



*Washington
Department of*
**FISH and
WILDLIFE**

IPID SNOW CREEK SCREEN - ELECTRICAL AND CONTROLS

DIRECTOR:
KELLY SUSEWIND

PROGRAM DIRECTOR:
TIMOTHY W. BURNS, P.E.

CHIEF ENGINEER:
GLENN F. GERTH, P.E.



DATE:
FEBRUARY 2022

PROJECT NO.
CN:S45.603096:2022-1

PROJECT MANAGER:
SHAWN STANLEY, P.E.

WDFW Title VI Clause

It is the policy of Washington Department of Fish and Wildlife (WDFW) to provide equal access to its programs, services, activities, and facilities under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and the Architectural Barriers Act of 1968. WDFW is a recipient of state and federal financial assistance.

WDFW prohibits discrimination on the basis of race, color, religion, national origin, including language, sex, age, mental or physical disability, reprisal, sexual orientation, status as a parent, and genetic information.

If you believe you have been discriminated against, please contact the WDFW Title VI Manager, PO Box 43139, Olympia, WA 98504, or online at: <https://wdfw.wa.gov/accessibility/grievances> within 20 calendar days of the alleged incident to file a formal complaint, or you can file with the Washington State Human Rights Commission directly at: 1-800-233-3247, or you can write to: Chief, Public Civil Rights Division, Department of the Interior, 1849 C Street NW, Washington DC 20240.

Persons who need to receive this information in an alternative format, different language, or who need a reasonable accommodation to participate in WDFW sponsored public meetings, or other activities, may contact the Title VI Manager by phone at: (360) 902-2349, or TDD (711), or email Title6@dfw.wa.gov.

If you need further assistance or information, please contact the Olympia office of the Washington Department of Fish and Wildlife: (360) 902-2464, or Telecommunications Device for the Deaf, TDD (711).

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DIVISION 0 – BID AND CONTRACT DOCUMENTS

SECTION 00030 NOTICE TO CONTRACTORS

Sealed bids for the following Public Works Project will be received until 2:00 p.m. on March 3, 2022 at 600 Capitol Way North, MS: 43158, Olympia, Washington, 98501-1091, and will be publicly opened and read.

Due to the safety and health of the public and employees WDFW CAMP is temporarily closing Bid Openings to public attendance. Bid opening results will be made public within 24 hours of opening.
Please Note: The Public will not be able to attend this bid opening.

PROJECT:

IPID Snow Creek Screen - Electrical and Controls

NUMBER:

CN:S45.603096:2022-1

Provide all labor, material, equipment, and permits to construct at the Icicle-Peshastin Irrigation District (IPID)'s Snow Creek Intake Screen Site, located near 7205 Icicle Rd Leavenworth, WA 98826 and GPS Coordinates 47.5418869834948, -120.71139579344602, Washington, in Chelan County.

Engineer's Estimate: \$50,000

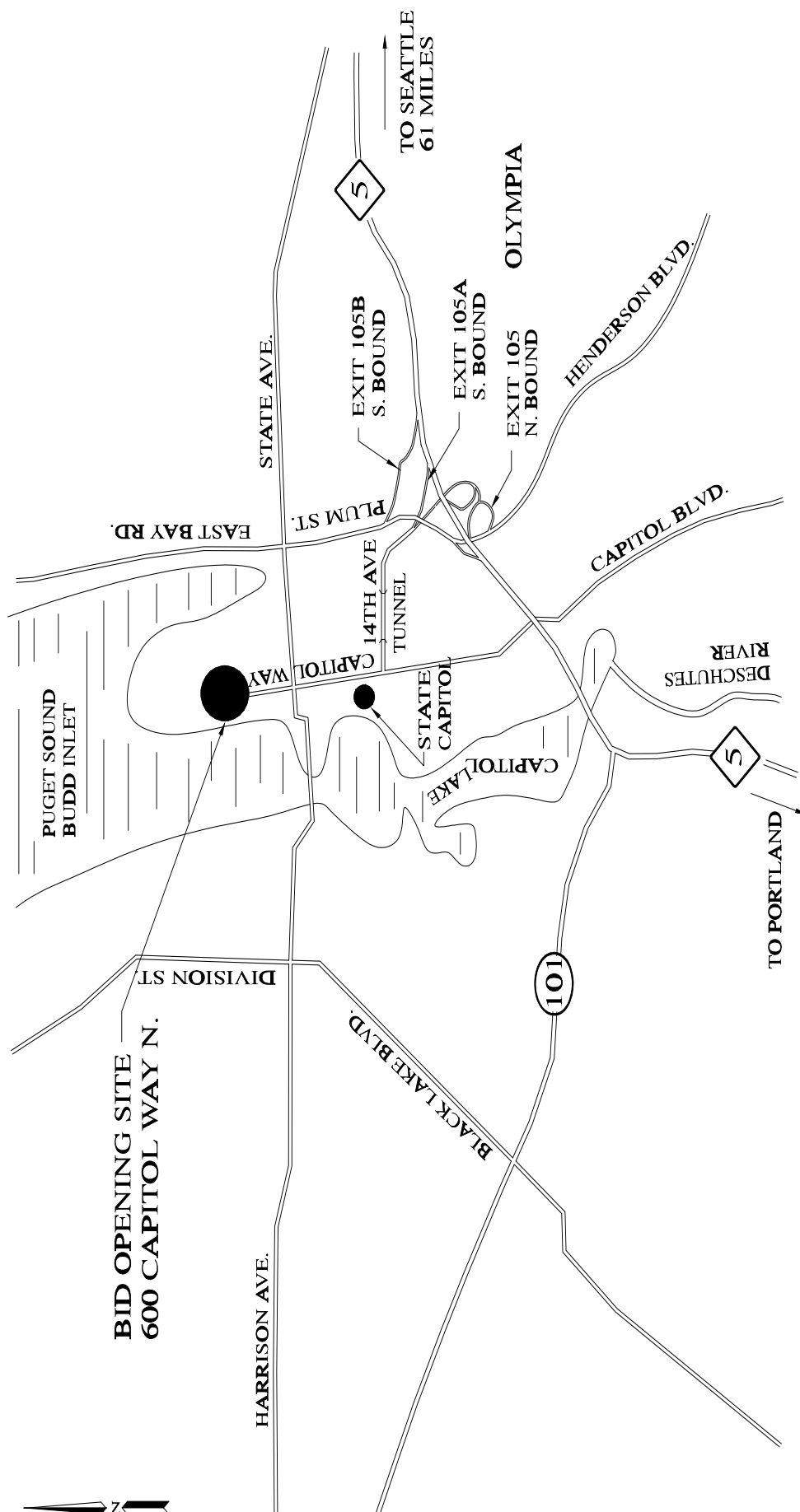
No pre-bid walkthrough is scheduled, **Contractors are strongly encouraged to independently visit the site.** Park at the USFS Snow Lakes Trailhead on the south side of the road, 2.5 miles southwest of the intersection of E Leavenworth Rd and Icicle Rd in Leavenworth. Follow the hiking trail downhill, cross footbridge and proceed uphill approx. 800 feet to the project site where irrigation ditch crosses trail.

For access to Drawings, Specifications, Addenda, plan holders list, and additional information for this project, please visit Builders Exchange of Washington, Inc. at <http://www.bxwa.com> – the official projects bidding affiliate for WA Department of Fish and Wildlife Public Works bidding projects. Click on “Posted Projects”; “Public Works”, “Washington State Department of Fish and Wildlife”, “Projects Bidding.”

For information or technical questions regarding this project, email CAMP.Bids@dfw.wa.gov with the project title and project number in subject line. This email may also be used to request copies of the project's posted documents (Drawings, Specifications, Addenda).

Minority and Women's Business Enterprises (MWBE) are encouraged to participate in the bidding as prime contractors, subcontractors, or suppliers.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
Timothy Burns, Capital and Asset Management Program Director
By
Glenn F. Gerth, P.E., Chief Engineer
Capital and Asset Management Program



**BID OPENING SITE
600 CAPITOL WAY N.
OLYMPIA, WA 98501-1091**

STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
DATE DRAWN: 04-10-95 SCALE: N.T.S.

DIVISION 0 – BID AND CONTRACT DOCUMENTS

SECTION 00100 INSTRUCTIONS TO BIDDER

00110 PREBID REQUIREMENTS

- A. Carefully examine all project documents.
- B. Be fully informed of all existing conditions and limitations, including any activities by City, County, State, Federal or private entities affecting access to the project.
- C. Include in the bid sufficient amount to cover all costs required by Bid Documents to complete the work, but not limited to applicable federal, state, and local taxes (except State Retail Sales Tax), insurance, bonding license(s), payment of prevailing wage rates, L&I filing fees, and all costs that may be necessary to complete the work.
- D. No Apprenticeship Participation requirements for projects estimated less than \$1,000,000.
- E. The project is not federally funded.

00120 REQUIRED BID DOCUMENTS

Failure to submit ALL PAGES of the following forms is sufficient cause to reject the bid.

- A. **Bid Form**: The ENTIRE current Bid Form Section 00300 must be signed. Check for addenda at Builders Exchange of Washington, Inc. (<http://www.bxwa.com>) before submitting bid.
- B. **Standard Questionnaire for Qualification of Contractors Form**: Submit the completed form immediately following bid opening or submit with bid form.
- C. **Bid Bond**: For bids of \$35,000 or less, no bid guarantee is required. Bids greater than \$35,000 shall be accompanied by a certified check, cashier's check, or bid bond payable to the Treasurer of the State of Washington in an amount equal to at least five-percent of the bid as evidence of good faith and as a guarantee that, if awarded the Contract, the bidder will execute the Contract and give separate bond as required, see Section 00702.06.

00130 BID FORMAT

- A. Each bid must be submitted on the current Bid Form, Section 00300 contained in these Bid Documents. Place your required bid documents into an envelope clearly marked on the outside with "BID ENCLOSED", the project name, and project number. Envelope shall clearly identify your Company's name and address as shown below.

Company Name Address City, State Zip	BID ENCLOSED PROJECT NAME PROJECT NUMBER BID OPENING
--	--

- B. No oral, email, telephonic, faxed bids or modifications will be accepted or considered.

00135 BID OPENING

Bidders must submit their bid to the Washington Department of Fish and Wildlife, Capital and Asset Management Program, located at 600 Capitol Way North, MS: 43158, Olympia, Washington 98501-1091 before the bid submittal deadline for this solicitation. Sending your bid through the United States Postal Services (USPS) or United States Express Mail will not guarantee your bid will be received at the above location on time.

PLEASE NOTE: As a state agency, USPS mail is routed through the State's Consolidated Mail Service with unpredictable delivery times. We encourage the following:

- Hand delivery;
- Courier service;
- Allow sufficient amount of time;
- Third party (i.e. Federal Express, United Parcel Service) for overnight delivery;
- Clearly label the outside of your envelope using the format in Section 00130.

00140 BID SUBMITTAL DEADLINE

- A. Sealed bids for this project will be received by an authorized representative within the Washington Department of Fish and Wildlife, Capital and Asset Management Program located at 600 Capitol Way North, MS: 43158, Olympia, Washington, 98501-1091 until the time and date indicated on the current Bid Form, Section 00300. **Due to the safety and health of the public and employees, WDFW CAMP has temporarily closed Bid Openings to public attendance. Bid opening results will be made public within 24-hours of opening.**
- B. Bids submitted after deadline will not be accepted.

00145 REASONABLE ACCOMMODATIONS

- A. Persons with disabilities who need reasonable accommodations to participate in the bid openings are invited to contact Capital and Asset Management Program at (360) 902-8300 or CAMP.Bids@dfw.wa.gov. Reasonable accommodation requests should be received at least three business days prior to the bid opening to ensure availability.
- B. **Bid Results:** After bid opening, bidders may obtain bid results from Builders Exchange of Washington, Inc. at <http://bxwa.com> the next business day.

00150 MANDATORY RESPONSIBILITY CRITERIA

Before award of a public works contract, a bidder must meet the following mandatory responsibility criteria under RCW 39.04.350 (1) to be considered a responsible bidder and qualified to be awarded a public works project. The bidder must:

- A. At time of bid submittal, have a certificate of registration in compliance with Chapter 18.27 RCW;
- B. Have a current state Unified Business Identifier (UBI) number;
- C. If applicable, have industrial insurance coverage for the bidder's employees working in Washington as required in Title 51 RCW; an employment security department number as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW;

DIVISION 0 – BID AND CONTRACT DOCUMENTS

- D. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3);
- E. If bidding on a public works project subject to the apprenticeship utilization requirements in RCW 39.04.320, not have been found out of compliance by the Washington State apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under Chapter 49.04 RCW for the one-year period immediately preceding the date of the bid solicitation;
- F. Have received training on the requirements related to public works and prevailing wage under this chapter and Chapter 39.12 RCW. The bidder must designate a person or persons to be trained on these requirements. The training must be provided by the Department of Labor and Industries or by a training provider whose curriculum is approved by the department. The department, in consultation with the prevailing wage advisory committee, must determine the length of the training. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection. The Department of Labor and Industries must keep records of entities that have satisfied the training requirement or are exempt and make the records available on its web site. Responsible parties may rely on the records made available by the department regarding satisfaction of the training requirement or exemption; and

Labor and Industries (LNI) Training Information Link:
<https://www.lni.wa.gov/TradesLicensing/PrevWage/Contractors/Training.asp>
- G. 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, and provision of Chapter 49.46, 49.48 or 49.52 RCW.
- H. Before award of a public works contract, a bidder shall submit to the contracting agency a signed statement in accordance with RCW 9A.72.085 verifying under penalty of perjury that the bidder is in compliance with the responsible bidder criteria requirement of subsection G above. A contracting agency may award a contract in reasonable reliance upon such a sworn statement.

00155 BASIS OF AWARD

The lowest responsive bid and responsible bidder is based upon the Base Bid. The Owner reserves the right to award the contract amount based on any or all of the bid items listed, to restrict the contract amount to the funds available, and to reject any or all bids for any reason whatsoever and waive informalities.

00160 PERIOD OF ACCEPTANCE

All bids may be held 45 calendar days from bid opening date. At the end of this period, the three lowest bids may be retained for 15 additional days, or as may be further extended by the Owner with the approval of the bidding companies.

00170 PAYMENT AND PERFORMANCE BONDS

- A. Base bids greater than \$150,000; Contractor shall provide separate Payment and Performance Bonds, each executed by Contractor and Contractor's Surety.

DIVISION 0 – BID AND CONTRACT DOCUMENTS

B. Base bids \$150,000 or less, Contractor shall provide separate Payment and Performance Bonds, each executed by Contractor and Contractor's Surety, unless the Contractor agrees Owner may, in lieu of the bond(s), retain 10 percent of the Contract Sum for the period allowed by RCW 39.08.010.

C. For additional information see Section 00702.04.

00175 BUILDERS RISK INSURANCE

Builders Risk Insurance is not required, see Section 00802.07.

00180 INTERPRETATIONS

For information or technical questions regarding this project email CAMP.Bids@dfw.wa.gov with the project title and project number in subject line and address questions to the Project Manager. Questions resulting in changes to the scope or nature of the drawings, specifications, or bid documents will be answered by addendum/addenda reflective of the Owner's process.

The Owner will **NOT** answer questions received after 2:00 p.m. on February 28, 2022. All addenda issued are part of the bid documents. The Owner will not be responsible for any oral interpretations.

00190 MINORITY AND WOMEN'S BUSINESS ENTERPRISE (MWBE) PARTICIPATION

Minority and Women's Business Enterprises (MWBE) are encouraged to participate in the bidding as prime contractors, subcontractors, or suppliers.

00195 CONTRACT RESPONSIVENESS

Contractor shall return all required contract documents and signed contract no later than 21 calendar days from date of Award Letter.

END OF SECTION 00100

DIVISION 0 – BID AND CONTRACT DOCUMENTS

SECTION 00200 CONTRACTOR CHECKLIST

00230 PRIOR TO CONTRACT EXECUTION

Submit the following to WDFW's Contract Administrator within 21 calendar days from the date of the Award Letter:

- A. Signed Public Works Contract Agreement.
- B. Performance and Payment Bonds Forms: Separate performance and payment bonds executed by Contractor and Contractor's Surety.
- C. Retainage in Lieu of Performance Bond Option on Contracts of \$150,000 or Less: If Contractor elects, Owner may retain ten percent of the Contract Sum in lieu of the Performance and Payment Bonds, see Section 00620.
- D. Retainage Options Form, see Section 00630.
- E. Certificate of Liability Insurance Form, see Section 00640.
- F. Statewide Payee Form, Form W-9, Request for Taxpayer ID Number and Certification: for General Contractors and Subcontractors.

00235 PRIOR TO NOTICE TO PROCEED

- A. Provide to the Project Manager:
 - 1. List of subcontractors and major suppliers of work and materials greater than \$2,500.
 - 2. Construction Schedule for approval, see Section 00703.2.
 - 3. Schedule of Values for approval, see Section 00650.
- B. Attend preconstruction conference.

00240 SUBMIT WITH PAY REQUEST

- A. First invoice: include Statement of Intent to Pay Prevailing Wage Rates for Contractor and all Subcontractors, filed and approved by the Department of Labor and Industries (L&I). Information regarding Prevailing Wages is found at the L&I website: <http://www.lni.wa.gov/TradesLicensing/PrevWage/IntentAffidavits/File/default.asp>.
- B. All invoices: include Verification of Monthly Payments to MWBEs, see Section 00660.
- C. For contract sums of \$1,000,000 or more include Statement of Apprentice/Journeyman Participation, see Section 00670.

00250 DURING PROGRESS OF CONTRACT

- A. Provide Submittals and Shop Drawings as required, see Section 01300.
- B. If work exceeds 30 calendar days, Contractor may request partial payment once per month. If work is 30 calendar days or less, Contractor requests payment when project is complete.

00260 FOR SUBSTANTIAL COMPLETION

- A. Owner/operator training completed.
- B. Submit Operation and Maintenance Manual draft to Owner, see Section 01730.
- C. Written Certificate of Occupancy received by Owner.
- D. Owner provides Contractor final punch list.
- E. Owner provides written Substantial Completion.

00270 FOR FINAL COMPLETION

- A. Contractor completes final punch list.
- B. Owner completes walkthrough and validates final punch list.
- C. Contractor submits final Operation and Maintenance Manuals to Owner, see Section 01730.
- D. Contractor submits Project Record to Owner if required in the contract.
- E. Contractor provides all signed permits to the Owner.
- F. Contractor provides all expressed warranties greater than one year to Owner.
- G. Owner issues Final Completion Letter to Contractor.
- H. Contractor submits final invoice after receipt of the Final Completion Certificate.
- I. Contractor submits Affidavit of Wages Paid to L&I.
- J. L&I approves the Affidavit of Wages Paid for Contractor and all Subcontractors working on the project.
- K. Owner submits a Notice of Completion Form to L&I, the Department of Revenue, and the Employment Security Department.
- L. Owner's Contract Administrator receives the notarized Contractor's Release of Claims Form.

00280 FOR RETAINAGE TO BE RELEASED

- A. Contract must not be in dispute.
- B. Owner processes final progress payment.
- C. Owner administers 60-day legal lien period.
- D. Owner's Contract Administrator receives releases from Department of Revenue, Employment Security Department, and Labor & Industries.

END OF SECTION 00200

**SECTION 00300
BID FORM**

**FAILURE TO SUBMIT ALL PAGES OF BID FORM SHALL BE
SUFFICIENT CAUSE TO REJECT THE BID.**

To: Washington Department of Fish & Wildlife **Project Title:** IPID Snow Creek Screen - Electrical and Controls
 Chief Engineer
 600 Capitol Way North, MS: 43158 **Project No.:** CN:S45.603096:2022-1
 Olympia, WA 98501-1091 **Bid Opening:** 2:00 p.m. March 3, 2022

00310 BID

Pursuant to and in compliance with the Bid Documents, the undersigned Bidder agrees to submit all bid form pages and perform the Work for the following Base Bid amount for the above referenced project:

Lump Sum Items	
Bid Item 1: Erect a rack and meter per Chelan Co PUD guidelines, obtain all necessary inspections and permits, and coordinate with PUD to provide permanent power to the site. Coordinate location and sizing of conduit underground, under slab, and penetrations through walls for feeder and branch circuits. This Bid item has a substantial completion date of April 29, 2022.	\$
Bid Item 2: Procure a "Screen-Cleaning Control Panel", per WDFW Specifications, including peripheral sensors, cabinet & accessories, electronic and logic components, and process programming.	\$
Bid Item 3: Provide and install panels, breakers, grounding, boxes, conduit, wires, devices, and fixtures. Provide and install all accessories, fittings, supports, and other appurtenances to make a complete and operative, code compliant system.	\$
Bid Item 4: Connect conduits and wires to peripheral limit switches and sensors from the Control Panel. Collaborate with screen equipment installers to adjust & calibrate equipment to operate as designed. Coordinate with panel manufacturer to test control functions & operation of screen brushes.	\$
Base Bid (Sum of bid items 1 thru 4, do not include Washington State Sales Tax)	\$

TRENCH EXCAVATION SAFETY PROVISIONS

Not Used.

00320 CONTRACT COMPLETION TIME

Phase 1 Substantial Completion shall be achieved by April 29, 2022.

Phase 2 Substantial Completion shall be achieved by December 16, 2022.

Final Completion shall be achieved by December 31, 2022.

00330 LIQUIDATED DAMAGES

The undersigned agrees to pay the Owner as liquidated damages the sum of \$75 for Phase 1 of the work and \$25 for Phase 2 of the work for each consecutive calendar day that is in default after the Contract Time. Liquidated damages shall be deducted from the Contract by Change Order.

00340 MINORITY AND WOMEN'S BUSINESS ENTERPRISES (MWBE) UTILIZATION CERTIFICATION

The bidder certifies they have, in good faith, afforded maximum opportunities to MWBEs, and if they are the successful bidder on this project, the following MWBE firms or approved substitutes shall be utilized on the project and compensated in the amounts shown. **If the bidder does not expect to utilize MWBE firms, enter "N.A." on line one below.**

Firm Name, Address and Federal I.D. #	Telephone Number	Type of Work	Certificate Number	MBE%	WBE%
1					
2					
TOTALS					

00350 IDENTIFICATION OF SUBCONTRACTORS FOR PROJECTS GREATER THAN \$1,000,000

Not Used.

00360 CONTRACT EXECUTION

- A. Contract Execution: If the Owner awards a contract based on this bid within 60 calendar days (unless otherwise negotiated) of the bid submission deadline, the Bidder agrees to execute a contract for the above work, for compensation computed from the above stated bid amounts, on the WDFW Public Works Contract Form.
- B. Bonds and Insurance: If Bidder fails to submit the documents listed in Section 00230, within 21 calendar days after date on the Award Letter, the Owner may revoke the award.
- C. Failure to Execute Contract: If the successful bidder, fails to submit the documents listed in Section 00230, the Owner may revoke the award. The bid guarantee may be retained by Owner as liquidated damages, not as penalty.

If a contract is not awarded within 60 calendar days (unless otherwise negotiated) after the bid submission deadline or Contractor fails to submit the documents listed in Section 00230, the certified or cashier's check submitted as the bid guarantee shall be returned to the bidder, or the Bid Bond shall become void.

00370 DECLARATION

- A. Familiarity with Bid Document and Site: The undersigned Bidder hereby certifies to have personally and carefully examined the Bid Documents issued for the above referenced project, the site where the Work is to be performed and the conditions affecting the Work.

