on Public Works Contract is received from the Washington State Employment Security Department.

4. Washington State Department of Labor and Industries (per Section 1-07.10) shows the Contractor, Subcontractor(s) and any lower tier Subcontractor(s) are current with payments of industrial insurance and medical aid premiums.
5. All claims, as provided by law, filed against the Contract Bond have been resolved.

### **1-03.7 Judicial Review**

Revise this section to read:

(December 30, 2022 APWA GSP)

All decisions 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**

Revise the second paragraph to read:

(December 30, 2022 APWA GSP)

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

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

#### **1-04.4(1) Minor Changes**

Delete the first paragraph and replace it with the following:

(May 30, 2019 APWA GSP)

Payments or credits for changes amounting to \$5,000 or less may be made under the Bid item "Minor Change". At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All "Minor Change" work will be within the scope of the Contract Work and will not change Contract Time.

## 1-05 Control of Work

### 1-05.4 Conformity With And Deviations From Plans And Stakes

Section 1-05.4 is supplemented with the following:

*(January 13, 2021 WSDOT GSP)*

#### **Contractor Surveying - Roadway**

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

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

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

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

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

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

1. Verify the primary horizontal and vertical control furnished by the Contracting Agency, and expand into secondary control by adding stakes and hubs as well as additional survey control needed for the project. Provide descriptions of secondary control to the Contracting Agency. The description shall include coordinates and elevations of all secondary control points.
2. Establish, the centerlines of all alignments, by placing hubs, stakes, or marks on centerline or on offsets to centerline at all curve points (PCs, PTs, and PIs) and at points on the alignments spaced no further than 50 feet.
3. Establish clearing limits, placing stakes at all angle points and at intermediate points not more than 50 feet apart. The clearing and grubbing limits shall be 5 feet beyond the toe of a fill and 10 feet beyond the top of a cut unless otherwise shown in the Plans.

4. Establish grading limits, placing slope stakes at centerline increments not more than 50 feet apart. Establish offset reference to all slope stakes. If Global Positioning Satellite (GPS) Machine Controls are used to provide grade control, then slope stakes may be omitted at the discretion of the Contractor
5. Establish the horizontal and vertical location of all drainage features, placing offset stakes to all drainage structures and to pipes at a horizontal interval not greater than 25 feet.
6. Establish roadbed and surfacing elevations by placing stakes at the top of subgrade and at the top of each course of surfacing. Subgrade and surfacing stakes shall be set at horizontal intervals not greater than 50 feet in tangent sections, 25 feet in curve sections with a radius less than 300 feet, and at 10-foot intervals in intersection radii with a radius less than 10 feet. Transversely, stakes shall be placed at all locations where the roadway slope changes and at additional points such that the transverse spacing of stakes is not more than 12 feet. If GPS Machine Controls are used to provide grade control, then roadbed and surfacing stakes may be omitted at the discretion of the Contractor.
7. Establish intermediate elevation benchmarks as needed to check work throughout the project.
8. Provide references for paving pins at 25-foot intervals or provide simultaneous surveying to establish location and elevation of paving pins as they are being placed.
9. For all other types of construction included in this provision, (including but not limited to channelization and pavement marking, illumination and signals, guardrails and barriers, and signing) provide staking and layout as necessary to adequately locate, construct, and check the specific construction activity.
10. Contractor shall determine if changes are needed to the profiles or roadway sections shown in the Contract Plans in order to achieve proper smoothness and drainage where matching into existing features, such as a smooth transition from new pavement to existing pavement. The Contractor shall submit these changes to the Engineer for review and approval 10 days prior to the beginning of work.

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

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

	<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 4, 2011 WSDOT GSP)*

### ***Licensed Surveyors***

The Contractor shall be responsible for reestablishing or locating legal survey markers such as GLO monuments or property corner monuments, conduct boundary surveys to determine Contracting Agency right-of-way locations, and obtain, review and analyze deeds and records as necessary to determine these boundaries. The Contracting Agency will provide "rights of entry" as needed by the Contractor to perform the work.



The Contractor shall brush out or clear and stake or mark the right-of-way lines as designated by the Engineer.

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 Contractors expense.

When required, the Contractor shall prepare and file a Record of Survey map in accordance with RCW 58.09 and provide a recorded copy to the Contracting Agency. The Contracting Agency will provide all existing base maps, existing horizontal and vertical control, and other material available with Washington State Plane Coordinate information to the Contractor. The Contracting Agency will also provide maps, plan sheets, and/or aerial photographs clearly identifying the limits of the areas to be surveyed. The Contractor shall establish Washington State Plane Coordinates on all points required in the Record of Survey and other points designated in the Contract documents.

Existing right of way documentation, existing base maps, existing horizontal and vertical control descriptions, maps, plan sheets, aerial photographs and all other available material may be viewed by prospective bidders at the office of the Engineer.

The Contractor shall perform all of the necessary calculations for the contracted survey work and shall provide copies of these calculations to the Contracting Agency. Electronic files of all survey data shall be provided and in a format acceptable to the Contracting Agency.

All survey work performed by the Contractor shall conform to all applicable sections of the Revised Code of Washington and the Washington Administrative Code.

The Contractor shall provide all traffic control, signing, and temporary traffic control devices in order to provide a safe work zone.

### ***Payment***

Payment will be made in accordance with Section 1-09.6 for the following bid item when included in the proposal:

"Licensed Surveying", Force Account.

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

## **1-05.7 Removal of Defective and Unauthorized Work**

Supplement this section with the following:

*(October 1, 2005 APWA GSP)*

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**

Delete this section and replace it with the following:

### **1-05.11 Final Inspections and Operational Testing**

*(October 1, 2005 APWA GSP)*

#### **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 therefor.

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

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

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

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

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7. The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

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

#### **1-05.11(3)    *Operational Testing***

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

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

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

## **1-05.12 Final Acceptance**

### **1-05.12(1)      *One-Year Guarantee Period***

*(March 8, 2013 APWA GSP)*

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within one year after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency's written notice of a defect, and shall complete such work within the time stated in the Contracting Agency's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for one year after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

## **1-05.13 Superintendents, Labor and Equipment of Contractor**

*(August 14, 2013 APWA GSP)*

Delete the sixth and seventh paragraphs of this section.

## **1-05.15 Method of Serving Notices**

(January 4, 2024 APWA GSP)

Revise the second paragraph to read:

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

Add the following new section:

## **1-05.16 Water and Power**

*(October 1, 2005 APWA GSP)*

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

## **1-06 Control of Material**

### **1-06.1(4) Fabrication Inspection Expense**

*(June 27, 2011 APWA GSP)*

Delete this section in its entirety.

### **1-06.6 Recycled Materials**

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

*(January 4, 2016 APWA GSP)*

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

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

## **1-07 Legal Relations and Responsibilities to the Public**

### **1-07.1 Laws to be Observed**

Section 1-07.1 is supplemented with the following:

*(October 1, 2005 APWA GSP)*

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.

## **1-07.2 State Taxes**

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

## **1-07.2 State Sales Tax**

*(June 27, 2011 APWA GSP)*

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

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

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

### **1-07.2(1) State Sales Tax — Rule 171**

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

### **1-07.2(2) State Sales Tax — Rule 170**

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

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

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

### **1-07.2(3) Services**

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

## **1-07.5 Environmental Regulations**

Section 1-07.5 is supplemented with the following:

*(September 20, 2010 WSDOT GSP)*

### **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:

*(April 1, 2019 WSDOT GSP)*

The Contractor shall notify the Engineer a minimum of \*\*\* 15 \*\*\* calendar days prior to commencing any work in sensitive areas, mitigation areas, and wetland buffers. Installation of construction fencing is excluded from this notice requirement.

*(August 3, 2009, WSDOT GSP)*

The intentional bypass of stormwater from all or any portion of a stormwater treatment system is prohibited without the approval of the Engineer.

*(August 3, 2009, WSDOT GSP)*

No Contractor staging areas will be allowed within 100 feet of any waters of the State including wetlands.

*(August 3, 2009 WSDOT GSP)*

**Payment**

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

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

Section 1-07.5(4) is supplemented with the following:

*(September 29, 2014 WSDOT SWR GSP)*

For this project, the local air pollution agency is \*\*\* Southwest Clean Air Agency \*\*\*.

**1-07.7 Load Limits**

Section 1-07.7 is supplemented with the following:

*(March 13, 1995 WSDOT GSP)*

If the sources of materials provided by the Contractor necessitates 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.

**1-07.11 Requirements for Nondiscrimination**

*(July 18, 2016 APWA GSP, Option C)*

Supplement this section with the following:

***Voluntary Minority, Small, Veteran and Women's Business Enterprise (MSVWBE) Participation***

**General Statement**

Voluntary goals for minority, small, veteran and women business enterprises are included in this Contract. The Contractor is encouraged to utilize MSVWBEs in accordance with these



Specifications, RCW 39.19 and Executive Order 13-01 (issued by the Governor of Washington on May 10, 2013).

No preference will be included in the evaluation of the Contractor's Proposal or Bid; no minimum level of MSVWBE participation is required as a condition of award or completion of the Contract; and a Proposal or Bid will not be rejected or considered non-responsive on that basis.

The goals are voluntary and outreach efforts to provide MSVWBEs maximum practicable opportunities are encouraged.

### **Non-Discrimination**

Contractors shall not create barriers to open and fair opportunities for all businesses, including MSVWBEs, to participate in the Work on this Contract. This includes the opportunity to compete for subcontracts as sources of supplies, equipment, construction or services.

The Contractor shall make Voluntary MSVWBE Participation a part of all subcontracts and agreements entered into as a result of this Contract.

### **Voluntary MSVWBE Participation Goals**

Goals for voluntary MSVWBE participation have been established as a percentage of Contractor's total Bid amount.

The Contracting Agency has established the following voluntary goals:

Minority	10%
Small	5%
Veteran	5%
Women	6%

Amounts paid to an MSVWBE will be credited to every voluntary goal in which they are eligible. In other words participation may be credited for participation in more than one category. If the Contractor is a MSVWBE their Work will be credited to the voluntary goals in which they are eligible.

### **Definitions**

**Minority Business Enterprise (MBE)** – A minority owned business meeting the requirements of RCW 39.19 and WAC 326-20 and certified by the Washington State Office of Minority & Women's Business Enterprises.

**Small Business** – A business meeting the Washington State requirements for a "Small business", "Minibusiness" or "Microbusiness as defined in RCW 39.26.010 and included on the WSDOT Office of Equal Opportunity list of Small Businesses at <http://www.wsdot.wa.gov/equalopportunity/bddirectory.htm>

**Veteran Business** – A veteran owned business meeting the requirements of RCW 43.60A.010 and included on the WSDOT Office of Equal Opportunity list of Veteran Businesses at <http://www.wsdot.wa.gov/equalopportunity/bddirectory.htm>

**Women Business Enterprise (WBE)** – A women owned business meeting the requirements of RCW 39.19 and WAC 326-20 and certified by the Washington State Office of Minority & Women's Business Enterprises.

**MSVWBE Inclusion Plan**

A MSVWBE Inclusion Plan shall be submitted to the Engineer prior to the start of Work on the project. The plan is submitted for the Contracting Agency's information. Approval of the plan is not required; an incomplete plan will be returned for correction and resubmittal. The plan shall include the information identified in the guidelines at <http://www.wsdot.wa.gov/EqualOpportunity/MSVWBE.htm>.

**MSVWBE Reporting**

An end of project Report of Amounts Paid to MSVWBEs shall be submitted to the Engineer after Physical Completion of the Contract. The end of project report is due 20 calendar days after the physical completion of the project has been issued.

The end of project report shall include payments to all eligible businesses regardless of their listing on the MSVWBE Inclusion Plan. If the Contractor is a MSVWBE the amounts paid by the Contracting Agency for Work performed by the Contractor shall also be reported.

**MSVWBE Payment**

All costs for implementation of the requirements for Voluntary MSVWBE Participation shall be included in the associated items of Contract Work.

**1-07.16 Protection and Restoration of Property**

Section 1-07.16 is supplemented with the following:

**1-07.16(2) Vegetation Protection and Restoration**

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

*(August 2, 2010 WSDOT GSP)*

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**

Section 1-07.17 is supplemented with the following:

*(April 2, 2007 WSDOT GSP)*

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:

\*\*\* Clark Public Utilities-Electric

Ryan Engelbart  
8600 NE 117th Ave.  
P.O. Box 8900  
Vancouver, WA 98668  
(360) 992-8860 (O)  
[rengelbart@clarkpud.com](mailto:rengelbart@clarkpud.com)

Clark Public Utilities-Water  
8600 NE 117th Ave.  
P.O. Box 8900  
Vancouver, WA 98668  
(360) 992-8814 (O)  
(360) 600-1247 (C)  
[nflagg@clarkpud.com](mailto:nflagg@clarkpud.com)

Comcast Cable  
Ted Syfrett  
6916 NE 40th Street  
Vancouver, WA 98661  
(360) 301-1633 (O)  
[Ted\\_Syfrett@comcast.com](mailto:Ted_Syfrett@comcast.com)

NW Natural Gas  
Mike O'Neill  
11218 NE 66th Street  
Vancouver, WA 98662  
(971) 413-5536 (C)  
[michael.oneill@nwnatural.com](mailto:michael.oneill@nwnatural.com)

AT&T Communications  
(PIVOTAL Communications)  
Terrance Walker  
4001 Main Street  
Suite 110  
Vancouver, WA 98663  
(360) 0882-4268 x125 (O)  
(360) 606-7318 (C)  
[twalker@pivotalcomm.com](mailto:twalker@pivotalcomm.com)

Astound Broadband (previously Wave Broadband)  
Jeffrey McConville  
669 Glatt Circle  
Woodburn, OR 97071  
(503) 318-9804A (C)  
[jeffrey.mcconville@astound.com](mailto:jeffrey.mcconville@astound.com)

TDS Telecom  
Jeffry Hocker  
63090 Sherman Road  
Bend, OR 97703  
(541) 668-7273 (C)  
[Jeffry.Hocker@tdstelecom.com](mailto:Jeffry.Hocker@tdstelecom.com)

La Center School District Communications  
Jeff Andrews  
(503) 806-2050 (C)  
[Ja.netsol101@gmail.com](mailto:Ja.netsol101@gmail.com)

*(April 2, 2007 WSDOT GSP)*

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

\*\*\* **Clark Public Utilities-Electric**

- Connection to meters and installations/relocation of utility poles.
- Duration of work: TBD.

**Comcast Cable**

- Revise connections to new/relocated poles.

- Duration of work: TBD.

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:

\*\*\* Clark Public Utilities-Electric  
 Ryan Engelbart  
 8600 NE 117th Ave.  
 P.O. Box 8900  
 Vancouver, WA 98668  
 (360) 992-8860 (O)  
[rengelbart@clarkpud.com](mailto:rengelbart@clarkpud.com)

Comcast Cable  
 Ted Syfrett  
 6916 NE 40th Street  
 Vancouver, WA 98661  
 (360) 301-1633 (O)  
[Ted\\_Syfrett@comcast.com](mailto:Ted_Syfrett@comcast.com)

Astound Broadband(previously Wave Broadband)  
 Jeffrey McConville  
 669 Glatt Circle  
 Woodburn, OR 97071  
 (503) 318-9804A (C)  
[jeffrey.mcconville@astound.com](mailto:jeffrey.mcconville@astound.com)

In addition to the individual utility company contacts, the Contractor is required to call the 811-Call Before You Dig number, or [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org), two (2) days prior to beginning work. \*\*\*

(\*\*\*\*\*)

The Contractor shall call the Northwest Utility Notification Center (One Call Center) at 1-800-553-4344 for field location, not less than two or more than ten (10) working days before the scheduled date for commencement of excavation, which may affect underground utility facilities. Under no circumstances shall the Contractor expose any utility without first obtaining permission from the appropriate utility agency.

Underground Utilities: The Contractor shall be solely and directly responsible to the Owner and Owners of Utilities for any and all damage, disruption of service, or claims which may result from the construction operations. The Contractor shall make all necessary arrangements for protection of existing power and telephone lines in the vicinity of this Contract that interfere with construction.

Neither the Owner nor its officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.

The Contractor is alerted to the existence of Chapter 19.122 RCW, a law relating to underground utilities. Any cost incurred as a result of this law shall be at the Contractor's expense.

Restoration of utilities damaged by the Contractor, his agents, or employees shall be accomplished by the utility involved at the Contractor's expense.

**Special Inspection Requirements – Telephone/Fiber (AT&T).** When excavating adjacent to the AT&T utility, an AT&T inspector must be present at all times. The Contractor is responsible for notifying AT&T a minimum of 48 hours prior to beginning construction adjacent to a AT&T utility and making arrangements so that the inspector is present at all times during construction.

**Clearances - Existing Utilities (except gas lines and sanitary sewer lines).** Clearances of 12 inches (horizontal) and 6 inches (vertical) or more are desired between new water mains and all other utilities except gas lines and sanitary sewer lines (see relevant subsections below). If the separation must be less, then a minimum separation of at least 2 inches shall be maintained, and a sheet of 2-inch-thick polyethylene plastic foam material shall be placed in the separation between the water main and the other utility (except gas lines and sanitary sewer lines).

**Clearances - Gas Lines and Gas Service Lines.** For all installations, the minimum clearances desired between new water mains and existing gas lines shall be 3 feet horizontal and 6 inches vertical except where otherwise shown on the plans or required by the utility. If the separation must be less, the appropriate gas company shall be notified and the minimum clearances shall be as directed by their representative. For all perpendicular installations (crossings) involving high-pressure transmission lines, the Contractor shall notify the appropriate gas company to have a representative on site.

**Clearances - Sanitary Sewer.** A minimum horizontal clearance of 10 feet and minimum vertical clearance of 18 inches (both measured edge to edge) shall be maintained between existing sanitary sewer lines and all new waterlines, unless noted otherwise on plans. All discrepancies shall be brought to the attention of the Engineer.”

## **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, 2024 APWA GSP)

#### **1-07.18(1) General Requirements**

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

- B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.
- C. If any insurance policy is written on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.
- D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.
- E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.
- F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency
- G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.
- H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.
- I. Under no circumstances shall a wrap up policy be obtained, for either initiating or maintaining coverage, to satisfy insurance requirements for any policy required under this Section. A "wrap up policy" is defined as an insurance agreement or arrangement under which all the parties working on a specified or designated project are insured under one policy for liability arising out of that specified or designated project.

**1-07.18(2) Additional Insured**

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

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

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

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

**1-07.18(3) Subcontractors**

The Contractor shall cause each subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set 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:

\$2,000,000	Each Occurrence
\$3,000,000	General Aggregate
\$3,000,000	Products & Completed Operations Aggregate
\$2,000,000	Personal & Advertising Injury each offence
\$2,000,000	Stop Gap / Employers' Liability each accident

#### **1-07.18(5)B Automobile Liability**

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

Such policy must provide the following minimum limit:  
\$1,000,000 Combined single limit each accident

**1-07.18(5)C Workers' Compensation**

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

**1-07.23 Public Convenience and Safety**

**1-07.23(1) Construction Under Traffic**

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

*(February 6, 2023 WSDOT GSP)*

Lane, ramp, shoulder, and roadway closures are subject to the following restrictions:

\*\*\* At all times at least one lane in each direction shall be maintained throughout the life of the project. \*\*\*

If the Engineer determines the permitted closure hours adversely affect traffic, the Engineer may adjust the hours accordingly. The Engineer will notify the Contractor in writing of any change in the closure hours. Exceptions to these restrictions are listed below and when applicable take precedence over closures listed above. The Engineer may also consider on a case-by-case basis additional exceptions following a written request by the Contractor.

Lane, ramp, shoulder, and roadway closures are not allowed on any of the following:

1. A holiday,
2. A holiday weekend; holidays that occur on Friday, Saturday, Sunday or Monday are considered a holiday weekend. A holiday weekend includes Saturday, Sunday, and the holiday.
3. After \*\*\* 12 P.M. \*\*\* on the day prior to a holiday or holiday weekend, and
4. Before \*\*\* 12 P.M. \*\*\* on the day after the holiday or holiday weekend.
5. The two-hour period prior to and the two-hour period after the following special events:

\*\*\* N/A \*\*\*

It shall be the Contractor's responsibility to obtain the dates and times of all events.

**Traffic Delays**

When Automated Flagger Assistance Devices (AFADs) or flaggers are used to control traffic, traffic shall not be stopped for more than \*\*\* 15 \*\*\* minutes at any time. All traffic congestion shall be allowed to clear before traffic is delayed again.

If the delay becomes greater than \*\*\* 15 \*\*\* minutes, the Contractor shall immediately begin to take action to cease the operations that are causing the delays. If the \*\*\* 15 \*\*\* minute delay limit has been exceeded, as determined by the Engineer, the Contractor shall provide to the Engineer, a written proposal to revise his work operations to meet the \*\*\* 15 \*\*\* minute limit. This proposal shall be accepted by the Engineer prior to resuming any work requiring traffic control.

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

### **General Restrictions**

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

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

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

### **Controlled Access**

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

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

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

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

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

### **Advance Notification**

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

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

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

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

Delete this section and replace it with the following:

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

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

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

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

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

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

## **1-08 Prosecution and Progress**

Add the following new section:

### **1-08.0 Preliminary Matters**

*(May 25, 2006 APWA GSP)*

Add the following new section:

#### **1-08.0(1) Preconstruction Conference**

*(\*\*\*\*\*, based on July 8, 2024 APWA GSP, additions underlined)*

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

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

The Contractor shall prepare and submit at the preconstruction conference 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.

Add the following new section:

#### **1-08.0(2) Hours of Work**

*(\*\*\*\*\*)*

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 9:00 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 5 days prior to the day(s) the Contractor is requesting to change the hours.

Construction may require night work to be able to complete portions of construction. If the Contractor wishes to complete some of the required construction tasks through night work, a written request shall be sent to Tony Cooper (City) at least 14 calendar days prior to the date(s) requested. Such plans are subject to review and approval by the City Engineer, and other interested parties.

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

1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.

3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
4. If a 4-10 work schedule is requested and approved the non working day for the week will be charged as a working day.
5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll

## **1-08.1 Subcontracting**

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

#### **1-08.1(7)C Subcontractor Retainage**

The first sentence in the last paragraph of Section 1-08.1(7)C is revised to read:

*(February 13, 2024 WSDOT GSP)*

If the Contractor fails to comply with the requirements of this Section and the first-tier subcontractor's retainage or retainage bond is wrongfully withheld, the Contractor will be subject to the actions described in Section 1-08.1(10).

### ***1-08.1(9) Required Subcontract Clauses***

#### **1-08.1(9)B Clauses Required in Subcontracts of All Tiers**

The second paragraph of Section 1-08.1(9)B is supplemented with the following:

*(January 24, 2024 WSDOT GSP)*

16. 1-07.11 **Requirements for Nondiscrimination** – Item 11 from Section 1-07.11(2).

## **1-08.3 Progress Schedule**

### ***1-08.3(2)A Type A Progress Schedule***

Revise this section to read:

*(December 30, 2022 APWA GSP)*

The Contractor shall submit 5 copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

## **1-08.4 Prosecution of Work**

Delete this section and replace it with the following:

## 1-08.4 Notice to Proceed and Prosecution of Work

(July 23, 2015 APWA GSP)

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

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

## 1-08.5 Time for Completion

Section 1-08.5 is supplemented with the following:

(March 13, 1995 WSDOT GSP)

This project shall be physically completed within \*\*\* 100 \*\*\* working days.

The first paragraph of Section 1-08.5 is supplemented as follows:

(\*\*\*\*\*)

December 24 is added as a nonworking day.

Revise the third and fourth paragraphs to read:

(\*\*\*\*\*)

Contract time shall begin on the first working day following the 11th calendar day after the Notice to Proceed date. If the Contractor starts work on the project at an earlier date, then contract time shall begin on the first working day when onsite work begins.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will



also show the nonworking days and any partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day, then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

(\*\*\*\*\*)

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

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

## **1-08.6 Suspension of Work**

Section 1-08.6 is supplemented with the following:

*(January 3, 2017 WSDOT GSP)*

Contract time may be suspended for the HMA mix design evaluation report or 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, submit all HMA mix designs not already on the QPL according to Section 5-04.2(1) or place purchase orders for all materials deemed critical by the Contracting Agency for Physical Completion of the Contract. The Contractor shall provide a copy of the completed WSDOT Form 350-042 indicating the date the mix design was submitted, or 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 the HMA mix design evaluation report or procurement of the critical materials listed below as activities in the Progress Schedule. If the approved Progress Schedule indicates that acceptance of the HMA mix designs or 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 will be suspended upon Physical Completion of all critical work except that work dependent upon the below listed critical materials:

\*\*\* Traffic Signal Poles  
Traffic Signal Controller Cabinet \*\*\*

Charging of Contract time will resume upon the Contractor's receipt of a WSDOT mix design evaluation report or delivery of the critical materials to the Contractor, notification that the critical materials are ready for delivery to the Contractor from the Contracting Agency's Materials Laboratory, or \*\*\* 240 \*\*\* calendar days after execution by the Contracting Agency, whichever occurs first.

No additional Procurement Suspension will be provided if the Contractor's HMA mix designs did not meet Contract requirements and are resubmitted.

### **1-08.9 Liquidated Damages**

(March 3, 2021 APWA GSP, Option B)

Revise the second and third paragraphs to read:

Accordingly, the Contractor agrees:

1. To pay (according to the following formula) liquidated damages for each working day beyond the number of working days established for Physical Completion, and
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

#### **Liquidated Damages Formula**

$$LD=0.15C/T$$

Where:

LD = liquidated damages per working day (rounded to the nearest dollar)

C = original Contract amount

T = original time for Physical Completion

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract Work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated

damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

## **1-09 Measurement and Payment**

### **1-09.2 Weighing Equipment**

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

Revise item 4 of the fifth paragraph to read:

*(January 4, 2024 APWA GSP, Option B)*

4. Test results and scale weight records for each day's hauling operations are provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027A, 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**

Revise the first paragraph to read:

*(December 30, 2022 APWA GSP)*

**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**

Supplement this section with the following:

*(December 30, 2022 APWA GSP)*

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

### **1-09.9 Payments**

Delete the fourth paragraph and replace it with the following:

*(July 8, 2024, APWA GSP, Option B)*

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

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

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

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

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

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

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

## **1-09.11        Disputes and Claims**

### **1-09.11(3)        *Time Limitation and Jurisdiction***

(December 30, 2022 APWA GSP)

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that all claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that all such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where

an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to all such claims or causes of action. It is further mutually agreed by the parties that when claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

## **1-09.13        Claims Resolution**

### **1-09.13(3)        *Arbitration***

#### **1-09.13(3)A Arbitration General**

(January 19, 2022 APWA GSP)  
Revise the third paragraph to read:

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

#### **1-09.13(4)      *Venue for Litigation***

*(December 30, 2022 APWA GSP)*

Revise this section to read:

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

### **1-10   Temporary Traffic Control**

#### **1-10.2   Traffic Control Management**

Section 1-10.2 is supplemented with the following:

*(November 2, 2022 WSDOT GSP)*

##### ***Work Zone Safety Contingency***

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

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

The Contractor shall be solely responsible for submitting any traffic control plan revision to implement the enhancement in accordance with Section 1-10.2(2).

##### **1-10.2(1)   *General***

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

*(October 3, 2022 WSDOT GSP)*

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 135<sup>th</sup> 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  
Phone: (540) 368-1701  
<https://atssa.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>

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

### **1-10.3(3) Traffic Control Devices**

#### **1-10.3(3)A Construction Signs**

(\*\*\*\*\*)

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

1.

All signs, barricades, flashers, cones, traffic safety drums, barricades, and other traffic control devices required by the approved traffic control plan(s), as well as any other appropriate signs prescribed by the City or County, shall be furnished and maintained by the Contractor.

### **1-10.4 Measurement**

#### **1-10.4(3) Reinstating Unit Items With Lump Sum Traffic Control**

Section 1-10.4(3) is supplemented with the following:

(November 2, 2022 WSDOT GSP)

The bid proposal contains the item "Project Temporary Traffic Control," lump sum and the additional temporary traffic control items listed below. The provisions of Section 1-10.4(1), Section 1-10.4(3), and Section 1-10.5(3) shall apply.

"Work Zone Safety Contingency", by force account.

\*\*\* Construction Signs Class A  
Traffic Control Supervisor \*\*\*

### **1-10.5 Payment**

#### **1-10.5(2) Item Bids with Lump Sum for Incidentals**

Section 1-10.5(2) is supplemented with the following:

(November 2, 2022 WSDOT GSP)

"Work Zone Safety Contingency", by force account.

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

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

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



Add the following new section:

(\*\*\*\*\*)

## **General Access**

### **Description**

This Work shall consist of creating and implementing a construction staging and access plan for the project site, and any potential impacts to adjacent businesses and residences due to selected traffic control and site access within the project limits.

### **Construction Requirements**

#### ***Submittal***

The Contractor shall create a construction staging and access plan. The Contractor shall provide a schedule for the implementation of the staging and access plan and incorporate it into the Contractor's progress schedule. The Contractor shall obtain the Engineer's acceptance of the staging and access plan along with the schedule before any work begins.

The Contractor shall allow 5 working days for the Engineer to review any original or revised staging and access plan. Failure to accept all or part of any such plan shall not make the Contracting Agency liable to the Contractor for any work delays.

#### **Elements of the plan must include:**

- Provision for public access to streets as shown in the plans.
- Construction access to and from site onto East 4<sup>th</sup> Street.
- Construction access to and from Mill Pond Dam.
- Vehicle access must be continuous from existing public streets.
- Vehicle access must be available 24 hours a day.
- Vehicle access must have a paved surface or temporary compacted gravel surface.
- Vehicle access must be a minimum of 10 feet wide.
- Maintain large truck and School Bus access into and out of La Center.
- Provisions for staging and access for main line utilities and joint utility trench.
- Provisions for staging and access for phases of construction staging.

### **Measurement**

There will be no unit measurement for work listed above.

### **Payment**

Payment shall be made in accordance with Section 1-04.1, for the following bid items:

"Construction Staging and Access Plan", lump sum, shall be full pay for all costs to create and submit the staging and access plan, revise and resubmit the staging and access plan as necessary, and implementation of the access plan. Implementation shall include all labor, equipment and materials necessary for maintaining access to the residences within the project limits.

Add the following new section:

(\*\*\*\*\*)

## **Temporary Pedestrian Access and Management**

### **Description**

This Work shall consist of creating and implementing a temporary pedestrian access plan for bipedal users of the site, in addition to bicyclists through the project limits during construction, including implementation and management of plan through completion of construction.

### **Construction Requirements**

#### ***Submittal***

The Contractor shall create a Temporary Pedestrian Access and Management plan. The Contractor shall provide a schedule for the implementation of the Temporary Pedestrian Access and Management plan and incorporate it into the Contractor's progress schedule. The Contractor shall obtain the Engineer's acceptance of the Temporary Pedestrian Access and Management plan along with the schedule before any work begins.

The Contractor shall allow 5 working days for the Engineer to review any original or revised Temporary Pedestrian Access and Management plan. Failure to accept all or part of any such plan shall not make the Contracting Agency liable to the Contractor for any work delays.

#### **Elements of the plan must include:**

- A level of accessibility equal to or better than the existing pedestrian facility. (An "existing pedestrian facility" may not necessarily include a sidewalk. Pedestrians may be using the roadway shoulder or some other pathway.) The plan must provide a pathway that matches or exceeds the existing level of accessibility.
- Route and route features meeting applicable Federal, City of La Center and MUTCD Standards.
- Locations and provisions for temporary pedestrian crossings or pedestrian shuttles if proposed.
- Provisions for bicyclist access through the project site.

### **Measurement**

There will be no unit measurement for work listed above.

### **Payment**

Payment shall be made in accordance with Section 1-04.1, for the following bid items:

"Temporary Pedestrian Access and Management", lump sum.

The unit Contract price for "Temporary Pedestrian Access and Management" shall be full pay for all costs to create and submit the temporary pedestrian access plan, revise and resubmit the temporary pedestrian access plan as necessary, and implementation of the access plan. Implementation shall include all labor, equipment, signage and materials necessary for maintaining access to pedestrian and bicyclist users within the project limits throughout the life of the project.

## Division 2 Earthwork

### 2-01 Clearing, Grubbing, and Roadside Cleanup

#### 2-01.1 Description

Section 2-01.1 is supplemented with the following:

*(March 13, 1995 WSDOT GSP)*

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

\*\*\* Within limits of Cut and Fill shown with Temporary Construction Easements and City Right-of-Way.

All areas beyond the limits of the high visibility fencing (where shown in plans) shall be preserved in a natural state including all landform, natural drainages and vegetation, unless otherwise designated by the Engineer.

As staked in the field by the Engineer and limits of temporary silt fencing as shown in Plans. \*\*\*

### 2-02 Removal of Structures and Obstructions

#### 2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

*(\*\*\*\*\*)*

The Contractor shall employ the use of an industrial vacuum cleaner to collect sawcutting residue and debris immediately behind the sawcutting work to assure that concrete, asphalt, concrete by-products, or asphalt by-products from, or used in, the drilling, sawcutting, grinding, or planing of asphalt cement or cement concrete pavements, sidewalks, curbs, etc. do not enter any storm drain, surface water, and/or natural drainage system. Sawcutting by-products increase the pH of the wastewater, as such filtering prior to discharge will not be acceptable. The Contractor shall provide a means for collecting and for properly disposing of these by-products.

*(\*\*\*\*\*)*

#### ***Salvage of Removed Structure Items***

All existing traffic signs and school flasher poles, signs and equipment being removed shall remain the property of the City of La Center.

The Contractor shall transport the specified salvaged items to the following location:

Return salvaged traffic items and equipment to **XXXXXX**.  
Coordinate with Tony Cooper at (360) 263-2889

The Contractor shall stack the material where directed by the Engineer. The Contractor shall contact the Engineer at least five working days prior to scheduled delivery of the items to confirm delivery arrangements.

(\*\*\*\*\*)

Existing fences to be removed for construction shall be placed in a safe location until Contractor is ready to reinstall fencing. Contractor shall reset existing fence material with new concrete foundation and connect fence with existing fence to original condition to the limits of resetting.

Chain link fencing reset along private properties shall include privacy slats, where required.

(\*\*\*\*\*)

The following items are listed to be included in the cost for removal of structures and obstructions:

~115 LF Fence removal

## **2-02.4 Measurement**

Section 2-02.4 is supplemented with the following:

(\*\*\*\*\*)

Fencing that is called to be removed and reset will be measured along the face of the by the linear foot.

## **2-02.5 Payment**

Section 2-02.5 is supplemented with the following:

(\*\*\*\*\*)

“Remove and Reset Existing Fence”, per linear foot.

The unit Contract price per linear foot for “Remove and Reset Existing Fence” shall include but not limited to the cost for removal of existing fencing, storing existing materials and equipment, provision of additional hardware, privacy slats, resetting posts and fencing, and new foundations and additional hardware, fencing and poles to complete the relocation to the required locations in the plans.

“Removing Chain Link Fence,” per linear foot.

## **2-03 Roadway Excavation and Embankment**

### **2-03.3 Construction Requirements**

#### **2-03.3(14) Embankment Construction**

#### **2-03.3(14)C Compacting Earth Embankments**

Section 2-03.3(14)C is supplemented with the following:

(\*\*\*\*\*)

All embankments within the roadway will be subject to proof rolling with a fully loaded tandem axle dump truck with loaded gross weight of 20-25ton prior to placement of the next layer of surfacing (crushed surfacing or hot mix asphalt). Soft spots will be identified, over-excavated and replaced with 1 1/4"-0 CSBC compacted to 95% of AASHTO T-180 before proceeding with the next layer.

## **2-03.4 Measurement**

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.

Only upon award of the Contract, may copies of the original ground digital terrain model and survey data be furnished to the successful bidder, upon approval of the City Project Manager.

Add the following new section:

(\*\*\*\*\*)

## **TREE REMOVAL**

### **Description**

This Work shall consist of cutting, falling, stump grinding, stockpiling, hauling and disposing of all trees, trunks, branch debris and stumps in accordance Section 2-01, these Specifications and as shown in the Plans.

### **Construction Requirements**

The Contractor shall adhere to applicable standards under ANSI A300, Part 5, Section 1-07.16(2), the Plans and these Special Provisions as part of the Work.

Any required pruning to perform the Work shall conform to standards under ANSI A300, Part 1.

Any damages occurring to existing trees or structures to remain shall be assessed as defined under Section 1-07.16(2).

No heavy equipment shall be allowed outside the clearing and grubbing limits.

Work shall conform to the following tree removal items:

***Remove Tree and Stump***

Trees shall have the trunk, log, and branches cut, removed and disposed of off site. Stumps and rootwads shall be removed in the accordance with Plans under the bid item "Clearing and Grubbing".

All removed trees and branches not identified to be salvaged shall be disposed offsite.

**Measurement**

Tree removal will be measured per each.

**Payment**

"Tree Removal", per each.

The unit contract price for "Tree Removal" per each shall be full payment for all Work to perform the work as specified including equipment, hauling, storage, disposal including cleanup.

## **Division 5 Surface Treatments and Pavements**

### **5-04 Hot Mix Asphalt**

(\*\*\*\*\* Based from January 31, 2023 APWA GSP, additions are underlined, deletions are stricken out)

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

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

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

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP.

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

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

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

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

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

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

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

#### **5-04.2(1)A Vacant**

#### ***5-04.2(2) Mix Design - Obtaining Project Approval***

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

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

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

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

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- 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:

- Be designed for \*\*\* 3 to <30 \*\*\* million equivalent single axle loads (ESALs).
- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if 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 Mix Design.** Approval of a mix design for “Commercial Evaluation” will be based on a review of the Contractor’s submittal of WSDOT Form 350-042 (for commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of ESALs appropriate for the required use.

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

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

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

### **5-04.3 Construction Requirements**

#### **5-04.3(1) Weather Limitations**

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

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

#### **Minimum Surface Temperature for Paving**

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55°F	45°F
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 conveyer shall be in operation during the process of applying the release agent.

#### **5-04.3(3)C Pavers**

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing

courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

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

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

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

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

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

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

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

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

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

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

#### **5-04.3(4)B Vacant**

#### **5-04.3(4)C Pavement Repair**

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the

Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be 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 $\frac{3}{4}$ " and HMA Class $\frac{1}{2}$ "	
wearing course	0.30 feet
other courses	0.35 feet
HMA Class $\frac{3}{8}$ "	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 ( $V_a$ ), 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, $V_a$	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 Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", $\frac{3}{4}$ ", $\frac{1}{2}$ ", and $\frac{3}{8}$ " 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 be tested.

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

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

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

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

Testing of HMA for compliance of  $V_a$  will at the option of the Contracting Agency. If tested, compliance of  $V_a$  will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

#### **5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors**

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a CPF using the following price adjustment factors:

<b>Table of Price Adjustment Factors</b>	
<b>Constituent</b>	<b>Factor “f”</b>
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 ( $V_a$ ) (where applicable)	20

Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

#### **5-04.3(9)C5 Vacant**

#### **5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments**

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be

determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the CPF.

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

The Contractor may request a 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,  $V_a$ . 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 CPF.

#### **5-04.3(10) HMA Compaction Acceptance**

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a CPF of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8,

except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or Roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item "Roadway Core", the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at locations designated by the Engineer. If the Contract does not include the Bid item "Roadway Core", the Contracting Agency will obtain the cores.

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

**5-04.3(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**

Bridge Paving Joint Seals shall be in accordance with Section 5-03.

#### **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 and Pre-Planing Briefing (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

#### **5-04.3(14)      *Planing Bituminous Pavement***

The planing plan must be approved by the Engineer and a pre-planing meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planing submittals.

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 police officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control

consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.

2. A copy of each intersection's traffic control plan.
3. Haul routes from supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.
4. Names and locations of HMA supplier facilities to be used.
5. List of all equipment to be used for paving.
6. List of personnel and associated job classification assigned to each piece of paving equipment.
7. Description (geometric or narrative) of the scheduled sequence of planing and of paving and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.
8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
9. A copy of the approved Mix Designs.
10. Tonnage of HMA to be placed each day.
11. Approximate times and days for starting and ending daily operations.

**5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing**

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other Contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both the Paving and Planing:

- a. The actual times of starting and ending daily operations.
- b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
- c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, public convenience and safety, and other Contractors who may operate in the Project limits.
- d. Notifications required of Contractor activities and coordinating with other entities and the public as necessary.
- e. Description of the sequencing of installation and types of temporary pavement markings as it relates to ~~planning~~ planing and paving.
- f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed.
- g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, streetcar rail, and castings, before planing as per Section 5-04.3(14)B2.
- h. Description of how flaggers will be coordinated with the planing, paving, and related operations.
- i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.
- j. Other items the Engineer deems necessary to address.

2. Paving – additional topics:

- a. When to start applying tack and coordinating with paving.
- b. Types of equipment and numbers of each type of equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type of equipment as it relates to meeting Specification requirements.
- c. Number of JMFs to be placed, and if more than one JMF is used, how the Contractor will ensure different JMFs are distinguished, how pavers and how MTVs are distinguished, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.

- d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and supplier shutdown of operations.
- e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

**5-04.3(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***

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

**5-04.4 Measurement**

HMA Cl. \_\_\_\_ PG \_\_\_\_, HMA for \_\_\_\_ Cl. \_\_\_\_ PG \_\_\_\_, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Roadway cores will be measured per each for the number of cores taken.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Planing bituminous pavement will be measured by the square yard.

**5-04.5 Payment**

Payment will be made for each of the following Bid items that are included in the Proposal:

"HMA Cl. \_\_\_\_ PG \_\_", per ton.

"HMA for Approach Cl. \_\_\_\_ PG \_\_", per ton.

"HMA for Preleveling Cl. \_\_\_\_ PG \_\_", per ton.

"HMA for Pavement Repair Cl. \_\_\_\_ PG \_\_", per ton.

"Commercial HMA", per ton.

The unit Contract price per ton for "HMA Cl. \_\_\_\_ PG \_\_", "HMA for Approach Cl. \_\_\_\_ PG \_\_", "HMA for Preleveling Cl. \_\_\_\_ PG \_\_", "HMA for Pavement Repair Cl. \_\_\_\_ PG \_\_", and "Commercial HMA" shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

“Pavement Repair Excavation Incl. Haul”, per square yard.

The unit Contract price per square yard for “Pavement Repair Excavation Incl. Haul” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4) with the exception, however, that all costs involved in the placement of HMA shall be included in the unit Contract price per ton for “HMA for Pavement Repair Cl. \_\_\_\_ PG \_\_\_\_”, per ton.

“Asphalt for Prime Coat”, per ton.

The unit Contract price per ton for “Asphalt for Prime Coat” shall be full payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).

“Prime Coat Agg.”, per cubic yard, or per ton.

The unit Contract price per cubic yard or per ton for “Prime Coat Agg.” shall be full pay for furnishing, loading, and hauling aggregate to the place of deposit and spreading the aggregate in the quantities required by the Engineer.

“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).

“Job Mix Compliance Price Adjustment”, by calculation.

“Job Mix Compliance Price Adjustment” will be calculated and paid for as described in Section 5-04.3(9)C6.

“Compaction Price Adjustment”, by calculation.

“Compaction Price Adjustment” will be calculated and paid for as described in Section 5-04.3(10)D3.

“Roadway Core”, per each.

The Contractor’s costs for all Work associated with the coring (e.g., traffic control) shall be incidental and included in the unit Bid price per each.

“Cyclic Density Price Adjustment”, by calculation.

“Cyclic Density Price Adjustment” will be calculated and paid for as described in Section 5-04.3(10)B.



- **Division 7**  
**Drainage Structures, Storm Sewers, Sanitary**  
**Sewers, Water Mains, and Conduits**

## **7-04 Storm Sewers**

### **7-04.1 Description**

The paragraph is revised to read:

(\*\*\*\*\*)

This Work consists of constructing storm sewer lines and connecting to existing storm sewer lines in accordance with the Plans, these Specifications, and the Standard Plans, as staked.

### **7-04.3 Construction Requirements**

Section 7-04.3 is supplemented with the following:

(\*\*\*\*\*)

The Contractor shall verify invert elevations prior to construction. At a minimum, new storm sewer pipe inverts at new structures shall match invert of existing culvert pipe, unless specified otherwise.

Once Work is started on a connection, it shall proceed continuously without interruption and as rapidly as possible until completed. No shutoff of storm sewer lines or systems will be permitted overnight, weekends, or holidays. The existing storm structure shall be kept in operation at all times and the necessary precautions shall be taken to prevent debris or other material from entering the sewer, including a tight pipeline bypass through the existing channel if required. Water used for flushing shall not be allowed to enter the sewer.

Contractor shall determine appropriate connection and appurtenances for required connections where called for in plans.