DIVISION 0 – BID AND CONTRACT DOCUMENTS

- B. Proposal to Perform Work: The Bidder hereby proposes to furnish all labor, materials, equipment, and services and to perform all work which may be required to complete the Work within the time fixed and in strict accordance with the Contract Documents for the above-referenced project for the Base Bid indicated above. The bid prices cover all expenses of the Bidder, including but not limited to, overhead, profit, insurance, and bonding, to perform the Work in accordance with the Contract Documents.
- C. Non-Collusion: The Bidder affirms that the bid is a genuine and not a sham or collusive bid or made in the interest or on behalf of any person not therein named. The Bidder has not directly or indirectly induced or solicited any bidder on the work to put in a sham bid, or any other person or corporation to refrain from bidding, and that the Bidder has not in any manner sought by collusion to secure for itself an advantage over any other bidder or bidders. The Bidder has not entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in the preparation and submission of this bid to the Owner for the project described in the Bid Documents.
- D. Certification of Compliance with Wage Payment Statutes: The bidder hereby certifies that, within the 3 year period immediately preceding the bid solicitation date the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of Chapters 49.46, 49.48, or 49.52 RCW, as 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.

00380 ACKNOWLEDGEMENT

I certify by signing the current Bid Form that all Addendum/Addenda, Contract Execution and Declarations have been acknowledged. Contractor shall review online bid documents at Builders Exchange of Washington, Inc. <http://www.bxwa.com> to ensure all information is considered in bid proposal.

Bidder's Business Name:		
Unified Business Number (UBI):	Contractor's License Number:	
Physical Business Street Address		
City:	State:	Zip Code:
Phone Number:		
Email Address:		
If the above address is not in Washington State, check ONE of the boxes below:		
☐ Physical office in WA: _____ Street Address City Zip Code		
OR		
☐ State of incorporation or where business entity was formed, if not corporation: _____		

OFFICIAL AUTHORIZED TO SIGN FOR BIDDER:

"I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct":	
Signature of Authorized Official:	Date:
Print Name	Title

**FAILURE TO SUBMIT ALL PAGES OF BID FORM SHALL BE
SUFFICIENT CAUSE TO REJECT THE BID.**

END OF SECTION 00300

**SECTION 00400
SUPPLEMENTS TO BID FORM**

00420 QUALIFICATION QUESTIONNAIRE

A. Information and Instructions - Standard Questionnaire for Qualification of Contractors:

1. Any person, firm, or corporation bidding on this project shall execute and submit with their bid a Standard Questionnaire for Qualification of Contractors Form. Failure to submit the completed form immediately following the bid opening may be sufficient cause to reject the bid.
2. The Chief Engineer will make the sole determination as to the adequacy of the experience and responsibility of the bidder.
3. All information furnished will be treated as confidential to the extent that such policy is compatible with the provisions of the general statutes affecting the conduct of public offices.

B. Preparation of Standard Questionnaire for Qualification of Contractors Form:

1. Bidder shall submit the Standard Questionnaire for Qualification of Contractors Form only in the exact name under which the bid is submitted. Answers and entries shall be specific and complete in detail.
2. Bidder shall verify that Representative or Project Manager Contact information is current and valid prior to submission.

C. Joint Ventures: The bids of Joint Ventures will be accepted if qualification has been satisfactorily established by each of the firms bidding in the name of the Joint Venture.

DIVISION 0 – BID AND CONTRACT DOCUMENTS

STANDARD QUESTIONNAIRE FOR QUALIFICATION OF CONTRACTORS

PROJECT NO. _____

Submitted by: _____
Name Title

Street Address City State Zip () Phone Number

Signature

QUESTIONNAIRE

A. How many years has your organization been in business under your present business name?

B. List three projects your organization has completed or has underway on this date reflecting the type of work for which you desire to qualify.

1.	Owner	Owner's Representative or PM	Representative or PM Phone Number
Project Name			Contract Amount
Class of Work Performed			
2.	Owner	Owner's Representative or PM	Representative or PM Phone Number
Project Name			Contract Amount
Class of Work Performed			
3.	Owner	Owner's Representative or PM	Representative or PM Phone Number
Project Name			Contract Amount
Class of Work Performed			

C. Has your organization ever failed to complete a construction contract?

☐ YES ☐ NO

If Yes, state reason why:

00440 SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA

Not Used.

END OF SECTION 00400



SECTION 00500

PUBLIC WORKS CONTRACT

TITLE: [REDACTED]

CONTRACT NUMBER: [REDACTED]

CONTRACTOR: [REDACTED]

ENGINEERING #: [REDACTED]

CONTRACT AMOUNT: [REDACTED]

MASTER INDEX: [REDACTED]

TYPE: Payable / Engineering / Public Works

PROJECT MANAGER: [REDACTED]

CONTRACT PERIOD: [REDACTED]

A. PARTIES TO THIS CONTRACT

This Contract is entered into under the authority of Chapter 39.04 of the Revised Code of Washington (RCW) between the Washington State Department of Fish and Wildlife (WDFW), 600 Capitol Way North, Olympia, WA 98501-1091; and (Contractor), Company Address, Company City, Company State, Company Postal Code; and shall be binding upon the agents and all persons acting by or through the parties.

B. PURPOSE OF CONTRACT

The Contractor shall provide those goods and /or services in accordance with and as described in the plans and drawings designated as "State of Washington Department of Fish & Wildlife Engineer Number XX:XX:XXXX together with the Contractor's bid opened at 2:00 P.M. Pacific Time on XX/XX/XXXX; and in full compliance with terms, conditions and stipulations of the General Conditions of the Contract, Release of Claims, the Special Conditions of the contract and material, Rights-of-Way and Easements (other than those provided by the State), licenses, permits, for this contract, now referred to and by this reference incorporated herein and made a part hereof as fully, for all purposes as if here set forth at length.

C. DESCRIPTION OF PROJECT

The Contractor shall perform the project as described in Attachments, which are incorporated herein by this reference:

Attachment "A" Specifications and Drawings (WDFW Engineer Number: XX/XXXX/XXXX)

D. PERIOD OF PERFORMANCE

The Contractor shall begin work as stated in the Notice to Proceed letter from WDFW; and shall complete all work under this contract not later than **DATE**. No expenditures made before or after this period are eligible for reimbursement unless incorporated by written amendment into this Contract. The Contract may be terminated or the performance period extended pursuant to terms set forth in Attachment "A."

WDFW may suspend the work of the Contractor due to weather or other needs of WDFW. The Contractor shall suspend all work on the contract upon the receipt of a Notice to Suspend from WDFW; and shall not re-commence work until a Notice to Resume Work is received from WDFW.

E. COMPENSATION / PAYMENT

WDFW hereby promises and agrees with the Contractor to employ, and does employ the Contractor to provide the materials and to do and cause to be done the above-described work, and to complete and finish the same according to the plans designated, and the attached specifications and the terms and conditions herein contained, and hereby contracts to pay for the same in the manner set out in the specifications the sum of **\$00.00** plus applicable Washington State sales tax at the time and upon the conditions provided for in this contract and every part thereof.

DIVISION 0 – BID AND CONTRACT DOCUMENTS

That WDFW further agrees to employ the Contractor to perform any alterations in or additions to the work covered by this contract and any force account work that may be ordered, if the construction or labor required by such changes or force work is to be executed during the period specified herein for the completion of the work under this contract, and to pay for the same under the terms of this contract. Except as otherwise provided in Section 00707 of Attachment "A" of the contract, no alteration or modification of any of the terms, conditions, price, quality, quantity or specifications of this contract will be effective if not in writing and signed by WDFW.

The Contractor is required to be registered in the Statewide Vendor Payment System prior to submitting a request for payment under this contract. The Washington State Office of Financial Management (OFM) maintains the Statewide Vendor Payment System; to obtain registration materials, forms are available on the OFM payee registration [website](#) or contact the Statewide Payee Help Desk at HereToHelp@ofm.wa.gov (360) 407.9100.

F. RIGHTS AND OBLIGATIONS

All rights and obligations of the parties of this Contract are subject to this Contract, including the Attachments, which are incorporated herein by this reference. By signing this Contract the Contractor acknowledges that they have read, fully understand, and agree to be bound by all terms and conditions set forth in this Contract.

G. ORDER OF PRECEDENCE

In the event of an inconsistency in this contract, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence in the following order:

Applicable Federal and State of Washington statutes and regulations;
Special Terms and Conditions as contained in this basic contract instrument;
Attachment "A" Specifications and Drawings (WDFW Engineer Number: XX/XXXX/XX); and
Any other provision, term or material incorporated herein by reference or otherwise incorporated.

H. CONTRACT REPRESENTATIVES

The below named representatives for each of the parties shall be the contact people for all communications and billings regarding the performance of this Contract. All written communications regarding this Contract shall be sent to the designated representatives at the addresses below unless notified in writing of any change.

Contractor's Representative

Name:
Company Name:
Address:
Office Phone:
Email:

WDFW's Representative

Project Manager:
Capital and Asset Management Program
PO Box 43158
Olympia, WA 98504-3158
(360) 902-8300
Email:

I. ENTIRE CONTRACT

This Contract, along with all attachments and exhibits, constitutes the entire agreement of the parties. No other understandings, verbal or otherwise, regarding this Contract shall exist or bind any of the parties.

J. APPROVAL

This contract shall be subject to the written approval of WDFW'S authorized representative and shall not be binding until so approved. This Contract may be altered, amended, or waived only by a written amendment executed by both parties.

DIVISION 0 – BID AND CONTRACT DOCUMENTS

IN WITNESS WHERE, WDFW and the Contractor have signed this contract.

CONTRACTOR NAME

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Signature and Date

Signature and Date

Printed Name and Title

Timothy W. Burns, PE
Program Director
Capital and Asset Management Program

APPROVED AS TO FORM BY THE OFFICE OF THE ATTORNEY GENERAL 12/19/2014

DIVISION 0 – BID AND CONTRACT DOCUMENTS

SECTION 00600

00620 RETAINAGE IN LIEU OF PERFORMANCE BOND OPTION ON CONTRACTS
OF \$150,000 OR LESS



Contract No. _____

Project Name: _____

Agency: DEPARTMENT OF FISH AND WILDLIFE _____

Contractor: _____

Pursuant to *RCW 39.08.010* you are permitted to exercise your option, IN WRITING, on whether to provide a performance bond, or in lieu of bond to have retention increased to 10 percent. You are therefore requested to complete and return this form prior to receiving the *Notice to Proceed*.

OPTION 1:

Provide a performance bond in accordance with *SECTION 00702.04* of the *GENERAL CONDITIONS*.

I request Option #1 _____

OPTION 2:

Retain 10 percent of the contract payments in lieu of providing a performance bond in accordance with *SECTION 00702.04* of the *GENERAL CONDITIONS*.

I request Option #2 _____

Signature

Title

Date

00630 RETAINAGE OPTIONS



Contract No.: _____ Project: _____

Chapter 60.28 RCW requires in part that all contracts for public improvements or work by a public body must provide for retention from the amounts earned by the Contractor. Such monies are to be retained in accordance with the provision of the law for the protection and payment of any person supplying labor or material for such work and the State for taxes due from the Contractor.

The monies reserved from amounts due a Contractor at his/her option shall be: (Contractor mark choice):

- _____ A. Retained in a fund by the public body until 60 days following the final acceptance of said improvement or work as completed; or
- _____ B. Deposited by the public body in an interest bearing account in a bank, mutual savings bank, or savings and loan association, not subject to withdrawal until 60 days after the final acceptance of said improvement or work as completed, or until agreed to by both parties: Provided, that interest on such account shall be paid to the Contractor.
- _____ C. Placed in escrow with a bank or trust company until 60 days following final acceptance of said work or improvement as completed.
- _____ D. Contractor will submit a retainage bond for all or any portion of funds to be retained by. Washington State Department of Fish and Wildlife.

The warrant or check representing monies to be placed in escrow shall be made payable jointly to the bank or trust company and the Contractor. Such monies must be converted into bonds and securities and held in escrow. The bonds and securities are to be chosen by the Contractor and approved by the State. When interest on such investments accrues and is paid, it must be forwarded to the Contractor.

The escrow agreement, in the form prescribed by *WAC Chapter 82-32* and in addition to other requirements, must also provide for payment of all escrow costs and fees by the Contractor. A copy of the completed escrow agreement shall be provided by the escrow agent, the Contractor and the state agency prior to the time the first progress payment is made.

This completed option must be returned with the signed Contract Documents. No progress payment shall be made until the Contractor has exercised this option in writing.

Contractor

Signature

Date



00640

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A :	
	INSURER B :	
	INSURER C :	
INSURER D :		
INSURER E :		
INSURER F :		

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE \$
	☐ CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
							MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$
	☐ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG \$
	OTHER:						\$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$
	☐ ANY AUTO						BODILY INJURY (Per person) \$
	☐ ALL OWNED AUTOS	☐ SCHEDULED AUTOS					BODILY INJURY (Per accident) \$
	☐ HIRED AUTOS	☐ NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident) \$
							\$
	UMBRELLA LIAB						EACH OCCURRENCE \$
	☐ EXCESS LIAB	☐ OCCUR					AGGREGATE \$
	☐ DED ☐ RETENTION \$	☐ CLAIMS-MADE					\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						☐ PER STATUTE ☐ OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	☐ Y ☐ N					E.L. EACH ACCIDENT \$
	If yes, describe under DESCRIPTION OF OPERATIONS below	N/A					E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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STATE OF WASHINGTON
00650 SCHEDULE OF VALUES

CERTIFICATE FOR PAYMENT. For period from: date to date
Contract for: project title Date: 01/00/00
Location: project location Certificate No.: _____
Contractor: _____ Contract No.: _____

Original Contract Amount: \$0.00
Net change in Contract Amount to Date: \$0.00
Adjusted Contract amount \$0.00

ITEM NO.	SCHEDULE OF VALUES DETAIL	ESTIMATED VALUE	AMOUNT EARNED	%	PREVIOUSLY CLAIMED	THIS INVOICE
1		\$0.00	\$0.00	####	\$0.00	\$0.00
2		\$0.00	\$0.00	####	\$0.00	\$0.00
3		\$0.00	\$0.00	####	\$0.00	\$0.00
4		\$0.00	\$0.00	####	\$0.00	\$0.00
5		\$0.00	\$0.00	####	\$0.00	\$0.00
6		\$0.00	\$0.00	####	\$0.00	\$0.00
7		\$0.00	\$0.00	####	\$0.00	\$0.00
8		\$0.00	\$0.00	####	\$0.00	\$0.00
9		\$0.00	\$0.00	####	\$0.00	\$0.00
10		\$0.00	\$0.00	####	\$0.00	\$0.00
11		\$0.00	\$0.00	####	\$0.00	\$0.00
12		\$0.00	\$0.00	####	\$0.00	\$0.00
13		\$0.00	\$0.00	####	\$0.00	\$0.00
14		\$0.00	\$0.00	####	\$0.00	\$0.00
15		\$0.00	\$0.00	####	\$0.00	\$0.00
16		\$0.00	\$0.00	####	\$0.00	\$0.00
17		\$0.00	\$0.00	####	\$0.00	\$0.00
18		\$0.00	\$0.00	####	\$0.00	\$0.00
19	Change Orders:					
20	1.	\$0.00	\$0.00	####	\$0.00	\$0.00
21	2.	\$0.00	\$0.00	####	\$0.00	\$0.00
22	3.	\$0.00	\$0.00	####	\$0.00	\$0.00
23	4.	\$0.00	\$0.00	####	\$0.00	\$0.00
24	5.	\$0.00	\$0.00	####	\$0.00	\$0.00
25	6.	\$0.00	\$0.00	####	\$0.00	\$0.00
26	7.	\$0.00	\$0.00	####	\$0.00	\$0.00
27	8.	\$0.00	\$0.00	####	\$0.00	\$0.00
28	6.	\$0.00	\$0.00	####	\$0.00	\$0.00
SUBTOTAL		\$0.00	\$0.00	####	\$0.00	\$0.00
TAX 0.00% SALES TAX		\$0.00	\$0.00		\$0.00	\$0.00
TOTAL		\$0.00	\$0.00		\$0.00	\$0.00
Less Retainage.. 5%			\$0.00		\$0.00	\$0.00
NET			\$0.00		\$0.00	\$0.00
Less Previous Payments....			\$0.00			
Additional Tax 0.00%		\$0.00			\$0.00	
AMOUNT DUE THIS ESTIMATE			\$0.00			\$0.00

check
\$0.00
\$0.00
\$0.00
\$0.00
\$0.00

This is to certify that the contractor, having complied with the terms and conditions of the above mentioned contract, is due and payable from the State of Washington, the amount set after "AMOUNT DUE THIS ESTIMATE."

By 0 (Contracting Firm) By _____ (Architect or Engineer)
SIGN IN INK SIGN AND DATE



00660 VERIFICATION OF MONTHLY PAYMENTS TO MWBES

State of Washington Department of Fish and Wildlife, 600 Capitol Way North, Olympia, Washington, 98501-1091, (360) 902-8300

Project No _____ Project Title _____ Sheet _____ of _____

Contractor _____ Payment # _____

Federal Tax Identification #	Contractor/Supplier	WBE or MBE	Nature of Work or Type of Supplies	Bid Total Utilization Dollars	Amount Paid This Month	Amount Paid to Date

CONTRACTOR: _____

Authorized Signature

DATE: _____

Washington Department of Fish and Wildlife

STATEMENT OF APPRENTICE/JOURNEYMAN PARTICIPATION

Firm Name, Address, City, State & ZIP+4	Project Name (Title)	Contract No.
	Contract Award Amount: \$	Notice to Proceed Date
Reporting Period from: to		Required Apprenticeship Percentage: 15%

APPRENTICE SUMMARY

Apprentice Name	Craft or Trade	Apprentice Registration Number	Name of Contractor or Sub-Contractor	Apprentice	
				Total Number	Hours Worked

JOURNEYMEN SUMMARY

Journeyman Name	Craft or Trade	Journeyman Registration Number	Name of Contractor or Sub-Contractor	Journeyman	
				Total Number	Hours Worked

Apprentice total hours worked this period:	0									
Journeyman total hours worked this period:	0									
	<table border="1"> <tr> <td>Previous Total</td> <td>New Total</td> <td>Percentage</td> </tr> <tr> <td>Cumulative Apprentice hour Total brought forward from last reporting period: previous total</td> <td></td> <td></td> </tr> <tr> <td>Cumulative Journeyman hour Total brought forward from last reporting period: previous total</td> <td></td> <td></td> </tr> </table>	Previous Total	New Total	Percentage	Cumulative Apprentice hour Total brought forward from last reporting period: previous total			Cumulative Journeyman hour Total brought forward from last reporting period: previous total		
Previous Total	New Total	Percentage								
Cumulative Apprentice hour Total brought forward from last reporting period: previous total										
Cumulative Journeyman hour Total brought forward from last reporting period: previous total										

I, the undersigned, do hereby certify under penalty of perjury that the items listed herein represent the proper hourly totals for Apprenticeship/Journeyman participation during this reporting period.

Printed Name:	Signature:	Date:	Title:
---------------	------------	-------	--------

DES Labor Form 100412

END OF SECTION 00600

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\$1,000,000

PART 1 - 00701.00 DEFINITIONS

00701.01 DEFINITIONS

- A. Application for Payment: A written request submitted by Contractor to A/E for payment of Work completed, in accordance with the Contract Documents and approved Schedule of Values, supported by such substantiating data as Owner or A/E may require.
- B. Architect, Owner, or A/E: A person or entity lawfully entitled to practice architecture or engineering, representing Owner within the limits of its delegated authority.
- C. Change Order: A written instrument signed by Owner and Contractor stating their agreement upon all of the following: (1) a change in the Work; (2) the amount of the adjustment in the Contract Sum, if any; and (3) the extent of the adjustment in the Contract Time, if any.
- D. Claim: Contractor's exclusive remedy for resolving disputes with Owner regarding the terms of a Change Order or a request for equitable adjustment, as more fully set forth in *SECTION 00708 - CLAIMS AND DISPUTE RESOLUTION*.
- E. Contract Documents: The Advertisement for Bids, Instructions to Bidders, completed Form of Proposal, *GENERAL CONDITIONS*, Modifications to the *GENERAL CONDITIONS*, *SUPPLEMENTAL CONDITIONS*, Public Works Contract, other Special Forms, Drawings and Specifications, and all addenda and modifications thereof.
- F. Contract Sum: The total amount payable by Owner to Contractor for performance of the Work in accordance with the Contract Documents.
- G. Contract Time: The number of calendar days allotted in the Contract Documents for achieving Substantial Completion of the Work.
- H. Contractor: The person or entity who has agreed with Owner to perform the Work in accordance with the Contract Documents.
- I. Drawings: The graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, and may include plans, elevations, sections, details, schedules, and diagrams.
- J. Final Acceptance: The written acceptance issued to Contractor by Owner after Contractor has completed the requirements of the Contract Documents.
- K. Final Completion: The Work is fully and finally completed in accordance with the Contract Documents.

DIVISION 0 – GENERAL CONDITIONS

- L. Force Majeure: Those acts entitling Contractor to request an equitable adjustment in the Contract Time, as more fully set forth in *SECTION 00703.05A*.
- M. Notice: A written notice that has been delivered in person to the individual or a member of the firm or entity, or to an officer of the corporation for which it was intended, or, if delivered or sent by registered or certified mail, to the last business address known to the party giving notice.
- N. Notice to Proceed: A notice from Owner to Contractor that defines the date on which the Contract Time begins to run.
- O. Owner: The state agency, institution, or its authorized representative with the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.
- P. Person: A corporation, partnership, business association of any kind, trust, company, or individual.
- Q. Prior Occupancy: Owner's use of all or parts of the Project before Substantial Completion.
- R. Construction Schedule: A schedule of the Work, in a form satisfactory to Owner, as further set forth in *SECTION 00703.02*.
- S. Project: The total construction of which the Work performed in accordance with the Contract Documents may be the whole or a part and which may include construction by Owner or by separate contractors.
- T. Project Manual: The volume usually assembled for the Work, which may include documents such as the bidding requirements, sample forms, and other Contract Documents.
- U. Project Record: The separate set of Drawings and Specifications as further set forth in *SECTION 00704.02A*.
- V. Schedule of Values: A written breakdown allocating the total Contract Sum to each principle category of Work, in such detail as requested by Owner.
- W. Specifications: That portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, and workmanship for the Work, and performance of related services.
- X. Subcontract: A contract entered between the Contractor and a Subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind for, or in connection with, the Work.
- Y. Subcontractor: Any person other than the Contractor who agrees to furnish or furnishes any supplies, materials, equipment, or services of any kind in connection with the Work.
- Z. Substantial Completion: That stage in the progress of the Work where Owner has full and unrestricted use and benefit of the facilities for the purposes intended, as more fully set forth in *SECTION 00706.07*.

DIVISION 0 – GENERAL CONDITIONS

- AA. Work: The construction and services required by the Contract Documents, and includes, but is not limited to, labor, materials, supplies, equipment, services, permits, and the manufacture and fabrication of components, performed, furnished, or provided in accordance with the Contract Documents.