Prior to backfilling procedures, the Contractor shall acquire approval from the Engineer for the connection.

All damage to the existing storm structure resulting from the Contractor's operation shall be repaired at no expense to the Contracting Agency.

For connections by any other method, the Contractor shall furnish a detailed sketch for approval not less than 2 weeks prior to the expected construction.

(\*\*\*\*\*)

Pipe connections to manholes shall be made with an approved expansion type rubber boot, Kor-N-Seal or approved equal for all pipes.

Where existing pipes connect to new structures, existing pipe shall be trimmed as necessary to make a good connection.

### **7-04.4 Measurement**

(\*\*\*\*\*)

The length of storm sewer pipe will be the number of linear feet of completed installation measured along the invert and will include the length through elbows, tees, and fittings. The number of linear feet will be measured from the center of manhole to center of manhole or to the inside face of catch basins and similar type Structures. Pipe placed in excess of the length designated by the Engineer will not be measured or paid for.

Connections to existing storm pipes will be measured per each.

Section 7-04.4 is supplemented with the following:

(\*\*\*\*\*)

Connections to existing storm pipe will be measured per each. At connections with new structures, each entrance or exit of the existing pipe to the structure will be counted as one connection. For example, a saddle manhole over an existing storm pipe will be counted as two connections if called on Plans.

## **7-04.5 Payment**

The sentence beginning with " The unit Contract price..." in Section 7-04.5 is revised to read:

(\*\*\*\*\*)

The unit Contract price per linear foot for storm sewer pipe of the kind and size specified shall be full pay for all work to complete the installation, including adjustment of inverts to manholes, saw-cutting, trench excavation, pipe bedding, pipe zone and trench backfill, testing, and trench patching as required.

Section 7-04.5 is supplement with the following:

(\*\*\*\*\*)

"Connection to Existing Storm Pipe", per each.

The unit Contract price per each for "Connection to Existing Storm Pipe" shall be full pay for all work involved in connecting existing storm sewer pipes to new structures. The costs of connect to existing storm pipe shall not be considered as incidental to any other Contract item.

## **7-05 Manholes, Inlets, Catch Basins, And Drywells**

### **7-05.1 Description**

Section 7-05.1 is supplemented with the following:

(\*\*\*\*\*)

This Work includes construction with materials for various frames and/or grates. These items shall be constructed in accordance with the Plans, the Standard Specifications, and these Special Provisions. Work shall include constructing structures of the type and size designated in accordance with the Plans, this specification, and in conformity with the lines and grades staked.

## **7-05.2 Materials**

Section 7-05.2 is supplemented with the following:

(\*\*\*\*\*)

Materials for frames and/or grates shall conform to the details in the Plans.

## **7-05.3 Construction Requirements**

Section 7-05.3 is supplemented with the following:

(\*\*\*\*\*)

Catch basins to be installed shall be of the type and dimension as specified in the plans.

Materials for Locking Solid Metal Cover and Frame for Catch Basin shall conform to the details in the Plans.

(\*\*\*\*\*)

Connections to the drain basin inlet/outlet connectors shall be made with manufacturer provided water-tight gasket as specified.

The drain basin body shall be cut at the time of the final grade so as to maintain a one piece, leak proof structure. When grade increase adjustments are required, adjustments shall be made with manufacturer supplied riser sections with socket bell solvent cemented to inlet structure and then cut to final grade.

(\*\*\*\*\*)

Pipe connections to manholes shall be made with an approved expansion type rubber boot, Kor-N-Seal or approved equal for all pipes.

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

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

(\*\*\*\*\*)

The top of existing manholes, drywells, and catch basins within the paved area, shall be adjusted by the following methods to the required elevation. The Contractor shall obtain the Engineer's approval as to the method of adjustment:

Method 1. Adding or removing grade rings and/or chipping up to 4 inches off the cone;  
or

Method 2. Replacing cones with a flat top and adjustment rings or replacing manhole sections with longer or shorter sections and final adjustment of the rim.

### **7-05.4 Measurement**

Section 7-05.4 is supplemented with the following:

(\*\*\*\*\*)

Lids, Grates and/or frames where called out in Plans will be included with the associated item called to be used with in Plans.

PVC Catch Basin of any type called for in the Plans will be measured per each.

Structure excavation and shoring for manholes and catch basins will be considered incidental and no measurement will be made.

"Adjust Catch Basin" shall be measured per each and include all work and material to construct the completed adjustment, including any asphalt restoration work.

### **7-05.5 Payment**

Section 7-05.5 is supplemented with the following:

(\*\*\*\*\*)

The unit Contract Price for "Catch Basin Type \_\_\_\_\_", per each shall be full pay for all work including but not limited to furnishing and installing the structure including all structure excavation, gravel backfill, and crushed surfacing base course.

"PVC Catch Basin \_\_\_\_\_", per each.

The unit Contract price per each for "PVC Catch Basin \_\_\_\_\_" shall be full payment for all costs for the specified Work including but not limited to, the grate or lid components, excavation, dewatering, furnishing, connecting to existing sewer line according to Section 7-04.3, and installing gravel backfill for bedding, and compaction. The costs of PVC catch basin shall not be considered as incidental to any other contract item.

"Connect to Existing Drainage Structure", per each.

The unit contract price per each for "Connect to Existing Drainage Structure" shall be full payment for all costs associated with connecting to an existing drainage structure.

## **Division 8 Miscellaneous Construction**

### **8-01 Erosion Control and Water Pollution Control**

#### **8-01.3 Construction Requirements**

##### ***8-01.3(8) Street Cleaning***

Section 8-01.3(8) is supplemented with the following:

(\*\*\*\*\*)

The Contractor shall prevent the transport of soil, wood waste, or other debris onto the paved street surface. If during the course of construction, debris accumulates to the extent that street cleaning is required, the Contractor shall use a self-propelled street sweeper approved for use by the Engineer.

#### **8-01.4 Measurement**

Section 8-01.5 is supplemented with the following:

(\*\*\*\*\*)

No additional measurement will be made for maintaining each construction entrance, including additional rock required to maintain functionality, and removing the construction entrance once it is no longer required and restoring the ground to original condition.

#### **8-01.5 Payment**

Section 8-01.5 is supplemented with the following:

(\*\*\*\*\*)

No separate payment will be made for maintenance and removal of erosion and water pollution control devices, including removal and disposal of sediment, removal of silt fence, high visibility fence, inlet protection, construction entrances, or the stabilization and rehabilitation of soil disturbed by these activities. Removal of erosion control devices shall be at the completion of the project, or as directed by the Engineer. The cost of these activities shall be included in other items of work.

### **8-02 Roadside Restoration**

#### **8-02.2 Materials**

##### ***8-02.2(9-14.3) Seed***

Section 9-14.3 is supplemented with the following:

(\*\*\*\*\*)

Seed of the type specified shall be certified in accordance with WAC 16-302. 30 days prior to application, the Contractor shall submit testing results in accordance with Section

8-02.3(9) of the Standard Specifications certifying that each lot of seed for each specified species has been tested for species verification, purity, germination, noxious weeds and other crop seeds.

The Contracting Agency shall adjust the Pure Live Seed (PLS) per acre to meet the specified Total Pounds PLS per acre in 8-02(3)9 of the Special Provisions following the certified testing results.

#### **8-02.2(9-14.4)     *Fertilizer***

Section 9-14.4 is supplemented with the following:

(\*\*\*\*\*)

Commercially available, pre-packaged “tea bag” controlled release fertilizer packets used for all woody plant material shall be a 20-10-5 plus micronutrients formulation in 10-gram biodegradable planting packet.

The Nitrogen, Phosphorous, and Potassium sources shall be coated with a polymer coating to provide controlled release of nutrients for up to one year.

Tablet, pellet, or liquid form fertilizer shall not be allowed.

### **8-02.3 Construction Requirements**

#### **8-02.3(6) *Mulch and Amendments***

##### **8-02.3(6)A *Compost***

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

(\*\*\*\*\*)

Fine Compost shall be placed and allowed to settle for a minimum of 5 working days prior to measurement. Following compost placement, no motor vehicle shall be allowed on the compost areas unless authorized by the Engineer.

Areas not receiving a uniform settled depth as specified in the Plans shall have additional Fine Compost placed at no additional cost to the Contracting Agency until the specified depth is achieved.

##### **8-02.3(6)B *Fertilizers***

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

(\*\*\*\*\*)

The Contractor shall mix the Root Dip Slurry according to the manufacturer’s recommendations. All plant material shall be dipped in the root dip slurry until the entire root mass is thoroughly saturated immediately prior to planting. The root balls of containerized plant material shall be saturated with the Root Dip Slurry following planting.

The Contractor shall apply pre-packaged "tea bag" fertilizer packets to all plant material as part of the backfill material at the time of planting. Quantity and placement of the "tea bag" packets shall be as per the manufacturer's recommendations.

### **8-02.3(9) Seeding, Fertilizing, and Mulching**

#### **8-02.3(9)C Seeding with Fertilizers and Mulches**

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

(\*\*\*\*\*)

Permanent seeding shall not occur until areas have been approved following Section 8-02.3(5)A of the Standard Specifications, including removal of any temporary BMPS, necessary decompaction of staging and construction areas.

Permanent seeding, fertilizing, and mulching shall be applied in two directions as to provide a complete and uniform cover over the entire seeding areas. Hydroseed operations will require the use of hoses capable of applying material on slopes and on both sides of tracks to provide the specified cover and two-direction application requirement.

All hydroseeding operations shall use HECP - Long Term Mulch per Standard Specification 8-02.3(11)A.

Based on the certified testing results required by 9-14.2 of the Standard Specifications, the actual pounds of each grass species applied shall be adjusted so as to provide the specified pounds of PLS per species per acre.

#### **Seeding, Fertilizing, and Mulching – Site Roadside**

Grass seed species, of the following composition, proportion, and quality shall be hydraulically applied at the rate of 375 pounds of pure live seed (PLS) per acre as shown below as designated in the Plans.

Kind and Variety of Seed in Mixture by Common Name and ( <u>Botanical name</u> )	Pounds Pure Live Seed ( <u>PLS</u> ) Per Acre
<b>Express II Perennial Ryegrass</b> ( <i>Lolium perenne</i> var. <i>Express II</i> )	150.00
<b>Cutter II Perennial Ryegrass</b> ( <i>Lolium perenne</i> var. <i>Cutter II</i> )	150.00
<b>Garnet Creeping Red Fescue</b> ( <i>Festuca rubra</i> var. <i>Garnet</i> )	37.50
<b>Windward Chewings Fescue</b> ( <i>Festuca rubra</i> spp. <i>fallax</i> var. <i>Windward</i> )	37.50

Total Pounds PLS Per Acre

375.00

Seeds shall be certified "Weed Free," indicating there are no noxious or nuisance weeds in the seed.

***Fertilizing for Seeding, Fertilizing, and Mulching – Site Roadside (seeding operation):***

The Contractor shall apply sufficient quantities of fertilizer to supply the following amounts of nutrients at the time of initial seeding:

- Total Nitrogen as N - 60 pounds per acre.
- Available Phosphoric Acid as P<sub>2</sub>O<sub>5</sub> - 60 pounds per acre.
- Soluble Potash as K<sub>2</sub>O - 30 pounds per acre.

30 pounds of nitrogen applied per acre shall be derived from isobutylidene diurea (IBDU), cyclo-di-urea (CDU), or a time release, polyurethane coated source with a minimum release time of 6 months. The remainder may be derived from any source.

**8-02.3(11) Mulch**

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

(\*\*\*\*\*)

Bark or Wood Chip Mulch shall be placed and allowed to settle for a minimum of 5 working days prior to measurement. Areas not receiving a uniform 3-inch settled depth shall have additional bark mulch placed until the specified depth is achieved at no additional cost to the Contracting Agency.

**8-02.5 Payment**

(\*\*\*\*\*)

"Seeding, Fertilizer and Mulching – Site Roadside," per square feet.

**8-12 Chain Link Fence and Wire Fence**

**8-12.2 Materials**

Section 8-12.2 is supplemented with the following:

*(September 8, 2020 WSDOT GSP)*

Coated Chain Link Fence

Chain link fence fabric shall be hot-dip galvanized with a minimum of 0.8 ounce per square foot of surface area.

Fencing materials shall be coated with an ultraviolet-insensitive plastic or other inert material at least 2 mils in thickness. Any pretreatment or coating shall be applied in accordance with



the manufacturer's written instructions. The Contractor shall provide the Engineer with the manufacturer's written specifications detailing the product and method of fabrication. The color shall match SAE AMS Standard 595 color number 17038.

Samples of the coated fencing materials shall have received the Engineer's acceptance prior to installation on the project.

The Contractor shall supply the Engineer with 10 aerosol spray cans containing a minimum of 14 ounces each of paint of the color specified above. The touch-up paint shall be compatible with the coating system used.

### **8-12.3 Construction Requirements**

Section 8-12.3 is supplemented with the following:

(\*\*\*\*\*)

Existing chain link fencing that shall be relocated shall have the Contractor carefully remove existing fencing components and store them securely until materials are to be reset for new fence alignment. Contractor shall provide new foundations for existing posts and reuse existing hardware to the maximum extent feasible. Where additional hardware is required, Contractor shall provide to complete fencing relocation.

### **8-12.4 Measurement**

Section 8-12.4 is supplemented with the following:

(\*\*\*\*\*)

Removing and resetting of existing chain link fencing, beyond property owner agreements, will be measured by the linear foot and paid for as noted in Section 2-02. Any fence removal and resetting based on property owner agreements and not detailed in the Plans shall be covered by force account under the "Temporary Construction Permits/Property Owner Agreements" item in these Special Provisions.

### **8-12.5 Payment**

Section 8-12.5 is supplemented with the following:

(\*\*\*\*\*)

"Coated Chain Link Fence Type \_\_\_\_", per linear foot.

Payment for clearing of fence line for "Coated Chain Link Fence Type \_\_\_\_" shall be in accordance with Section 2-01.5.

"Coated End, Gate, Corner, PullPost for Chain Link Fence", per each.

(\*\*\*\*\*)

The unit Contract price per linear foot for "Coated Chain Link Fence Type \_\_\_\_" specifically when placed within a moment slab sidewalk shall include the costs for Coated End, Gate, Corner, and Pull Posts, in addition to connection hardware, openings, and grouting as detailed on the Plans to facilitate installation into the coping element of the sidewalk. Where fencing is installed within the ground, these will be measured and paid for separately. Where

called for in the plans, the installation of privacy slats shall be included in the unit Contract price.

## **8-14 Cement Concrete Sidewalks**

### **8-14.1 Description**

Section 8-14.1 is revised to read:

*(April 3, 2017 WSDOT GSP)*

This Work consists of constructing cement concrete sidewalks, curb ramps, bus stop shelter foundations, masonry sidewalks, and ramp grinding in accordance with details shown in the Plans, Standard Plans, these Specifications, and in conformity to the lines and grades shown in the Plans, Standard Plans, and as established by the Engineer.

### **8-14.3 Construction Requirements**

Section 8-14.3 is supplemented with the following:

*(January 7, 2019 WSDOT GSP)*

#### ***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)*

#### ***Layout and Conformance to Grades***

Using the information provided in the Contract documents, the Contractor shall lay out, grade, and form each new curb ramp, sidewalk, and curb and gutter.

### **8-14.4 Measurement**

Section 8-14.4 is supplemented with the following:

*(\*\*\*\*\*)*

Cement concrete sidewalks of any type will be measured by the square yard of finished surface and will not include the surface area of the curb ramps or landings.

### **8-14.5 Payment**

Section 8-14.5 is supplemented with the following:

*(\*\*\*\*\*)*

“Cement Conc. Sidewalk (Thickened)”, per square yard.

The unit Contract price per square yard for "Cement Conc. Sidewalk (Thickened)" shall include welded wire mesh fabric reinforcement.

(\*\*\*\*\*)

No separate or additional payment will be provided for crushed surfacing base course placed under the cement concrete sidewalks and curb ramps of all types within the Contract.

Payment for excavation of material not related to the construction of the cement concrete sidewalks of all types within the Contract but necessary before the cement concrete sidewalk can be placed, when and if shown in the Plans, will be made in accordance with the provisions of Section 2-03. Otherwise, the Contractor shall make all excavations including haul and disposal, regardless of the depth required for constructing the cement concrete sidewalk to the lines and grades shown, and shall include all costs thereof in the unit Contract price per square yard for the type of sidewalk.

## **8-20 Illumination, Traffic Signal Systems, Intelligent Transportation Systems, and Electrical**

### **8-20.1 Description**

Section 8-20.1 is supplemented with the following:

*(CCPW September 2017)*

The Contractor shall furnish all traffic signal equipment on this project with the exception of the Cisco Router Switch and the Comcast Cable Modem in the traffic signal controller cabinet.

(\*\*\*\*\*)

This work shall include installation of a new rectangular rapid-flashing beacon system, school speed zone flasher system, and radar speed feedback sign.

### **8-20.2 Materials**

Section 8-20.2 is supplemented with the following:

*(April 6, 2015 WSDOT GSP)*

#### ***Traffic Signal Standard Foundation Shaft Casing***

All permanent casing shall be a smooth wall non-corrugated structure of steel base metal. All permanent casing shall be of ample strength to resist damage and deformation from transportation and handling, installation stresses, and all pressures and forces acting on the casing. The casing shall be clean prior to placement in the excavation. The permanent casing may be telescoped, but the outside diameter of the casing shall not be less than the specified diameter of the shaft.

(\*\*\*\*\*)

This work shall include the installation of radar speed feedback signs.

#### **Radar Speed Feedback Sign Display**

- a. East static advisory "YOUR SPEED" sign shall utilize 3M Diamond Grade retroreflective sheeting and be mounted on an aluminum sign blank, with 0.80-inch-thick aluminum.
- b. The black "YOUR SPEED" legend shall have 4-inch (10.2 cm) high letters and utilize a highway gothic font.
- c. Speed display shall feature 12-inch (30.5 cm) high electronic numbers.
- d. The electronic portion of the sign shall be a full-matrix LED display.
- e. The display shall have 21 rows of LEDs and 33 columns of LEDs for a total of 693 LEDs.
- f. The pixel pitch between LEDs shall be a maximum of 0.6 inch (15.24 mm).
- g. LEDs shall be Amber (590 nanometers) in color, have a minimum 30-degree viewing angle and utilize AlInGaP technology.
- h. To maintain compliance with the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), multi-colored LED signs and/or signs with white strobes shall not be allowed.
- i. The "YOUR SPEED" sign color shall be Yellow to meet the MUTCD guidelines for advisory signs.
- j. The overall dimensions of the front face of the sign shall be 24" wide x 30" high.
- k. The brightness of the sign shall be up to 20,000 candelas per square meter and shall feature auto-dimming, so as not to be too bright at night.
- l. The LEDs shall be brightened and dimmed utilizing pulse-width modulation. The "flicker rate" of the LEDs shall be within 50 Hz to 36 KHz so as to be visible to humans and cameras utilized in autonomous vehicles.

#### **Radar Speed Feedback Sign System Capabilities**

- a. System shall be capable of displaying Miles Per Hour (MPH).
- b. The sign shall be capable of displaying speed triggered messages such as "SLOW DOWN" or "TOO FAST" in 5-inch (12.7 cm) high electronic characters in a Highway Gothic Font.
- c. The Radar Speed Feedback Sign shall be able to "flash" the electronic display speed when an over-speed threshold is met.
- d. The system shall have four (4) speed threshold settings.
- e. Sign shall collect speed data. The sign data shall be available free with no data plans or subscriptions for the life of the sign.
- f. The Radar Speed Feedback Sign shall have a "stealth mode" that allows the sign to collect speed data without the electronic sign displaying vehicle speeds.

#### **Sign Construction**

- a. The sign shall feature an aluminum enclosure that is powder-coated Highway Green.
- b. The cabinet shall be NEMA 3R rated.
- c. The electronic sign shall have a high-impact polycarbonate face.
- d. The system shall have an operating range of -40°F to +165°F.
- e. The electronic module shall be easily replaced without removing the sign from the pole/post.

### **Radar Speed Sensor**

- a. The sign shall utilize a Doppler Radar as utilized by law enforcement agencies.
- b. The radar shall be K-band (24.15 GHz), license-free, and FCC Part 15 Compliant.
- c. The radar shall have a detection range up to 1000 feet, depending upon vehicle size, speed of approach, and configuration.

### **Communication, Configuration, and Data Logging**

- a. The system shall have Wi-Fi and RS-232 data communications for programming and downloading speed data.
- b. An app shall be available for Android and Microsoft Store
- c. The Radar Speed Feedback Sign shall collect speed data including; date stamp, time stamp, vehicle count, minimum speed, maximum speed, 10 speed bins, 25th percentile speed, 50th percentile speed and 85th percentile speed.
- d. System health logs shall be downloadable including batter voltage, internal temperature, ambient light lux and display function status.
- e. The sign shall have a built-in calendar scheduling function for up to 1 year in advance.
- f. The scheduling shall allow school zone/timer mode for alternate speed thresholds at selected hours.

### **Warranty**

The Radar Speed Feedback Sign system shall have a 3-year warranty.

## **8-20.2(9-29.1) Conduit, Innerduct, and Outerduct**

### **8-20.2(9-29.1(11)) Foam Conduit Sealant**

Section 9-29.1(11) is supplemented with the following:

*(January 7, 2019 WSDOT)*

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

## **8-20.2(9-29.2) Junction Boxes, Cable Vaults, and Pull Boxes**

Section 9-29.2 is supplemented with the following:

*(September 3, 2019 WSDOT)*

### **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 ½ 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(9-29.2(1)) Standard Duty and Heavy-Duty Junction Boxes**

Section 9-29.2(1) is supplemented with the following:

(\*\*\*\*\*)

Junction boxes and covers installed in locations that include deliberate vehicle traffic shall meet or exceed AASHTO H-20 standards for loading and design stress.

Type-2, Type-2 Modified, and Type-8 junction boxes (and covers) that will not experience deliberate vehicle traffic may be constructed of polymer concrete (composites) and shall meet or exceed ANSI Tier 15 test provisions including 15,000 lbf design load and 22,500 lbf test load.

Minimum inside dimensions for junction boxes shall be as shown on WSDOT Standard Plan J-40.10-00 and J-40.30-00.

Cable vaults shall be in accordance with WSDOT Standard Plan J-90.20-00 with standard duty (rectangular) lid unless the cable vault is within the driven portion of the roadway, where it shall have a heavy duty (round) lid per the standard plan.

Pull Boxes shall be in accordance with WSDOT Standard Plan J-90.10-00 with standard duty (rectangular) lid unless the cable vault is within the driven portion of the roadway, where it shall have a heavy duty (round) lid per the standard plan.