00701.02 ORDER OF PRECEDENCE

Any conflict or inconsistency in the Contract Documents shall be resolved by giving the documents precedence in the following order:

- A. Signed Public Works Contract, including any Change Orders and any Special Forms
- B. *SUPPLEMENTAL CONDITIONS*
- C. *GENERAL CONDITIONS*
- D. Specifications: Provisions in *DIVISION 1* shall take precedence over provision of any other division.
- E. Drawings: In case of conflict within the Drawings, large-scale drawings (24" x 36" shall take precedence over reduced scale drawings.
- F. Signed and Completed *Bid Form*
- G. Instructions to Bidder
- H. Notice to Contractor

00701.03 EXECUTION AND INTENT

Contractor makes the following representations to Owner:

- A. The Contract Sum is reasonable compensation for the Work and the Contract Time is adequate for the performance of the Work, as represented by the Contract Documents.
- B. Contractor has carefully reviewed the Contract Documents, visited and examined the Project site, become familiar with the local conditions in which the Work is to be performed, and satisfied itself as to the nature, location, character, quality and quantity of the Work, labor, materials, equipment, goods, supplies, services, and other items to be furnished and all other requirements of the Contract Documents, as well as the surface and subsurface conditions and other matters that may be encountered at the Project site or affect performance of the Work or the cost or difficulty thereof.
- C. Contractor is financially solvent, able to pay its debts as they mature, and possesses sufficient working capital to complete the Work and perform Contractor's obligations required by the Contract Documents.
- D. Contractor is able to furnish the plants; tools, materials, supplies, equipment, and labor required to complete the Work and perform the obligations required by the Contract Documents and have sufficient experience and competence to do so.

PART 2 - 00702.00 INSURANCE AND BONDS**00702.01 CONTRACTOR'S LIABILITY INSURANCE**

Prior to commencement of the Work, Contractor shall obtain all the insurance required by the Contract Documents and provide evidence satisfactory to Owner that such insurance has been procured. Review of the Contractor's insurance by Owner shall not relieve or decrease the liability of Contractor. Companies writing the insurance to be obtained by this section shall be licensed to do business under *Chapter 48 RCW* or comply with the *Surplus Lines Law* of the State of Washington. Contractor shall include in its bid the cost of all insurance and bonds required to complete the base bid work and accepted alternates. Insurance carriers providing insurance in accordance with the Contract Documents shall be rated "B+" or better by A.M. Best and ratings shall be indicated on the insurance certificates.

- A. Contractor shall maintain the following insurance coverage during the Work and for 1 year after Final Acceptance. Contractor shall also maintain the following insurance coverage during the performance of any corrective Work required by *SECTION 00705.16*.
 - 1. General liability on the *ISO 1986 New Occurrence Form* or its equivalent, which will include:
 - a. Completed operations/products liability
 - b. Explosion, collapse, and underground
 - c. Employer's liability coverage
 - 2. Automobile liability
- B. Contractor shall comply with the *Washington State Industrial Insurance Act*, and, if applicable, the *Federal Longshoremen's and Harbor Workers' Act*, and the *Jones Act*.
- C. All insurance coverages shall protect against claims for damages for personal and bodily injury or death, as well as claims for property damage, which may arise from operations in connection with the Work whether such operations are by Contractor or any Subcontractor.
- D. All insurance coverages shall be endorsed to include Owner as an additional named insured for Work performed in accordance with the Contract Documents, and all insurance certificates shall evidence the Owner as an additional insured.

00702.02 COVERAGE LIMITS

- A. Required Insurance Coverages:
 - 1. For a contract less than \$100,000.00, the coverage required is:
 - a. Comprehensive General Liability Insurance – The Contractor shall at all times during the term of this contract, at its cost and expense, carry and maintain general public liability insurance, including contractual liability, against claims for bodily injury, personal injury, death or property damage occurring or arising out of services provided under this contract.

DIVISION 0 – GENERAL CONDITIONS

This insurance shall cover claims caused by any act, omission, or negligence of the Contractor or its officers, agents, representatives, assigns or servants. The limits of liability insurance, which may be increased as deemed necessary by the contracting parties, shall be:

Each Occurrence	\$1,000,000.00
General Aggregate Limits (other than products – commercial operations)	\$1,000,000.00
Products – Commercial Operations Limited	\$1,000,000.00
Personal and Advertising Injury Limit	\$1,000,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expenses Limit (any one person)	\$5,000.00

- b. If the contract is for underground utility work the Contractor shall provide proof of insurance for that above in the form of Explosion, Collapse and Underground (XCU) coverage.
 - c. Employers Liability on an occurrence basis in an amount not less than \$1,000,000.00 per occurrence.
2. For contracts over \$100,000.00 but less than \$5,000,000.00 the Contractor shall obtain the coverage limits as listed for contracts below \$100,000.00 and General Aggregate and Products – Commercial Operations Limit of not less than \$2,000,000.00.
 3. Coverage for Comprehensive General Bodily Injury Liability Insurance for a contract over \$5,000,000.00 is:

Each Occurrence	\$2,000,000.00
General Aggregate Limits (other than products – commercial operations)	\$4,000,000.00
Products – Commercial Operations Limited	\$4,000,000.00
Personal and Advertising Injury Limit	\$2,000,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expenses Limit (any one person)	\$5,000.00

4. For all Contracts – Automobile Liability; in the event that services delivered pursuant to this contract involve the use of vehicles or the transportation of clients, automobile liability insurance shall be required. If Contractor owned personal vehicles are used, a Business Automobile Policy covering at a minimum Code 2 “owned autos only” must be secured. If Contractor employee’s vehicles are used, the Contractor must also include under the Business Automobile Policy Code 9, coverage for non-owned autos. The minimum limits for automobile liability is: \$1,000,000.00 per occurrence, using a combined single limit for bodily injury and property damage.

DIVISION 0 – GENERAL CONDITIONS

5. For contracts for Hazardous Substance Removal (Asbestos Abatement, PCB Abatement, etc.)

- a. In addition to providing insurance coverage for the project as outlined above, the Contractor shall provide Pollution Liability insurance for the hazardous substance removal as follows:

<u>EACH OCCURRENCE</u>	<u>AGGREGATE</u>
\$500,000.00	1,000,000.00

Or \$1,000,000.00 each occurrence/aggregate bodily injury and property damage combined single limit.

- 1) Insurance certificate must state that the insurer is covering hazardous substance removal.
- 2) Should this insurance be secured on a “claims made” basis, the coverage must be continuously maintained for 1 year following the project’s “final completion” through official completion of the project, plus 1 year following.

For contracts where hazardous substance removal is a subcomponent of contracted work, the general contractor shall provide to the Owner a certificate of insurance for coverage as defined in 5a above. The State of Washington must be listed as an additional insured. This certificate of insurance must be provided to the Owner prior to commencing work.

00702.03 INSURANCE COVERAGE CERTIFICATES

- A. Prior to the commencement of the Work, Contractor shall furnish acceptable proof of insurance on the State of Washington Certificate of Insurance Form SF500A, as well as copies of insurance policies.
- B. All insurance certificates shall name Owner's Project number and Project title.
- C. All insurance certificates shall specifically require 45 days prior notice to Owner of cancellation or any material change, except 30 days for surplus line insurance.

702.04.1 PAYMENT AND PERFORMANCE BONDS

- A. Contractor shall provide separate performance and payment bonds, each executed by the Contractor and the Contractor’s Surety.
- B. Option: Contract sums of \$150,000 or less, Owner will not require performance and payments bonds; if Contractor agrees Owner may, in lieu of the bond, retain 10 percent of the Contract Sum.

00702.05 ADDITIONAL BOND SECURITY

Contractor shall promptly furnish additional security required to protect Owner and persons supplying labor or materials required by the Contract Documents if:

- A. Owner has a reasonable objection to the surety; or
- B. Any surety fails to furnish reports on its financial condition if requested by Owner.

00702.06 BID BOND OR PROPOSAL GUARANTEE

- A. For bids of \$35,000 or less, no bid bond is required. Bids greater than \$35,000 shall be accompanied by a certified check, cashier's check, or bid bond payable to the Treasurer of the State of Washington in an amount equal to at least 5 percent of the bid as evidence of good faith and as a guarantee that, if awarded the Contract, the bidder will execute the Contract and give Performance Bond as required. All proposal guarantees may be held a maximum of 30 calendar days, and the 3 lowest bids may be held 45 calendar days from the date of the bid opening. At the end of the 30 calendar day period, all proposal guarantees, except those accompanying the 3 lowest bids, will be returned to the respective bidders. After the Contract and bonds have been executed, the remaining 3 proposal guarantees will be returned to their respective bidders.
- B. Only a cashier's check or certified check will be accepted in lieu of a bid bond. State statute requires deposit of negotiable receipts at the time of receipt. The bidder should be prepared to accept an additional 60 to 90 day delay in obtaining repayment from the State Treasurer.
- C. Fiscal procedures in preparing repayment are time consuming, and result in the requirement for additional time. Failure to comply with this section will cause bid to be considered nonresponsive.

00702.07 BUILDER'S RISK

- A. Contractor shall purchase and maintain property insurance in the amount of the Contract Sum including all Change Orders for the Work on a replacement cost basis until Final Completion. The insurance shall cover the interest of Owner, Contractor, and any Subcontractors, as their interests may appear.
- B. Contractor property insurance shall be placed on an "all risk" basis and insure against the perils of fire and extended coverage and physical loss or damage including theft, vandalism, malicious mischief, collapse, false work, temporary buildings, debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for A/Es' services and expenses required as a result of an insured loss.

- C. Owner and Contractor waive all subrogation rights against each other, any Subcontractors, A/E, A/Es' sub consultants, separate contractors described in *SECTION 00705.20*, if any, and any of their subcontractors, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to this section or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by Owner as fiduciary. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

PART 3 - 00703.00 TIME AND SCHEDULE

00703.01 PROGRESS AND COMPLETION

Contractor shall diligently prosecute the Work, with adequate forces, achieve Substantial Completion within the Contract Time, and achieve Final Completion within a reasonable period thereafter.

00703.02 CONSTRUCTION SCHEDULE

- A. The Contractor shall, at the Preconstruction Conference and prior to Notice to Proceed, submit a Construction Schedule showing the sequence in which the Contractor proposes to perform the work, including dates on which the contractor plans to start and finish major portions of the work, dates for submitting shop drawings and other submittals, and dates for acquisition of materials and equipment.
- B. The Construction Schedule shall be in the form of a bar chart, or a critical path method analysis, as specified by Owner. The preliminary Construction Schedule may be general, showing the major portions of the Work, with more specific Construction Schedules in subsequent months as directed by Owner.
- C. Owner shall return comments on the preliminary Construction Schedule to Contractor within 14 days of receipt. Review by Owner of Contractor's schedule does not constitute an approval or acceptance of Contractor's construction means, methods, or sequencing, or its ability to complete the Work within the Contract Time. Contractor shall revise and resubmit its schedule, as necessary. Owner may withhold progress payments until a Construction Schedule has been submitted that meets the requirements of this section.
- D. Contractor shall utilize and comply with the Construction Schedule. On a monthly basis, or as otherwise directed by Owner, Contractor shall submit an updated Construction Schedule at its own expense to Owner indicating actual progress. If, in the opinion of the Owner, Contractor is not in conformance with the Construction Schedule for reasons other than acts of *force majeure* as identified in *SECTION 00703.05*, Contractor shall take such steps as are necessary to bring the actual completion dates of its work activities into conformance with the Construction Schedule, or revise the Construction Schedule to reconcile with the actual progress of the Work.

DIVISION 0 – GENERAL CONDITIONS

- E. Contractor shall promptly notify Owner in writing of any actual or anticipated event that is delaying or could delay achievement of any milestone or performance of any critical path activity of the Work. Contractor shall indicate the expected duration of the delay, the anticipated effect of the delay on the Construction Schedule, and the action being or to be taken to correct the problem. Provision of such notice does not relieve Contractor of its obligation to complete the Work within the Contract Time.
- F. The Contractor shall notify the Owner or Owner at least 2 weeks in advance if work is to be performed on a Saturday, Sunday, and/or state holiday.
- G. No excavation work, as defined by *SECTION 00705.09*, will be allowed on Saturdays, Sundays and/or state holidays unless specifically authorized by the Owner.

00703.03 OWNER'S RIGHT TO SUSPEND THE WORK FOR CONVENIENCE

- A. Owner may, at its sole discretion, order the Contractor in writing to suspend all or any part of the Work for up to 90 days, or for such longer period as mutually agreed.
- B. Upon receipt of a written notice suspending the Work, Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of cost of performance directly attributable to such suspension. Within a period up to 90 days after the notice is delivered to Contractor, or within any extension of that period to which the parties shall have agreed, Owner shall either:
 - 1. Cancel the written notice suspending the Work; or
 - 2. Terminate the Work covered by the notice as provided in the termination provisions of *SECTION 00709.00*.
- C. If a written notice suspending the Work is canceled or the period of the notice or any extension thereof expires, Contractor shall resume the Work.
- D. Contractor shall be entitled to an equitable adjustment in the Contract Time, or Contract Sum, or both, for increases in the time or cost of performance directly attributable to such suspension, provided Contractor complies with all requirements set forth in *SECTION 00707.00*.

00703.04 OWNER'S RIGHT TO STOP THE WORK FOR CAUSE

- A. If Contractor fails or refuses to perform its obligations in accordance with the Contract Documents, Owner may order the Contractor in writing to stop the Work, or any portion thereof, until satisfactory corrective action has been taken.
- B. Contractor shall not be entitled to an equitable adjustment in the Contract Time or Contract Sum for any increased cost or time of performance attributable to Contractor's failure or refusal to perform or from any reasonable remedial action taken by Owner based upon such failure.

00703.05 DELAY

- A. Any delay in or failure of performance by Owner or Contractor, other than the payment of money, shall not constitute a default hereunder if and to the extent the cause for such delay or failure of performance was unforeseeable and beyond the control of the party (*force majeure*). Acts of *force majeure* include, but are not limited to:
1. Acts of God or the public enemy
 2. Acts or omissions of any government entity
 3. Fire or other casualty for which Contractor is not responsible
 4. Quarantine or epidemic
 5. Strike or defensive lockout
 6. Unusually severe weather conditions that could not have been reasonably anticipated
 7. Unusual delay in receipt of supplies or products which were ordered and expedited and for which no substitute reasonably acceptable to Owner was available.
- B. Contractor shall be entitled to an equitable adjustment in the Contract Time for changes in the time of performance directly attributable to an act of *force majeure*, provided it makes a request for equitable adjustment according to *SECTION 00707.03*. Contractor shall not be entitled to an adjustment in the Contract Sum resulting from an act of *force majeure*.
- C. Contractor shall be entitled to an equitable adjustment in Contract Time, and may be entitled to an equitable adjustment in Contract Sum, if the cost or time of Contractor's performance is changed due to the fault or negligence of Owner, provided the Contractor makes a request according to *SECTIONS 00707.02* and *00707.03*.
- D. Contractor shall not be entitled to an adjustment in Contract Time or in the Contract Sum for any delay or failure of performance to the extent such delay or failure was caused by Contractor or anyone for whose acts Contractor is responsible.
- E. To the extent any delay or failure of performance was concurrently caused by the Owner and Contractor, Contractor shall be entitled to an adjustment in the Contract Time for that portion of the delay or failure of performance that was concurrently caused, provided it makes a request for equitable adjustment according to *SECTION 00707.03*, but shall not be entitled to an adjustment in Contract Sum.
- F. Contractor shall make all reasonable efforts to prevent and mitigate the effects of any delay, whether occasioned by an act of *force majeure* or otherwise.

00703.06 NOTICE TO OWNER OF LABOR DISPUTES

If Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay timely performance in accordance with the Contract Documents, Contractor shall immediately give notice, including all relevant information, to Owner.

Contractor agrees to insert a provision in its Subcontracts and to require insertion in all Sub-subcontracts, that in the event timely performance of any such contract is delayed or threatened by delay by any actual or potential labor dispute, the Subcontractor or Sub-subcontractor shall immediately notify the next higher tier Subcontractor or Contractor, as the case may be, of all relevant information concerning the dispute.

00703.07 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION

A. Liquidated Damages:

1. Timely performance and completion of the Work is essential to Owner and time limits stated in the Contract Documents are of the essence. Owner will incur serious and substantial damages if Substantial Completion of the Work does not occur within the Contract Time. However, it would be difficult if not impossible to determine the exact amount of such damages. Consequently, provisions for liquidated damages are included in the Contract Documents.
2. The liquidated damage amounts set forth in the Contract Documents will be assessed not as a penalty, but as liquidated damages for breach of the Contract Documents. This amount is fixed and agreed upon by and between the Contractor and Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain. This amount shall be construed as the actual amount of damages sustained by the Owner, and may be retained by the Owner and deducted from periodic payments to the Contractor.
3. Assessment of liquidated damages shall not release Contractor from any further obligations or liabilities pursuant to the Contract Documents.

B. Actual Damages:

Actual damages will be assessed for failure to achieve Final Completion within the time provided. Actual damages will be calculated on the basis of direct architectural, administrative, and other related costs attributable to the Project from the date when Final Completion should have been achieved, based on the date Substantial Completion is actually achieved, to the date Final Completion is actually achieved. Owner may offset these costs against any payment due Contractor.

PART 4 - 00704.00 SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS

00704.01 DISCREPANCIES AND CONTRACT DOCUMENT REVIEW

- A. The intent of the Specifications and Drawings is to describe a complete Project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the Drawings, Specifications, and other provisions of the Contract Documents.

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- B. The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.
- C. Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Owner. If during the performance of the Work Contractor finds a conflict, error, inconsistency, or omission in the Contract Documents, it shall promptly and before proceeding with the Work affected thereby report such conflict, error, inconsistency, or omission to A/E in writing.
- D. Contractor shall do no Work without applicable Drawings, Specifications, or written modifications, or shop drawings where required, unless instructed to do so in writing by Owner. If Contractor performs any construction activity, and it knows or should have known that any of the Contract Documents contain a conflict, error, inconsistency, or omission, Contractor shall be responsible for the performance and shall bear the cost for its correction.
- E. Contractor shall provide any work or materials the provision of which is clearly implied in the Contract Documents even if the Contract Documents do not mention them specifically.
- F. Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the A/E.

00704.02 PROJECT RECORD

- A. Contractor shall legibly mark in ink on a separate set of the Drawings and Specifications all actual construction including depths of foundations, horizontal and vertical locations of internal and underground utilities and appurtenances referenced to permanent visible and accessible surface improvements, field changes of dimensions and details, actual suppliers, manufacturers and trade names, models of installed equipment, and Change Order proposals. This separate set of Drawings and Specifications shall be the "Project Record."
- B. The Project Record shall be maintained on the project site throughout the construction and shall be clearly labeled "PROJECT RECORD." The Project Record shall be updated at least weekly noting all changes and shall be available to Owner at all times.
- C. Contractor shall submit the completed and finalized Project Record to A/E prior to Final Acceptance.

00704.03 SHOP DRAWINGS

- A. "Shop Drawings" means documents and other information required to be submitted to A/E by Contractor pursuant to the Contract Documents, showing in detail: the proposed fabrication and assembly of structural elements; and the installation (i.e. form, fit, and attachment details) of materials and equipment. Shop drawings include, but are not limited to, drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, samples, and similar materials furnished by Contractor to explain in detail specific portions of the Work required by the Contract Documents.

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For materials and equipment to be incorporated into the Work, Contractor submittal shall include the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the item. When directed, Contractor shall submit all samples at its own expense. Owner may duplicate, use, and disclose shop drawings provided in accordance with the Contract Documents.

- B. Contractor shall coordinate all shop drawings and review them for accuracy, completeness, and compliance with the Contract Documents and shall indicate its approval thereon as evidence of such coordination and review. Where required by law, shop drawings shall be stamped by an appropriate professional licensed by the State of Washington. Shop drawings submitted to A/E without evidence of Contractor's approval shall be returned for resubmission.

Contractor shall review, approve, and submit shop drawings with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of Owner or separate contractors. Contractor's submittal schedule shall allow a reasonable time for A/E review. A/E will review, approve, or take other appropriate action on the shop drawings. Contractor shall perform no portion of the Work requiring submittal and review of shop drawings until the respective submittal has been reviewed and the A/E has approved or taken other appropriate action. Owner and A/E shall respond to shop drawing submittals with reasonable promptness. Any Work by Contractor shall be in accordance with reviewed shop drawings. Submittals made by Contractor that are not required by the Contract Documents may be returned without action.

- C. Approval or other appropriate action with regard to shop drawings by Owner or A/E shall not relieve Contractor of responsibility for any errors or omissions in such shop drawings, nor from responsibility for compliance with the requirements of the Contract Documents. Unless specified in the Contract Documents, review by Owner or A/E shall not constitute an approval of the safety precautions employed by Contractor during construction, or constitute an approval of Contractor's means or methods of construction. If Contractor fails to obtain approval before installation and the item or work is subsequently rejected, Contractor shall be responsible for all costs of correction.
- D. If shop drawings show variations from the requirements of the Contract Documents, Contractor shall describe such variations in writing, separate from the shop drawings, at the time it submits the shop drawings containing such variations. If A/E approves any such variation, an appropriate Change Order will be issued. If the variation is minor and does not involve an adjustment in the Contract Sum or Contract Time, a Change Order need not be issued; however, the modification shall be recorded on the Project Record.
- E. Unless otherwise provided in *DIVISION 1*, Contractor shall submit to A/E for approval one electronic or paper copy of all shop drawings and submittals, unless otherwise indicated.

00704.04 ORGANIZATION OF SPECIFICATIONS

Specifications are prepared in sections that conform generally with trade practices. These sections are for Owner and Contractor convenience and shall not control Contractor in dividing the Work among the Subcontractors or in establishing the extent of the Work to be performed by any trade.

00704.05 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS

- A. Drawings, Specifications, and other documents prepared by A/E are instruments of A/E's service through which the Work to be executed by Contractor is described. Neither Contractor nor any Subcontractor shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by A/E, and A/E shall be deemed the author of them and will, along with any rights of Owner, retain all common law, statutory, and other reserved rights, in addition to the copyright. All copies of these documents, except Contractor's set, shall be returned or suitably accounted for to A/E, on request, upon completion of the Work.
- B. The Drawings, Specifications, and other documents prepared by the A/E, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any Subcontractor on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Owner. Contractor and Subcontractors are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications, and other documents prepared by A/E appropriate to and for use in the execution of their Work.
- C. Contractor and all Subcontractors grant a nonexclusive license to Owner, without additional cost or royalty, to use for its own purposes (including reproduction) all shop drawings, together with the information and diagrams contained therein, prepared by Contractor or any Subcontractor. In providing shop drawings, Contractor and all Subcontractors warrant that they have authority to grant to Owner a license to use the shop drawings, and that such license is not in violation of any copyright or other intellectual property right.
- D. Contractor agrees to defend and indemnify Owner pursuant to the indemnity provisions in *SECTION 00705.22* from any violations of copyright or other intellectual property rights arising out of Owner's use of the shop drawings hereunder, or to secure for Owner, at Contractor's own cost, licenses in conformity with this section.
- E. The shop drawings and other submittals prepared by Contractor, Subcontractors, or its or their equipment or material suppliers, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any Subcontractor on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Owner. The Contractor, Subcontractors of any tier, and material or equipment suppliers are granted a limited license to use and reproduce applicable portions of the shop drawings and other submittals appropriate to and for use in the execution of their Work under the Contract Documents.

PART 5 - 00705.00 PERFORMANCE

00705.01 CONTRACTOR CONTROL AND SUPERVISION

- A. Contractor shall supervise and direct the Work, using its best skill and attention, and shall perform the Work in a skillful manner. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work, unless the Contract Documents give other specific instructions concerning these matters. Contractor shall disclose its means and methods of construction when requested by Owner.