### **9-29.2(1)A Standard Duty Junction Boxes**

Section 9-29.2(1)A is supplemented with the following:

*(August 1, 2016 WSDOT GSP)*

#### **Concrete Junction Boxes**

Both the slip-resistant lid and slip-resistant frame shall be treated with Mebac#1 as manufactured by IKG industries, or SlipNOT Grade 3-coarse as manufactured by W.S. Molnar Co. Where the exposed portion of the frame is ½ 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; or “S3” for SlipNOT Grade 3-coarse) and the year manufactured. The

permanent marking shall be 1/8-inch line thickness formed with a mild steel weld bead.

**8-20.2(9-29.2(2)A) Standard Duty Cable Vaults and Pull Boxes**

Section 9-29.2(2)A is supplemented with the following:

*(August 1, 2016 WSDOT GSP)*

Both the slip-resistant lid and slip-resistant frame shall be treated with Mebac#1 as manufactured by IKG industries, or SlipNOT Grade 3-coarse as manufactured by W.S. Molnar Co. 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; or "S3" for SlipNOT Grade 3-coarse) and the year manufactured. The permanent marking shall be 1/8-inch line thickness formed with a mild steel weld bead.

**8-20.2(9-29.2(4)) Cover Markings**

The second paragraph of Section 9-29.2(4) is revised to read:

*(\*\*\*\*\*)*

Junction boxes shall be marked or embossed for use in accordance with the Plans and the following schedule:

System Type  
Traffic Signal  
Interconnect  
Lighting

Legend  
TRAFFIC/SIGNALS or SIGNALS  
INTERCONNECT or INTC  
STREET/LIGHTING

The inscription on all boxes used for the same function shall be consistent throughout the project.

**8-20.2(9-29.6) Light and Signal Standards**

Section 9-29.6 is supplemented with the following:

*(\*\*\*\*\*)*

**Traffic Signal Standards**

The Contractor shall furnish and install all traffic signal standards in accordance with the methods and materials noted in the applicable Standard Plans, pre-approved plans, or special design plans. All traffic signal standards and mast arms shall be black powder-coated.

Foundations for various types of traffic signal standards shall comply with Section 8-20.3(4), as modified within these Special Provisions.

**8-20.2(9-29.10) Luminaires**

The third paragraph of Section 9-29.10 is revised to read:

(CCPW October 2019)

All luminaires shall be provided with markers for positive identification of the Scenario listed below. Legends shall be sealed with transparent film resistant to dust, weather, and ultraviolet exposure.

The fourth paragraph of Section 9-29.10 and the associated legend are removed.

Section 9-29.10 is supplemented with the following:

(\*\*\*\*\*)

Street illumination luminaires shall be in accordance with the details shown in the contract drawings.

Clark County has established a table of vendors with approved luminaire part numbers for six scenarios. The Contractor shall use the luminaire specified in the plans for the specific scenarios. Alternative luminaires may be proposed by the Contractor that meet the requirements of this section and section 9-29.10(1), upon review and validation by the County and written approval by the County to use an alternative luminaire.

Scenario 1 (three-lane)	
Manufacturer	Part Numbers
Cree	XSPMD-D-HT-4ME-12L-40K7-UL-BK*-N-X7 XA-XSLSHRT** XA-SP1BLS***
GE	ERL1-0-08-D5-40-D-BLCK*-I SCCL-PECTL** ELSHS-ERL1-BLCK***
Acuity	ATB0-30BLEDE70-MVOLT-R3-BK*-HSS***-P7-SH**

\* Clark County typically installs silver or gray luminaires. Black versions are specified here to match the traffic signal standards and mast arms' color.

\*\* Shorting caps are added to cover the photocell receptacle. Photocell control is provided at the service cabinet.

\*\*\* Shields are added to limit the light trespass onto adjacent properties.

If an alternative luminaire is proposed, the Contractor shall submit an analysis with the data required in section 9-29.10(1), as revised, with these analysis parameters:

- Mounting height assumed at 32.5 ft.
- Analysis shall be done using the supplied County templates for intersection configuration showing the design limits with analysis performed using a 10 x 10 grid. This template is available from County Transportation in a CAD format to facilitate luminaire design.
- Assumed dirt factor of 0.9.
- Shall use the 25 degree C at 100,000 hrs LLD factor based upon actual fixture analysis reports times the dirt factor to get a the LLF.
- Light standard shall meet a minimum average maintained horizontal light level of 0.9 foot-candles.
- Maximum uniformity ratio of 4:1
- Maximum veiling luminance ratio of 0.3:1



## **8-20.2(9-29.10(1)) Conventional Roadway Luminaires**

Section 9-29.10(1) is revised to read:

*(CCPW September 2017)*

Luminaires shall meet these optical specification:

1. White light at approximately 4000K
2. Type III, IV, or V IES distribution
3. Full cut off with BUG rating of B4-U1-G4 or better.
4. LED shall have LM80 and LM79 data available. TM21 data available for life expectancy projections for a minimum of 6,000 hours.
5. Minimum Lumen maintenance factor of minimum 81% at 100,000 hrs at 25C per LM80 test report
6. LED light rated and LLD reported at 100,000 hours at 25°C, L70 meeting TM21 standard
7. LED CRI shall be 70+
8. Initial lumens / watt of at least 85

Luminaires shall meet these electrical specifications:

1. Class C surge protector 10KV / 5KA or better and be field replaceable without shutting down lighting system
2. Terminal block sized to allow for wire gauges from #14 AWG to #6 AWG.
3. LED driver rated to 100,000 hrs and be field replaceable
4. Voltage 100-277V AC, 50/60 Hz
5. Shall be UL listed with label affixed to compartment interior and readily visible
6. Luminaires shall be electrically tested to confirm functionality prior to shipping.

Luminaires shall meet these mechanical specifications:

1. Fixture shall be wet location rated with sealed optical cavities rated to IP66
2. Glass or acrylic lenses
3. The refractor or lens and doorframe assembly, when closed, shall exert pressure against a gasket seat. Gaskets shall be composed of material capable of withstanding the temperatures involved and shall be securely held in place.
4. High grade aluminum housing with polyester powder-coated finish in gray
5. Cobra head that includes a 2-bolt or 4-bolt mast arm mount adjustable for mast arms from 1-1/4" to 2" in diameter and capable of being adjusted within 5 degrees from the axis of the tenon.
6. Meets a 3G vibration rating per ANSI C136.31
7. ANSI 7 pin receptacle with standard NEMA three prong twist lock, socket with shorting cap per ANSI C136.41
8. Shall have bubble leveling reference points for both transverse and longitudinal adjustment
9. Operating temperature -40°C to 74°C ambient
10. Shall include shorting caps when shipped.
11. Luminaires shall have a minimum 5 years full replacement warranty on mechanical , electrical, and optical components.

### **8-20.2(9-29.11) Control Equipment**

Section 9-29.11 is supplemented with the following:

(\*\*\*\*\*)

Street illumination shall be controlled by a photoelectric control device mounted on the service cabinet. Refer to Section 9-29.11(2) and the Plans.

### **8-20.2(9-29.12(1)) Illumination Circuit Splices**

Section 9-29.12(1) is revised to read:

(\*\*\*\*\*)

Splices below ground in junction boxes shall consist of a solid body device containing one connection port for each conductor entering the splice. This mechanical splice shall consist of (hex-head) screw type compression grips with one port provided for each conductor. The splice shall accept both copper and aluminum conductors. Splice ports shall be sized and rated for the conductors sizes used (typically AWG 14 to AWG 2/0). No tape, epoxies, coatings, or heat shrink splices are permitted. The mechanical splice shall be UL486D listed for direct burial and submersible application and shall comply with ANSI C119.1 specification and rated for minimum of 600 Volts with a minimum temperature range of 0-70° F.

### **8-20.2(9-29.13) Control Cabinet Assemblies**

Section 9-29.13 is supplemented with the following:

(CCPW September 2017)

The Contractor shall deliver 2070 controller meeting the general WSDOT specification, with the components and software described below.

The traffic signal system shall operate in conformance with the Phase Sequence Diagram in the Plans.

The Contractor shall adjust the range and demonstrate the optical preemption system in the presence of the Engineer.

The detection panel shall conform to details in the Plans.

(\*\*\*\*\*)

Field wiring input and output terminals shall conform to Section 9-29.13(7) B-8. In addition, the circuit numbers shown on the Plans shall be engraved on the marker strip.

### **8-20.2(9-29.13(10)) NEMA and Type 2070 Controllers and Cabinets**

Section 9-29.13(10) is supplemented with the following:

(\*\*\*\*\*)

#### **2070 Controller Specifications**

Model 2070L Controller Assemblies; Providing New and Modifying Existing:

New Model 2070 controller assemblies shall be furnished by the Contractor, as shown on plans, and shall conform to Section 86-3.A, "Controller assemblies," of the Standard Specifications and all addendum thereto current at the time of project advertising and these Special Provisions.

One printed copy of the operations manuals of the local controller software shall be provided for each controller. One printed copy of the maintenance manuals of the local controller shall be provided for each controller.

Each controller shall be the Model 2070 (Caltrans Rack Mount type) ATC traffic controller per Washington State Dept. of Transportation ("WSDOT"), California Department of Transportation's (Caltrans) specification. Supplied unit(s) shall conform to the Transportation Electrical Equipment Specifications (TEES) Errata 2 and shall be registered on the current Caltrans Qualified Products List (QPL).

Each Model 2070 controller shall be delivered as a complete, working assembly, equipped with the modules as described below and shown on the plans. Each 2070 controller shall have aluminum slot covers covering all open or unused ports on the back of the controller.

Each Model 2070 controller configured for TS2-1 shall be delivered with a power cable to connect the 2070-2N card to a wall socket for AC power. Each Model 2070 controller configured for TS2-2 operation shall be delivered with a power cable to connect the "A" plug on the front of the NEMA base to a wall socket for AC power.

#### 2070-1C CPU

The 2070-1C CPU shall be equipped with a Version 7 engine board. The controller software operating on the 2070-1C shall be capable of utilizing the Ethernet port for data transfers. The operating system shall allow the user FTP and Telnet access via the Ethernet port. The CPU shall come licensed from the factory with the following modules:

- Local
- Web Access enabled
- DSRC

#### 2070-2A

The 2070 shall be equipped with a 2A Field I/O module conforming to the latest TEES specification.

#### 2070-7A

The 2070-7A shall conform to the latest TEES specification. The 2070-7A shall be optically isolated and capable of asynchronous serial communications for ports C21S and C22S. On-board jumpers shall be provided to allow either DCE or DTE operation for each port.

#### 2070-7B

The 2070 shall be equipped with a 7B module.

#### 2070-3B

The 2070-3B front door module shall include switch SW-1 which shall be a momentary contact switch designed to reset the display panel's display screen.

#### Operating System

Each 2070 controller shall operate on the 2070-1C using the latest Linux version for the processor.

#### Intersection Software

Each 2070 controller CPU shall be provided with the latest version of Naztec Apogee V.85 NTCIP-based intersection control software for the 2070 controller. The intersection software shall incorporate all of the NTCIP minimum requirements and pass the State NTCIP exerciser.

#### Testing

Each controller shall be delivered with the documentation as described in Section 8-20.3(11),

A factory certified representative for the controller and cabinet manufacturer shall be available for consultation by telephone during signal cabinet testing.

#### Installation

A factory certified representative for the cabinet manufacturer shall be on-site during signal turn on for support. A factory certified representative for the controller manufacturer shall be available by phone consultation on the day of signal turn on.

#### Warranty

Each controller assembly shall be warranted by the manufacturer against mechanical and electrical defects for a period of 1 year. The warranty period shall begin from the date of installation and acceptance by the Engineer, by intersection.

The supplier shall correct any defects in design, workmanship or material during the warranty period at no cost to the Contract, or Clark County. All costs of labor, parts and transportation shall be borne by the supplier for the duration of the warranty period.

The vendor shall provide all revisions to any equipment furnished under these specifications at no cost to the Contract, or Clark County.

### **8-20.2(9-29.13(10)C) NEMA Controller Cabinets**

Section 9-29.13(10)C is supplemented with the following:

(\*\*\*\*\*)

Display panels shall be provided on all new NEMA TS2 traffic signal controller cabinets.

Each display panel shall have a single multi-conductor plug/receptacle which energizes the vehicle and pedestrian indications occurring in the intersection. No vehicle or pedestrian detection displays will be required in the display panel. A multi-conductor wafer switch shall be provided which will transfer the indications between the display "ON" and "OFF/TEST" positions.

All display panel lamps shall be LED type and energized directly from the field wiring terminals to which they apply. Intersection channelization for the traffic signal system. The signal head displays on the display panel shall be as shown on the Plans.

The display panel signal indications shall include LED modules, with the vehicle indications using a red, yellow, and green LED mounted on a circuit board that can be plugged into the wiring of the display module. The pedestrian indications shall have lunar white, and orange LED's mounted on a circuit board that can be plugged into the wiring of the display module.

The Contractor shall provide two spare red/yellow/green LED modules and one spare walk / don't walk LED module for each display panel provided.

North shall be oriented to be straight up on the display panel.

### **Controller Cabinets**

All new County traffic signal cabinets shall be NEMA TS2 Type 1 cabinets, with all components meeting the NEMA TS2, version 02.06, with the equipment detailed on the Plans.

### **NEMA TS2 Type 1 'Stretch P' Traffic Signal Cabinet**

Each NEMA Stretch P traffic signal cabinet shall be wired to provide for future alternate use of controllers in the intersection.

### Controller SDLC Cable Slack

To facilitate the alternate controllers, the SDLC cable shall have sufficient slack to connect to the 2070 supplied, plus cable slack to connect to the front of a future NEMA TS2 Type 1 controller.

### Additional Controller Wiring

The cabinet shall be provided, wired, for the 2070 controller. The cabinet shall also include a wired "A" plug, and TS2 Type 1 10-pin power plug allowing for the County to install an alternate NEMA style TS2 type 1 controllers, using the "A" plug or the TS2 Type 1 plug to power the controller, and provide any necessary inputs to the alternate controller to operate in the cabinet, based on input from the MMU, and door switches. The alternate controller power plugs shall be wired to logic ground, power, and CVM at a minimum. The door switch for controller power shall also switch the power for the alternate controller power plugs.

The alternate controller power plugs shall be fitted to a mount on the side panel of the cabinet where it will hang without conflicting with other cabinet equipment. The alternate controller power plugs shall be labeled clearly with a tag describing the function of this cannon plug. The "A" plug label and the TS2 Type 1 10pin power plug label shall each state at a minimum "NEMA TS2 Type 2 Alternate Controller Power."

The controller alternate controller power plugs shall rest in the mount, including a cap over the plug.

#### Cabinet Height

Each "stretch P" cabinet shall be provided with at least three shelves.

Each "stretch P" cabinet shall include an 8-in metal riser, as shown on the Plans.

#### General Cabinet Layout

Each traffic signal cabinet shall be provided, configured as detailed in the Plans.

Any loose equipment on a shelf shall be provided a rubber friction pad, or Velcro, to keep the equipment from sliding or vibrating off the shelf. This shall include the conflict monitor, controller, and other equipment that is not secured to a shelf.

Each shelf shall be sufficiently tall enough that there is at least 1/2-inch of clear space above the equipment provided on that shelf.

The cabinet manufacturer may propose an alternate cabinet configuration that provides equal access to all components in the cabinet.

#### Cabinet Doors

The traffic signal controller cabinet supplied on this project shall include two doors – one in front, one in back – each meeting the requirements of bullet 5 of this section of the specifications. The front door shall be tall enough to allow full access to the load bays, and the top shelf of the cabinet. Both front and back doors shall include bracing to keep the door from buckling when open.

The back door shall be the same dimensions, and at approximately the same elevation, as the front door.

The cabinet shall be delivered with green Best door locks for each door. The green core shall be painted green on the face. The cabinet shall be delivered with:

- 1 ea. police panel skeleton key
- 2 ea. green core keys – with clear markings on the key that it is for a green core
- 1 ea. green core removal key – with clear markings on the key that it is a core removal key.
- 2 ea. T-handle plastic core alignment tool – designed to allow the dual prongs of the lock to be turned with the core removed.

#### Cabinet Construction

Each traffic signal cabinet shall be constructed be of 0.125-inch minimum thickness sheet aluminum (5052 alloy).

#### Cabinet Fan:

The cabinet shall have a thermostatically controlled fan for taking in fresh, filtered air.

*Cabinet Heater:*

The cabinet shall include a 350-Watt minimum thermostatically controlled heater with fan, mounted on a small shelf on the right-side wall, near the base of the cabinet.

*Cabinet Light:*

The cabinet light shall include two white light LED grid fixtures in the top of the cabinet, and one white light LED grid fixture under the bottom shelf that will energize only when one or more doors is open. A switch shall activate the light fixture when either the front door, or the rear door, or when both doors are open.

The cabinet lights shall be either Relume model 796-5000, Bivar 12-in LED strips, model BIVDL-C1358 with power supply model VIBPS-1026 or GE LED Power Grid LED lighting systems or approved equal.

The cabinets shall be provided with power supplies to power the LED cabinet lights.

*Cabinet Door Open Switches:*

The cabinet shall be wired to include a cabinet door open switches on both doors, which shall be wired to the traffic signal controller, such that when the cabinet door is open, the traffic signal controller will log the door open in the internal memory of the controller.

The door switches shall be wired, such that opening either the front, or back door, or both doors registers as a door open call to the traffic signal controller. The traffic signal controller shall be able to be programmed to dial an alert over the cellular data modem to the existing County server that is operating the ATMS.now central software.

*Convenience Outlet:*

Convenience outlets shall be furnished in the cabinet(s). The outlets shall be mounted on each side of the cabinet, near the top shelf, not on the door.

One 2-plug in outlet mounted on the right side of the cabinet shall be ground fault interrupted protected.

A 4-plug outlet shall be mounted on the right side of the cabinet and shall not be ground fault interrupted protected.

A second 4-plug outlet shall be mounted on the left side of the cabinet and shall not be ground fault interrupted protected.

The two four-plug outlets shall be protected by a circuit breaker rated at 25 amps.

All convenience outlets shall be installed in such a fashion that the electrical circuitry inside the outlets are enclosed, and no wires can be directly touched from the outlet.

### Service Panel Switches:

#### *Power Switches:*

There shall be a controller power switch that shall render the controller and load switch devices electrically dead while maintaining flashing operations for purposes of changing the controller or load switching devices. The switch shall be a general-purpose bat-style toggle switch with an approximately 11/16-in long bat.

The bank of all switches on the inside of the door shall be covered by a single clear Plexiglas hinged cover. Alternately, each switch shall have a protective cover, which must be lifted to operate the switch.

#### *Stop Time Switch:*

There shall be a 3-position switch located inside the cabinet door identified as a Stop Time switch. Its positions shall be labeled as "Normal" (up), "Off", (center), and "On" (down). With the switch in the "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 the "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 an approximately 11/16-in. long bat.

The switch shall have a protective cover, which must be lifted to operate the switch.

#### *Detector Disconnect / Test Switches:*

The cabinets on this project shall be delivered with vehicle detector switches on the detector racks, as specified in Section 9-29.18(1), and as shown on the plans.

The optical preemption system detection switches shall not be supplied on the door panel, instead, emergency vehicle detection test calls will be placed from the optical preemption system phase selector card.

### Pedestrian Switches and Input Terminals

#### *Pedestrian Switches:*

The service panel on the door shall include switches for pedestrian inputs 1 through 8. The pedestrian detection input switches shall be labeled "Constant Call" (up) and place a call to the signal controller for that specific pedestrian input; "Normal" (center) which shall allow the normal pedestrian pushbuttons to pass calls through to the controller; and "Test" (down) which shall provide a momentary logic ground to test the controller detection input.

The cabinet shall include eight pedestrian switches, wired to the first eight possible pedestrian movements (phases 1 through 8).



The pedestrian detection switches shall be covered with a clear Plexiglas cover. The Plexiglas cover shall cover the switches, and be fitted with a tether, to hold it up when tethered.

#### Pedestrian Field Wiring Tie Points

The back panel or side panel of the cabinet shall include input terminals for each of the 8 pedestrian phases. The input terminals shall be wired to allow a contact closure on any of the terminals to call the specific pedestrian phase on the controller. The terminals shall be wired such that all 8 pedestrian terminals are on the same terminal strip, with pedestrian phase 1 being on the left, pedestrian phase 8 on the right, and sequentially ordered between. Each pedestrian terminal input shall be labeled. The pedestrian field wiring tie points shall be mounted such that a screw driver can be applied to any terminal screw without being blocked by other items in the signal cabinet.

#### Display Panel:

The cabinet shall have a display panel meeting the requirements of Section 9-29.13(10)C.

#### Police Panel Switches

The Police panel assembly only includes a switch to turn the signal from normal operation to flash operation. When the signal is turned from flash to normal operation from this police panel switch, the controller shall restart, and progress through the programmed startup procedures.

The police panel switch and wiring to the controller shall allow the controller to startup and hold in all-red prior to being turned from Flash to normal operation.

#### Mercury Contactors:

The cabinet shall be provided with solid state relays or similar switching devices, not mercury contactors to transition the cabinet from normal operation to all-red flash.

A 75-amp solid state relay shall be wired between the RFI filter output and the load switch power bus. The relay shall be controlled by the signal-shutdown switch and the flash switch. The relay shall be mounted to a heat sink designed to allow maximum current flow at 74 degrees C without damaging the relay. The solid-state relay shall be a Crydom A4875 or equivalent.

#### Red Flash Program:

Flash operation must be programmable without removing field wiring (i.e., no red / yellow jumpers). The cabinet shall be delivered programmed for all-red flash.

The cabinet shall be configured to flash all-red all even phases, followed by all odd phases. Overlap A and B shall flash with the even phases. Overlap C and D shall flash with the odd phases.

#### Mechanical Lugs for Field Wiring Terminals:

Mechanical lugs shall be provided, as specified in Section 8-20.3(8).

#### Cabinet Relays:

All mechanical relays shall be commonly available from more than one manufacturer, and have 24-volt DC or 120Volt AC relay coils. Every socket, which has the capacity of accepting a relay or load switch shall have the appropriate relay or load switch installed. The relays shall be easily accessible, not covered by equipment or wiring.

#### Resistor Array:

The cabinet shall be delivered with a spare block of 8-grounded resistors that allow any unused phase outputs on the load bay to be bled to ground, in the event of transient voltages on the load bay.