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- B. Performance of the Work shall be directly supervised by a competent superintendent who is satisfactory to Owner, and has authority to act for Contractor. The superintendent shall not be changed without the prior written consent of Owner.
- C. Contractor shall be responsible to Owner for acts and omissions of Contractor, Subcontractors, and their employees and agents.
- D. Contractor shall enforce strict discipline and good order among Contractor's employees and other persons performing the Work. Contractor shall not permit employment of persons not skilled in tasks assigned to them. Contractor's employees shall at all times, conduct business in a manner that assures fair, equal, and nondiscriminatory treatment of all persons. Owner may, by written notice, request Contractor to remove from the Work or Project site any employee Owner reasonably deems incompetent, careless, or otherwise objectionable.
- E. Contractor shall keep on the Project site a copy of the Drawings, Specifications, addenda, reviewed shop drawings, and permits and permit drawings.
- F. Contractor shall ensure that its owner(s) and employees, and those of its Subcontractors, comply with the *Executive Conflict of Interest Act, RCW 42.18*, which, among other things, prohibits state employees from having an economic interest in any Public Works Contract that was made by, or supervised by, that employee. Contractor shall remove at its sole cost and expense any of its or its Subcontractors', employees if they are in violation of this Act.

00705.02 PERMITS, FEES, AND NOTICES

- A. Unless otherwise provided in the Contract Documents, Contractor shall pay for and obtain all permits, licenses, and inspections necessary for proper execution and completion of the Work. Prior to Final Acceptance, the approved, signed permits shall be delivered to Owner.
- B. If allowances for permits or utility fees are called for in the Contract Documents and set forth in Contractor's bid, and the actual costs of those permits or fees differ from the allowances in the Contract Documents, the difference shall be adjusted by Change Order.
- C. Contractor shall comply with and give notices required by all federal, state, and local laws, ordinances, rules, regulations, and lawful orders of public authorities applicable to performance of the Work.
- D. The Contractor shall conform to all local, state, and national codes in all phases of this project. Where conflicts arise between the code requirements and Drawings or Specifications requirements, the code shall govern and prevail unless the Drawings or Specifications impose requirements or limitations that are more stringent than the code requirements, in which case the more stringent requirements or limitations shall govern and prevail...

00705.03 PATENTS AND ROYALTIES

Contractor is responsible for, and shall pay, all royalties and license fees. Contractor shall defend, indemnify, and hold Owner harmless from any costs, expenses, and liabilities arising out of the infringement by Contractor of any patent, copyright, or other intellectual property right used in the Work; however, provided that Contractor gives prompt notice, Contractor shall not be responsible for such defense or indemnity when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents. If Contractor has reason to believe that use of the required design, process, or product constitutes an infringement of a patent or copyright, it shall promptly notify Owner of such potential infringement.

00705.04 PREVAILING WAGES

- A. Contractor shall pay the prevailing rate of wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with *RCW 39.12* and the rules and regulations of the Department of Labor and Industries (L&I). The schedule of prevailing wage rates for the locality or localities of the Work, as determined by the Industrial Statistician of L&I, is by reference made a part of the Contract Documents as though fully set forth herein.
 - 1. Before commencing the Work, Contractor shall file a statement under oath with Owner and with the Director of L&I certifying the rate of hourly wage paid and to be paid each classification of laborers, workers, or mechanics employed upon the Work by Contractor and Subcontractors. Such rates of hourly wage shall not be less than the prevailing wage rate.
 - 2. Disputes regarding prevailing wage rates shall be referred for arbitration to the Director of L&I. The arbitration decision shall be final and conclusive and binding on all parties involved in the dispute as provided for by *RCW 39.12.060*.
 - 3. Each Application for Payment submitted by Contractor shall state that prevailing wages have been paid in accordance with the prefilled statement(s) of intent, as approved. Copies of the approved intent statement(s) shall be posted on the job site with the address and telephone number of the Industrial Statistician of L&I where a complaint or inquiry concerning prevailing wages may be made.
 - 4. In compliance with *CHAPTER 296-127 WAC*, Contractor shall pay to L&I the currently established fee for each statement of intent and/or affidavit of wages paid submitted to L&I for certification.
 - 5. Per EHB 2805, public works contracts estimated to cost over \$1 million requires the Contractor and Subcontractor to submit information regarding any off-site, pre-fabricated, non-standard, project-specific items produced under each contract and produced outside Washington.
 - 6. Contractor and Subcontractor must have the following information on their Affidavit of Wages Paid form:
 - a. The estimated cost of the public works project;
 - b. The name of the awarding agency and the title of the public works project;

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- c. The contract value of the off-site, pre-fabricated, non-standard, project specific items produced outside Washington; and
 - d. The name, address, and federal employer identification number of the contractor that produced the off-site, pre-fabricated, non-standard, project specific items.
- B. Projects identified as having federal financing, excluding FEMA shall comply with *Federal Davis Bacon Act* requirements.
 - 1. All laborers, mechanics, and other workers employed by the Contractor or Subcontractors to work on construction projects financed by federal assistance must be paid wages not less than those established for the locality of the project by the U.S. Secretary of Labor (40 Stat 1494, Mar, 3, 1921, Chap, 411, 40 USC276A 276A S).
 - 2. When the project is subject to both state and federal wage rates, and when the rates differ for similar kinds of labor, the Contractor shall not pay less than the higher rate. The area in which the worker is physically employed shall determine which federal wage and fringe benefit rate shall be used to compare against the state wage and fringe benefit rate.
 - 3. Washington State's prevailing wage rate for this project can be found at the Department of Labor and Industries' (L&I) website: <https://fortress.wa.gov/lni/wagelookup/prvwagelookup.aspx>.
- C. Projects identified as having FEMA funding shall comply with Stafford Act Requirements. Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended, 42 U.S.C. 5121 et seq., and Related Authorities.
 - 1. All laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed with the assistance of any contribution of Federal funds made by the Administrator under this subsection shall be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with sections 3141-3144, 3146, and 3147 of title 40, and every such employee shall receive compensation at a rate not less than one and 1/2 times the basic rate of pay of the employee for all hours worked in any workweek in excess of 8-hours in any workday or 40 hours in the workweek, as the case may be. The Administrator shall make no contribution of Federal funds without first obtaining adequate assurance that these labor standards will be maintained upon the construction work. The Secretary of Labor shall have, with respect to the labor standards specified in this subsection, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (5 U.S.C. App.) and section 3145 of title 40.
 - 2. When the project is subject to both state and federal wage rates, and when the rates differ for similar kinds of labor, the Contractor shall not pay less than the higher rate. The area in which the worker is physically employed shall determine which federal wage and fringe benefit rate shall be used to compare against the state wage and fringe benefit rate.

00705.05 HOURS OF LABOR

- A. Contractor shall comply with all applicable provisions of *RCW 49.28*, and they are incorporated herein by reference. Pursuant to that statute no laborer, worker, or mechanic employed by Contractor, any Subcontractor, or any other person performing or contracting to do the whole or any part of the Work shall be permitted or required to work more than 8 hours in any one calendar day, provided that in cases of extraordinary emergency, such as danger to life or property, the hours of work may be extended, but in such cases the rate of pay for time employed in excess of 8 hours of each calendar day shall be not less than 1½ times the rate allowed for this same amount of time during 8 hours of service.
- B. Notwithstanding the preceding paragraph, *RCW 49.28* permits a Contractor or Subcontractor in any Public Works Contract subject to those provisions to enter into an agreement with its employees in which the employees work up to 10 hours in a calendar day. No such agreement may provide that the employees work 10 hour days for more than 4 calendar days a week. Any such agreement is subject to approval by the employees. The overtime provisions of *RCW 49.28* shall not apply to the hours, up to 40 hours per week, worked pursuant to any such agreement.

00705.06 NONDISCRIMINATION

- A. Discrimination in all phases of employment is prohibited by, among other laws and regulations, *Title VII of the Civil Rights Act of 1964*, the *Vietnam Era Veterans Readjustment Act of 1974*, *Sections 503 and 504 of the Vocational Rehabilitation Act of 1973*, the *Equal Employment Act of 1972*, the *Age Discrimination Act of 1967*, the *Americans with Disabilities Act of 1990*, the *Civil Rights Act of 1991*, *Presidential Executive order 11246*, *Presidential Executive Order 11375*, *Presidential Executive Order 13672*, the *Washington State Law Against Discrimination*, *RCW 49.60*, and *Gubernatorial Executive Order 85-09*. These laws and regulations establish minimum requirements for affirmative action and fair employment practices which Contractor must meet.
- B. During Performance of the Work:
 - 1. Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, age, marital status, or the presence of any physical, sensory, or mental disability, Vietnam era veteran status, or disabled veteran status, nor commit any other unfair practices as defined in *RCW 49.60*.
 - 2. Contractor shall, in all solicitations or advertisements for employees placed by or for it, state that all qualified applicants will be considered for employment without regard to race, creed, color, national origin, sex, sexual orientation, age, marital status, or the presence of any physical, sensory, or mental disability.
 - 3. Contractor shall send to each labor union, employment agency, or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union, employment agency, or workers' representative of Contractor's obligations according to the Contract Documents and *RCW 49.60*.

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4. Contractor shall permit access to its books, records, and accounts, and to its premises by Owner, and by the Washington State Human Rights Commission, for the purpose of investigation to ascertain compliance with this section of the Contract Documents.
5. Contractor shall include the provisions of this section in every Subcontract.

00705.07 SAFETY PRECAUTIONS

- A. Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work.
- B. In carrying out its responsibilities according to the Contract Documents, Contractor shall protect the lives and health of employees performing the Work and other persons who may be affected by the Work; prevent damage to materials, supplies, and equipment whether onsite or stored offsite; and prevent damage to other property at the site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property, or to protect them from damage, injury, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify owners of adjacent property and utilities when prosecution of the Work may affect them.
- C. Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Contractor shall immediately report any such incident to Owner. Owner shall, at all times, have a right of access to all records of exposure.
- D. Contractor shall provide all persons working on the Project site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.
 1. Information: At a minimum, Contractor shall inform persons working on the Project site of:
 - a. The requirements of *CHAPTER 296-62 WAC, General Occupational Health Standards*
 - b. Any operations in their work area where hazardous chemicals are present
 - c. The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and Safety Data Sheets (SDS) required by *CHAPTER 296-62 WAC*.
 2. Training: At a minimum, Contractor shall provide training for persons working on the project site, which includes:
 - a. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.).
 - b. The physical and health hazards of the chemicals in the work area.

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- c. The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
 - d. The details of the hazard communication program developed by Contractor or its Subcontractors, including an explanation of the labeling system and the SDS, and how employees can obtain and use the appropriate hazard information.
- E. Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:
 - 1. Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project site any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state, or local law, regulation, statute or ordinance (hereinafter collectively referred to as "hazardous substances"), in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored more than 90 days on the Project site.
 - 2. Contractor shall promptly notify Owner of all spills or releases of any hazardous substances that are otherwise required to be reported to any regulatory agency and pay the cost of cleanup. Contractor shall promptly notify Owner of all failures to comply with any federal, state, or local law, regulation, or ordinance; all inspections of the Project site by any regulatory entity concerning the same; all regulatory orders or fines; and all responses or interim cleanup actions taken by or proposed to be taken by any government entity or private party on the Project site.
- F. All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor's responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.
- G. In an emergency affecting the safety of life or the Work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.
- H. Nothing provided in this section shall be construed as imposing any duty upon Owner or A/E with regard to, or as constituting any express or implied assumption of control or responsibility over, Project site safety, or over any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public.

00705.08 OPERATIONS, MATERIAL HANDLING, EASEMENTS AND STORAGE AREAS

- A. Contractor shall confine all operations, including storage of materials, to Owner-approved areas. The Owner has acquired ownership and/or easement of lands for the construction as indicated on the Drawings without cost to the Contractor. It is understood and agreed by the Contractor that if it should appear at any time that the Owner has not acquired title to all of the right-of-ways and lands necessary for the performance of the Work under the provisions of this Contract, and that if any delay in the performance of said Work occasioned by the failure of the Owner, its officers, or employees to acquire a title of any of said lands or right-of-way, such failure shall extend the Contract completion date the number of days equal to the period of such delay. The Contractor waives any and all claims for damages against the Owner, its officers, and employees which the Contractor may sustain by reason of delay in the Work.
- B. Temporary buildings (e.g. storage sheds, shops, offices) and utilities may be provided by Contractor only with the consent of Owner and without expense to Owner. The temporary buildings and utilities shall remain the property of Contractor and shall be removed by Contractor at its expense upon completion of the Work.
- C. Contractor shall use only established roadways or temporary roadways authorized by Owner. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by federal, state, or local law or regulation.
- D. Ownership and control of all materials or facility components to be demolished or removed from the Project site by Contractor shall immediately vest in Contractor upon severance of the component from the facility or severance of the material from the Project site. Contractor shall be responsible for compliance with all laws governing the storage and ultimate disposal. Contractor shall provide Owner with a copy of all manifests and receipts evidencing proper disposal when required by Owner or applicable law.
- E. Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project site. Materials and equipment may be stored on the premises subject to approval of Owner. When Contractor uses any portion of the Project site as a shop, Contractor shall be responsible for any repairs, patching, or cleaning arising from such use.
- F. Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment until the date of Substantial Completion, and shall repair or replace without cost to Owner any damage or loss that may occur, except damages or loss caused by the acts or omissions of Owner. Contractor shall also protect and be responsible for any damage or loss to the Work, or to the materials or equipment, after the date of Substantial Completion, and shall repair or replace without cost to Owner any such damage or loss that might occur, to the extent such damages or loss are caused by the acts or omissions of Contractor, or any Subcontractor.

00705.09 PRIOR NOTICE OF EXCAVATION

"Excavation" means an operation in which earth, rock, or other material on or below the ground is moved or otherwise displaced by any means, except the tilling of soil less than 12 inches in depth for agricultural purposes, or road ditch maintenance that does not change the original road grade or ditch flow line. Before commencing any excavation, Contractor shall provide notice of the scheduled commencement of excavation to all owners of underground facilities and utilities through locator services.

00705.10 UNFORSEEN PHYSICAL CONDITIONS

- A. If Contractor encounters conditions at the site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Contractor shall give written notice to Owner promptly before conditions are disturbed and in no event later than 7 days after the first observance of the conditions.
- B. If such conditions differ materially and cause a change in Contractor's cost of, or time required for, performance of any part of the Work, the Contractor may be entitled to an equitable adjustment in the Contract Time or Contract Sum or both, provided it makes a request thereof as provided in *SECTION 00707.00 - CHANGES*.

00705.11 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, STOCK, VEGETATION, UTILITIES, AND IMPROVEMENTS

- A. Contractor shall protect from damage all existing structures, equipment, improvements, utilities, and vegetation at or near the Project site, and on adjacent property of a third party, the locations of which are made known to or should be known by Contractor. Contractor shall repair any damage, including that to the property of a third party, resulting from failure to comply with the requirements of the Contract Documents or failure to exercise reasonable care in performing the Work. If Contractor fails or refuses to repair the damage promptly, Owner may have the necessary work performed and charge the cost to Contractor.
- B. Contractor shall only remove trees when specifically authorized to do so, and shall protect vegetation that will remain in place.
- C. Damage to facility production resulting in death or sickness of stock shall result in claims against the Contractor for loss of production or costs incurred by any extraordinary measures required to save production.

00705.12 LAYOUT OF WORK

- A. Contractor shall plan and lay out the Work in advance of operations so as to coordinate all work without delay or revision.

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- B. Contractor shall do all cutting, fitting, or patching that may be required to make its several parts fit together properly, or receive or be received by work of others set forth in, or reasonable implied by, the Contract Documents. Contractor shall not endanger any work by cutting, excavating, or otherwise altering the Work and shall not cut or alter the work of any other contractor unless approved in advance by Owner.
- C. Should any of the Work be found defective, or in any way not in accordance with the Contract Documents, this work, in whatever state of completion, may be rejected by Owner.

00705.13 MATERIAL AND EQUIPMENT

- A. All equipment, material, and articles incorporated into the Work shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in the Contract Documents. References in the Specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard quality and shall not be construed as limiting competition. Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of A/E, is equal to that named in the Specifications, unless otherwise specifically provided in the Contract Documents.
- B. It shall be the responsibility of the Contractor to furnish proof of equality in all respects to specified items when proposing alternate brands or items. Any significant deviations from Specifications, Drawings, or equality must be noted by the Contractor when submitting alternate materials for approval. The Owner shall be the sole judge of the equality and suitability of any products, materials, or components proposed by the Contractor as alternates to specified items. The Contractor shall, at their own expense, make any secondary changes required to incorporate an approved substitute or alternate into the project. No offers for substitution will be acknowledged from suppliers, distributors, manufacturers, or Subcontractors.
- C. Contractor shall do all cutting, fitting, or patching that may be required to make its several parts fit together properly, or receive or be received by work of others set forth in, or reasonably implied by, the Contract Documents. Contractor shall not endanger any work by cutting, excavating, or otherwise altering the Work and shall not cut or alter the work of any other contractor unless approved in advance by Owner.
- D. Should any of the Work be found defective, or in any way not in accordance with the Contract Documents, this work, in whatever stage of completion, may be rejected by Owner.

00705.14 AVAILABILITY AND USE OF UTILITY SERVICES

- A. Owner shall make all reasonable utilities available to Contractor from existing outlets and supplies, as specified in the Contract Documents. Unless otherwise provided in the Contract Documents, the utility service consumed shall be charged to or paid for by Contractor at prevailing rates charged to Owner or, where the utility is produced by Owner, at reasonable rates determined by Owner. Contractor will carefully conserve any utilities furnished.

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- B. Contractor shall, at its expense and in a skillful manner satisfactory to Owner, install and maintain all necessary temporary connections and distribution lines, together with appropriate protective devices and all meters required to measure the amount of each utility used for the purpose of determining charges. Prior to Final Completion, Contractor shall remove all temporary connections, distribution lines, meters, and associated equipment and materials.

00705.15 TESTS AND INSPECTION

- A. Contractor shall maintain an adequate testing and inspection program and perform such tests and inspections as are necessary or required to ensure that the Work conforms to the requirements of the Contract Documents. Contractor shall be responsible for inspection and quality surveillance of all its Work and all Work performed by any Subcontractor. Unless otherwise provided, Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. Contractor shall give Owner timely notice of when and where tests and inspections are to be made. Contractor shall maintain complete inspection records and make them available to Owner.
- B. Owner may, at any reasonable time, conduct such inspections and tests, as it deems necessary to ensure that the Work is in accordance with the Contract Documents. Owner shall promptly notify Contractor if an inspection or test reveals that the Work is not in accordance with the Contract Documents. Unless the subject items are expressly accepted by Owner, such Owner inspection and tests are for the sole benefit of Owner and do not:
 - 1. Constitute or imply acceptance
 - 2. Relieve Contractor of responsibility for providing adequate quality control measures
 - 3. Relieve Contractor of responsibility for risk of loss or damage to the Work, materials, or equipment
 - 4. Relieve Contractor of its responsibility to comply with the requirements of the Contract Documents
 - 5. Impair Owner's right to reject defective or nonconforming items or to avail itself of any other remedy to which it may be entitled.
- C. In addition to any inspections required by local authorities or permitting agencies, the State will appoint its own inspector for the project. Construction inspectors employed by the State shall assist the Owner in making all necessary inspections and measurements and shall enforce a strict compliance with the terms of the Contract and the orders of the Owner. The Inspector will have the authority to reject materials or workmanship which do not fulfill the requirements of these Specifications. In case of dispute, the Contractor may appeal to the Owner whose decision shall be final. The acceptance of any material by the Inspector shall not hinder its subsequent rejection if found defective. Rejected materials and workmanship shall be replaced promptly or be remedied by the Contractor, without additional cost to the Owner.

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- D. Neither observations by an inspector retained by Owner, the presence or absence of such inspector on the site, nor inspections, tests, or approvals by others, shall relieve Contractor from any requirement of the Contract Documents, nor is any such inspector authorized to change any term or condition of the Contract Documents.
- E. Contractor shall promptly furnish, without additional charge, all facilities, labor, material, and equipment reasonably needed for performing such safe and convenient inspections and tests as may be required by Owner. Owner may charge Contractor any additional cost of inspection or testing when Work is not ready at the time specified by Contractor for inspection or testing, or when prior rejection makes re-inspection or retest necessary. Owner shall perform its inspections and tests in a manner that will cause no undue delay in the Work.

00705.16 CORRECTION OF NONCONFORMING WORK

- A. If a portion of the Work is covered contrary to the requirements of the Contract Documents, it must, if required in writing by Owner, be uncovered for Owner's observation and be replaced at the Contractor's expense and without change in the Contract Time.
- B. If any time prior to Final Completion Owner desires to examine the Work or any portion of it that has been covered, Owner may request to see such Work, and it shall be uncovered by Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an adjustment in the Contract Sum for the costs of uncovering and replacement, and if completion of the Work is thereby delayed, an adjustment in the Contract Time, provided it makes a request therefore as provided in *SECTION 00707.00 - CHANGES*. If such Work is not in accordance with the Contract Documents, the Contractor shall pay the costs of examination and reconstruction.
- C. Contractor shall promptly correct Work found by Owner not to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. Contractor shall bear all costs of correcting such nonconforming Work, including additional testing and inspections.
- D. If, within 1 year after the date of Substantial Completion of the Work, or designated portion thereof, or within 1 year after the date for commencement of any system warranties established under *SECTION 00706.08*, or within the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, Contractor shall correct it promptly after receipt of written notice from Owner to do so. Owner shall give such notice promptly after discovery of the condition. This period of 1 year shall be extended, with respect to portions of Work first performed after Substantial Completion, by the period of time between Substantial Completion and the actual performance of the Work. Contractor's duty to correct with respect to Work repaired or replaced shall run for 1 year from the date of repair or replacement. Obligations under this paragraph shall survive Final Acceptance.
- E. Contractor shall remove from the Project site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by Contractor nor accepted by Owner.

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- F. If Contractor fails to correct nonconforming Work within a reasonable time after written notice to do so, Owner may replace, correct, or remove the nonconforming Work and charge the cost thereof to the Contractor.
- G. Contractor shall bear the cost of correcting destroyed or damaged Work, whether completed or partially completed, caused by Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.
- H. Nothing contained in this section shall be construed to establish a period of limitation with respect to other obligations that Contractor might have according to the Contract Documents. Establishment of the time period of 1 year, as described in *SECTION 00705.16D*, relates only to the specific obligation of Contractor to correct the Work, and has no relationship to the time within which the Contractor's obligation to comply with the Contract Documents may be sought to be enforced, including the time within which such proceedings may be commenced.
- I. If Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, Owner may do so instead of requiring its removal and correction, in which case the Contract sum may be reduced as appropriate and equitable.

00705.17 CLEANUP

Contractor shall at all times keep the Project site, including hauling routes, infrastructures, utilities, and storage areas, free from accumulations of waste materials. Before completing the Work, Contractor shall remove from the premises its rubbish, tools, scaffolding, equipment, and materials. Upon completing the Work, Contractor shall leave the Project site in a clean, neat, and orderly condition satisfactory to Owner. If Contractor fails to clean up as provided herein, and after reasonable notice from Owner, Owner may do so and the cost thereof shall be charged to Contractor.

00705.18 ACCESS TO WORK

Contractor shall provide Owner and A/E access to the Work in progress wherever located.

00705.19 OTHER CONTRACTS

Owner may undertake or award other contracts for additional work at or near the Project site. Contractor shall reasonably cooperate with the other contractors and Owner's employees and shall carefully adapt scheduling and perform the Work in accordance with Contract Documents to reasonably accommodate the other work.

00705.20 SUBCONTRACTORS AND SUPPLIERS

- A. Before submitting its first Application for Payment, Contractor shall furnish in writing to Owner the names, addresses, and telephone numbers of all Subcontractors, as well as suppliers providing materials in excess of \$2,500. Contractor shall utilize Subcontractors and suppliers which are experienced and qualified, and meet the requirements of the Contract Documents, if any. Contractor shall not utilize any Subcontractor or supplier to whom the Owner has a reasonable objection, and shall obtain Owner's written consent before making any substitutions or additions.