This resistor array shall have all 8 resistors unused from the factory. If the cabinet includes a resistor array for normal cabinet operations, the cabinet shall include a fully unused 8-resistor array.

#### Field Wiring Terminals:

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, or the plans.

A common bus 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 bus bars shall be located on the left side wall of the cabinet.

The cabinet shall include a minimum of 10 terminals (with metal bus bar connecting each pair of screws in the each terminal) that will allow for field communications wiring to be terminated. The field communications wiring terminals shall be connected to the FSK filter.

The cabinet shall include 40 spare wiring terminals, in blocks. The spare wiring terminals shall be provided such that the screws in the terminal block have a metal bar connecting each pair of screw for each terminal location. Each pair of screws connected by the metal bar shall count as a single spare terminal.

#### Interference Suppressors:

All power supplies of equipment used in the cabinet shall have electrical interference immunity from other devices within the cabinet.

#### Surge Protector (Lightning Arrestor):

The cabinet shall have an input voltage surge protector that shall protect the controller power supply input from any voltage surges that could damage it. Interconnect cable terminal strips shall be equipped with lightning surge protectors. The cabinet shall be wired to light LED indicators when the surge protection has been activated. The LED indicator shall be mounted facing the front to allow unobstructed view of the indicator. In addition, there shall be a

metal oxide varactor (MOV) between the ground and hot and between the neutral and ground.

Power Panel Cover:

The power panel shall be covered by an easy removal, clear Plexiglas cover.

Power Strip / Surge Protector

The cabinet shall be supplied with a power strip / surge protector that has at least 7 plugs, and 1,200 joules of protection. The power strip / surge protector shall be plugged into one of the plugs on one of the convenience outlets. The power strip shall be used to provide power to the plugs of the cable data modem, managed Ethernet edge switches, and the serial to Ethernet switches.

The power strip / surge protector shall be mounted on the side wall of the cabinet. The power strip / surge protector shall be mounted such that the plugs can be reached without moving other equipment in the cabinet. The power strip / surge protector shall be mounted such that the power cord connects directly to one of the convenience outlets.

Network Power Strip

The cabinet shall have one network power strip as described in section 9-29.14. The network power strip shall be mounted such that the plugs can be reached without moving other equipment in the cabinet. The power cord shall plug directly into one of the convenience outlets.

DIN Rails

The cabinet shall be configured with DIN rails to hold the following equipment:

- Video detection equipment
- Video server
- Managed Ethernet edge switches
- Serial to Ethernet switches
- TS2- Frame grabber

All equipment shall be mounted on the bottom DIN rail. The equipment shall be mounted to allow access to all connections and ports on the equipment, without requiring that the equipment be removed from the DIN rail to connect cables, patch cords, or buttons / displays on the equipment.

The equipment shall be mounted to allow access to the latch and to facilitate removal of the equipment from the DIN Rail.

If the DIN rail is mounted on the back of the cabinet, the DIN rail shall be mounted such that it is free from the rear door, and the rear door is able to close / open without binding or pinching any cords on the equipment.

Bus Interface Unit (BIU)

The cabinet shall be provided with the BIU's as specified previously.

The BIU's shall meet the requirements of NEMA TS2-2002, be fully hot-swappable, and shall include SDLC bus and input / output surge protection.

#### Terminals and Facilities (T&F) Bus Interface Unit Wiring Harness and Socket

The Terminals and Facilities BIU wiring harness and socket shall not be directly wired or soldered to the back panel contacts. All wires from the sockets for T&F BIU's shall be terminated with spade terminals through an intermediate series of terminal blocks. Each specific T&F BIU's wiring harness shall be on a unique set of terminal blocks.

No wires from T&F BIU's shall be terminated on any terminal block that has wires for any of the other T&F BIU's.

The terminal blocks shall be labeled and arranged in the cabinet to facilitate easy replacement of the socket and wiring for the T&F BIU's.

The terminal blocks for the T&F BIU's shall be of the same size and shape as the rest of the terminal blocks in the cabinet. The terminal blocks shall be provided with the metal jumper between two terminals, as required in the rest of the cabinet.

The cabinet manufacturer may propose an alternate configuration for this terminal block configuration. The final acceptance shall solely be with the Clark County Traffic Signal Engineer.

#### SDLC Wiring Tie Point Bus

The SDLC wiring harnesses shall be tied to a central bus, or array of buses. All of the wires on the SDLC wiring harnesses shall be spade terminated to the bus, not soldered.

#### Detector Racks:

The detector racks shall be configured to include 1 BIU, and 16 channels of detection. The detector racks shall be capable of having any combination of 2 and 4 channel detector cards installed to make up the 16 channels of detection.

The detector cards installed may include induction 4 or 4 channel loop amplifier cards, 2 or 4 channel radar detection cards, 2 or 4 channel video detection cards, or other detection cards.

Each detector rack shall be configured to include a 16-channel detector disconnect / test switch as specified in Section 9-29.18(1).

#### Detector Switch Panel

The cabinets are to be delivered without the normal detector switches mounted on the door, instead, the cabinet shall include specific detector switches on each detector rack.

Each detector rack shall include a detector switch panel that individually conditions the call outputs of the four, four-channel detectors in the detector rack. Each switch shall be a three-position toggle switch to set the output of one of three states:

- Continuous call state (up)
- Normal operation (center)
- Momentary call (momentary down)

Video Detection:

A factory-certified representative shall configure the video detection system to provide the vehicle detection zones indicated in the Plans.

Optical Preemption System Equipment:

Each call channel of the optical preemption system phase selector shall NOT be wired through a disconnect / test switch located on the service panel (previously described).

No calls shall be placed on the non-preempt phases. Preempt call shall be inhibited during flashing operation.

The optical preemption system phase selector shall be connected to the Ethernet edge switch.

The traffic signal cabinet shall be provided without a “green sense harness,” typically used for connecting Opticom 754 cards to the load bay. The green and red outputs of the cabinet’s load bay shall be wired to the Opticom 768 card.

Malfunction Management Unit (MMU):

The MMU unit shall be a Reno 1600 GE. The patch cable that connects the MMU to the Ethernet switch shall be purple, as described in Section 8-20.3(8).

Spare SDLC Connection

Each component in the cabinet with SDLC communications shall be provided a separate SDLC connection. The cabinet shall include one additional (spare) SDLC connection prewired, and labeled as “SPARE SDLC”.

The spare SDLC cable in the cabinet shall be sufficiently long enough to reach any component on any shelf, routed via the back of the shelf, and long enough to connect to any point on the load bay.

The cabinet shall be shipped with the spare SDLC cable tied to the cabinet with the wiring not conflicting with other cabinet components, such that the plug of the cable is located on the left side in the back of the cabinet, below the bottom shelf, accessible from the back door.

Controller Direct Connect Wiring Harness

The cabinet shall be provided with a harness that allows for connection of a PC to the connector on the back of the controller, for upload / download of data from PC software on a laptop at the intersection directly into the controller inside the cabinet, without having to open the back door, or move the equipment within the cabinet. The same connection will allow for a PDA running streetwise partner software to upload / download from the PDA database and to monitor the signal’s operations.

The plug for the front of the cabinet may be located either on the print holder rollout drawer, or on a plug mounted on the side of the cabinet. If the plug is located on the print holder rollout drawer, the wiring shall be fixed such that the rollout drawer is able to slide in, and out without binding or catching the wiring, and without having the wiring hang down in front of other equipment.

The plug shall be wired to connect to one of the DB9 serial ports on the 7B card on the back of the controller. The plug wiring shall be wired as a NULL MODEM connection.

#### Cabinet Rollout Drawer

The cabinet shall be provided with a print holder rollout drawer. The drawer shall be shelf-mounted under the bottom shelf of the cabinet.

The cabinet rollout drawer shall include the controller direct connect wiring harness, as previously described in this section.

#### Schematics & Manuals:

The cabinet shall have two waterproof envelopes with a side access attached to the inside of the door. At the time of delivery, the envelopes shall have two complete sets of schematics and manuals for all assemblies and sub-assemblies. In addition, the cabinet shall arrive with two sets of cabinet prints including circuit schematics for each model of the following:

1. Controller
2. Conflict Monitor
3. Video Detection Equipment
4. Ethernet Communications Equipment
5. Cable Communications Equipment
6. Optical Preemption System Equipment

### **8-20.2(9-29.15) *Flashing Beacon Control***

Section 9-29.15 is supplemented with the following:

*(January 7, 2019 WSDOT GSP)*

#### **Rapid Flashing Beacons**

Rectangular Rapid Flashing Beacon (RRFB) indications shall comply with the dimensional, operational, and flash pattern requirements of Federal Highway Administration (FHWA) Interim Approval 21 (IA-21), Conditions 4, 5, and 6, excluding Condition 5f; [https://mutcd.fhwa.dot.gov/resources/interim\\_approval/ia21/index.htm](https://mutcd.fhwa.dot.gov/resources/interim_approval/ia21/index.htm)). RRFB systems shall be capable of providing, at a minimum, the following two-channel flashing patterns:

1. NEMA Standard 50-50:
  - Channel one is ON and channel two is OFF for 0.5 seconds.
  - Channel one is OFF and channel two is ON for 0.5 seconds.

(Cycle repeats; the total flashing pattern cycle length is 1.00 second.)

2. RRFB “WW+S” Pattern (IA-21 Condition 5b):

- Channel one is ON and channel two is OFF for 0.05 seconds.
- Both channels are OFF for 0.05 seconds.
- Channel one is OFF and channel two is ON for 0.05 seconds.
- Both channels are OFF for 0.05 seconds.
- Channel one is ON and channel two is OFF for 0.05 seconds.
- Both channels are OFF for 0.05 seconds.
- Channel one is OFF and channel two is ON for 0.05 seconds.
- Both channels are OFF for 0.05 seconds.
- Both channels are ON for 0.05 seconds.
- Both channels are OFF for 0.05 seconds.
- Both channels are ON for 0.05 seconds.
- Both channels are OFF for 0.25 seconds.

(Cycle repeats; the total flashing pattern cycle length is 0.80 seconds.)

The flashing pattern shall be user-selectable in the field.

RRFB system pushbuttons shall include a locator tone but shall not include tactile arrows. RRFB system pushbuttons may include speech messages or vibrotactile functionality, provided these features can be deactivated. RRFB system pushbuttons shall use a 9” x 12” R10-25 sign. The R10-25 sign may include integral yellow warning lights.

**8-20.2(9-29.16) Vehicular Signal Heads**

The second paragraph of Section 9-29.16 is revised to read:

(\*\*\*\*\*)

Backplates shall be furnished and installed to all signal heads installed. Backplates shall be constructed of corrosion resistant aluminum having a 0.050-inch minimum thickness.

All surfaces of the backplate shall be coated with black anodizing, flat black enamel, or flat black powder-coat paint. Refer to Section 9 29.13(7)D, in these special provisions for requirements on powder-coat painting. Backplates shall have attaching holes (slots are not permitted) for installation to the signal head housing. Attachment screws shall be made of stainless steel and shall be torqued to securely hold the back plate in place.

A 2-inch-wide strip of yellow retro-reflective diamond-grade type IV prismatic sheeting (tape), conforming to the requirements of Section 9-28.12, shall be installed by the manufacturer around the perimeter of each backplate for displays used in conventional traffic signal systems.

#### **8-20.2(9-29.16(2)) Conventional Traffic Signal Heads**

##### **8-20.2(9-29.16(2)A) Optical Units**

Section 9-29.16(2)A Optical Units is supplemented by the following:

*(CCPW September 2017)*

All signal indications shall have a clear lens cover and shall be long-life LED indications.

The use of more than one manufacturer of LED vehicle traffic signal modules for the same color of conventional traffic signal displays will not be allowed.

##### **8-20.2(9-29.16(2)B) Signal Housing**

The first sentence of the fifth paragraph of Section 9-29.16(2)B is supplemented with the following:

*(\*\*\*\*\*)*

Each lens for a conventional traffic signal head section shall be protected with a removable corrosion-resistant aluminum tunnel visor having a 0.050-inch minimum thickness, an inner surface of black anodizing, flat black enamel, or flat black powder-coat paint, and an outer surface of flat black powder-coat paint. Attachment screws shall be made of stainless steel and shall be torqued to securely hold the visor in place.

##### **8-20.2(9-29.16(2)E) Painting Signal Heads**

Section 9-29.16(2)E is supplemented by the following:

*(\*\*\*\*\*)*

Traffic signal heads, including the outside of visors and the back of backplates, shall be finished with a flat black oven-baked powder coating comprised of resins and pigments. The use of enamel paint for conventional traffic signal heads is not permitted.

Section 9-29.16 is supplemented with the following new subsection:

*(\*\*\*\*\*)*

##### **8-20.2(9-29.16(4)) Traffic Signal Cover**

The covers shall be made from outdoor fabric, solution-dyed with a urethane finish. The fabric shall be weather-resistant and treated to withstand mildew.



The cover facing for signal heads and pedestrian heads shall include a strip of see-through material visible only when the signal light is on for testing.

The same color and type of material shall be used for the facing and siding of the cover.

The cover shall completely cover the signal head excluding the back plate, with an elastic cord around the signal / pedestrian head assembly. The elastic cord shall secure the cover to the signal head sun visors. The cover shall also be strapped to the head, with one-inch wide strapped that fasten around the back of the signal head. The Contractor shall provide the number of straps recommended by the manufacturer of the cover.

The covers shall be tan or yellow with a vertical message "NOT IN SERVICE" in white on each cover. Plastic bags or cloth materials shall at no time be used to cover vehicle or pedestrian heads.

### **8-20.2(9-29.18) Vehicle Detector**

Section 9-29.18 is supplemented with the following:

(\*\*\*\*\*)

### **8-20.2(9-29.18(3)) Video Detection System**

Section 9-29.18 is supplemented with the following new subsection:

The Contractor shall provide and install field wiring, and all other equipment necessary to install the video detection systems as shown on the Plans. The Contractor shall field-verify all locations for video cameras prior to installation. The video detection systems shall be installed as per the manufacturer's recommendations. All Contractor-provided equipment for the video detection system shall meet the video detection manufacturer's recommendations. The wiring used to connect the video detection equipment shall be as specified by the video detection equipment manufacturer or their qualified representative in Washington State.

The video detection system shall consist of the following equipment:

- GridSmart GS3 Processor: GS3-SYS (1 each)
- GridSmart GS3 Processor Extended Warranty +3 years (6 years total): GS-3-EWP3 (1 each)
- GridSmart TS2 Module GS3: GS3-TS2-OPT (1 each)
- GridSmart TS2 Cable: GS-3-TS2 (1 each)
- GridSmart ATC / ITS Module GS3: GS3-ITS-OPT (1 each)
- GridSmart ATC / ITS Cable: GS-3-ITS (1 each)
- GridSmart Performance Plus GS3 License: GS-3-PFM+ (1 each)
- GridSmart Bell Camera Kit: GS-3-SMK (2 each)
- GridSmart Camera Extended Warranty +3 years (6 years total): GS-3-EWC3 (2 each)
- GridSmart Luminaire Cable for SMK: GS-3068 (2 each)
- GridSmart Tenon Bracket 1.9" to 4.5" (Luminaire Install): GS-3-TEN (2 each)
- GridSmart 1000' of Cat5e Cable: GS-3-CAT5 (1 each)
- GridSmart Repeater for Cat5e Cable: GS-3-REP (1 each)
- GridSmart Field Support: GS-3-FST (1 each)

## **8-20.2(9-29.19) Pedestrian Pushbuttons**

Section 9-29.19 is supplemented with the following:

*(CCPW September 2017)*

### **Accessible Pedestrian Signal (APS) Pushbuttons**

When required in the Contract, APS Pushbuttons shall be provided. Each accessible pedestrian signal (APS) shall be a complete APS pushbutton system at each pedestrian pushbutton location shown in the Plans. Equipment shall be the following system:

Polara iNavigator (iN2) System:

- iN2 2-wire pushbutton stations (8 each): iN23TNO-B
- iCCU Shelf Mount Control Unit (1 each): iCCU-S
- Interconnect Board (1 each): iN2-ICB
- 2-conductor cable to connect iCCU to Interconnect Board (1 each): iN2-2WCABLE
- SDLC Cable (1 each): iN2-SDLC-CABLE

Each pushbutton station shall include the following:

1. Flat black colored housing.
2. Integral 9" x 15" R10-3e Sign. Braille shall not be included. Adaptor plates shall be included if required to accommodate the sign.
3. Unless otherwise specified in the Contract, cable between the APS pushbutton and the interconnect board in the signal cabinet shall be provided by the pushbutton manufacturer. Cable may be standard 14 AWG two-conductor shielded cable meeting the requirements of Standard Specification 9-29.3(2)E if it meets the pushbutton manufacturer's requirements.

Any other equipment or software required by the manufacturer for setup, operation, and maintenance of the pushbutton stations shall be provided.

Dual-button adaptor brackets are required for all installations with two APS pushbuttons on the same Type PPB, Type PS, or Type I Signal Standard. Where dual-button adaptor brackets are required, they shall be obtained from the same manufacturer as the pushbutton station. Brackets from other manufacturers shall not be used.

The APS pushbuttons include an arrow on the pushbutton that is to point in the direction of the intended crossing. This style of pushbutton is installed with different orientations than standard pushbuttons.

The Contractor shall confirm with the Engineer each specific pushbutton's location and orientation prior to installing the button assembly. Some pushbuttons may require extensions to ensure that the button is within reach of the sidewalk. The cost for the extensions shall be paid subsidiary to the lump sum item for each traffic signal system.

The Contractor shall review the specific installation requirements of the APS buttons with the County's vendor of the APS system prior to installing any APS system in any intersection.

(\*\*\*\*\*)

### **APS Speech Messages**

Speech messages shall be provided in the following format:

- “Wait.”
- “Wait to cross \_\_\_\_ (A) \_\_\_\_ at \_\_\_\_ (B) \_\_\_\_.”
- “Walk sign is on to cross \_\_\_\_ (A) \_\_\_\_.”

The following table lists the entries for (A) and (B) above, as well as quantities for button and arrow orientations:

(A)	(B)	Buttons with Left-Pointing Arrow	Buttons with Right-Pointing Arrow
Ivy Avenue	4th Street	1	1
4th Street	-	2	2
Highland Road	4th Street	1	1

Order forms shall be completed by the Contractor using the information presented above.

### **8-20.2(9-29.20) Pedestrian Signal Heads**

Item number 2c in the third paragraph of Section 9-29.20 shall have the following words removed:

(\*\*\*\*\*)

“green polycarbonate or”

Section 9-29.20 is supplemented with the following:

(\*\*\*\*\*)

Pedestrian signal heads used on this project shall be 19.5-inch wide by 16-inch high units having Light Emitting Diode (LED) orange hand (“DON’T WALK”) and white walker (“WALK”) messages located on the left half of the pedestrian signal head face. The light source for LED messages shall be portland orange or white LED’s in a uniformly spaced grid (a dotted outline of either symbol is not permitted). The LED’s shall be mounted to a printed circuit board where the center-to-center spacing of the LED’s (along vertical and horizontal grid lines) is not to exceed 5/8”.

The right half of the pedestrian signal head face shall have a two-digit numerical countdown display. This countdown display shall consist of two, staggered, dual row, seven segment digits. The digits shall be comprised of not less than 9 LED’s per vertical segment, and not less than 6 LED’s per horizontal segment. The LED’s shall be wired so that the loss of a single LED within a string will not significantly degrade the legibility of the display. The countdown LED’s may be either orange or white. The countdown display module shall have internal logic that will measure and store the timings for the walk and flashing pedestrian clearance intervals. If the pedestrian interval timings are changed, the module shall re-learn and store the new timings within two successive cycles of the pedestrian phase. The countdown module shall have seven programmable modes, which are set by a DIP switch located on the rear of the module. The DIP switch shall be provided with a protective cover. The various modes will allow the countdown display to run with the walk display, flashing

don't walk display, or both displays. The digits shall also be programmable to flash during the pedestrian clearance interval.

The front of the pedestrian signal face shall have a translucent diffusion lens. This message lens shall be UV stabilized polycarbonate plastic having a thickness of not less than 0.250". Spacing between the LED's and the message lens and diffusion refraction characteristics of the message lens shall be sufficient to provide a uniformity ratio of 4:1 or better between adjacent LED's.

The module assembly shall be designed to operate on a voltage of 120 VAC 60HZ  $\pm$  3HZ. The fluctuation of the line voltage over the range of 95 volts to 135 volts shall have no visible effect on the luminous intensity of the indications. The LED's and power supplies shall be designed to prevent perceptible flicker to the unaided eye when the module is operated over the voltage range specified above. The module shall also have onboard surge protection to withstand the high repetition noise transients as stated in Section 2.1.6 of the NEMA Standard TS-2, 1992. The maximum power consumption for the unit shall be as follows:

Portland Orange Hand display = 9 Watts

Lunar White Person display = 5.5 Watts

Portland Orange Digit display = 5 Watts

## **8-20.2(9-29.24) Service Cabinets**

### **9-29.24(1) Vacant**

Section 9-29.24(1) title and content are revised to read:

(\*\*\*\*\*)

### **9-29.24(1) Clark County 100-200Amp Service Cabinets**

Clark County uses a specific cabinet for their 100-200 amp services as shown in the plans and which shall meet the following specifications:

1. Shell shall be a neutral gray powder-coat. The top section hinge may be mounted in the horizontal plane.
2. Contractor shall submit a request for approval of materials that describes the service panel proposed for use.
3. Utility portion of cabinet shall comply with requirements of EUSERC drawing 308 Rev. 8 and later.
4. Cabinet design shall meet NEMA 3R standards with two rain-tight vents.
5. Utility meter section door sidewalls shall raise when the door is opened. When the door is fully opened the meter must have no fixed lateral obstructions within 10 inches (measured from the center of the meter face).
6. The hinged demand reset cover shown in EUSERC drawing 308 is removed and replaced with a 4-inch wide by 4-inch high viewing window centered on the meter. The window shall be constructed from break- and scratch-resistant safety glass. The installation shall be dust- and water-proof.
7. Internal metals shall be aluminum or powder-coated steel.
8. Internal metal fasteners, nuts, bolts, and washers shall be stainless steel.
9. All hinges shall be stainless steel with stainless steel or brass pins.
10. Metering equipment door shall be provided with a lock tab for utility use.
11. Customer's door shall have a three-point latching system with a figure 8 core lock compatible with Clark County's locking system (Best lock green core).
12. Manufacturer to confirm metering arrangements with Clark Public Utilities.

13. Contractor shall verify Clark Public Utilities requirements prior to fabrication and installation.
14. All circuit breakers shall be attached to a high-grade copper bus bar on the supply side and shall equal or exceed the main breaker rating.
15. Jumpering breakers is not allowed.
16. Buss work shall accommodate all future equipment as shown in the breaker schedule.
17. All internal wire runs shall be marked with a permanent label at each end identifying the termination point of each end and the other end. Approved PVC polyolefin wire moulding sleeves shall be used.
18. All breakers shall be machine engraved and labelled.
19. Install conduit couplings on all conduits. Place couplings flush with the top of the concrete foundation.
20. Seal cabinet to foundation with a half-inch bead of silicone. Apply silicone to a dry surface only. Install gasket (30 lb building paper) and seal with a non-hardening water-tight sealant.
21. Unused circuit breaker locations shall be covered.
22. Final assembly shall be UL labelled or listed for the purpose UL# 508a – “Suitable for use as a service entrance” is acceptable.
23. All terminals shall be rated for copper wiring. Dual Cu/Al is acceptable.
24. All conductors shall be copper, stranded, and sized for ampacity per NEC. Insulation shall be rated at 600V or higher, 90 degrees C, wet locations.
25. All circuit breakers shall be the bold on type.
26. Internal photocell receives light through an opening in the cabinet. This opening shall be closed with a dust- and water-tight covering. The relay coil is powered via the control circuit breaker. Automatic operation provided via the internal photocell. Manual operation is powered via SPST “Test” switch mounted on the panel, dead front. Load side supplied via illumination circuit breaker(s). The illumination contactor shall be electrically held, 4 poles minimum, and have IP 20 protection for connection terminals.
27. Meter socket: single phase, ring type, manual circuit closing bypass; B-line U264 S type, 600V rated, 4 jaw, 3-wire, 200 amp. Refer to EUSERC drawing #305A, Rev 2 and later. Apply note 5A for 100- and 200-amp service pedestals.

#### **8-20.2(9-29.25) Amplifier, Transformer and Terminal Cabinets**

The first paragraph of Section 9-29.25 is replaced with:

(\*\*\*\*\*)

Amplifier, terminal and transformer cabinets shall conform to the Contract, NEMA 3R requirements and the following:

The following is added to Section 9-29.25:

All terminal cabinets supplied for this project shall be supplied with the same Best green core locks as the traffic signal cabinet. Each terminal cabinet shall include 1 green core key. The keys shall be marked as the traffic signal cabinets.

#### **8-20.2(9-29.26) ITS Equipment**

Section 9-29.26 is added as follows:

(CCPW December 2023)

### **Ethernet Switches**

Items identified on the Plans or Special Provisions as Ethernet Switches are generic in nature and can refer to any of the specific devices listed in this section. Specific devices with part numbers are listed below. All switches need to be ordered with a power cord. Any device identified as a router needs to be ordered with two power cords. All switches and power cords shall be delivered to the County for programming prior to installation in the field.

#### Plan and Spec reference / Siemens Part Number

Router / RX1500-L3-RM-HI-HI-L3SEL3HW-CG01-FG50-FG50-FG50-XX \*

RSG2200 / RSG2200-R-RM-HI-XX-CG01-FG50-FG50-FG50-1FG50-XX \*

Gigabit Ethernet Fiber Edge Switch / RS900G-HI-D-2SC10-XX

Ethernet Switch / RS900-HI-D-TX-TX-TX-XX

VDSL Switch / RS930L-HI-D-V1-V1-XX

Serial Server Switch / RS910-HI-D-S1-TX01-TX-XX

\*The Router and RSG2200 will need the appropriate number of SFP pluggables ordered. Six for the Router and seven for the RSG2200. The part number is 6010000100 Mini GBIC/SFP Transceiver 1GB SM LC 1310NM, 10KM Distance. The part number for a power cable is 99-43-00047-001. All switches will need one. The Router will need two.

4th Street & Highland Road Intersection Traffic Signal Control Cabinet:

- Ethernet Switch – one (1)

### **Battery Backup System**

The battery backup cabinet shall be a 334 cabinet as shown on the plans. The system shall include the following equipment:

- Alpha UPS Power Module FXM 2000 – 1 each
- Alpha Remote Battery Monitoring System (RBMS) – 1 each
- Alphacell 240 XTV Sealed Lead Batteries – 4 each
- Alpha 189-236-10 Battery Heater Mats (2 batteries) 14.25 in 120 VAC – 2 each
- Battery Cable Kit – 1 each
- Alpha Universal Generator Transfer Switch – 1 each
- Alpha Universal Automatic Transfer Switch – 1 each
- 20 ft Yellow Cat5e cables – 2 each

### **ITS Camera System**

The Contractor shall provide and install an ITS Camera System consisting of two camera assemblies, machine vision processor (MVP), application software and all associated equipment required to setup and operate the system including but not limited to wiring, connectors, surge protectors, 90-degree camera mounting arm poles and brackets, Cat5 and SDLC cables.

#### *ITS Camera System requirements:*

The ITS Camera System shall be a GridSmart Video Image Vehicle Detection System and shall be purchased to include the intersection turn-on support for each location. The Contractor shall work with the vendor's representative on-site when installing and

aiming the camera to ensure optimal placement and orientation of the ITS CAMERAS. The vendor will direct the Contractor on the rotation of the camera to minimize blind spots in the detection area.

The ITS CAMERAS shall be mounted with brackets and mounting arm poles as recommended by the manufacturer. Drip loops shall be provided at all cable ends. The cameras shall be oriented in line with and as far out as possible on the end of the mast arm or luminaire arm on which they are mounted (with a minimum separation of 1 foot from signal heads or signs. The height for the mounting arm poles is designated on the plans for each ITS CAMERA mounting location.

The cameras shall be connected to the MVP with Power-over-Ethernet (PoE) cables. The cable shall meet the manufacturer's recommendation for type, shielding and drain wires. A PoE Extender Board shall be provided and installed inside a signal pole handhole on the camera locations exceeding the standard Ethernet distance (300 feet). No direct Ethernet cable splicing shall be allowed.

*Machine Vision Processor (MVP) requirements:*

The MVP shall be the shelf mountable, NEMA TS2 style processor.

The MVP include an SDLC cable for connection to either the SDLC bus in the cabinet or to the Model 2070 controller via a Port 1 SDLC data interface.

The MVP shall be connected to the Ethernet switch in the cabinet with a 6 ft black Cat5 Ethernet cable.

The MVP shall include the GS2-ITS-OPT module which shall be supplied with a DB25M to DB25M cable necessary for proper connectivity.

*ITS Camera System Application Software:*

The application software shall include the performance module. This module of the software shall include volume, turning movement and classification counts.

The application software shall include the pedestrian module. This module shall detect pedestrians moving through crosswalks for extensions and increased safety.

The application software shall include the performance plus module. This module shall include site and zone alerts.

*ITS Camera System Warranty and Maintenance:*

The ITS Camera System shall be warranted to be free of defects in material and workmanship for at least one (1) year following installation. During the warranty period, the supplier shall repair with new or refurbished materials, or replace at no charge, any product containing a warranty defect. The local product dealer, Western Pacific Signal (510-276-6400), shall arrange to pick any material up onsite within 5 working days of a warranty service notification. This warranty does not apply to products damaged by accident, improper operation, abuse, serviced by unauthorized personnel or unauthorized modification.

The camera shall feature an additional warranty to require no aiming or focusing for a period of five (5) years, following successful installation and configuration by trained

and certified installers. This excludes any changes required due to lane shifts or due to extraordinary impact or duress on the camera.

Ongoing software support by the supplier shall include updates of the application software and detection algorithms. These updates shall be provided free of charge during the warranty period or while under an active maintenance contract.

#### **Network Power Strip**

Provide a network power strip for power distribution that provides network monitoring and configurable control of individual outlets. The network power strip meeting the following requirements:

- 19" rack mountable with 1U form factor
- Operate at 120V AC, 60 Hz nominal
- Minimum operating capacity of 12A
- Integrated over-current protection
- Minimum 8 NEMA 5-15R receptacles
- 10 foot power cord with NEMA 5-15P plug
- Support network features: power on/off sequencing, scheduled on/off/cycling, power/status monitoring, ping response

The network power strip shall be the Minuteman RPM1581HVN. The contractor shall also provide three, 3-prong one-foot-long extension cords to allow large power adapters to be used with the extension cords so that all of the receptacles can be used.

#### **8-20.2(1) Equipment List And Drawings**

The first sentence of Section 8-20.2(1) is modified from "Within twenty days following the execution of the contract..." to read as follows:

*(CCPW October 2019)*

"Within five working days following the execution of the contract..."

Remove the third paragraph. Section 9-29.10 lists the acceptable luminaires to be used with Clark County traffic signal projects.

Section 8-20.2(1) is supplemented as follows:

*(CCPW September 2017)*

Within five working days following approval of the sources, the Contractor shall submit to the Engineer the following information:

A letter from the traffic signal cabinet and control equipment manufacturers that states the estimated delivery date of the equipment to the Contracting Agency for testing, and a letter from the traffic signal pole manufacturer that states the estimated delivery date of the poles to the job site.

Quantities of specific equipment may be shown on a plan sheet with a Parts List. These quantities are minimum quantities required to perform the work shown on



the Plans. The Contractor shall verify each item's quantity and supply the quantities required to perform the work detailed on the Plans.

(\*\*\*\*\*)

#### **Approval of Shop Drawings For Illumination And Signals**

The review time for approval of shop drawings for illumination and signal work will require up to seven (7) calendar days from the date the Engineer receives the drawings until they are returned to the Contractor. The drawing submitted for approval shall be from the pre-approved list in Section 8-20.2 for Traffic Signal Standards in these Special Provisions. If the pole manufacturer determines that a standard plan is insufficient for the loading, they shall submit a shop drawing stamped by a professional engineer licensed in the state of Washington.

Deficiencies will require additional time for approval based on the degree of the deficiency and the additional review time required. If the shop drawings are returned to the Contractor to correct deficiencies, an additional seven (7) calendar days may be required for the approval process.

If more than seven (7) calendar days are required for routine approval of shop drawings that are complete and accurate, the effect which the additional review and approval time have on the completion time will be considered in evaluating a time extension. The Contractor will be granted an extension of time, in accordance with Section 1-08.5 of these Special Provisions and Section 1-08.8 of the Standard Specifications.

*(CCPW September 2017)*

#### **Specific Equipment Listings**

The Contractor shall provide a listing of all equipment provided for each traffic signal in table form, detailing the equipment provided. The signal will have the following information included on the signal equipment list:

- Intersection or Traffic Signal Name
- Specific electronic equipment item (traffic signal, control cabinet, etc.)
- Serial number of item
- A space for the County staff to log the date that the piece of equipment was provided to the Contractor for installation

The listing will be used by the County staff to record the equipment that was initially provided by the Contractor for cabinet testing, payment for material on hand, and ultimately to show what equipment was provided back to the Contractor for installation in the field.

Add the following new subsection:

*(CCPW January 2019)*

#### **Uninterruptible Power Supply (UPS)**

General Special Provision 8-20.2 Uninterruptible Power Supply is replaced with Special Provision 8-20.3(14) Signal Systems – Battery Backup System and Special Provision 9-29.14 Vacant – Battery Backup System.

Add the following new subsection:

(\*\*\*\*\*)

**School Speed Zone Flasher System**

School Speed Zone Flasher System indications shall include the following:

Solar Panel:

- The Solar Panel shall provide 55 watts at peak total output.
- The Solar Panel shall be affixed to an aluminum plate and bracket, adjustable at an angle of 45° - 60° to facilitate adjustment for maximum solar collection and optimal battery strength.
- The Solar Panel Assembly (panel, plate and bracket) shall be mounted on a 360° rotatable pole cap mount, to facilitate adjustment for maximum solar collection and optimal battery strength.
- Rated for 90mph wind conditions.
- The Solar Panel shall have a minimum operating temperature range of -40° to 185°F (-40° to 85°C).

Battery:

- The Battery shall be a 12VDC Absorbed Glass Mat (AGM) sealed lead-acid, maintenance-free battery.
- The Battery shall be rated at 45AH minimum and shall conform to Battery Council International (BCI) specifications.
- The Battery shall be solar-charged with a capacity up to 30 days of autonomy without sunlight, varying with ambient temperature and number of activations.
- The Battery shall be replaceable independently of other components.
- The Battery shall have a minimum operating temperature range of -76° to 140°F (-60° to 60°C).

Controller:

- The Controller shall be housed in a NEMA 3R rated aluminum enclosure, intended for indoor or outdoor use, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water, and damage from ice formation.
- The flashing output shall have 70 to 80 periods of flashing per minute, during which one of the yellow indications shall emit two medium pulses of light and the other yellow indication shall emit four short rapid pulses of light followed by a long pulse. The output current shall be

maintained as programmed for the duration of the pulse. The flashing output shall be programmable.

- The Controller shall be reconfigurable if future MUTCD or State guidelines specify a different flash pattern.
- The Controller shall be capable of storing input count data in preset intervals, with downloadable capabilities using optional Windows based PC software program and standard RS232 programming cable.
- The Controller shall be, in the unlikely event of failure, replaceable independently of other components.

Light Bar Housing and Indications:

- The Light Bar housing shall be constructed of durable, corrosion resistant powder-coated aluminum with stainless steel fasteners.
- Enclosed components shall be modular in design whereby any component can be easily replaced using common hand tools, without having to remove the housing from the pole.
- All mounting hardware required for mounting the Light Bar housing shall be provided, and shall be stainless steel.

### **8-20.3 Construction Requirements**

Section 8-20.3 is supplemented with the following:

(\*\*\*\*\*)

Fabricate and furnish a solar-powered Radar Speed Feedback Sign. Each sign shall be comprised of a retroreflective static sign that states "YOUR SPEED", an electronic Light Emitting Diode (LED) display that displays vehicle speeds, on-board processors, a radar sensor, a display cover and housing, solar panels, and batteries.

Configurations for installation of radar equipment shall be as detailed per the manufacturer's recommendations.

#### **8-20.3(1) General**

*(CCPW October 2019)*

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

Clark County has installed Medeco locks on cabinet doors and will soon install these on terminal cans. The green core locks provided by the Contractor on Contractor-supplied cabinets will be replaced with Medeco locks upon final acceptance of the cabinet by the County.

The Contractor may need access to cabinets that have Medeco locks installed. In this case, the Contractor will need to contact the Traffic Signal Maintenance Supervisor at 360-606-9009 to obtain a Medeco key. At a minimum, five days' notice is required to allow for the activation of the key and for staff availability to program the key.

After programming by the county, the key is activated daily by the Contractor using a free app called XT Air to be installed by the Contractor on the Contractor's phone. This app is available on the Google Play store or Apple app store. The Contractor will need to tell the County which cabinets need accessed and the days needed for access, and the key will be programmed to allow access only to those locations on those specific days. The key obtained from the County will expire every night at midnight and will need to be reactivated via Bluetooth using the XT Air app on the Contractor's phone. Upon completion of the work, the Contractor shall return the key to the County. Keys must be returned in good condition and be fully functional. The Contractor will be charged a full replacement cost for any damaged or lost keys estimated at \$150 per key. Damage assessment will be determined by the County using a functional test to determine if the key is able to open locks.

Note that this key is restricted to Clark County and is unusable on any lock not owned by Clark County. For more information on the use and activation of this key, contact the Clark County Traffic Signal Maintenance Supervisor.

### **8-20.3(4) Foundations**

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

(\*\*\*\*\*)

Foundations for various types of standards shall be as follows, using WSDOT Standard Plans:

Type PS	As noted on Standard Plan J-20.11 or J-21.10, as noted on the Plans
Type III	As noted on Standard Plan J-26.10 and on the Plans.

#### Standard Pole Foundations:

#### **Minimum Traffic Signal Standard Foundation Depths\***

Signal Standard <u>Type</u>	Foundation Size and Shape <u>and Shape</u>	Minimum Foundation Depth **
III	3' diameter round	15-ft
III	3' by 3' square	10-ft
III	4' by 4' square	10-ft

\* The depths stated here assume alternate #1 construction method, as noted on Standard Plan J-26.10, in which the concrete foundation is cast directly against the undisturbed earth of a drilled shaft. Requests for use of alternate #2 construction method, in which the concrete foundation is cast within a metal pipe, shall be approved by the Engineer and Clark County prior to mobilization.

\*\* Depths greater than these will be required only in those cases where unusually poor soil conditions and/or buried obstacles are encountered. Depths less than these will be allowed for a base design having a 4-foot square or 5-foot diameter circular cross-section, where every vertical foot below 1 foot is equivalent to 1.5 feet of foundation depth at a 3-foot square cross-section. For example, if a 13-foot-deep foundation is required for a 3-foot square cross-section, a full depth 4-foot square or 5-foot diameter circular cross-section foundation that is 9 feet deep would be allowed.

### **8-20.3(5) Conduit**

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

(\*\*\*\*\*)

#### **Mule Tape and Tracer Wire in all new conduits**

A 12-gauge stranded tracer wire shall be installed in all conduits. A mule tape pull line shall be installed in each conduit. The pull line shall have a tensile strength of 1800 lbf. Any existing pull lines or tapes utilized by the Contractor shall be replaced with a new pull line.

(\*\*\*\*\*)

#### **Mule Tape and Tracer Wire in all existing conduits**

The Contractor shall confirm the presence of a 12-gauge stranded tracer wire and of a mule tape pull line in each existing conduit. The Contractor shall confirm each pull line has a tensile strength of at least 1800 lbf. Any deficient tracer wires or pull lines shall be replaced with new materials meeting the above specifications for new conduits.

### **Section 8-20.3(5)B Conduit Type**

Section 8-20.3(5)B, Paragraph 4 is revised to read:

(\*\*\*\*\*)

Conduit runs, including outer-duct, that do not enter the traveled way or shoulders shall be Schedule 80 HDPE, Schedule 80 PVC or rigid metal.

### **Section 8-20.3(5)D Conduit Placement**

Section 8-20.3(5)D, Paragraph 1 is revised to read:

(\*\*\*\*\*)

Conduit shall be laid so that the top of the conduit is a minimum depth of:

- 36-inches below the finished grade of curb and sidewalk, or
- 36-inches below the top of the roadway base, or
- 48-inches below the bottom of railroad ties under railroad tracks unless otherwise specified by the railroad company, or
- 36-inches below the finish grade in all other areas.

All conduit installed within a bioretention cell, rain garden, or similar stormwater feature (crossing, or alongside, but not under new concrete) shall be placed such that the top of the conduit is 48-inches below the grade of the gutter in the adjacent finished curb elevation.

All new conduit crossing roads shall be installed to not disturb the existing pavement or sidewalk.

### ***Section 8-20.3(5)E Method of Conduit Installation***

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

*(CCPW September 2017)*

The conduit is schematically shown on the Plans as being located near the sidewalk. Conduit shall be placed under new sidewalk. Conduit may be placed next to existing sidewalk if the conduit can be placed within the public right of way.

A 12-gauge stranded tracer wire shall be installed in all new conduits. A tape pull line shall be installed in all new conduits. The pull line shall have a tensile strength of 1800 lbf. Any existing pull lines utilized by the Contractor shall be replaced with a new pull line.

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

Section 8-20.3(6) is supplemented with the following:

*(CCPW September 2017)*

All junction box locations shown on the plans are diagrammatic and may be adjusted in the field to provide compatibility and ease of installation within curb and street excavations. The Engineer, prior to installation, must approve alternate junction box locations.

All junction boxes shall be located outside of paved or areas with concrete pavement / concrete sidewalk, unless the Engineer requires the specific location. The Contractor shall verify each junction box location with the Engineer prior to installation.

All junction boxes that are installed outside of sidewalk areas shall have a concrete Security Collar installed around them in accordance with WSDOT Standard Plan J-40.01.

When adjacent junction boxes are installed, they shall be separated by at least three feet (3') if they are connected with conduit to each other. If they are not connected together with conduit, they shall have a minimum separation of 4-inches.

All junction boxes shall be flush with the grade of the adjacent land or sidewalk as directed by the Engineer.

#### ***Slip-Resistant Application for Junction Boxes and Cable Vaults Within Sidewalk***

All junction box and cable vault lids within the sidewalk shall have special non-slip surfaces applied. All lids with the special non-slip surface provided on the project shall have same manufacturer of non-slip surface.

When Pull Boxes or Cable Vaults are used, all wiring within these containers shall be stored using hangers and shall not be coiled on the bottom of the container.

### **8-20.3(8) Wiring**

The tenth paragraph of Section 8-20.3(8) is revised to read:

*(CCPW September 2017)*

#### Slack Cable for Inductance Loops

Each loop lead-in shall have 10-ft of spare lead-in wire spooled in the junction box where the loop lead-in wiring is spliced to the loop wire. Each loop wire shall have 10-ft of spare loop wire spooled in the junction box where the splice is made.

No spare loop lead-in wire shall be spooled in Type 1 Junction boxes where the loop lead-in wire is passing through.

#### Slack Cable In Type 2 Junction Box Near Poles

The Contractor shall spool 10-ft of wire for all conductors, illumination circuits, pedestrian detection, video detection, radar detection, spare wires to the terminal cabinets and emergency vehicle detection in each Type 2 junction box nearest each signal pole. Any wiring passing through the junction box nearest a signal pole destined to another signal pole shall not be spooled in the junction box.

#### Slack Cable In Type 8 Junction Box Near Poles and Signal Cabinet

The Contractor shall spool 20-ft of wire for all conductors, illumination circuits, pedestrian detection, video detection, radar detection, spare wires to the terminal cabinets and emergency vehicle detection in each Type 8 junction box nearest the traffic signal cabinet.

#### Slack Cable in Traffic Signal Cabinet

The slack wire at the traffic signal cabinet shall instead be spooled in the junction box nearest the cabinet. The well of the traffic signal cabinet shall hold no more than one circle of wire; all excess shall be pulled back to the nearest junction box.

On new signal installations, the Contractor shall provide double-depth Type 8 junction boxes nearest the traffic signal cabinet to allow for the quantity of wire being spooled in the Type 8 junction box.