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- B. All Subcontracts must be in writing. By appropriate written agreement, Contractor shall require each Subcontractor, so far as applicable to the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities which Contractor assumes toward Owner in accordance with the Contract Documents. Each Subcontract shall preserve and protect the rights of Owner in accordance with the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. However, nothing in this paragraph shall be construed to alter the contractual relations between Contractor and its Subcontractors with respect to insurance or bonds.
- C. Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors. No Subcontracting of any of the Work shall relieve Contractor from its responsibility for the performance of the Work in accordance with the Contract Documents or any other obligations of the Contract Documents.
- D. Each subcontract agreement for a portion of the Work is hereby assigned by Contractor to Owner provided that:
 - 1. The assignment is effective only after termination by Owner for cause pursuant to *SECTION 00709.01* and only for those Subcontracts which Owner accepts by notifying the Subcontractor in writing; and
 - 2. After the assignment is effective, Owner will assume all future duties and obligations toward the Subcontractor that Contractor assumed in the Subcontract.
 - 3. The assignment is subject to the prior rights of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

00705.21 WARRANTY OF CONSTRUCTION

- A. In addition to any special warranties provided elsewhere in the Contract Documents, Contractor warrants that all Work conforms to the requirements of the Contract Documents and is free of any defect in equipment, material, or design furnished, or workmanship performed by Contractor.
- B. With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract Documents, Contractor shall:
 - 1. Obtain all warranties that would be given in normal commercial practice.
 - 2. Require all warranties to be executed, in writing, for the benefit of Owner.
 - 3. Enforce all warranties for the benefit of Owner, if directed by Owner.
 - 4. Be responsible to enforce any subcontractor's, manufacturers', or supplier's warranty should they extend beyond the period specified in the Contract Documents.
- C. The obligations under this section shall survive Final Acceptance.

00705.22 INDEMNIFICATION

- A. Contractor shall defend, indemnify, and hold Owner and A/E harmless from and against all claims, demands, losses, damages, or costs, including but not limited to damages arising out of bodily injury or death to persons and damage to property, caused by or resulting from:
 - 1. The sole negligence of Contractor or any of its Subcontractors
 - 2. The concurrent negligence of Contractor, or any Subcontractor, but only to the extent of the negligence of Contractor or such Subcontractor
 - 3. The use of any design, process, or equipment which constitutes an infringement of any United States patent presently issued or violates any other proprietary interest, including copyright, trademark, and trade secret.
- B. In any action against Owner and any other entity indemnified in accordance with this section by any employee of Contractor, its Subcontractors, Sub-subcontractors, agents, or anyone directly or indirectly employed by any of them, the indemnification obligation of this section shall not be limited by a limit on the amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under *RCW Title 51*, the *Industrial Insurance Act*, or any other employee benefit acts. In addition, Contractor waives immunity as to Owner and A/E only, in accordance with *RCW Title 51*.

00705.23 REQUIRED PAYROLL DOCUMENTS

- A. The Contractor shall submit to the Owner the following for itself and for each subcontractor and each agent to a Subcontractor that performed work on the Contract:
 - 1. *A Statement of Intent to Pay Prevailing Wages.* The Contracting Agency will make no payment under this Contract for the work performed until this statement has been completed and submitted.
 - 2. *An Affidavit of Wages Paid with the Final Contract Voucher Certification.* The Contracting Agency will not release to the Contractor any funds retained under *RCW 60.28.010* until all of the *Affidavit of Wages Paid* forms have been completed and submitted.
- B. In addition, the Prime Contractor shall submit a Request for Release to the Washington State Labor and Industries (L&I), (L&I provides the form).
- C. Certified payrolls are required to be submitted by the Contractor to the Owner for the Contractor and all Subcontractors or agents on all federally funded projects, and when requested in writing by the Owner, on projects funded with only Contracting Agency funds. If these payrolls are not supplied within 10 calendar days of the end of the proceeding weekly payroll period for federally funded projects, or within 10 calendar days from the date of the written request on projects with only Contracting Agency funds, any or all payments may be withheld until compliance is achieved. Also, failure to provide these payrolls could result in other sanctions as provided by state laws (*RCW 39.12.050*) and/or federal regulations (*29 CFR 5.12*). All certified payrolls shall be complete and explicit.

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Employee work classification codes used on certified payrolls shall coincide exactly with the occupation codes listed on the minimum wage schedule, unless the Owner specifically approves an alternate method to identify the occupation coding used by the Contractor to compare with the codes listed. When an apprentice is shown on the certified payroll at a rate less than the minimum prevailing journey wage rate, the apprenticeship registration number for that employee from the State Apprenticeship and Training Council shall be shown, along with the correct employee classification code.

00705.24 STATEMENT OF APPRENTICE/JOURNEYMAN PARTICIPATION

In accordance with *RCW 39.04.320*, the State of Washington requires a mandatory 15 percent apprenticeship (labor hours) participation for projects estimated to cost \$1,000,000 or more. Apprentice participation under this contract may be counted towards the required percentage (%) only if the apprentices are from an apprenticeship program registered and approved by the Washington State Apprenticeship and Training Council (*RCW 49.04* and *WAC 296-04*).

- A. For each project that has apprentice requirements, the contractor shall submit a **“Statement of Apprentice/Journeyman Participation** (See *SECTION 00670*)” on forms provided by the Washington Department of Fish and Wildlife, with every request for progress payment. The Contractor shall submit consolidated and cumulative data collected by the Contractor and collected from all Subcontractors by the Contractor. The submitted data includes the following:
1. Contractor name and address;
 2. Contract number;
 3. Project name;
 4. Contract value;
 5. Reporting period “Notice to Proceed” through “Invoicing Date”;
 6. Name and registration number of each apprentice;
 7. Total number of apprentices and labor hours worked by them, categorized by trade or craft;
 8. Total number of journeymen and labor hours worked by them, categorized by trade or craft;
 9. Cumulative combined total of apprentice and journeymen labor hours; and
 10. Total percentage of apprentice hours worked.
- B. No changes to the required percentage (%) of apprentice participation shall be allowed without written approval of the Owner. In any request for the change the Contractor shall clearly demonstrate a good faith effort to comply with the requirements for apprentice participation.

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- C. Any substantive violation of the mandatory requirements of this part of the contract may be a material breach of the contract by the Contractor.

00705.25 FEDERALLY FUNDED CONTRACT CONDITIONS

A. Equal Employment Opportunity :

1. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, religion, marital status, age, Vietnam era and disabled veteran's status, or other presence of any sensory, mental, or physical handicap. The Contractor will take affirmative action to ensure that applications are employed and that employees are treated during employment without regard to their race, creed, color, national origin, sex, sexual orientation, religion, marital status, age, Vietnam era and disabled veteran's status or the presence of any sensory, mental, or physical handicap.

Such action shall include, but not be limited to the following: Employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, national origin, sex, sexual orientation, religion, marital status, age, Vietnam era and disabled veteran's status, or the presence of any sensory, mental, or physical handicap.
3. The Contractor will send to each labor union, or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer advising the labor union or workers' representative of the Contractor's commitments under *Section 202 of Executive Order No. 11246 of September 24, 1965*, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Contractor will comply with all provisions of *Executive Order No. 11246 of September 24, 1965*, and the rules, regulations, and relevant orders of the Secretary of Labor.
5. The Contractor will furnish all information and reports required by *Executive Order No. 11246 of September 24, 1965*, and by the rules, regulations, and orders of the Secretary of Labor or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

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6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further government contracts in accordance with procedures authorized in *Executive Order No. 11246 of September 24, 1965*, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
 7. The Contractor will include the provisions of *Paragraphs "1" through "7"* in every Subcontract or Purchase Order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to *Section 204 of Executive Order No. 11246 of September 24, 1965*, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including the sanctions for noncompliance, provided however that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.
- B. Civil Rights Act of 1964 (P.L. 88-352, 78 STAT. 241):
1. Section 601 (In General): No person in the United States shall, on the grounds of race, color, national origin, sex, religion, marital status, age, Vietnam era and disabled veteran status, or the presence of any sensory, mental, or physical handicap be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.
 2. Section 602 (Effecting Compliance): Each federal department and agency which is empowered to extend federal financial assistance to any program or activity by way of grant, loan, or contract other than a contract of insurance or guaranty, is authorized and directed to effectuate the provisions of *Section 601* with respect to such program or activity by issuing rules, regulations, or orders of general applicability which shall be consistent with achievement of the objectives the statute authorizing the financial assistance in connection with which the action is taken. No such rule, regulation, or order shall become effective unless and until approved by the President. Compliance with any requirement adopted pursuant to this section may be effected by:
 - a.) The termination of or refusal to grant or to continue assistance under such programs or activity to any recipient as to whom there has been an express finding on the record, after opportunity for hearing, of a failure to comply with such requirement, but such termination or refusal shall be limited to the particular political entity, or part thereof, or other recipient as to whom such a finding has been made, and shall be limited in its effect to the particular program, or part thereof, in which such noncompliance has been so found, and;

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- b.) By any other means authorized by law, provided, however, that no such action shall be taken until the department or agency concerned has advised the appropriate person or persons of the failure to comply with a requirement imposed pursuant to this section, the head of the federal department or agency shall file with the committees of the House and Senate having legislative jurisdiction over the program or activity involved a full written report of the circumstances and the grounds for such action. No such action shall become effective until 30 days have elapsed after the filing of such report.
- 3. Section 603 (Judicial Review): Any department or agency action taken pursuant to Section 602 shall be subject to such judicial review as may otherwise be provided by law for similar action taken by such department or agency on other grounds. In the case of action not otherwise subject to judicial review, terminating or refusing to grant or to continue financial assistance upon finding or failure to comply with any requirement imposed pursuant to Section 602, any assistance upon a finding or failure to comply with any requirement imposed pursuant to Section 602, any person aggrieved (including any State or political subdivision thereof or any agency of either) may obtain judicial review of such action in accordance with Section 10 of the Administrative Procedure Act, and such action shall not be deemed committed to unreviewable agency discretion within the meaning of that section.
- 4. Section 604 (Restriction on Action): Nothing contained in this title shall be construed to authorized action under this title by any department or agency with respect to any employment practice of any employer, employment agency, or labor organization except where a primary objective of the federal financial assistance is to provide employment.
- 5. Section 605 (Existing Authority Not Impaired): Nothing in this title shall add to or detract from any existing authority with respect to any program or activity under which federal financial assistance is extended by way of a contract of insurance or guaranty.
- C. Contracts in excess of \$10,000 shall comply with *Executive Order No. 11246*, entitled *Equal Employment Opportunity*, as amended by *Executive Order No. 11375*, *Executive Order No. 13672* and as supplemented in *Department of Labor Regulations (41 CFR, Part 60)*.
- D. This Contract shall comply with the *Copeland Anti-Kick Back Act (18 U.S.C. 874)* as supplemented in *Department of Labor Regulations (29 CFR, Part 3)*. The Contractor shall not induce by any means any person employed in the construction, completion, or repair of public work to give up any part of the compensation to which he is otherwise entitled.
- E. Contracts in excess of \$2,000 shall comply with the *Davis-Bacon Act (40 U.S.C. 276a to a-7)* and as supplemented by *Department of Labor Regulations (29 CFR, Part 5)*. Contractors shall pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor, and shall pay wages not less often than once a week.

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- F. Contracts in excess of \$2,000 which involve the employment of mechanics or laborers shall comply with *Section 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330)* as supplemented by *Department of Labor Regulations (29 CFR, Part 5)*. Each Contractor shall compute the wages of every mechanic and laborer on the basis of a standard workday of eight hours, and a standard workweek of 40 hours. Work in excess of the standard workday or workweek is permissible, provided that the worker is compensated at a rate of not less than 1½ times the basic rate of pay for all hours worked in excess of eight hours in any calendar day of 40 hours in the workweek. No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction, safety, and health standards promulgated by the Secretary of Labor.
- G. Contracts in excess of \$100,000 require the recipient to agree to comply with applicable standards, orders, or regulations pursuant to the Clean Air Act of 1970 (42 U.S.C. 1857 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), amended.
- H. Contractor shall submit Certified Payrolls as described in *Section 00705.23*.

PART 6 - 00706.00 PAYMENTS AND COMPLETION

00706.01 CONTRACT SUM

Owner shall pay Contractor the Contract Sum for performance of the Work in accordance with the Contract Documents. The Contract Sum shall include all taxes imposed by law and properly chargeable to the Project, including sales tax.

00706.02 SCHEDULE OF VALUES

Prior to Notice to Proceed, Contractor shall submit to Owner for approval a breakdown allocating the total Contract Sum to each principle category of work, in such detail as requested by Owner ("Schedule of Values"). The approved Schedule of Values shall include appropriate amounts for demobilization, record drawings, operation and maintenance manuals, and any other requirements for Project closeout and shall be used by Owner as the basis for progress payments. Payment for Work shall be made only for and in accordance with those items included in the Schedule of Values.

00706.03 APPLICATION FOR PAYMENT

- A. At monthly intervals, unless determined otherwise by Owner, Contractor shall submit to Owner an itemized Application for Payment for Work completed in accordance with the Contract Documents and the approved Schedule of Values. Each application shall be supported by such substantiating data as Owner may require.
- B. By submitting an Application for Payment, Contractor is certifying that all Subcontractors have been paid, less earned retainage in accordance with *RCW 60.28.010*, as their interests appeared in the last preceding certificate of payment. By submitting an Application for Payment, Contractor is recertifying that the representations set forth in *SECTION 00701.03* are true and correct, to the best of Contractor's knowledge, as of the date of the Application for Payment.

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- C. At the time the Contractor submits an Application for Payment, Contractor shall analyze and reconcile, to the satisfaction of Owner, the actual progress of the Work with the Construction Schedule.
- D. If authorized by Owner, the Application for Payment may include request for payment for material delivered to the Project site and suitably stored, or for completed preparatory work. Payment may similarly be requested for material stored off the Project site, provided Contractor complies with or furnishes satisfactory evidence of the following:
 - 1. The material will be placed in a warehouse that is structurally sound, dry, lighted, and suitable for the materials to be stored.
 - 2. The warehouse is located within a 10-mile radius of the Project. Other locations may be utilized if approved in writing by Owner.
 - 3. Only materials for the Project are stored within the warehouse (or secure portion of a warehouse set aside for the Project).
 - 4. Contractor furnishes Owner a Certificate of Insurance extending Contractor's insurance coverage for damage, fire, and theft to cover the full value of all materials stored or in transit.
 - 5. The warehouse (or secure portion thereof) is continuously under lock and key, and only Contractor's authorized personnel shall have access.
 - 6. Owner shall at all times have the right of access in company of Contractor.
 - 7. The Contractor and its surety assume total responsibility for the stored materials.
 - 8. Contractor furnishes to Owner certified lists of materials stored, bills of lading, invoices, and other information as may be required, and shall also furnish notice to Owner when materials are moved from storage to the Project site.

00706.04 PROGRESS PAYMENTS

- A. Owner shall make progress payments, in such amounts as Owner determines are properly due, within 30 days after receipt of a properly executed Application for Payment. Owner shall notify Contractor in accordance with *RCW 39.76* if the Application for Payment does not comply with the requirements of the Contract Documents.
- B. Owner shall retain 5 percent of the amount of each progress payment until 30 days after Final Acceptance and receipt of all documents required by law or the Contract Documents including, at Owner's request, consent of surety to release of the retainage. In accordance with *RCW 60.28*, Contractor may request that monies reserved be retained in a fund by Owner, deposited by Owner in a bank or savings and loan, or placed in escrow with a bank or trust company to be converted into bonds and securities to be held in escrow with interest to be paid to Contractor. Owner may permit Contractor to provide an appropriate bond in lieu of the retained funds.
- C. For Base Bids of \$150,000 or less, Owner may at Contractor Request, retain 10% of the amount of each progress payment, in lieu of payment and performance bonds.

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- D. Title to all Work and materials covered by a progress payment shall pass to Owner at the time of such payment free and clear of all liens, claims, security interests, and encumbrances. Passage of title shall not, however, relieve Contractor from any of its duties and responsibilities for the Work or materials, or waive any rights of Owner to insist on full compliance by Contractor with the Contract Documents.
- E. Payments due and unpaid in accordance with the Contract Documents shall bear interest as specified in *RCW 39.76*.

00706.05 PAYMENTS WITHHELD

- A. Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to such extent as may be necessary to protect Owner from loss or damage for reasons including but not limited to:
 - 1. Work not in accordance with the Contract Documents
 - 2. Reasonable evidence that the Work required by the Contract Documents cannot be completed for the unpaid balance of the Contract Sum
 - 3. Work by Owner to correct defective Work or complete the Work in accordance with *SECTION 00705.16*
 - 4. Failure to perform in accordance with the Contract Documents
 - 5. Cost or liability that may occur to Owner as the result of Contractor's fault or negligent acts or omissions.
- B. In any case where part or all of a payment is going to be withheld for unsatisfactory performance, Owner shall notify Contractor in accordance with *RCW 39.76*.

00706.06 RETAINAGE AND BOND CLAIM RIGHTS

RCW CHAPTERS 39.08 and 60.28, concerning the rights and responsibilities of Contractor and Owner with regard to the performance and payment bonds and retainage, are made a part of the Contract Documents by reference as though fully set forth herein.

00706.07 SUBSTANTIAL COMPLETION

Substantial Completion is the stage in the progress of the Work (or portion thereof designated and approved by Owner) when the construction is sufficiently complete, in accordance with the Contract Documents, so Owner can fully occupy the Work (or the designated portion thereof) for the use for which it is intended. All Work other than incidental corrective or punch list work shall have been completed. Substantial Completion shall not have been achieved if all systems and parts are not functional, if utilities are not connected and operating normally, if all required occupancy permits have not been issued, or if the Work is not accessible by normal vehicular and pedestrian traffic routes. The date Substantial Completion is achieved shall be established in writing by Owner. Contractor may request an early date of Substantial Completion, which must be approved by Change Order. Owner's occupancy of the Work or designated portion thereof does not necessarily indicate that Substantial Completion has been achieved.

0706.08 PRIOR OCCUPANCY

- A. Owner may, upon written notice thereof to Contractor, take possession of or use any completed or partially completed portion of the Work ("prior occupancy") at any time prior to Substantial Completion. Unless otherwise agreed in writing, prior occupancy shall not: be deemed an acceptance of any portion of the Work; accelerate the time for any payment to Contractor; prejudice any rights of Owner provided by any insurance, bond, guaranty, or the Contract Documents; relieve Contractor of the risk of loss or any of the obligations established by the Contract Documents; establish a date for termination or partial termination of the assessment of liquidated damages; or constitute a waiver of claims.
- B. Notwithstanding anything in the preceding paragraph, Owner shall be responsible for loss or damage to the Work resulting from its prior occupancy. Contractor's 1 year duty to repair and any system warranties shall begin on building systems activated and used by Owner as agreed in writing by Owner and Contractor.

00706.09 FINAL COMPLETION, ACCEPTANCE, AND PAYMENT

- A. Final Completion shall be achieved when the Work is fully and finally complete in accordance with the Contract Documents. The date Final Completion is achieved shall be established by Owner in writing.
- B. Final Acceptance is the formal action of Owner acknowledging Final Completion. Prior to Final Acceptance, Contractor shall, in addition to all other requirements in the Contract Documents, submit to Owner a written notice of any outstanding disputes or claims between Contractor and any of its Subcontractors, including the amounts and other details thereof. Neither Final Acceptance nor final payment shall release Contractor or its sureties from any obligations of these Contract Documents or the Public Works Bond, or constitute a waiver of any claims by Owner arising from Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Acceptance of final payment by Contractor or any Subcontractor shall constitute a waiver and release to Owner of all claims by Contractor or any such Subcontractor for an increase in the Contract Sum or the Contract Time, and for every act or omission of Owner relating to or arising out of the Work, except for those Claims made in accordance with the procedures, including the time limits, set forth in *SECTION 00708.00*.

PART 7 - 00707.00 CHANGES

00707.01 CHANGES IN THE WORK

- A. Owner may at any time and without notice to Contractor's surety order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of Change Orders. If any change in the Work ordered by Owner causes an increase or decrease in the Contract Sum or the Contract Time, an equitable adjustment shall be made as provided in *SECTION 00707.02* or *00707.03*, respectively, and such adjustment(s) shall be incorporated into a Change Order.

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- B. If Owner desires to order a change in the Work, it may request a written Change Order proposal from Contractor. Contractor shall submit a Change Order proposal within 14 days of the request from Owner, or within such other period as mutually agreed. Contractor's Change Order proposal shall be full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time, and including compensation for all delays in connection with such change in the Work and for any expense or inconvenience, disruption of schedule, or loss of efficiency or productivity occasioned by the change in the Work.
- C. Upon receipt of the Change Order proposal, or a request for equitable adjustment in the Contract Sum or Contract Time, or both, as provided in *SECTIONS 00707.02 and 00707.03*, Owner may accept or reject the proposal, request further documentation, or negotiate acceptable terms with Contractor. Pending agreement on the terms of the Change Order, Owner may direct Contractor to proceed immediately with the Change Order Work. Contractor shall not proceed with any change in the Work until it has obtained Owner's approval. All Work done pursuant to any Owner-directed change in the Work shall be executed in accordance with the Contract Documents.
- D. If Owner and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of all claims for time and for direct, indirect, and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either covered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment.
- E. If Owner and Contractor are unable to reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, Contractor may at any time, in writing, request a final offer from Owner. Owner shall provide Contractor with its written response within 30 days of Contractor's request. Owner may also provide Contractor with a final offer at any time. If Contractor rejects Owner's final offer or the parties are otherwise unable to reach agreement, Contractor's only remedy shall be to file a Claim as provided in *SECTION 00708.00*.

00707.02 CHANGE IN THE CONTRACT SUM

- A. General Application:
 - 1. The Contract Sum shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Sum in its Change Order proposal.
 - 2. If the cost of Contractor's performance is changed due to the fault or negligence of Owner or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Sum in accordance with the following procedure. No change in the Contract Sum shall be allowed to the extent that Contractor's changed cost of performance is due to the fault or negligence of Contractor or anyone for whose acts Contractor is responsible; the change is concurrently caused by Contractor and Owner; or the change is caused by an act of force majeure, as defined in *SECTION 00703.05*.

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- a. A request for an equitable adjustment in the Contract Sum shall be based on written notice delivered to Owner within 7 days of the occurrence of the event-giving rise to the request. For purposes of this part, "occurrence" means when Contractor knew, or in its diligent prosecution of the Work should have known, of the event-giving rise to the request. If Contractor believes it is entitled to an adjustment in the Contract Sum, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such records and, if requested, shall promptly furnish copies of such records to Owner.
- b. Contractor shall not be entitled to any adjustment in the Contract Sum for any occurrence of events or costs that occurred more than 7 days before Contractor's written notice to Owner. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Sum; the nature of the impacts to Contractor and its Subcontractors, if any; and, to the extent possible, the amount of the adjustment in Contract Sum requested. Failure to properly give such written notice shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
- c. Within 30 days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement written notice provided in accordance with Subparagraph "a" (above) with additional supporting data. Such additional data shall include, at a minimum: the amount of compensation requested, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the damages claimed, but that the damages claimed were actually a result of the act, event, or condition complained of and that the Contract Documents provide entitlement to an equitable adjustment to Contractor for such act, event, or condition; and documentation sufficiently detailed to permit an informed analysis of the request by Owner.