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

*(\*\*\*\*\*)*

#### **Field Wiring Chart**

501	AC+ Input	5A1-5D5 Emergency Pre-empt
502	AC- Input	541-580 Coordination
503-510	Control Display	581-599 Spare
511-515	Sign Lights	SBA Self-Blank Sign
516-520 Railroad Pre-empt		SBC Self-Blank Sign Common

Movement Number	1	2	3	4	5	6	7	8
-----------------	---	---	---	---	---	---	---	---

Vehicle Signal Head

Circular Red	611	621	631	641	651	661	671	681
Circular Yellow	612	622	632	642	652	662	672	682
Circular Green	613	623	633	643	653	663	673	683
Wired Spare	614	624	634	644	654	664	674	684
Wired Spare	615	625	635	645	655	665	675	685
AC-(Common)	616	626	636	646	656	666	676	686
Red Arrow	617	627	637	647	657	667	677	687
Yellow Arrow	618	628	638	648	658	668	678	688
Green Arrow	619	629	639	649	659	669	679	689

Overlap	A	B	C	D
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Vehicle Signal Head

Circular Red	6A1	6B1	6C1	6D1
Circular Yellow	6A2	6B2	6C2	6D2
Circular Green	6A3	6B3	6C3	6D3
Wired Spare	6A4	6B4	6C4	6D4
Wired Spare	6A5	6B5	6C5	6D5
AC-(Common)	6A6	6B6	6C6	6D6
Red Arrow	6A7	6B7	6C7	6D7
Yellow Arrow	6A8	6B8	6C8	6D8
Green Arrow	6A9	6B9	6C9	6D9

Movement Number	1	2	3	4	5	6	7	8
-----------------	---	---	---	---	---	---	---	---

Pedestrian Signal Heads & Pushbuttons

Walker	711	721	731	741	751	761	771	781
Hand (Don't Walk)	712	722	732	742	752	762	772	782
AC-	713	723	733	743	753	763	773	783
Detection	714	724	734	744	754	764	774	784
Common-Detection	715	725	735	745	755	765	775	785
Spare	716	726	736	746	756	766	776	786
Spare	717	727	737	747	757	767	777	787
Spare	718	728	738	748	758	768	778	788
Spare	719	729	739	749	759	769	779	789

Detection

Spare	811	821	831	841	851	861	871	881
Spare	812	822	832	842	852	862	872	882
Spare	813	823	833	843	853	863	873	883
Spare	814	824	834	844	854	864	874	884
Spare	815	825	835	845	855	865	875	885
Spare	816	826	836	846	856	866	876	886
Spare	817	827	837	847	857	867	877	887



Spare	818	828	838	848	858	868	878	888
Spare	819	829	839	849	859	869	879	889
Supplemental Detection								
Spare	911	921	931	941	951	961	971	981
Spare	912	922	932	942	952	962	972	982
Spare	913	923	933	943	953	963	973	983
Spare	914	924	934	944	954	964	974	984
Spare	915	925	935	945	955	965	975	985
Spare	916	926	936	946	956	966	976	986
Spare	917	927	937	947	957	967	977	987
Spare	918	928	938	948	958	968	978	988
Spare	919	929	939	949	959	969	979	989

In addition to the requirements of Section 9-29.3 of the Standard Specifications and revisions to Section 9-29.3 within these Special Provisions, Section 8-20.3(8) is supplemented with the following:

*(CCPW September 2017)*

The termination of all field wiring, except those used for the electrical service, shall be made by utilizing nylon-insulated spade terminals of the proper size/color for the wire AWG and installed on the wire with a compound action non-piercing crimping tool (Thomas & Betts model No. WT1455, Xcelite model No. MAC-2210, Paladin model No. PA 1305, or approved equal). Any field wiring connection terminals that are not installed in accordance with the above tool(s) shall be immediately rejected and replaced by the Contractor prior to turn-on of the signal system.

The ends of every conductor at each wire termination, splice, connector or device shall have a PVC marking sleeve on the insulation that bears its circuit number, as indicated in the field wiring chart and the cabinet wiring requirements in these Special Provisions.

The PVC marking sleeve shall have the circuit number printed by machine, not hand written.

The traffic signal system has been designed for the use of multi-conductor cable and single conductors for traffic control. All single conductors shall be No. 12 AWG Class B stranded copper conductors having chemically cross-linked polyethylene Type USE insulation.

Single-conductor wires shall be used for all signal system power, inductive loops, illumination, and spare wires.

### ***Illumination Splices***

Splices below ground in junction boxes shall be a solid body mechanical splice device containing one connection port for each conductor entering the splice. The mechanical splice shall consist of (hex-head) screw type compression grips with one port provided for each conductor. The mechanical splice shall accept both copper and aluminum conductors. Splice ports shall be sized and rated for the conductor sizes used (Typically AWG 14 to AWG 2/0). No tape, epoxies, coatings, or heat shrink are permitted. The mechanical splice shall be UL486D listed for direct burial and

submersible application, shall comply with ANSI C119.1 specification and shall be rated for minimum of 600 Volts with a minimum temperature range of 0° F to 70° F.

### ***Wiring Nomenclature***

The wiring nomenclature for Clark County signals is detailed on the Plans and in these Special Provisions. The Contractor shall mark the Clark County signal's wiring consistent with the Clark County nomenclature.

### ***Mechanical Lugs***

All field wiring which has two or more wires terminated on a terminal strip shall be connected to the terminal strip with an Ideal product dual-rated panel board mechanical lug, or approved equivalent.

The RAM submittal shall include a catalog cut sheet for the mechanical lugs.

### ***Spare Wiring Between Traffic Signal Cabinet and Terminal Cabinets on Signal Poles***

The traffic signal design may include spare wiring between the traffic signal cabinet and the terminal cabinets on the signal poles.

The terminal cabinets on the mast arms shall include terminal strips, and the spare wires shall be terminated on the terminal strips. The Contractor shall label each spare wire bundle with a nylon tag, stating the pole number and the wire bundle number. If three spare 5-cc wires are destined to the terminal cabinet on pole 1, they shall be labeled "Pole 1, Spare 1", "Pole 1 Spare 2", "Pole 1 Spare 3". The remainder of the wiring tags shall be consistent with this scheme of naming.

The nylon tags shall be fully within the terminal cabinet, visible when the door on the terminal cabinet is open. The same wires shall be labeled the same way in the cabinet; however, the nylon tags shall be secured near the end of the wire bundle, with the wire bundle taped with electrical tape. The spare wire bundles shall not be terminated on the field terminals in the traffic signal cabinet.

### ***Traffic Signal Cabinet Wiring Requirements***

All field terminals and wires in the controller cabinet shall be labeled consistent with the standards of the field wiring chart above and the following cabinet wiring requirements:

All field terminals and wires in the controller cabinet shall be labeled consistent with the standards of the cabinet termination drawings and wiring nomenclature.

#### **Copper Ethernet Patch Cables**

Each copper patch cable within the traffic signal cabinet, including those between the Ethernet switch and individual components, shall have the exterior jacketing labeled at each end to indicate the device to which it is connected.

Each patch cable shall be tied to the cabinet, with a loop sufficient to allow plugging and unplugging each end of the patch cable from the components in the cabinet, allowing for a neat and orderly appearance of the cables.

The location of the tie points of all wiring, fiber, and patch cables in the cabinet shall be sufficient to hold the wiring, fiber, and cables, not kinking or over-bending the wires, fiber, or cable, while also not restricting the maintenance, removal, or modification of settings to the equipment in the cabinet.

### **8-20.3(11)A Traffic Signal System Testing**

Section 8-20.3(11)A is supplemented with the following:

*(CCPW September 2017)*

Shop Testing Procedure – County Signals

#### **Product Listing**

The Contractor shall provide a single listing of all traffic signal equipment supplied under the contract, including make, model, and serial number, and the date provided, to the Engineer and to the Clark County Public Works Department.

This listing will be used by the Engineer and Clark County to ensure that all equipment was delivered to the Clark County Public Works Department for testing, and verification that all equipment is located in the field.

The complete listing of equipment shall be provided to the Engineer and the Clark County Public Works Department prior to the beginning of cabinet testing.

#### **Shop Testing**

All signal control equipment in the controller cabinet and battery backup systems being supplied under this contract shall be shop-tested to the satisfaction of the Clark County Traffic Signal Engineer. The equipment also will be functionally tested after installation in the field. Shop testing will be at the Clark County Traffic Signal Maintenance Facility located at the address shown below. Cabinets shall be shipped to the following address:

Clark County Public Works Department  
Traffic Signal Shop  
Attention: Eric Lee  
11608 NE 149th Street  
Brush Prairie, WA 98606

Shop testing will verify specific Plan requirements, in addition to testing requirements listed in the Standard Specifications. All costs for transporting signal control equipment shall be included in the Contractor's bid price for the respective items. The Contractor or a designated representative shall assemble the cabinet and related signal equipment ready for testing.

A complete demonstration by the Contractor or a designated representative of all integrated components satisfactorily functioning shall be required. All control elements shall function properly as a complete system. Any malfunction shall stop the test until all parts are satisfactorily operating.

All components of the interconnected signal system shall be totally integrated for the test. The Contractor shall demonstrate all components function properly, which shall not relieve the Contractor of responsibility for the proper functioning of all previously tested field installed control gear.

Five (5) working days' notice to the Engineer and the Clark County Public Works Department is required prior to the start of the test period.

#### Ethernet Cabinet Communications Integration Testing

Each of the components connected to the Ethernet hub within the cabinet will be demonstrated as being able to communicate with the related software on a PC connected to the cabinet via the Ethernet hub.

The demonstration shall include, but not be limited to, demonstrating that each of the following cabinet components communicate to the PC connected via Ethernet hub:

- Optical Preemption System Phase Selector
- Controller
- Malfunction Management Unit
- Video Detection System
- APS Control Unit
- Ethernet hub and switches

#### **Controller Delivery Dates for Testing**

The Contractor shall deliver the 2070 controllers for all signal cabinets to the County signal shop at least 14 days prior to any cabinet testing.

#### **Cabinet Delivery Dates for Testing**

The Contractor shall provide to the Engineer a detailed list of delivery dates for signal cabinet testing to Clark County Public Works Traffic Signal Shop, as described in Section 1-08.3.

The detailed list of delivery dates shall account for the time required for shipment of the cabinet to the County Traffic Signal Shop and for scheduling of testing at the County Traffic Signal Shop.

#### **Signal Cabinet Testing at County Shops**

As part of the cabinet testing, the traffic signal cabinet vendor for the Contractor shall provide for testing the signal cabinets to specifically set up and test all communications and functionality of equipment in the signal cabinet.

#### Vendor Representation During Cabinet Testing

The Contractor shall arrange to have a qualified representative of the traffic signal controllers and signal controller intersection software available for phone consultation on the day of the signal cabinet testing. The Contractor shall arrange to have a

representative for the vendor that supplies the traffic signal cabinets and other electronic equipment inside the traffic signal cabinets present at the Clark County Signal shop during the days of cabinet testing.

### **Release of Signal Equipment to the Contractor**

Clark County Public Works will run the cabinets under loading in the signal shop for a minimum of 7 calendar days. If a cabinet goes into flash, or fails in another manner, during this 7-day period, the Contractor shall arrange with the vendor to work with County staff to address why the cabinet failed. This arrangement may range from swapping out a defective component in the cabinet to having the cabinet vendor come back to the County shops to modify the cabinet operation. After each failure of the cabinet, the cabinet will be tested for a minimum of 7 calendar days in the County's signal shop prior to release of the cabinet to the Contractor for installation.

The Contractor's vendor shall have all components within the cabinet fully functional prior to beginning the 7-day test period.

After the signal control equipment is successfully shop-tested, the County will provide notice to the Contractor to remove the traffic signal cabinet from the County shop. The pluggable components shall remain at the County's traffic signal shop until the signal turn-on procedure is ready to begin.

The Contractor shall take delivery of the shop-inspected, approved cabinets within 7 calendar days of notification by the County of acceptance of the equipment. If the Contractor does not take delivery of the approved cabinets within 7 calendar days of notification, the County shall drop ship the cabinet to the Contractor's office, charging all shipping costs to the Contractor.

The County signal shop has the space and equipment to configure and run 7-day tests on a total of 4 traffic signal cabinets. The signal shown on the Plans is a portion of the signals that will be under construction while this Contract is under construction. Traffic signal cabinets will be configured and tested on a first-come, first-served basis, based on the delivery date of the equipment to the signal shop. The Contractor's schedule for testing, and ultimately installing, signal equipment on this Contract may need to be adjusted, depending on the timeliness of the Contractor's delivery of equipment and other projects' cabinets in the shop.

The Contractor shall store the cabinet to protect against vandalism, weather, and all other damage until the cabinet is ready to be moved to the intersection for turn-on.

### **8-20.3(11)B Traffic Signal System Turn-On**

The last paragraph of Section 8-20.3(11)B is revised to read:

(\*\*\*\*\*)

Unless approved by the Engineer, no change to traffic signal stop-and-go operation will be allowed between 7:00 a.m. to 10:00 a.m. and 2:00 p.m. to 6:00 p.m. on Tuesday through Thursday, nor will signal operation changes be allowed on Monday, Friday, weekends, holidays, or the day preceding or following a holiday.

## **8-20.3(14) Signal Systems**

Section 8-20.3(14) is supplemented with the following:

(\*\*\*\*\*)

### **Video Detection Continuous Wiring**

The video detection wiring shall be as required by the manufacturer of the video detection system. The video detection system shall have continuous runs of wiring between the traffic signal cabinet and the video detection camera mounted on signal standard #1 or between the traffic signal cabinet and the vendor-supplied repeater within signal standard #3.

*(CCPW September 2017)*

### **Optical Preemption System Continuous Wiring**

The signal shall have continuous runs of wiring between the traffic signal cabinet and each optical preemption system detector. Splices shall not be installed in the continuous emergency vehicle preemption wiring. The wiring for the optical preemption system shall not be terminated in the terminal cabinet on the poles.

### **Signal Conductor Wiring**

The wiring used for signal conductors shall have continuous runs of wiring between the traffic signal cabinet and the terminal cabinet mounted on the traffic signal cabinet. The wiring shall be terminated on wire terminals in the terminal cabinet. Each traffic signal head shall have a unique single, or pair of 5-conductor wires connecting the signal head to the terminals in the terminal cabinet. Field wiring for signal heads will not be daisy chained between signal heads. No splices will be allowed in the field wiring between the traffic signal cabinet and the terminal cabinet. No splices will be allowed in the field wiring between the terminal cabinet and the signal head.

### **Luminaire Conductor Wiring**

For steel pole luminaires, the illumination system wiring shall be continuous from the lighting circuits in the electrical service to the base of the pole, where a fuse is installed, then run continuous from the fuse to the luminaire housing. This shall include the slack wire that is required in junction boxes.

For all other illumination wiring, the wiring shall be continuous from the lighting circuits in the electrical service to the luminaire head, with the slack wire required in junction boxes.

*(CCPW January 2019)*

### **Battery Backup System**

The Contractor shall install a Battery Backup System (BBS, also known as a universal power system, or UPS) in a 334-style cabinet as shown on the Plans. The BBS shall be installed per the manufacturer's recommended practices.

BBS systems shall be provided and installed as follows.

The completely assembled BBS system, shall be obtained by the Contractor from the following manufacturer:

Alpha Technologies, Inc.  
3767 Alpha Way  
Bellingham, WA 98226  
Phone: 360 647 2360  
Email: [alpha@alpha.com](mailto:alpha@alpha.com)  
<http://www.alpha.com>

The BBS shall be wired to the circuit breaker in the electrical service that powers the traffic signal cabinet and ITS cabinet. The BBS shall not be wired to the street illumination.

The Contractor shall mount the BBS equipment in an ITS 334 shell cabinet on an 8-inch riser.

Two Maintenance and Operations Manuals from Alpha Technologies shall be provided for each BBS cabinet.

### **Equipment To Be Fully Functional At Signal On Day Of Turn-On**

Where construction signing (Signal Revision Ahead signs) is required in Section 1-10.3(3)A, these construction warning signs shall be installed prior to the day of the signal turn-on with covers over the signs. These signs shall be uncovered just prior to the traffic signal cabinet turn-on.

On the day of each signal turn-on, the W3-3 / W16-8P sign assemblies shall be in place. The signs to be removed on the approaches shall also be removed on the day of the signal turn-on. This work is specified in Section 8-21.

The following equipment shall be fully functional prior to the end of the day that each signal is turned on:

- Vehicle and Pedestrian Signal Indications
- Pedestrian Pushbuttons
- Video Advance Bar Detection System
- Video Stop Bar Detection System
- Optical Preemption System
- Cable Modem Communication System
- Illumination System
- Battery Backup System
- Regulatory and warning signing at the signal and on the approaches.

### **Equipment To Be Fully Functional Within 14 Calendar Days Of Turn-On**

*Pan / Tilt / Zoom Cameras*

The Pan / Tilt / Zoom cameras shall be fully functional within 14 calendar days of the signal turn-on.

(\*\*\*\*\*)

## **Video Monitoring System**

### New PTZ Cameras

The video and data will be transmitted to the Clark County Public Works Building via a communications network using digitized video and Ethernet switches. The digitized video may be provided using separate video encoders or IP cameras.

The Contractor shall provide, install, configure, and test materials for the new pan-tilt-zoom (PTZ) cameras being installed by this project. The Contractor shall install PTZ cameras at the intersection as shown on the Plans and described in the Special Provisions. The Contractor shall mount the cameras on new luminaire arms. The final camera mounting locations shall provide the following camera viewing capabilities. The Contractor shall firmly attach the dome system to the luminaire arms via an adapter or bracket as shown in the Plans and specified in Section 9-29.14.

The wiring installation will require a hole be drilled into the luminaire arm. The edges of the drilled hole shall be smoothed. The contractor shall install a watertight gland nut (or grommet) in this hole that securely holds the wiring. All cables shall be:

- Installed without damaging the conductors or insulation;
- Installed without kinks;
- Run continuously between terminations without splices;
- Installed with sufficient slack for equipment movement; and
- Rated for outdoor use and resisted to water and UV radiation

When cameras are initially installed, each camera shall be in a position where its view of the roadway will be not obstructed by the equipment it is mounted on. The cameras shall be capable of seeing all four intersection approaches without their view being blocked by the signal equipment.

This contract includes Contractor-provided and -installed PTZ cameras, camera mounts, camera power supplies, camera video/data/power cabling, and communications interfaces required to allow the video encoder system to make the camera pan / tilt / zoom, and Cat5e cables. The PTZ camera assembly shall be installed such that the camera viewing coverage is optimized as directed by the Engineer.

A manufacturer's representative shall be present on the day of signal turn-on. Furnish, install, and fully adjust the camera with the associated lens, power supplies, housing, pan/tilt units, and all necessary cabling, etc., to make the assembly complete and operational. Options involved in setup, configuration, and data entry shall be discussed with the Engineer prior to entry. Installation and configuration of video equipment and cameras shall be performed by personnel experienced in the installation and configuration of similar systems. Properly terminate all the electrical cables to the camera and firmly attach them.



### System Testing

Video monitoring system testing shall include tests on the video system components at the following points (a) pre-installation testing, (b) subsystem testing after installation in the field, but prior to connection to any other portion of the system, and (c) final system testing after connection of the complete system.

### Pre-Installation Testing

Pre-inspection testing shall include testing of all material, equipment and cables in a laboratory environment prior to delivery to the site. Use of laboratory facilities shall be arranged by the Contractor. The tests shall either be conducted at the equipment manufacturer's premises or at a laboratory arranged by the Contractor. Configure a proof-of-concept to demonstrate the operation of the system with the components intended for implementation prior to installation in the field. With the proof-of-concept, demonstrate the following:

- Verify the operation of camera, video encoder, Ethernet switches, and camera control software as an integrated system.
- Demonstrate pan/tilt/zoom functionality and video quality performance using video viewing and control software and over a simulated Ethernet network.

### Subsystem Testing

Demonstrate the pan/tilt/zoom functionality and video quality performance for each camera site. Notify the County of intent to proceed with subsystem testing 48 hours prior to commencement of each test. Pan/tilt/zoom control shall be performed using encoded video and camera control software.

Provide installation documentation and test results for all material, equipment, and cable upon completion of the subsystem testing and prior to the final system testing. Installation documentation shall include the following as appropriate:

- Model, part number and serial number for all material and equipment
- Test equipment model number, serial number, settings, and date of last calibration
- All factory, laboratory, and site test results.

### Final System Testing

Test each camera image and verify camera control using the encoded video and camera control software. Document all functional test results. If the County determines any aspect of the functional tests have failed, cease testing, determine cause of failure and make repairs to satisfaction of County. If the County directs, repeat functional test from the beginning.

Final system testing is considered complete upon demonstration of video quality and control functions (pan/tilt/zoom) using camera control software from the County facilities.

### System Documentation

Provide a vendor manual with each product installed. The vendor manual shall be of good commercial quality and shall have sufficient information to support correct installation, set up, operation and maintenance of the product.

#### **8-20.3(14)A Signal Controllers**

The WSDOT GSP Section 8-20.3(14)A is replaced with Special Provision Section 8-20.3(11)A Traffic Signal System Testing.

#### **8-20.3(14)B Signal Heads**

Section 8-20.3(14)B is supplemented with the following:

(\*\*\*\*\*)

The Contractor shall mount all traffic and pedestrian signal heads on the mast arms and poles, as shown on the Plans, using type N mounts.

The Plans show the relative location of signal heads in relation to the vehicle lanes of travel. The Contractor shall verify all locations of each of the signal heads with the Engineer prior to installing the signal heads on any mast arm.

Where the Plans show new signal heads, or repositioned signal heads, the Contractor shall install new 5-conductor wiring from each head to the terminal cabinet. The Contractor shall install two 5-cc wire bundles between the head and terminal cabinet where the signal head is a 5-section signal head or a 4-section flashing yellow arrow signal head.

The Contractor shall not install the signal heads onto new poles and mast arms any more than fourteen (14) calendar days prior to turning on the signal into normal stop-and-go operation. The Contractor shall seal any holes to keep water and other objects from entering the pole or mast arm. After the signal heads are installed, they shall be fully covered with black plastic sheeting material until the signal is turned on to normal stop-and-go operation.

#### **8-20.3(14)E Signal Standards**

Section 8-20.3(14)E is supplemented with the following:

*(CCPW September 2017)*

##### Traffic Signal Pole Tags

Each component of each pole shall include a metal tag that is riveted to the component that states in 1-inch minimum-height capital letters the following information:

Intersection Name  
Pole #  
Manufacturer  
Manufacture Date

Each luminaire arm, traffic signal pole, and traffic signal mast arm shall include the riveted metal tag with the above listed information. If the Contractor provides a pole

configuration where multiple mast arm sections are connected to make a longer mast arm, then each unique section of each mast arm shall be tagged.

*(CCPW September 2017)*

#### Mast Arms and Signal Mounting

The mast arms for signal poles shall be delivered without tenons for traffic signal heads or for the optical preemption system detectors. The Contractor shall install the traffic signal heads mounts as shown on the Plans. The mounts shall be delivered with steel cable mounts.