When the request for compensation relates to a delay or other change in Contract Time, Contractor shall demonstrate the impact on the critical path, in accordance with *SECTION 00707.03C*. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

- d. Pending final resolution of any request made in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.
- e. Any requests by Contractor for an equitable adjustment in the Contract Sum and in the Contract Time that arise out of the same event(s) shall be submitted together.

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3. The value of any work covered by a Change Order or of any request for an equitable adjustment in the Contract Sum shall be determined by one of the following methods:
 - a. On the basis of a fixed price as determined in *SECTION 00707.02B*.
 - b. By application of unit prices to the quantities of the items involved as determined *SECTION 00707.02C*.
 - c. On the basis of time and material as determined in *SECTION 00707.02D*.
 4. When Owner has requested Contractor to submit a Change Order proposal, Owner may direct Contractor as to which method in Subparagraph 3 (above) to use when submitting its proposal. Otherwise, Contractor shall determine the value of the Work or of a request for an equitable adjustment, on the basis of the fixed price method.
- B. Change Order Pricing - Fixed Price: When the fixed price method is used to determine the value of any Work covered by a Change Order or of a request for an equitable adjustment in the Contract Sum, the following procedures shall apply:
1. Contractor's Change Order Proposal or request for adjustment in the Contract Sum shall be accompanied by a complete itemization of the costs including labor, materials, subcontractor costs, and overhead and profit. The costs shall be itemized in the manner set forth below and shall be submitted on breakdown sheets in a form approved by Owner.
 2. All costs shall be calculated based on appropriate industry standard methods of calculating labor, material quantities, and equipment costs.
 3. If any of Contractor's pricing assumptions are contingent upon anticipated actions of Owner, Contractor shall clearly state them in the proposal or request for an equitable adjustment.
 4. The cost of any additive or deductive changes in the Work shall be calculated as set forth below, except that overhead and profit shall not be included on deductive changes in the Work. Where a change in the Work involves additive and deductive work by the same Contractor or Subcontractor, small tools, overhead, profit, bond, and insurance markups will apply to the net difference.
 5. If the total cost of the change in the Work or request for equitable adjustment does not exceed \$1,000, Contractor shall not be required to submit a breakdown if the description of the change in the Work or request for equitable adjustment is sufficiently definitive for Owner to determine fair value.
 6. If the total cost of the change in the Work or request for equitable adjustment is between \$1,000 and \$2,500, Contractor may submit a breakdown in the following level of detail if the description of the change in the Work or if the request for equitable adjustment is sufficiently definitive to permit the Owner to determine fair value:
 - a. Lump sum labor

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- b. Lump sum material
 - c. Lump sum equipment usage
 - d. Overhead and profit as set forth below
 - e. Insurance and bond costs as set forth below
7. Any request for adjustment of Contract Sum based upon the fixed price method shall include only the following items:
- a. Craft Labor Costs: These are the labor costs determined by multiplying the estimated or actual additional number of craft hours needed to perform the change in the Work by the hourly labor costs. Craft hours should cover direct labor as well as indirect labor due to trade inefficiencies. The hourly costs shall be based on the following:
 - 1) Basic Wages and Benefits: Hourly rates and benefits as stated on the L&I approved Statement of Intent to Pay Prevailing Wages. Direct supervision shall be a reasonable percentage not to exceed 15 percent of the cost of direct labor. No supervision markup shall be allowed if a working supervisor's hours are included in the breakdown.
 - 2) Worker's Insurance: Direct contributions to the State of Washington for industrial insurance, medical aid, and supplemental pension by the class and rates established by L&I.
 - a. Federal Insurance: Direct contributions required by the *Federal Insurance Compensation Act*, *Federal Unemployment Tax Act*, and the *State Unemployment Compensation Act*.
 - 4) Safety: Costs incurred due to the *Washington Industrial Safety and Health Act*, which shall be a reasonable percentage not to exceed 2 percent of the sum of the amounts calculated in SUBPARAGRAPHS (1), (2), and (3) above.
 - 5) Travel Allowance: Travel allowance and/or subsistence, if applicable, not exceeding those allowances established by regional labor union agreements, which are itemized and identified separately.
 - b. Material Costs: This is an itemization of the quantity and cost of materials needed to perform the change in the Work. Material costs shall be developed from actual known costs, supplier quotations or standard industry pricing guides. Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges shall be itemized.

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- c. Equipment Costs: This is an itemization of the type of equipment and the estimated or actual length of time the construction equipment appropriate for the Work is or will be used on the change in the Work. Costs will be allowed for construction equipment only if used solely for the changed Work or for additional rental costs actually incurred by the Contractor. Equipment charges shall be developed from the current edition of one of the following sources:
- 1) *Associated General Contractors - Washington State Department of Transportation Equipment Rental Agreement; latest edition.*
 - 2) *The State of Washington Utilities and Transportation Commission* for trucks used on highways.
 - 3) *The National Electrical Contractors Association* for equipment used on electrical work.
 - 4) *The Mechanical Contractors Association of America* for equipment used on mechanical work.
 - 5) *Equipment Watch Rental Rate (Blue Book) for Construction Equipment* shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed 50 percent of the applicable rate.
- d. Allowance for Small Tools, Expendables, and Consumable Supplies: Small tools consist of tools that cost \$250 or less and are normally furnished by the performing Contractor. The maximum rate for small tools shall not exceed the following:
- 1) For Contractor, 3 percent of direct labor costs.
 - 2) For Subcontractors, 5 percent of direct labor costs.
- Expendables and consumable supplies directly associated with the change in Work must be itemized.
- e. Subcontractor Costs: This is defined as payments Contractor makes to Subcontractors for changed Work performed by Subcontractors of any tier. The Subcontractors' cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.

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- f. Allowance for Overhead and Profit: This is defined as costs of any kind attributable to direct and indirect delay, acceleration, or impact, added to the total cost to Owner of any Change Order, or any request for additional Work or extra payment of any kind on the Project. This allowance shall compensate Contractor for all non-craft labor, temporary construction facilities, field engineering, schedule updating, as-built drawings, home office cost, Business and Occupation taxes, office engineering, estimating costs, additional overhead because of extended time, and any other cost incidental to the change in the Work. It shall be strictly limited in all cases to a reasonable amount, mutually acceptable, or if none can be agreed upon to an amount not to exceed the following:
- 1) For Contractor, for any Work actually performed by Contractor's own forces, 22 percent of the first \$50,000 of the cost and 10 percent of the remaining cost, if any.
 - 2) For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 22 percent of the first \$50,000 of the cost and 10 percent of the remaining cost, if any.
 - 3) For Contractor, for any Work performed by its Subcontractor(s), 8 percent of the first \$50,000 of the amount due each Subcontractor and 6 percent of the remaining amount, if any.
 - 4) For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 8 percent of the first \$50,000 of the amount due the sub-Subcontractor and 6 percent of the remaining amount, if any.
 - 5) The cost to which overhead and profit is to be applied shall be determined in accordance with *SUBPARAGRAPHS a-e* above.
- g. Cost of Change in Insurance or Bond Premium: This is defined as:
- 1) Contractor's Liability Insurance: The cost of any changes in Contractor's liability insurance arising directly from execution of the Change Order; and
 - 2) Public Works Bond(s): The cost of the additional premium for Contractor's bond arising directly from the changed Work.

The costs of any change in insurance or bond premium shall be added after overhead and profit are calculated in accordance with *SUBPARAGRAPH "f"* above.

C. Change Order Pricing - Unit Prices:

1. Whenever Owner authorizes Contractor to perform Work on a unit-price basis, Owner's authorization shall clearly state:
 - a. Scope of work to be performed

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- b. Type of reimbursement including pre-agreed rates for material quantities
- c. Cost limit of reimbursement

2. Contractor shall:

- a. Cooperate with Owner and assist in monitoring the Work being performed. As requested by Owner, Contractor shall identify workers assigned to the Change Order Work and areas in which they are working.
- b. Leave access as appropriate for quantity measurement.
- c. Not exceed any cost limit(s) without Owner's prior written approval.

3. Contractor shall submit costs in accordance with *SECTION 00707.02B* and satisfy the following requirements:

- a. Unit prices shall include reimbursement for all direct and indirect costs of the Work, including overhead and profit and bond and insurance costs.
- b. Quantities must be supported by field measurement statements signed by Owner.

D. Change Order Pricing - Time and Material Prices:

1. Whenever Owner authorizes Contractor to perform work on a time-and-material basis, Owner's authorization shall clearly state:

- a. Scope of work to be performed
- b. Type of reimbursement including pre-agreed rates, if any, for material quantities or labor
- c. Cost limit of reimbursement

2. Contractor shall:

- a. Cooperate with Owner and assist in monitoring the Work being performed. As requested by Owner, identify workers assigned to the Change Order Work and areas in which they are working.
- b. Identify on daily timesheets all labor performed in accordance with this authorization. Submit copies of daily timesheets within 2 working days for Owner's review.
- c. Leave access as appropriate for quantity measurement.
- d. Perform all Work in accordance with this section as efficiently as possible.
- e. Not exceed any cost limit(s) without Owner's prior written approval.

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3. Contractor shall submit costs in accordance with *SECTION 00707.02B* and additional verification supported by:
 - a. Labor detailed on daily timesheets
 - b. Invoices for material

00707.03 CHANGE IN THE CONTRACT TIME

- A. The Contract Time shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Time in its Change Order proposal.
- B. If the time of Contractor's performance is changed due to an act of force majeure or due to the fault or negligence of Owner or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Time in accordance with the following procedure. No adjustment in the Contract Time shall be allowed to the extent Contractor's changed time of performance is due to the fault or negligence of Contractor or anyone for whose acts Contractor is responsible.
 1. A request for an equitable adjustment in the Contract Time shall be based on written notice delivered within 7 days of the occurrence of the event-giving rise to the request. If Contractor believes it is entitled to adjustment of Contract Time, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such records and, if requested, shall promptly furnish copies of such records to Owner.
 2. Contractor shall not be entitled to an adjustment in the Contract Time for any events that occurred more than 7 days before Contractor's written notice to Owner. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Time; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and, to the extent possible, the amount of the adjustment in Contract Time requested. Failure to properly give such written notice shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
 3. Within 30 days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with *SECTION 00707.03B.2* with additional supporting data. Such additional data shall include, at a minimum: the amount of delay claimed, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the delay claimed, but that the delay claimed was actually a result of the act, event, or condition complained of, and that the Contract Documents provide entitlement to an equitable adjustment in Contract Time for such act, event, or condition; and supporting documentation sufficiently detailed to permit an informed analysis of the request by Owner. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

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4. Pending final resolution of any request in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.
- C. Any change in the Contract Time covered by a Change Order or based on a request for an equitable adjustment in the Contract Time shall be limited to the change in the critical path of Contractor's schedule attributable to the change of Work or event(s) giving rise to the request for equitable adjustment. Any Change Order proposal or request for an adjustment in the Contract Time shall demonstrate the impact on the critical path of the schedule. Contractor shall be responsible for showing clearly on the Construction Schedule that the change or event: had a specific impact on the critical path, and except in case of concurrent delay, was the sole cause of such impact; and could not have been avoided by re-sequencing of the Work or other reasonable alternatives.
- D. Contractor may request compensation for the cost of a change in Contract Time in accordance with this section, 00707.03D, subject to the following conditions:
1. The change in Contract Time shall solely be caused by the fault or negligence of Owner or A/E.
 2. Compensation under this paragraph is limited to changes in Contract Time for which Contractor is not entitled to be compensated under *SECTION 00707.02*.
 3. Contractor shall follow the procedure set forth in *SECTION 00707.03B*.
 4. Contractor shall establish the extent of the change in Contract Time in accordance with *SECTION 00707.03C*.
 5. The daily cost of any change in Contract Time shall be limited to:
 - a. Cost of nonproductive field supervision or labor extended because of the delay
 - b. Cost of weekly meetings or similar indirect activities extended because of the delay
 - c. Cost of temporary facilities or equipment rental extended because of the delay
 - d. Cost of insurance extended because of the delay
 - e. General and administrative overhead in an amount to be agreed upon, but not to exceed 3 percent of Contract Sum divided by the Contract Time for each day of the delay.

PART 8 - 00708.00 CLAIMS AND DISPUTE RESOLUTION

00708.01 CLAIMS PROCEDURE

- A. If the parties fail to reach agreement on the terms of any Change Order for Owner-directed Work as provided in *SECTION 00707.01*, or on the resolution of any request for an equitable adjustment in the Contract Sum as provided in *SECTION 00707.02* or the Contract Time as provided in *SECTION 00707.03*, Contractor's only remedy shall be to file a Claim with Owner as provided in this section.
- B. Contractor shall file its Claim within the earlier of: 120 days from Owner's final offer in accordance with *SECTION 00707.01E*, or the date of Final Acceptance.
- C. The Claim shall be deemed to cover all changes in cost and time (including direct, indirect, impact, and consequential) to which Contractor may be entitled. It shall be fully substantiated and documented. At a minimum, the Claim shall contain the following information:
 - 1. A detailed factual statement of the Claim for additional compensation and time, if any, providing all necessary dates, locations, and items of Work affected by the Claim
 - 2. The date on which facts arose which gave rise to the Claim
 - 3. The name of each employee of Owner or A/E knowledgeable about the Claim
 - 4. The specific provisions of the Contract Documents that support the Claim
 - 5. The identification of any documents and the substance of any oral communications that support the Claim
 - 6. Copies of any identified documents, other than the Contract Documents, that support the Claim;
 - 7. If an adjustment in the Contract Time is sought: the specific days and dates for which it is sought; the specific reasons Contractor believes an extension in the Contract Time should be granted; and Contractor's analysis of its Construction Schedule to demonstrate the reason for the extension in Contract Time.
 - 8. If an adjustment in the Contract Sum is sought, the exact amount sought and a breakdown of that amount into the categories set forth in, and in the detail required by, *SECTION 00707.02*.
 - 9. A statement certifying, under penalty of perjury, that the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of Contractor's knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which Contractor believes Owner is liable.

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- D. After Contractor has submitted a fully documented Claim that complies with all applicable provisions of *SECTIONS 00707.00* and *00708.00*, Owner shall respond, in writing, to Contractor as follows:
 - 1. If the Claim amount is less than \$50,000, with a decision within 60 days from the date the Claim is received; or
 - 2. If the Claim amount is \$50,000 or more, with a decision within 60 days from the date the Claim is received or, with notice to Contractor, of the date by which it will render its decision. Owner will then respond with a written decision in such additional time.
- E. To assist in the review of Contractor's Claim, Owner may visit the Project site or request additional information in order to fully evaluate the issues raised by the Claim. Contractor shall proceed with performance of the Work pending final resolution of any Claim. Owner's written decision, as set forth above, shall be final and conclusive as to all matters set forth in the Claim unless Contractor follows the procedure set forth in *SECTION 00708.02*.
- F. Any Claim of the Contractor against the Owner for damages, additional compensation, or additional time shall be conclusively deemed to have been waived by the Contractor unless timely made in accordance with the requirements of this section.

00708.02 ARBITRATION

- A. If Contractor disagrees with Owner's decision rendered in accordance with *SECTION 00708.01D*, Contractor shall provide Owner with a written demand for arbitration. No demand for arbitration of any such Claim shall be made later than 30 days after the date of Owner's decision on such Claim. Failure to demand arbitration within said 30 day period shall result in Owner's decision being final and binding upon Contractor and its Subcontractors.
- B. Notice of the demand for arbitration shall be filed with the *American Arbitration Association (AAA)*, with a copy provided to Owner. The parties shall negotiate or mediate under the *Voluntary Construction Mediation Rules* of the AAA or mutually acceptable service before seeking arbitration in accordance with the *Construction Industry Arbitration Rules of AAA* as follows:
 - 1. Disputes involving \$30,000 or less shall be conducted in accordance with the *Northwest Region Expedited Commercial Arbitration Rules*; or
 - 2. Disputes over \$30,000 shall be conducted in accordance with the *Construction Industry Arbitration Rules of the AAA*, unless the parties agree to use the expedited rules.
- C. All Claims arising out of the Work shall be resolved by arbitration. The judgment upon the arbitration award may be entered, or review of the award may occur, in the superior court having jurisdiction thereof. No independent legal action relating to or arising from the Work shall be maintained.

DIVISION 0 – GENERAL CONDITIONS

- D. Claims between Owner and Contractor, Contractor and its Subcontractors, Contractor and A/E, and Owner and A/E shall, upon demand by Owner, be submitted in the same arbitration or mediation.
- E. If the parties resolve the Claim prior to arbitration judgment, the terms of the resolution shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of the Claim, including all claims for time and for direct, indirect, or consequential costs including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity.

00708.03 CLAIMS AUDITS

- A. All Claims filed against Owner shall be subject to audit at any time following the filing of the Claim. Failure of Contractor, or Subcontractors of any tier, to maintain and retain sufficient records to allow Owner to verify all or a portion of the Claim or to permit Owner access to the books and records of Contractor, or Subcontractors of any tier, shall constitute a waiver of the Claim and shall bar any recovery.
- B. In support of Owner's audit of any Claim, Contractor shall, upon request, promptly make available to Owner the following documents:
 - 1. Daily time sheets and supervisor's daily reports
 - 2. Collective bargaining agreements
 - 3. Insurance, welfare, and benefits records
 - 4. Payroll registers
 - 5. Earnings records
 - 6. Payroll tax forms
 - 7. Material invoices, requisitions, and delivery confirmations
 - 8. Material cost distribution worksheet
 - 9. Equipment records (list of company equipment, rates, etc.)
 - 10. Vendors', rental agencies', Subcontractors', and agents' invoices
 - 11. Contracts between Contractor and each of its Subcontractors, and all lower-tier Subcontractor contracts and supplier contracts
 - 12. Subcontractors' and agents' payment certificates
 - 13. Canceled checks (payroll and vendors)
 - 14. Job cost report, including monthly totals
 - 15. Job payroll ledger

DIVISION 0 – GENERAL CONDITIONS

16. Planned resource loading schedules and summaries
 17. General ledger
 18. Cash disbursements journal
 19. Financial statements for all years reflecting the operations on the Work. In addition, the Owner may require, if it deems it appropriate, additional financial statements for 3 years preceding execution of the Work.
 20. Depreciation records on all company equipment, whether these records are maintained by the company involved, its accountant, or others.
 21. If a source other than depreciation records is used to develop costs for Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.
 22. All non-privileged documents which relate to each and every Claim together with all documents which support the amount of any adjustment in Contract Sum or Contract Time sought by each Claim.
 23. Worksheets or software used to prepare the Claim establishing the cost components for items of the Claim including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors, all documents which establish the time periods, individuals involved, hours for the individuals, and rates for individuals.
 24. Worksheets, software, and all other documents used by Contractor to prepare its bid.
- C. The audit may be performed by employees of Owner or a representative of Owner. Contractor and its Subcontractors shall provide adequate facilities acceptable to Owner for the audit during normal business hours. Contractor and all Subcontractors shall make a good-faith effort to cooperate with Owner's auditors.

PART 9 - 00709.00 TERMINATION OF THE WORK

00709.01 TERMINATION BY OWNER FOR CAUSE

- A. Owner may, upon 7 days written notice to Contractor and to its surety, terminate (without prejudice to any right or remedy of Owner) the Work or any part of it for cause upon the occurrence of any one or more of the following events:
1. Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Substantial Completion of the Work within the Contract Time.
 2. Contractor is adjudged bankrupt, makes a general assignment for the benefit of its creditors or a receiver is appointed on account of its insolvency.

DIVISION 0 – GENERAL CONDITIONS

3. Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents.
 4. Contractor repeatedly fails to supply skilled workers or proper materials or equipment.
 5. Contractor repeatedly fails to make prompt payment due to Subcontractors or for labor.
 6. Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction.
 7. Contractor is otherwise in material breach of any provision of the Contract Documents.
- B. Upon termination, Owner may at its option:
1. Take possession of the Project site and take possession of or use all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor to maintain the orderly progress of and to finish the Work
 2. Accept assignment of subcontracts pursuant to *SECTION 00705.21*.
 3. Finish the Work by whatever other reasonable method it deems expedient.
- C. Owner's rights and duties upon termination are subject to the prior rights and duties of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.
- D. When Owner terminates the Work in accordance with this section, Contractor shall take the actions set forth in *SECTION 00709.02B* and shall not be entitled to receive further payment until the Work is accepted.
- E. If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for A/E's services and expenses made necessary thereby and any other extra costs or damages incurred by Owner in completing the Work, or as a result of Contractor's actions, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Owner. These obligations for payment shall survive termination.
- F. Termination of the Work in accordance with this section shall not relieve Contractor or its surety of any responsibilities for Work performed.
- G. If Owner terminates Contractor for cause and it is later determined that none of the circumstances set forth in *SECTION 00709.01A* exist, then such termination shall be deemed a termination for convenience pursuant to *SECTION 00709.02*.

00709.02 TERMINATION BY OWNER FOR CONVENIENCE

- A. Owner may, upon written notice, terminate (without prejudice to any right or remedy of Owner) the Work or any part of it for the convenience of Owner.

DIVISION 0 – GENERAL CONDITIONS

- B. Unless Owner directs otherwise, after receipt of a written notice of termination for either cause or convenience, Contractor shall promptly:
1. Stop performing Work on the date and as specified in the notice of termination.
 2. Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not terminated.
 3. Cancel all orders and subcontracts, upon terms acceptable to Owner, to the extent that they relate to the performance of Work terminated.
 4. Assign to Owner all of the rights, title, and interest of Contractor in all orders and subcontracts.
 5. Take such action as may be necessary or as directed by Owner to preserve and protect the work, Project site, and any other property related to this Project in the possession of Contractor in which Owner has an interest.
 6. Continue performance only to the extent not terminated.
- C. If Owner terminates the Work or any portion thereof for convenience, Contractor shall be entitled to make a request for an equitable adjustment for its reasonable direct costs incurred prior to the effective date of the termination plus a reasonable allowance for overhead and profit on Work performed prior to termination and the reasonable administrative costs of the termination but shall not be entitled to any other costs or damages whatsoever, provided however, the total sum payable upon termination shall not exceed the Contract Sum reduced by prior payments. Contractor shall be required to make its request in accordance with the provisions of *SECTION 00707.00*.
- D. If Owner terminates the Work or any portion thereof for convenience, the Contract Time shall be adjusted as determined by Owner.

PART 10 - 00710.00 MISCELLANEOUS PROVISIONS

00710.01 GOVERNING LAW

The Contract Documents and the rights of the parties herein shall be governed by the laws of the State of Washington. Venue shall be in Thurston County unless otherwise specified by the Owner.

00710.02 SUCCESSORS AND ASSIGNS

Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party shall assign the Work without written consent of the other, except that Contractor may assign the Work for security purposes, to a bank or lending institution authorized to do business in the State of Washington. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations set forth in the Contract Documents.

00710.03 MEANING OF WORDS

Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or the code of any governmental authority, whether such reference be specific or by implication, shall be to the latest standard specification, manual, or code in effect on the date for submission of bids, except as may be otherwise specifically stated. Wherever in these Drawings and Specifications an article, device, or piece of equipment is referred to in the singular manner, such reference shall apply to as many such articles as are shown on the Drawings or are required to complete the installation.

00710.04 RIGHTS AND REMEDIES

No action or failure to act by Owner or A/E shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall such action or failure to act constitute approval of an acquiescence in a breach therein, except as may be specifically agreed in writing.

00710.05 CONTRACTOR REGISTRATION

Pursuant to *RCW 39.06*, Contractor shall be registered or licensed as required by the laws of the State of Washington, including but not limited to *RCW 18.27*.

00710.06 TIME COMPUTATIONS

When computing any period of time, the day of the event from which the period of time begins shall not be counted. The last day is counted unless it falls on a weekend or legal holiday, in which event the period runs until the end of the next day that is not a weekend or holiday. When the period of time allowed is less than 7 days, intermediate Saturdays, Sundays, and legal holidays are excluded from the computation.

0710.07 RECORDS RETENTION

The wage, payroll, and cost records of Contractor and its Subcontractors, and all records subject to audit in accordance with *SECTION 00708.03*, shall be retained for a period of not less than 6 years after the date of Final Acceptance.

00710.08 THIRD-PARTY AGREEMENTS

The Contract Documents shall not be construed to create a contractual relationship of any kind between: A/E and Contractor; Owner and any Subcontractor; or any persons other than Owner and Contractor.

00710.09 ANTITRUST ASSIGNMENT

Owner and Contractor recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, Contractor hereby assigns to Owner any and all claims for such overcharges as to goods, materials, and equipment purchased in connection with the Work performed in accordance with the Contract Documents, except as to overcharges that result from antitrust violations commencing after the Contract Sum is established and that are not passed on to Owner under a Change Order. Contractor shall put a similar clause in its Subcontracts and require a similar clause in its sub-Subcontracts, such that all claims for such overcharges on the Work are passed to Owner by Contractor.

00710.10 IDENTIFICATION OF SUBCONTRACTORS FOR PROJECTS GREATER THAN \$1,000,000

When an Owner's Estimate is in excess of \$1,000,000 for Public Works described in these documents, the bidder must as part of the bid, submit the names of the subcontractors with whom the bidder, if awarded the contract, will subcontract for performance of the work of the following:

- A. Heating, Ventilation, and Air Conditioning (HVAC);
- B. Plumbing, per RCW Chapter 18.106; and
- C. Electrical, per RCW Chapter 19.28 or to name itself for the work.

The Prime Contractor shall not list more than one subcontractor, or self, for each category of work identified.

Failure of the Prime Contractor to submit, as part of the bid names of such sub-contractors or itself to perform such work, or naming two (2) or more subcontractors to perform such work shall render the Contract bidder's bid as non-responsive and therefore void, in accordance with RCW 39.30.060.

END OF SECTION 00700

DIVISION 0 – SUPPLEMENTAL CONDITIONS

SECTION 00800 TABLE OF CONTENTS

00800 SUPPLEMENTAL CONDITIONS

In accordance with the *GENERAL CONDITIONS*, *SUPPLEMENTAL CONDITIONS* take precedence over *GENERAL CONDITIONS*.

00802.07	Builders Risk Insurance
00810.13	Abbreviations of Administrative Organizations

00802.07 BUILDERS RISK INSURANCE

This section supersedes Section 00702.07.
Builders Risk Insurance is not required.

00810.13 ABBREVIATIONS OF ADMINISTRATIVE ORGANIZATIONS

This section supplements **SECTION 00710.03** of the **GENERAL CONDITIONS**.

TABLE 00810.13	
ABBREVIATIONS OF ADMINISTRATIVE ORGANIZATIONS	
<i>AASHTO</i>	<i>American Association of State Highway and Transportation Officials</i>
<i>ACI</i>	<i>American Concrete Institute</i>
<i>AF&PA</i>	<i>American Forest & Paper Association</i>
<i>AIA</i>	<i>American Institute of Architects</i>
<i>AISC</i>	<i>American Institute of Steel Construction</i>
<i>AISI</i>	<i>American Iron and Steel Institute</i>
<i>AITC</i>	<i>American Institute of Timber Construction</i>
<i>ANSI</i>	<i>American National Standards Institute</i>
<i>APA</i>	<i>APA – The Engineered Wood Association</i>
<i>APWA</i>	<i>American Public Works Association</i>
<i>AREMA</i>	<i>American Railway Engineering and Maintenance-of-Way Association</i>
<i>ASCE</i>	<i>American Society of Civil Engineers</i>
<i>ASME</i>	<i>American Society of Mechanical Engineers</i>
<i>ASTM</i>	<i>ASTM International (formerly American Society of Testing and Materials)</i>
<i>AWPA</i>	<i>American Wood Protection Association</i>
<i>AWPI</i>	<i>American Wood Preservers Institute</i>
<i>AWS</i>	<i>American Welding Society</i>
<i>AWWA</i>	<i>American Water Works Association</i>
<i>CSI</i>	<i>Construction Specifications Institute</i>
<i>NEC</i>	<i>National Electrical Code</i>
<i>IAPMO</i>	<i>International Association of Plumbing and Mechanical Officials</i>
<i>IBC</i>	<i>International Building Code</i>
<i>IEEE</i>	<i>Institute of Electrical and Electronics Engineers</i>
<i>NEMA</i>	<i>National Electrical Manufacturers Association</i>
<i>NFPA</i>	<i>National Fire Protection Association</i>
<i>OSHA</i>	<i>Occupational Safety and Health Administration</i>
<i>RCW</i>	<i>Revised Code of Washington</i>
<i>SAE</i>	<i>SAE International (formerly Society of Automotive Engineers)</i>
<i>SSPC</i>	<i>Society of Protective Coatings (formerly Steel Structures Painting Council)</i>
<i>TAA</i>	<i>The Aluminum Association</i>
<i>UL</i>	<i>Underwriters Laboratories, Inc.</i>
<i>UMC</i>	<i>Uniform Mechanical Code (developed by the IAPMO)</i>
<i>UPC</i>	<i>Uniform Plumbing Code (developed by the IAPMO)</i>
<i>WAC</i>	<i>Washington Administrative Code</i>
<i>WISHA</i>	<i>Washington Industrial Safety and Health Administration</i>
<i>WSDOT</i>	<i>Washington State Department of Transportation</i>
<i>WWPA</i>	<i>Western Wood Products Association</i>

Reference herein to specifications issued by the above named or other organization shall mean the latest edition of said specifications, unless otherwise noted.

**SECTION 01000
GENERAL REQUIREMENTS**

01010 SUMMARY OF WORK

The Icicle-Peshastin Irrigation District (IPID, Owner) conducts and distributes water diverted from Icicle Creek near Leavenworth, through Peshastin, Dryden, and Cashmere, down to Monitor. The Wenatchee River and Icicle Creek contain migrating stocks of ESA listed fish including Chinook, steelhead, and bull trout. The intake screens that filter debris, fish, and sediment are from the 1930's and are undersized for the amount of water they filter, are structurally failing, and has a non-compliant fish bypass. The screens' current location floods frequently, is inundated with large sized and large volumes of debris, and allows for only foot access. The intake screens have been relocated downstream along the ditch to a location that provides vehicle access, removes the risk of flooding and debris impact damages, and allows for better water and sediment management. The site civil plans for the screen structure have been provided for review. The plans are included for the Contractor's reference to aid in seeing how their work fits into the site work but does not contain the work pertaining to this contract.

The Owner is completing site civil work. WDFW has completed the site design, contracted the design for the cleaning system, and is fabricating and installing all structural steel and the screen hardware. Screen cleaning at the old site was paddlewheel powered; the new configuration requires power for cleaning function. The Owner has already installed conduit and hand holes to the site. Chelan PUD will run primary power to the site. The buried alignment for the electrical lines is shown on the PUD layout in Attachment 3. This is work performed by others and is shown for the Contractor's reference to provide context. The Contractor will coordinate, fabricate, install, and commission all site electric and controls work. This includes but is not limited to hooking up power to PUD supply, install conduit and site electrical fixtures, obtain all required permits and inspections and serve as the Owner's representative in this function, fabricate the previously designed control box, wire up all peripherals, and work with the Owner and WDFW during commissioning to ensure proper function.

Anticipated project schedule:

Months	Tasks
Phase 1 – Bid Item 1	
Mar - Apr 2022	A. Coordinate location and size conduit to be covered or encased by concrete slab or penetrate walls with Owner and trades. B. Install rack and meter; secure necessary permits, schedule, coordinate, serve as Owner's Representative during all required inspections, and have PUD power fully operational at site. Owner needs one exterior outlet affixed to the ditch side of the rack functional by substantial completion. (Substantial Completion) by April 29th, 2022.

DIVISION 1 – GENERAL REQUIREMENTS

Phase 2	
Apr - Sept 2022	Bid Item 2: Coordinate, procure, and fabricate control box and peripheral components (and install control box during this time interval if EC chooses).
May - Sept 2022	Water will be running through the ditch for irrigation season.
Oct - Dec 2022	A. WDFW installation of structural steel supports and walkways, screens, and wiper arms, anticipated October 1 - November 23. B. Bid Items 3 & 4: Contractor will install exposed conduit, conductors, receptacles, site lighting, and control box (if not done during Apr-Sept time interval) with commissioning to follow. Coordinate installation schedule with Owner and WDFW as there will be some overlap between WDFW trade work and Contractor's work. Contractor's on-site work is anticipated to start in late October but may begin sooner space conflicts can be avoided. C. Substantial completion for this phase December 16, 2022.

Description of Anticipated Coordination needed between Electrical Contractor, Owner/IPID, and WDFW:

- A. Owner is doing excavation, fill, and concrete work that may have conduit under or be encased in a cast in place slab, and/or pass through cast in place walls. EC will coordinate installation of conduit (including sizing and locations), placement, inspections, backfill, and concrete coverage with Owner and other trades. IPID will drill concrete as necessary and handle excavation and backfill.
- B. WDFW's Yakima Shop (YCS) will be fabricating and installing all structural metal and other metal work such as walkway gratings, screen panels, fall protection handrails, and motor stands. Some overlap in time and space while YCS and EC are working will occur. EC will coordinate with YCS and Owner regarding final location of peripherals, conduit, receptacles, and other Contractor executed work.
- C. Once all conduit and conductors are installed and equipment is in place and hooked up, EC will work with and coordinate with Owner and WDFW to verify all EC installed fixtures, controls, and sensors are functional. The EC will aid in the commissioning of the system. Once functional, the EC will hold one orientation presentation with the Owner, WDFW, and YCS regarding controls box.

Contractor to provide all labor, materials, equipment and permits to:

1. Erect rack and meter for site permanent power per Chelan PUD requirements (PUD representative stated the PUD has exacting requirements that are a bit different than standard. Potential contractors should review local requirements prior to bidding.).
2. Run secondary conductors from Chelan PUD furnished and installed pad mounted transformer to contractor installed rack and meter.
3. Obtain permits as needed, Coordinate inspections as necessary, function as the contractor and Owner's Representative for all L&I/county electrical related inspection. Coordinate connecting system with PUD primary power. The initial application/permit with the PUD has been obtained, paid for, and is enclosed for reference in Attachment 1.
4. Contractor shall use Control Panel Resubmittal 1.1 document as a basis of design. It contains a design, schematics, and component cut sheets previously designed for this project by Technical Systems Inc, TSI. Some additional functionality has been requested that may not be addressed in the original design. Control panel basis of design should be used as a starting point to perform the following list of functions. If there are gaps in the

DIVISION 1 – GENERAL REQUIREMENTS

existing design that do not allow for the following list of functions, fabricator shall expand/modify the design as necessary to achieve that function. Control module should be capable of and/or consist of but is not limited to:

- a. Limit switches for traveling brush arm – 2 sides (safety in case of optical malfunction). The motor should start from 0 and increase to a top speed to 12 ft/min over a span of 5 seconds. The motor should slow from full speed coming into the limit switch to reverse direction and to stop/complete a cycle.
 - b. Optical switch for cable pulleys – 2 sides (if the motor is running and the pulley sheaves are not turning, then the motor shuts down so don't burn up motor or cable or bend brush arm).
 - c. Intermittent cycle time switch – 2 sides (increase/decrease rest interval between cycles). Typical previous installs have 4-6 positions on the switch with available selections of continuous operation, 5 min, 15 min, 30 min, 1hr delay intervals. The suggested intervals are not required but are but are approximate. Alternatives with similar standard options will be considered if available.
 - d. Torque limiters for motors - 2 sides. Limits amp overload to motor to prevent burning up motor or damage to brush arm, cables, or other system equipment. Another system we have with this function is set up so if the brush arm gets stuck on debris or sediment, it'll reverse the motor, run to the end of the stroke and then come back. If obstruction is still there, the motor will shut down. The model numbers for the gearboxes and motors are found in Div. 17 and a photo of the electric motor nameplate also provided for the Contractor's reference in Attachment 3 - Photos.
 - e. Ultrasonic differential call – if water surface elevation from the unscreened side of the panel to screened side of the screen panel exceeds 1", then calls for the start of a brush travel cycle.
5. Install conduit and conductors for two pole mounted exterior rated, LED flood lights. Light shall have a switch with options for off, dusk to dawn + sensor, and on and also be exterior rated.
 6. Install conduit, conductors, enclosures for 3 exterior rated, GFCI receptacles as shown on the plans.
 7. Contractor shall schedule, coordinate, direct, and supervise work with IPID and WDFW.
 8. The current plan is that IPID will operate all heavy equipment on site. They will do all earthwork, forming and pouring of concrete, backfill and other civil site work associated with the project. The electrical contractor will need to coordinate and complete placement of conduit to be encased in concrete with Prime.

All the above work shall be done by properly licensed personnel where required and done to applicable codes and best practices.

01011 OWNER FURNISHED ITEMS

- A. Stilling well casing for ultrasonic transducers, motors, and gear boxes and all screen cleaning equipment, Exterior rated light poles, and lights mounted to the structure.
- B. Limit switches to function as a reversing system for the motors.
- C. Optical eye/cable slippage sensor to monitor cable sheave rotation and cable slippage.
- D. Owner will provide labor and concrete to install pipe for rack poles into concrete structure.

DIVISION 1 – GENERAL REQUIREMENTS

- E. Heavy equipment and labor, forms, concrete and rock for all work under slab, through walls, buried in fill, or covered.

01012 CONTRACT TIME

Phase 1 Substantial Completion shall be achieved by April 29, 2022.

Phase 2 Substantial Completion shall be achieved by Dec 16, 2022.

Final Completion shall be achieved by December 23, 2022.

01025 UNIT PRICE BASE BID MEASUREMENT AND PAYMENT

Not Used.

01030 SCHEDULE OF VALUES

Upon contract award, the WDFW will provide an electronic copy of the Schedule of Values shown in Section 00650. Prior to the preconstruction meeting, complete and submit this form to the WDFW for approval.

- A. Show in detail all items performed on this Project. For each major line item, list sub-values of material and installation.
- B. Include a line item identified as "Submittal of Signed Permits, Project Record, and Operation and Maintenance Manuals" with an assigned value of \$1,000. This amount will be withheld from the final payment until Project Engineer has received and approved the above-mentioned document(s).
- C. The sum of all values listed in the Schedule shall equal the total Base Bid.

01040 COORDINATION

- A. The Contractor shall, before preparing the construction schedule, consult with the Owner to determine any particular scheduling or operational coordination conditions that will arise during the course of construction and coordinate work accordingly to minimize disruption to Owner and/or WDFW or to progress of the work.
- B. The Contractor shall coordinate all materials, supplies, subcontract work, and its own work to ensure conflict-free and uniform flow of construction activities to completion within time set forth in Paragraph 01012.

01060 REGULATORY REQUIREMENTS

- A. Washington Department of Fish and Wildlife has obtained the following listed permits:

An electric estimate/line extension permit with PUD is in-hand and fees have been paid. A copy is included in the permits section. Contractor should include all county, plus L&I permitting efforts in their bid.

- State Environmental Policy Act (SEPA) Determination of Non-Significance (DNS)
- WDFW Hydraulic Project Approval (HPA)
- NMFS Concurrence NLAA
- Chelan Co PUD Line Extension

DIVISION 1 – GENERAL REQUIREMENTS

1. The permits with provisions affecting the construction methods or schedule of this project have been incorporated in Attachment 1 at the end of this division. The Contractor shall abide by all restrictions noted in these permits as the construction is in progress.
 2. All other permits or fees required by local, state, or federal governmental agencies necessary for the accomplishment of this project shall be obtained and paid for by the Contractor, except that any utility company costs for new permanent service shall be paid directly to the utility company by the State.
 3. All costs associated with obtaining the permits, including labor, materials, and equipment shall be included in the Base Bid, except for permit fees.
 4. The Contractor shall pay all permit fees. The Contractor shall not include any permit fees in the Base Bid. The State shall reimburse the Contractor by Change Order for the actual fees charged by city, state, or county authorities with no Contractor markup. The Contractor shall provide to the State documentation regarding costs for fees paid.
- B. The Contractor shall notify city, county, and state authorities of any inspections and/or approvals required.
- C. Contractor shall follow the Cultural Resource plan including Inadvertent Discovery Plan shown in Attachment 2.

01100 SPECIAL PROJECT PROCEDURES

- A. All WDFW Public Works contracts will adhere with the Governor's guidance for COVID-19 protocol on construction projects.

Additionally, the Contractor must be in compliance all COVID-19 protocol set forth by Washington L&I (<https://lni.wa.gov/safety-health/safety-topics/topics/coronavirus>). The Contractor must also be aware of the specific county COVID-19 procedures and ensure compliance is met with county requirements. The Department of Fish and Wildlife requires masks are worn by everyone on the job site, at all times, working around others.

No newly authorized projects are permitted to break social distancing standards. A written job site safety plan will be submitted, which must be approved by WDFW prior to construction and posted on the job sites during construction.

The written job site safety plan is a comprehensive COVID-19 exposure control, mitigation, and recovery plan. If the 6-foot rule cannot be followed at all times, a hazard assessment and control plan will also need to be submitted.

- B. To reduce wildfire risk, the following conditions apply on the project site, when Industrial Fire Precaution Levels (IFPL) are activated. If any conditions are lifted, it shall be done in writing by WDFW. If any additional conditions are required it shall be done in writing by WDFW.
1. No smoking except in an enclosed vehicle, per WAC 232-13-07000A.
 2. No fires or campfires, per WAC 232-1307000A.
 3. No open flame, welding, metal cutting, chainsaw operation, or any activity that may cause a spark or hot metal, per WAC 232-13-05000A.
 4. No operation or parking of a motor vehicle (road vehicles and off-road vehicles) off developed roadways. However, it is permissible to park in an area devoid of vegetation within 10 feet of a developed roadway. For purposes of this paragraph, a developed

DIVISION 1 – GENERAL REQUIREMENTS

roadway is a roadway constructed for standard highway vehicles with an asphalt, gravel or dirt surface with no vegetation, 14 feet wide or more. Trails or tracks are not such roadways.

5. A violation of these provisions is punishable under RCW 77.15.160(5)(b). A violation of these provisions may result in removal of offending personnel from the work, per General Conditions Section 00705.01 Contractor Control and Supervision.
6. All vehicles shall be equipped with a fire extinguisher, 2 gallons of water, and a shovel. All worksites shall have a fire extinguisher and shovel present. The Contractor shall take all reasonable precautions to prevent fires.
7. The Contractor shall have an employee remain at the worksite with sufficient firefighting capability, for at least one hour after work has ceased for the day, or if leaving for more than one hour, to ensure no fires have started.
8. The Contractor shall contact the Site/Facility Manager at the beginning of each week; Monday mornings, for any special instructions.

01200 PROJECT MEETINGS

Contractor shall attend a preconstruction meeting with WDFW and IPID prior to receiving the Notice to Proceed, to discuss the work, scheduling, and contracting procedures.

01300 CONTRACTOR SUBMITTALS

A. Preliminary Submittals:

Within 7 calendar days after the date of Notice to Proceed, the Contractor shall submit the following items to WDFW and the Owner for review:

1. A preliminary schedule of proposed alignments and sizes of conduit if they vary from the proposed Drawings and/or Specifications and a list of any other Contractor proposed changes. The schedule of submittals shall be based on Contractor's priority, planned construction sequence and schedule, long lead items, and size of submittal package. Allow time for project resubmittals. WDFW is not responsible for any delay associated with project resubmittals. The schedule shall include at a minimum the submittal number, Specification section and description of the submittal contents.
2. A list of permits and licenses the Contractor shall obtain, indicating the agency required to grant the permit, such as building permits, equipment or clearance permits, etc. and the expected date of submittal for the permit and required date for receipt of the permit.

B. Preconstruction Conference Submittals:

At the preconstruction conference of Paragraph 01010 - Summary of Work, the Contractor shall submit the following items to WDFW for review:

1. A preliminary Schedule of Values.
2. An Initial Schedule Submittal in accordance with Division 0 – General Conditions 00703.2.

C. Shop Drawings:

Not Used.

DIVISION 1 – GENERAL REQUIREMENTS

D. Samples:

Not Used.

E. Record Drawings:

1. The Contractor shall maintain one set of Drawings at the Project Site for the preparation and weekly update of Record Drawings.
2. The Record Drawings shall mark every project condition, location, configuration, and any other change or deviation which may differ from the Contract Drawings at the time of award, including buried or concealed construction and utility features that are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of buried utilities that differ from the locations indicated, or that were not indicated on the Contract Drawings.
3. Record drawings shall be supplemented by any detailed sketches as necessary or as Contractor is directed, to fully indicate the work as actually constructed. These record drawings are the Contractor's representation of as-built conditions, shall include revisions made by addenda and change orders, and shall be maintained up-to-date during the progress of the work.

F. Quality Control ("QC") Submittals:

1. Quality control submittals are defined as those required by the Specifications to present documentary evidence to WDFW that the Contractor has satisfied certain requirements of the Contract.
2. Unless otherwise indicated, submit QC submittals before delivery and unloading, for the following types of submittals:
 - a. Manufacturers' installation instructions
 - b. Manufacturers' and Installers' experience qualifications
 - c. Ready mix concrete delivery tickets
 - d. Design calculations
 - e. Affidavits and manufacturers' certification of compliance with indicated product requirements
 - f. Laboratory analysis results
 - g. Factory test reports
 - h. Inspection results and reports of Contractor's testing firm for special inspections.
3. Unless otherwise indicated, submit QC submittals within 30 business days of the event documented for the following types of submittals:
 - a. Manufacturer's field representative certification of proper installation
 - b. Field measurement
 - c. Field test reports
 - d. Receipt of permit
 - e. Receipt of regulatory approval

DIVISION 1 – GENERAL REQUIREMENTS

4. WDFW will record the date that a QC submittal was received and review it for compliance with submittal requirements, but the review procedures and WDFW time limits above for Shop Drawings and samples will not apply.

01510 TEMPORARY UTILITIES

- A. Contractor shall supply and maintain all necessary and temporary electrical services as required for construction of this project. These services shall include temporary lighting receptacles for extension cords and outlets for power tools. Contractor shall pay for all power.
- B. The Contractor may use WDFW or YCS provided temporary toilet facilities. If those facilities are not sufficient or available, contractor shall provide their own temporary toilet facilities, where directed, when work is started for all those connected with the work. The Contractor shall keep the toilet facilities in a sanitary condition and remove the toilet facilities at the end of the project and disinfect the premises.
- C. Drinking water is not available at the site. Provide single-service containers or a sanitary drinking device from a proven safe source for all those connected with the work.
- D. Water for construction purposes is available at the site. The State does not guarantee quantity or quality of water sources.

01730 OPERATIONS AND MAINTENANCE (O&M) MANUALS

- A. Before final acceptance, the Contractor shall instruct the Owner and WDFW on the proper operation and maintenance of all mechanical systems, equipment, and controls under this Contract. A qualified technician for each component of this installation shall be made available by the Contractor for this instruction.
- B. The Contractor shall submit two bound sets of equipment manuals and operating instructions. One copy to the Owner and one copy to YCS.
 1. Flysheets: Separate each portion of the manual with neatly prepared flysheets briefly describing contents of the ensuing portion. Flysheets must be in color.
 2. Binding: The Contractor shall use heavy-duty plastic or fiberboard front and back covers with 3-ring binders. All binding is subject to Owner's approval.
- C. The front and back covers will include, at least, the following information:

OPERATIONS AND MAINTENANCE (O&M) INSTRUCTIONS

Prepared for the Icicle-Peshastin Irrigation District and
Washington Department of Fish and Wildlife
(Project Title and Number)
(Name of Contractor)
(General Subject of this Manual)

- D. Contents: The Contractor shall include at least the following:
 1. Neatly typewritten index near the front of the manual giving immediate information as to location within the manual of all emergency information regarding the installation.
 2. Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly, and reassembly.
 3. Complete nomenclature of all parts of all equipment.