The mounts are intended to allow movement of the signal heads, in case the pole foundation is moved laterally due to utility conflicts. The Contractor shall verify the locations of the signal heads to be mounted with the engineer prior to installation on the mast arm.

The traffic signal poles are to be delivered with the mast arm as detailed in the plans. The mast arms are longer than required for the signal head locations. After the mast arm and signal heads are installed, the Contractor shall cut the end of the mast arm off, and cap the end – sealing the end of the mast arm. Not all signal mast arms are to be cut by the Contractor, as extra length is necessary to accommodate future intersection configurations. The Contractor shall verify with the Engineer the length of mast arm to be cut. The mast arm should extend beyond the center of the mount as shown on the plans. The intent of this specification is that if the pole foundation needs to be moved laterally, the mast arm will be long enough to allow for placing the signal heads laterally in the proper area for the driver's view.

New traffic signal heads shall be mounted using mounts, mounted including tether line, and wire rope (cable mount) not metal band style mounting. The cables shall be provided with sufficient length to install the mount. Mounts shall be provided to allow the signal head to move vertically, rotate and swivel.

Pedestrian indications shall be installed as shown on the Plans using Type N mounts.

#### Signal Head Covers

Traffic and pedestrian signals that have been installed and have not yet been energized shall be covered with traffic signal head covers. The covers shall be tan or yellow with a vertical message "NOT IN SERVICE" in white on each cover. Plastic bags or cloth materials shall at no time be used to cover vehicle or pedestrian heads. At no time shall vehicle and/or pedestrian signals that have been installed and are not in operation remain uncovered.

Emergency signals and school speed zone flashers that have not been energized shall also be covered.

The temporary coverings remain the property of the Contractor until the signal is energized and is accepted by the Maintaining Agency, upon which they become the property of Contractor. The Contractor shall maintain the coverings so that no tears or rips appear in the covers before the traffic signal is turned on and accepted.

Signal head covers shall meet the requirements of Section 9-29.16(4).

#### Emergency Vehicle Detector Mounting

All optical preemption system detectors shall be drilled and tapped into the neutral axis (center) of the pole, and fitted with schedule 80 threaded pipe fittings and 90-degree elbow to place detector either 6-inches over top of mast arm, or 6-inches over adjacent signal backplates or sign blades.

### **8-20.3(14)F Traffic Signal System Description**

Section 8-20.3(14)F is added to Section 8-20.3(14):

(\*\*\*\*\*)

For the purposes of this section, the front door is the door that opens to reveal the front panels of the controller, detection, etc., in the cabinet.

After the signal equipment has been released arrived at the County signal shop, tested, and released to the Contractor as described in Section 8-20.3(11), the Contractor shall submit a schedule for the proposed cabinet installations.

The Contractor shall not schedule signal work that involves the new traffic signal cabinets until all the signal equipment has been released from the County signal shop.

The Contractor may work on installing conduit, junction boxes, field wiring, signal poles, cabinet foundations, and new electrical services for the signal prior to the release of the traffic signal cabinets.

Add the following new subsection:

(\*\*\*\*\*)

### **8-20.3(18) Rectangular Rapid Flashing Beacon (RRFB) System**

RRFB system shall be furnished and installed by the Contractor and shall comply with all other specifications for RRFB systems. The system shall include all materials and work needed to provide a complete working system as shown on the plans, including but not limited to pedestrian push buttons, beacon heads, poles, solar panels, foundations, conduit, junction boxes, and controller and service cabinets and components needed for complete operation. All the components shall be installed per manufacturer's recommendations and per the Plans. The method and locations of installation shall be approved by the Engineer in the field, prior to drilling holes in the supporting poles.

Add the following new subsection:

(\*\*\*\*\*)

### **8-20.3(19) School Speed Zone Flasher System**

The School Speed Zone Flasher system shall be furnished and installed by the Contractor and shall comply with all other specifications. The system shall include all materials and work needed to provide a complete working system as shown on the plans, including but not limited to poles, foundations, sign or signs, flashers, control

cabinets, solar panels, junction boxes, conduit, and components needed for complete operation. All the components shall be installed per manufacturer's recommendations and per the Plans. The method and locations of installation shall be approved by the Engineer in the field, prior to drilling holes in the supporting poles.

#### **8-20.4 Measurement**

Section 8-20.4 is supplemented with the following:

(\*\*\*\*\*)

No specific unit of measurement will apply to the lump sum items for rectangular rapid flashing beacon system, but measurement will be for the sum total of all items for a complete system to be furnished and installed.

The lump sum contract price for "Rectangular Rapid Flashing Beacon System" shall be full pay for the construction of the complete electrical systems, as described in the Plans, and herein specified, including excavation, backfilling, concrete foundations, conduit, wiring, restoring facilities destroyed or damaged during construction, and for making all required tests. All additional materials and labor, not shown in the Plans or called for herein and which are required to complete the electrical system shall be included in the lump sum contract price.

No specific unit of measurement will apply to the lump sum items for school speed zone flasher systems, but measurement will be for the sum total of all items for a complete system to be furnished and installed.

The lump sum contract price for "School Speed Zone Flasher System" shall be full pay for the construction of the complete electrical systems, as described in the Plans, and herein specified, including excavation, backfilling, concrete foundations, conduit, wiring, solar panels, restoring facilities destroyed or damaged during construction, and for making all required tests. All additional materials and labor, not shown in the Plans or called for herein and which are required to complete the electrical system shall be included in the lump sum contract price.

Radar speed feedback signs will be measured per each.

#### **8-20.5 Payment**

Section 8-20.5 is supplemented with the following:

(\*\*\*\*\*)

The lump sum Contract price for "Traffic Signal System" shall include the traffic signal illumination system as shown on the Plans.

(\*\*\*\*\*)

"Rectangular Rapid Flashing Beacon System", lump sum.

The lump sum contract prices for the bid items listed below shall be full pay for all costs involved in furnishing all labor, materials, tools, and equipment necessary or incidental to the construction, and installation of the complete and operable rectangular rapid flashing beacon systems.

“School Speed Zone Flasher System”, lump sum.

The lump sum contract price for the “School Speed Zone Flasher System” shall be full pay for all costs involved in furnishing all labor, materials, tools, and equipment necessary or incidental to the construction, and installation of the complete and operable school speed zone flasher systems including but not limited to, excavation, clearing and grubbing, seeding/landscape restoration, wiring, solar panel, and backup battery, backfill, and compaction.

“Radar Speed Feedback Sign”, per each.

The unit Contractor price per each for “Radar Speed Feedback Sign” shall be full payment for all costs, including but not limited to furnishing, installing, poles, and pole foundations, testing of equipment, and all other work described in this specification and in the Plans.

## **8-21 Permanent Signing**

### **8-21.1 Description**

Section 8-21.1 is supplemented with the following:

(\*\*\*\*\*)

All permanent signing shall be provided and installed by the Contractor.

The Contractor shall provide and install the permanent signing on all traffic signal poles and traffic signal mast arms at the signalized intersection as shown on the Plans.

The Contractor shall be responsible to confirm the lengths of posts necessary to install the signs as shown on the Plans.

### **8-21.3 Construction Requirements**

Section 8-21.3 is supplemented with the following:

(\*\*\*\*\*)

The Contractor shall meet with the Engineer at least 14 calendar days prior to the Contractor beginning any permanent signing installation to review the marking methods, and symbols used by the Engineer to lay out the permanent signing.

The Contractor shall submit shop drawings for all signs to be provided and installed to the Engineer for approval. No sign shall be manufactured without an approved shop drawing for that particular type of sign.

### **8-21.5 Payment**

Section 8-21.5 is supplemented with the following:

(\*\*\*\*\*)

“Permanent Signing,” lump sum.

The lump sum Contract price for “Permanent Signing” shall include furnishing and installing all signs, posts, anchors, fasteners, and all other materials to provide and install the signs as shown on the plans. This bid item also includes all work and materials necessary for any core drilling of concrete or asphalt to install the sign post. All costs for sign covering shall be included in the lump sum contract price for Permanent Signing.

Signing installed on the traffic signal poles shall be included in the lump sum Contract price for the traffic signal system.

## **8-22 Pavement Marking**

### **8-22.5 Payment**

Section 8-22.5 is supplemented with the following:

(\*\*\*\*\*)

“Painted \_\_\_\_\_ Line”, per linear foot.

“Painted Wide Edge Line, \_\_\_\_\_”, per linear foot.

## **8-23 Temporary Pavement Markings**

### **8-23.3 Construction Requirements**

#### **8-23.3(4)(9-34.5) Temporary Pavement Marking Tape**

##### **8-23.3(4)(9-34.5(2)) Temporary Pavement Marking Tape – Long Duration (Non-Removable)**

Section 9-34.5(2), including title, is revised to read:

*(February 25, 2021 WSDOT GSP)*

##### **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<sup>-2</sup>\*lx<sup>-1</sup> when measured in accordance with ASTM E2832. Black tape, black mask tape and the black portion of the contrast tape, shall be non-reflective.

Add the following new section:

(\*\*\*\*\*)

## **Appendices**

*(January 2, 2012 WSDOT GSP)*

The following appendices are attached and made a part of this contract:

\*\*\*

APPENDIX A:

Geotechnical Engineering Report

Brezee Creek Culvert Replacement – East 4<sup>th</sup> Street, All Pages.

\*\*\*

(February 26, 2024 WSDOT GSP)

**Standard Plans**

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01, effective October 23, 2023, is made a part of this contract.

The Standard Plans are revised as follows:

A-10.30

RISER RING detail (Including SECTION view and RISER RING DIMENSIONS table): The RISER RING detail is deleted from the plan.

INSTALLATION detail, SECTION A: The "1/4" callout is revised to read "+/- 1/4" (SEE CONTRACT ~ Note: The + 1/4" installation is shown in the Section A view)"

A-40.20

Sheet 1, NOTES 1, 2, 3, and 4 are replaced with the following:

1. Use the ½ inch joint details for bridges with expansion length less than 100 feet and for bridges with L type abutments. Use the 1 inch joint details for other applications.
2. Use detail 5, 6, 7 on steel trusses and timber bridges with concrete bridge deck panels.
3. For details 1, 2, 3, and 4, the item "HMA Joint Seal at Bridge End" shall be used for payment. For details 5 and 6, the item "HMA Joint Seal at Bridge Deck Panel Joint" shall be used for payment. For detail 7, the item "Clean and Seal Bridge Deck Panel Joint" shall be used for payment.

Sheet 2, Detail 8 reference to "6-09.3(6)" is revised to read "6-21.3(7)".

A-60.40

Note 2 reference to "6-09.3(6)" is revised to read "6-21.3(7)".

B-90.40



## Valve Detail – DELETED

### C-60.10

Sheet 1 of 2, Side view, add new callout pointing to the outer edges of the 3" x 12" lifting slots at bottom of barrier. New callout reads "PERMISSIBLE 3/4" CHAMFER."

Sheet 1 of 2, Side view, add 2-inch diameter lifting holes centered 32" from each end of the barrier and 15" from the top face (2 lifting holes total). Add new callout pointing to the new lifting holes. New callout reads "PERMISSIBLE 2" DIAM. LIFTING HOLE"

### C-85.11

On Section B, the callout "3" EXPANDED POLYSTYRENE AROUND COLUMN (TYP.)" is revised to read "3" EXPANDED POLYSTYRENE OR POLYETHYLENE FOAM AROUND COLUMN (TYP.)"

### D-3.10

Sheet 1, Typical Section, callout – "FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.15" is revised to read; "FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER, SEE CONTRACT PLANS"

Sheet 1, Typical Section, callout – "FOR WALLS WITH F-SHAPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.16" is revised to read; "FOR WALLS WITH F-SHAPE TRAFFIC BARRIER, SEE CONTRACT PLANS"

### D-3.11

Sheet 1, Typical Section, callout – "'B" BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16" is revised to read; "B" BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)

Sheet 1, Typical Section, callout – "TYPICAL BARRIER ON BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16" is revised to read; "TYPICAL BARRIER ON BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)

### D-10.10

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.

#### F-10.18

Note 2, "Region Traffic engineer approval is needed to install a truck apron lower than 3'." - DELETED

#### J-10.10

Sheet 4 of 6, "Foundation Size Reference Table", PAD WIDTH column, Type 33xD=6' – 3" is revised to read: 7' – 3". Type 342LX / NEMA P44=5' – 10" is revised to read: 6' – 10"  
Sheet 5 of 6, Plan View, "FOR EXAMPLE PAD SHOWN HERE:", "first bullet" item, "-SPACE BETWEEN TYPE B MOD. CABINET AND 33x CABINET IS 6" (IN)" IS REVISED TO READ: "SPACE BETWEEN TYPE B MOD. CABINET (BACK OF ALL CHANNEL STEEL) AND 33x CABINET IS 6" (IN) (CHANNEL STEEL ADDS ABOUT 5" (IN))"

#### J-10.16

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

#### J-10.17

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

#### J-10.18

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

#### J-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 of 2, Elevation View, Round Concrete Foundation Detail, callout – "ANCHOR BOLTS ~ ¾" (IN) x 30" (IN) FULL THREAD ~ THREE REQ'D. PER ASSEMBLY" IS REVISED TO READ: "ANCHOR BOLTS ~ ¾" (IN) x 30" (IN) FULL THREAD ~ FOUR REQ'D. PER ASSEMBLY"

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 ½" 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-75.55

Notes, Note A1, Revise reference, was – G-90.29, should be – G-90.20.

#### L-5.10

Sheet 1, General Note 8, third sentence – was; “For traffic barrier having no deflection distance, the fence shall be placed a minimum horizontal distance of 3’ – 6’ as measured form the top front face of the barrier.” Is revised to read; “For traffic barrier having no deflection distance, the fence shall be placed a minimum horizontal distance of 2’ – 6” as measured form the top front face of the barrier.”

Sheet 2, Reinforcing Steel Bending Diagram, (mark) B detail, callout – “128 deg.” is revised to read: “123 deg.”, callout – “51 deg.” is revised to read: “57 deg.”

#### M-40.10

Guide Post Type ~ Reflective Sheeting Applications Table, remove reference - “(SEE NOTE 5)”

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00 .....8/7/07	A-30.35-00 .....10/12/07	A-50.10-01 .....8/17/21
A-10.20-00 .....10/5/07	A-40.00-01 .....7/6/22	A-50.40-01 .....8/17/21
A-10.30-00 .....10/5/07	A-40.10-04 .....7/31/19	A-60.10-03 .....12/23/14
A-20.10-00 .....8/31/07	A-40.15-00 .....8/11/09	A-60.20-03 .....12/23/14
A-30.10-00 .....11/8/07	A-40.20-04 .....1/18/17	A-60.30-01 .....6/28/18
A-30.30-01 .....6/16/11	A-40.50-03 .....9/12/23	A-60.40-00 .....8/31/07
B-5.20-03 .....9/9/20	B-30.50-03 .....2/27/18	B-75.20-03 .....8/17/21
B-5.40-02 .....1/26/17	B-30.60-00 .....9/9/20	B-75.50-02 .....3/15/22
B-5.60-02 .....1/26/17	B-30.40-03 .....2/27/18	B-70.60-01 .....1/26/17
B-10.20-03 .....8/23/23	B-30.70-04 .....2/27/18	B-75.60-00 .....6/8/06
B-10.40-02 .....8/17/21	B-30.80-01 .....2/27/18	B-80.20-00 .....6/8/06
B-10.70-03 .....8/23/23	B-30.90-02 .....1/26/17	B-80.40-00 .....6/1/06
B-15.20-01 .....2/7/12	B-35.20-00 .....6/8/06	B-85.10-01 .....6/10/08
B-15.40-01 .....2/7/12	B-35.40-01 .....8/23/23	B-85.20-00 .....6/1/06
B-15.60-02 .....1/26/17	B-40.20-00 .....6/1/06	B-85.30-00 .....6/1/06
B-20.20-02 .....3/16/12	B-40.40-02 .....1/26/17	B-85.40-00 .....6/8/06
B-20.40-04 .....2/27/18	B-45.20-01 .....7/11/17	B-85.50-01 .....6/10/08
B-20.60-03 .....3/15/12	B-45.40-01 .....7/21/17	B-90.10-00 .....6/8/06
B-25.20-02 .....2/27/18	B-50.20-00 .....6/1/06	B-90.20-00 .....6/8/06
B-25.60-03 .....8/23/23	B-55.20-03 .....8/17/21	B-90.30-00 .....6/8/06
B-30.05-00 .....9/9/20	B-60.20-02 .....9/9/20	B-90.40-01 .....1/26/17
B-30.10-03 .....2/27/18	B-60.40-01 .....2/27/18	B-90.50-00 .....6/8/06
B-30.15-00 .....2/27/18	B-65.20-01 .....4/26/12	B-95.20-02 .....8/17/21
B-30.20-04 .....2/27/18	B-65.40-00 .....6/1/06	B-95.40-01 .....6/28/18
B-30.30-03 .....2/27/18	B-70.20-01 .....3/15/22	
C-1 .....9/8/22	C-22.40-10 .....10/16/23	C-60.70-01 .....9/8/22
C-1b .....10/12/23	C-22.45-06 .....9/8/22	C-60.80-01 .....9/8/22
C-1d .....10/31/03	C-23.70-01 .....10/16/23	C-70.15-00 .....8/17/21

C-2c.....8/12/19	C.24.10-04 .....10/16/23	C-70.10-04 .....10/16/23
C-4f .....8/12/19	C-24.15-00 .....3/15/22	C-75.10-02 .....9/16/20
C-6a .....9/8/22	C-25.20-07 .....8/20/21	C-75.20-03 .....8/20/21
C-7 .....9/8/22	C-25.22-06 .....8/20/21	C-75.30-03 .....8/20/21
C-7a .....9/8/22	C-25.26-05 .....8/20/21	C-80.10-03 .....10/16/23
C-20.10-09 .....10/12/23	C-25.30-01 .....8/20/21	C-80.20-01 .....6/11/14
C-20.14-05 .....9/8/22	C-25.80-05 .....8/12/19	C-80.30-02 .....8/20/21
C-20.15-03 .....10/12/23	C-60.10-03 .....10/16/23	C-80.40-01 .....6/11/14
C-20.18-04 .....9/8/22	C-60.15-00 .....8/17/21	C-85.10-00 .....4/8/12
C-20.40-10 .....10/12/23	C-60.20-01 .....9/8/22	C-85.11-01 .....9/16/20
C-20.41-04 .....8/22/22	C-60.30-01 .....8/17/21	C-85.15-03 .....10/17/23
C-20.42-06 .....10/12/23	C-60.40-00 .....8/17/21	C-85-18-03 .....9/8/22
C-20.43-00 .....8/22/22	C-60.45-00 .....8/17/21	C-81.10-00 .....9/12/23
C-20.45-03 .....9/8/22	C-60.50-00 .....8/17/21	C-81.15-00 .....9/12/23
C-22.16-08 .....10/17/23	C-60.60-00 .....8/17/21	
D-2.36-03 .....6/11/14	D-3.11-03 .....6/11/14	D-10.25-01 .....8/7/19
D-2.46-02 .....8/13/21	D-4 .....12/11/98	D-10.30-00 .....7/8/08
D-2.84-00 .....11/10/05	D-6 .....6/19/98	D-10.35-00 .....7/8/08
D-2.92-01 .....4/26/22	D-10.10-01 .....12/2/08	D-10.40-01 .....12/2/08
D-3.09-00 .....5/17/12	D-10.15-01 .....12/2/08	D-10.45-01 .....12/2/08
D-3.10-01 .....5/29/13	D-10.20-01 .....8/7/19	D-20.10-00 .....10/9/23
E-1.....2/21/07	E-4.....8/27/03	E-20.10-00 .....9/12/23
E-2.....5/29/98	E-4a.....8/27/03	E-20.20-00 .....10/4/23
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-10.18-03 .....3/28/22	F-30.10-04 .....9/25/20	F-45.10-04 .....10/16/23
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-24.50-05 .....8/7/19	G-90.10-03 .....7/11/17
G-20.10-03 .....8/20/21	G-24.60-05 .....6/28/18	G-90.20-05 .....7/11/17
G-22.10-04 .....6/28/18	G-25.10-05 .....9/16/20	G-90.30-04 .....7/11/17
G-24.10-00 .....11/8/07	G-26.10-00 .....7/31/19	G-95.10-02 .....6/28/18
G-24.20-01 .....2/7/12	G-30.10-04 .....6/23/15	G-95.20-03 .....6/28/18
G-24.30-02 .....6/28/18	G-50.10-03 .....6/28/18	G-95.30-03 .....6/28/18
G-24.40-07 .....6/28/18		
H-10.10-00 .....7/3/08	H-32.10-00 .....9/20/07	H-70.10-02 .....8/17/21
H-10.15-00 .....7/3/08	H-60.10-01 .....7/3/08	H-70.20-02 .....8/17/21
H-30.10-00 .....10/12/07	H-60.20-01 .....7/3/08	
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-50.20-02 .....7/6/22
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-05.50-00 .....8/30/22	J-26.20-01 .....6/28/18	J-50.10-01 .....7/31/19

J-10 .....	7/18/97	J-27.10-01 .....	7/21/16	J-50.11-02 .....	7/31/19
J-10.10-04 .....	9/16/20	J-27.15-00 .....	3/15/12	J-50.12-02 .....	8/7/19
J-10.12-00 .....	9/16/20	J-28.01-00 .....	8/30/22	J-50.13-01 .....	8/30/22
J-10.14-00 .....	9/16/20	J-28.10-02 .....	8/7/19	J-50.15-01 .....	7/21/17
J-10.15-01 .....	6/11/14	J-28.22-00 .....	8/07/07	J-50.16-01 .....	3/22/13
J-10.16-02 .....	8/18/21	J-28.24-02 .....	9/16/20	J-50.18-00 .....	8/7/19
J-10.17-02 .....	8/18/21	J-28.26-01 .....	12/02/08	J-50.19-00 .....	8/7/19
J-10.18-02 .....	8/18/21	J-28.30-03 .....	6/11/14	J-50.20-00 .....	6/3/11
J-10.20-04 .....	8/18/21	J-28.40-02 .....	6/11/14	J-50.25-00 .....	6/3/11
J-10.21-02 .....	8/18/21	J-28.42-01 .....	6/11/14	J-50.30-00 .....	6/3/11
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J-20.16-02 .....	6/30/14	J-40.10-04 .....	4/28/16	J-80.10-01 .....	8/18/21
J-20.20-02 .....	5/20/13	J-40.20-03 .....	4/28/16	J-80.12-00 .....	8/18/21
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