DIVISION 1 – GENERAL REQUIREMENTS

4. Complete nomenclature and part number of all replaceable parts name and address of nearest vendor, and all other data pertinent to procurement procedures.
5. Copy of all guarantees and warranties issued.
6. Manufacturers' bulletins, catalog cuts, and other pertinent descriptive data, clearly indicating the precise items included in the installation and deleting, or otherwise clearly indicating, all manufacturers' data with which this installation is not concerned.
7. A pump performance curve showing head, quantity, net positive suction head required, brake horsepower, and efficiency shall be included in equipment manuals.
8. The operating instructions, in conjunction with the maintenance manuals, shall include written step-by-step detail of start-up and shutdown procedures.
9. Such other data as required in pertinent sections of the Contract Documents.

END OF SECTION 01000

ATTACHMENT 1– PERMITS

**State Environmental Policy Act (SEPA) Determination of Non-Significance (DNS)
WDFW Hydraulic Project Approval (HPA)
NMFS Concurrence NLAA
Chelan Co PUD Line Extension**



CHELAN COUNTY

DEPARTMENT OF COMMUNITY DEVELOPMENT

316 WASHINGTON STREET, SUITE 301, WENATCHEE, WA 98801

TELEPHONE: (509) 667-6225 FAX: (509) 667-6475

SEPA NOTICE ISSUANCE OF DETERMINATION OF NON-SIGNIFICANCE (DNS)

Project Description: Icicle Creek Boulder Field Fish Habitat Improvement Project - Step-pool channel construction and City of Leavenworth Water Line and Fish Screen Replacement

File Number: SDP 18-299

Parcel Number: 241727311250

Related Parcels: 241727320050, 241727320100

Site Address: 7201 Icicle Road, Leavenworth, WA 98826

Owners: Icicle Irrigation District
PO Box 371, Cashmere, WA 98815
City of Leavenworth
PO Box 287, Leavenworth, WA 98826
United States of America, Dept. of Interior, BLM Spokane Dist Office
1103 N Fancher Rd., Spokane, WA 99212

Applicant: Trout Unlimited
103 Palouse Street, Suite 103, Wenatchee, WA 98801

Agent: ECOLUTION
1910 East 4TH Avenue, PMB 193, Olympia, WA 98506

Lead Agency: Chelan County Department of Community Development

An application for a shoreline substantial development permit to construct a step-pool channel to enhance fish passage to more than 23 miles of habitat in the upper reaches of Icicle Creek. The development includes: construction of 150 lineal feet of step-pools along the left bank of the reach and some of the channel, removal of boulders to improve flow and reduce downstream turbulence, placing of boulders in gaps between existing boulders to raise tailwater in plunge pool below falls, shaping of at least 20-30 boulders greater than 500 cubic feet in volume, excavation of material from left bank for step-pools, partial or full replacement of City of Leavenworth water supply pipeline between screen house and the Water Treatment Plant, and replacement of City of Leavenworth fish screen and fish screen house. The application contains provisions for a temporary erosion and sediment control plan for all construction activities, seeding and mulching for disturbed slopes, and re-stabilization to pre-project conditions.

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(c). The decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

This Determination of Non-Significance is issued under WAC 197-11-355, Optional DNS. No additional comment period is required.

Responsible Official: Dave Kuhl, Director / SEPA Responsible Official

Address: Chelan County Department of Community Development
316 Washington Street, Suite 301
Wenatchee, WA 98801

Phone: (509) 667-6228

Signature:



Dave Kuhl, SEPA Responsible Official

Date:

5/3/19

Date of Issuance: _____

Date of Publication: _____



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: May 28, 2021
Project End Date: May 10, 2025

Permit Number: 2020-2-110+02
FPA/Public Notice Number: N/A
Application ID: 21140

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
WDFW ATTENTION: Jenni Novak 303 S Mission St Wenatchee, WA 98801-6142	

Project Name: IPID Fish Screen

Project Description: There are four primary components of this project, they include the new IPID fish screen, power to the screen site, new bridge stringers, decking and hand rails, and improvements to the existing headgate. Icicle Creek is the major fish-bearing tributary to the Wenatchee River in Water Resources Inventory Area 45 and is designated as critical habitat for bull trout and steelhead. The fish screens for IPID diversion on Icicle Creek are not in compliance, the screens are undersized, the mesh openings are too big, there is no sweeping flow, and the approach velocity is too high. Fish are believed to be at high risk of impingement if entrained. There is no fish bypass to safely return fish that enter the ditch back to Icicle creek. Currently, the fish are returned to Icicle creek via a 15-foot drop onto a boulder that is not submerged for most of the irrigation season, likely resulting in injury or death (USFWS 2011a). The IPID intake is presently on the right bank at the diversion dam(47.543764, -120.713616) (RM 6.0); water is directed via a canal that runs parallel to Icicle Creek for 800 feet down to the existing fish screens, where the canal turns southeast before crossing Snow Creek.

Washington Department of Fish and Wildlife (WDFW) is proposing to replace and relocate the IPID fish screens downstream to their Snow Creek diversion site near where the Snow Lakes trail crosses IPID's irrigation ditch (47.541895, -120.711406) to bring them into compliance with current state and federal criteria. This location protects the screen from debris and high water during high flow events in the canyon and provides an adequate fish bypass back to Icicle Creek via Snow creek.

The vertical plate screen will be located on IPID property in the canal footprint and there is an existing access road to the site. The access road crosses a 112 foot long x 7 foot wide glu-lam bridge that spans Icicle creek to provide IPID access to their ditch and to their Snow creek diversion, and provides hikers access to the wilderness area beyond the proposed screen site via the Snow Lakes trail (1553). This bridge was originally constructed (prior to 1962) for IPID to access and maintain their infrastructure. The bridge has been rebuilt numerous times due to flood and fire damage. The existing bridge was damaged by debris conveyed in flood flows. A structural consultant (KPFF) has evaluated the existing stringers, piers, and abutments for load capacity. KPFF observed damage to the upstream bases of the existing stringers and evaluated an estimated loss in weight capacity for the bridge. (Report attached). It is necessary to increase the weight capacity and width of the existing bridge to allow trucks and equipment to use the bridge via the existing access road temporarily to construct the new fish screen. Once construction is complete, the bridge will only be used by a boom truck occasionally, as necessary for screen maintenance. Power to operate the cleaning mechanism for the new fish screen will be brought to the site via the existing access road and the Snow lakes trail bridge. Modifications to the existing headgate will also be needed to install a trash rack and a Waterman gate to help control the amount of water being diverted during irrigation season and allow it to be shut off in the off season.



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PROVISIONS

TIMING - PLANS - INVASIVE SPECIES CONTROL

1. **TIMING LIMITATION:** You may begin the project on May 11, 2020 and you must complete the project by May 9, 2025; provided: all in-water work is completed between July 1-31 of any calendar year.
2. **RE-VEGETATION:** You must complete re-vegetation by no later than the first fall dormant season following construction, and you must monitor the success of the re-vegetation for three years post-planting.
3. **APPROVED PLANS:** You must accomplish the work per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled Snow Creek Screen Plans Final 5-4-2021.pdf, received on May 20, 2021, and BRIDGE Design_April2020.pd, received on April 20, 2020, except as modified by this Hydraulic Project Approval. You must have a copy of these plans available on site during all phases of the project construction.
4. **INVASIVE SPECIES CONTROL:** Follow Method 1 for low risk locations (i.e. clean/drain/dry). Thoroughly remove visible dirt and debris from all equipment and gear (including drive mechanisms, wheels, tires, tracks, buckets, and undercarriage) before arriving and leaving the job site to prevent the transport and introduction of invasive species. For contaminated or high risk sites please refer to the Method 2 Decontamination protocol. Properly dispose of any water and chemicals used to clean gear and equipment. You can find this and additional information in the Washington Department of Fish and Wildlife's "Invasive Species Management Protocols", available online at <https://wdfw.wa.gov/species-habitats/invasive/prevention>.

NOTIFICATION REQUIREMENTS

5. **PRE-CONSTRUCTION CONTRACTOR MEETING:** You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least fourteen business days before starting work to arrange a pre-construction contractor meeting onsite. The notification must include the permittee's name, project location, starting date, and the Hydraulic Project Approval permit number.
6. **PRE- AND POST-CONSTRUCTION NOTIFICATION:** You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work, and again within seven days after completing the work. The notification must include the permittee's name, project location, starting date for work or date the work was completed, and the permit number. The Washington Department of Fish and Wildlife may conduct inspections during and after construction; however, the Washington Department of Fish and Wildlife will notify you or your agent before conducting the inspection.
7. **PHOTOGRAPHS:** You, your agent, or contractor must take photographs of the job site before the work begins and after the work is completed. You must upload the photographs to the post-permit requirement page in the Aquatic Protection Permitting System (APPS) or mail them to Washington Department of Fish and Wildlife at Post Office Box 43234, Olympia, Washington 98504-3234 within 30-days after the work is completed.
8. **FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION:** If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

9. Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).



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10. Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.
11. All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.
12. Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.
13. Stop all hydraulic project activities except those needed to control erosion and siltation, if flow conditions arise that will result in erosion or siltation of waters of the state.
14. Prevent project contaminants, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.
15. Route construction water (wastewater) from the project to an upland area above the limits of anticipated floodwater. Remove fine sediment and other contaminants before discharging the construction water to waters of the state.
16. Use tarps or other methods to prevent treated wood, sawdust, trimmings, drill shavings and other debris from contacting the bed or waters of the state.
17. Deposit waste material from the project, such as construction debris, silt, excess dirt, or overburden, in an upland area above the limits of anticipated floodwater unless the material is approved by the Washington Department of Fish and Wildlife for reuse in the project.
18. Do not burn wood treated with preservatives, trash, waste, or other deleterious materials waterward of the ordinary high water line.
19. Deposit all trash from the project at an appropriate upland disposal location.

CONSTRUCTION MATERIALS

20. Store all construction and deconstruction material in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.
21. Do not stockpile construction material waterward of the ordinary high water line.
22. Use only clean, suitable material as fill material (no trash, debris, car bodies, tires, asphalt, concrete, etc.).
23. Angular rock, the rock must be large enough and installed to withstand the 100-year peak flow.
24. To prevent leaching, construct forms to contain any wet concrete. Place impervious material over wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured.
25. Do not use wood treated with oil-type preservatives (creosote, pentachlorophenol) in any hydraulic project. You may use wood treated with waterborne preservatives (ACZA, ACQ) provided the wood is approved by the Western Wood Preservers Institute for use in the aquatic environment. Any use of treated wood in the aquatic environment must follow guidelines and best management practices available at www.wwpinstitute.org.

IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE

26. Use a cofferdam, dike, or similar structure to exclude water from the work area.
27. Maintain water quality when installing and removing the cofferdam, dike or similar structure.
28. Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.
29. Route the construction water (wastewater) from the project to an upland area above the limits of anticipated floodwater. Remove fine sediment and other contaminants before discharging the construction water to waters of the state.
30. Sequence the work to minimize the duration of dewatering.



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IN-WATER WORK WITHOUT A BYPASS OR COFFERDAM

31. A temporary bypass is not required when the following circumstances exist, provided you can comply with the Hydraulic Project Approval provisions:

- a) When installing a coffer dam, bypass or similar structure would cause greater impacts to fish life than it would prevent;
- b) When the work area is in deep or swiftly flowing water;
- c) When turbidity is not a concern (i.e. the stream is dry, very slow flow);
- d) When fish can be excluded by nets or screens; or
- e) When fish are not present.

FISH LIFE REMOVAL

32. All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.

33. If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.

34. Remove temporary erosion and sediment control methods after job site is stabilized or within three months of project completion, whichever is sooner.

35. If personnel are available, the Washington Department of Fish and Wildlife and affected tribes may help capture and move fish life from the job site.

36. Place block nets upstream and downstream of the in-water work area before capturing and removing fish life.

37. Capture and safely move fish life from the work area to the nearest suitable free-flowing water.

HEAD GATE INSTALLATION

38. Installation of Waterman gate into the existing headgate slides and installation of a trash rack will be completed utilizing a mini excavator, a backhoe, and hand tools.

39. Concrete use is limited to 1/10th yard and any fresh concrete will be isolated from the stream until cured.

DIVERSION/INTAKES

40. A diversion structure must not hinder upstream and downstream adult and juvenile fish passage. If passage problems develop, the Washington Department of Fish and Wildlife may require you to modify the check or wing dam.

41. At pump stations, screens, and headgate areas, use excavation equipment or a suction dredge to remove accumulated silts and gravel from within twenty feet of the point of diversion unless otherwise permitted. Place material removed so it will not reenter waters of the state. The water diversion must be open during this work to capture disturbed sediment within the irrigation diversion and to prevent sediment from entering into the stream.

42. Equip and maintain any device used for diverting water from a fish-bearing watercourse with a fish screen approved by the Washington Department of Fish and Wildlife to prevent passage or impingement of fish. Maintain the fish screen and associated structures as necessary to achieve the approach velocity, a functional bypass, and fish protection criteria.

43. Equip diversions with a fish bypass mechanism to provide opportunity for fish entrained within a delivery canal to volitionally return to the stream.

44. Maintain diversion canals to maximize hydraulic gradient in the canal. This will minimize the need for work within the natural watercourse. Maintenance includes removing sediment and debris at the point of diversion.

45. If logs or other large woody material block water flow into a ditch or inhibit construction, relocate them within the ordinary high water line.

46. Clean and maintain the fish bypass mechanism prior to diverting water to ensure it is operational and will prevent



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injury or stranding of fish life.

47. Ensure that there is sufficient flow within the bypass mechanism to safely return fish life from the fish screen to state waters.

48. If at any point during water diversion there is insufficient instream flow to provide opportunity for fish life to migrate downstream, close the fish bypass until there is sufficient flow.

49. Prevent stranding or predation of fish life within a canal above the fish screens or within the fish bypass mechanism by slowly ramping down flows at the end of the irrigation season. Do not close the head gate completely until fish have either left the canal and bypass or are salvaged and returned to the stream. Head gates located downstream of the fish screen may be closed immediately at the end of the irrigation season.

BRIDGE

50. Prevent the existing structure and associated construction materials from entering the stream when removing them.

51. Clean the bridge deck of aggregate or earth materials before removing and replacing the bridge deck.

52. Dismantle and mechanically remove as much of the bridge as possible. Bridge parts that cannot be mechanically removed may be broken into the largest sections that can be safely handled and dropped into the stream. You must remove these sections from the stream immediately.

53. Install and maintain curbs or wheel guards to prevent aggregate or earth-type paving material from entering the stream.

54. Install the new stringers, new beams, new timber decking, and hand-rails as shown in the approved plans.

DEMOBILIZATION AND CLEANUP

55. Do not relocate removed or replaced structures within waters of the state. Remove and dispose of these structures in an upland area above the limits of anticipated floodwater.

56. Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.

57. Seed areas disturbed by construction activities with a native seed mix suitable for the site that has at least one quick-establishing plant species.

58. Replace native riparian zone and aquatic vegetation, and wetland vascular plants (except noxious weeds) damaged or destroyed by construction using a proven methodology.

59. Replant the job site with the plant species composition and planting densities approved by the Washington Department of Fish and Wildlife.

60. Complete replanting of riparian vegetation during the first dormant season (late fall through late winter) after project completion per the approved plan. Maintain plantings for at least three years to ensure at least eighty percent of the plantings survive. Failure to achieve the eighty percent survival in year three will require you to submit a plan with follow-up measures to achieve requirements or reasons to modify requirements.

61. Install fencing or other structures to prevent livestock, wildlife, or unauthorized persons from accessing the replanted riparian and wetland sites until the plantings are well established.

62. Upon completion of the project, remove all materials or equipment from the site and dispose of all excess spoils and waste materials in an upland area above the limits of anticipated floodwater.

63. Return water flow slowly to the in-water work area to prevent the downstream release of sediment laden water. If necessary, install silt fencing above the bypass outlet to capture sediment during re-watering of the channel.

LOCATION #1: Site Name: IPID Fish Screen @ Snow Creek



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: May 28, 2021
Project End Date: May 10, 2025

Permit Number: 2020-2-110+02
FPA/Public Notice Number: N/A
Application ID: 21140

, , WA						
WORK START:		October 1, 2020			WORK END: April 15, 2022	
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
45 - Wenatchee		Icicle Creek (rb)			Wenatchee River	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
	28	24 N	17 E	47.54227	-120.711786	Chelan
<u>Location #1 Driving Directions</u>						
Drive 5.6 miles up Icicle River Road to the Snow Lakes Trailhead parking area.						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
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Permit Number: 2020-2-110+02
FPA/Public Notice Number: N/A
Application ID: 21140

MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: May 28, 2021
Project End Date: May 10, 2025

Permit Number: 2020-2-110+02
FPA/Public Notice Number: N/A
Application ID: 21140

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist
Amanda Barg
Amanda.Barg@dfw.wa.gov
509-429-9285

Amanda R Barg for Director
WDFW



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
304 S. Water Street, Suite 201
Ellensburg, Washington 98926-3617

Refer to NMFS No.: WCRO-2019-02628

September 23, 2019

Jeff Rivera
Wenatchee River Ranger District
Okanogan–Wenatchee National Forest
600 Sherbourne
Leavenworth, WA 98826

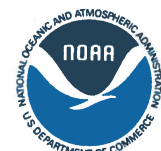
Re: Endangered Species Act Section 7 Informal Consultation and Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Snow Lakes Trail Bridge #1 Replacement Project in Chelan County, Washington [Sixth-Field Hydrologic Unit Code (HUC6)]: Lower Icicle Creek, 170200110406.

Dear Mr. Rivera:

On September 17, 2019, the National Marine Fisheries Service (NMFS) received your request for a written concurrence that the Snow Lakes Trail Bridge #1 Replacement Project (Project) is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson–Stevens Fishery Conservation and Management Act (MSA), including conservation measures. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation. In this case, NMFS concluded the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106–554). A complete record of this consultation is on file at NMFS' Columbia Basin Branch in Ellensburg, Washington.



Proposed Action and the Action Area

The Wenatchee River Ranger District of the Okanogan–Wenatchee National Forest is proposing to issue a special-use permit to the Icicle Peshastin Irrigation District (IPID) for the Snow Lakes Trail Bridge #1 Replacement Project. The proposed action consists of two elements: replacing a bridge over Icicle Creek, and running electrical line to power a new fish screen.

The Snow Lakes trail bridge is a 112-foot long by 7-foot wide glulam bridge that spans Icicle Creek. The bridge provides IPID access to their irrigation ditch and Snow Creek diversion. It also provides hiking access to the Alpine Lakes Wilderness Area. The bridge was originally constructed (prior to 1962) for IPID to access and maintain infrastructure. It has been rebuilt numerous times due to flood and fire damage. It is necessary to increase the weight capacity and width of the existing bridge to allow trucks and equipment to access IPID's fish screen.

The proposed action entails replacing the existing glulam stringers with metal w-beams, new timber decking, and hand rails. The existing stringers will be unbolted from the existing concrete piers, lifted with a crane, and removed off site. New metal w-beam stringers will be set and anchored to the concrete piers. Then the bridge decking and handrails will be installed. Both the decking and handrail materials will be pre-treated using Klear-Guard, a metal free, non-corrosive, waterborne wood preservative that binds with the wood. The existing bridge footings will be used as is and all work will be performed above the ordinary high water mark (OHWM).

Staging for the bridge will occur offsite due to limited open space along the access road. To allow work on the bridge approach, some vegetation will need to be removed from IPID property, including the top of one cedar (less than 12 inches diameter at breast height; stump and roots to remain) and a few alder stems (less than 4 inches diameter at breast height) on the ditch side of the bridge. The alder stems are expected to grow back with a year or two.

The new fish screen will require a power supply for operation, and thus the action includes running electrical conduit to the screen site. Power will come off the elevated lines adjacent to the paved Icicle Road approximately 1,000 feet east of the Snow Lakes Trailhead parking lot entrance. Conduit will be buried within IPID's existing access easement across private property to the bridge. The power crosses 5 feet of U.S. Forest Service (USFS) land onto the bridge and will travel 115 feet in conduit along the bridge stringers. It will then be buried within the 10-foot-wide USFS easement on IPID property to the new screen site. A small excavator, such as a CAT 305, with a hydraulic hammer will be used to dig a trench 3 inches wide and 4 to 6 inches deep. Conduit carrying utility lines will be installed in the trench and covered by a cap of concrete 2 inches deep to meet code.

The work for these two projects is expected to occur over a 2 to 3 week period between March 15 and May 15 of 2020.

Action Area

The ESA Action Area includes Icicle Creek at RM 5.4 and an existing access road from Icicle Road that crosses private property (via IPID easement; see Appendix A) across the Snow Lakes Trail bridge #1 and continues to IPID property.

Action Agency's Effects Determination

The Forest Service determined the proposed project “may affect, but is not likely to adversely affect” Upper Columbia River (UCR) steelhead (*Oncorhynchus mykiss*), UCR spring-run Chinook salmon (*O. tshawytscha*), or any of their designated critical habitat.

Table 1. Listing status, status of critical habitat designations and protective regulations, and relevant Federal Register (FR) decision notices for ESA-listed species considered in this consultation. Listing status: ‘T’ means listed as threatened; ‘E’ means listed as endangered.

Species	Listing Status	Critical Habitat	Protective Regulations
Chinook salmon (<i>Oncorhynchus tshawytscha</i>)			
Upper Columbia River spring-run	E 6/28/05; 70 FR 37160	9/02/05; 70 FR 52630	ESA section 9 applies
Steelhead (<i>O. mykiss</i>)			
Upper Columbia River	T 1/05/06; 71 FR 834	9/02/05; 70 FR 52630	2/01/06; 71 FR 5178

Consultation History

NMFS received your request for consultation, including the biological assessment on September 17, 2019, and began consultation on that date.

ENDANGERED SPECIES ACT

Effects of the Action

For purposes of the ESA, “effects of the action” means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is NLAA-listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur.

The Forest Service requested ESA-consultation on both UCR spring-run Chinook salmon and UCR steelhead and the designated critical habitat of both species. However, there is no designated habitat for UCR spring-run Chinook salmon in the action area.

The activities that comprise the proposed action will reduce shade, may increase sedimentation, and may alter fish behavior during construction. The effect of shade reduction will be insignificant to either species and to UCR steelhead critical habitat because the action will only remove the top of one cedar tree and a few limbs from a few alder trees at a site where Icicle Creek is well incised into boulder/bedrock valley segment. The effects of sedimentation will also be insignificant as the action in sum will only disturb a few yards of material (conduit trench), well above the OHWM of Icicle Creek, and disturbed material will be compacted so as to render it largely un-erodible. Activities other than the bridge deck work will not be detected by fish in

Icicle Creek and the bridge work itself will last only a few days, the effects to fish behavior and the consequences of those effects will be insignificant. Therefore, NMFS concurs with your determination of “may affect, not likely to adversely affect” for UCR steelhead and UCR spring-run Chinook salmon. Concurrence is based on the information in the biological assessment and is contingent upon full implementation of all the design criteria and minimization measures.

Conclusion

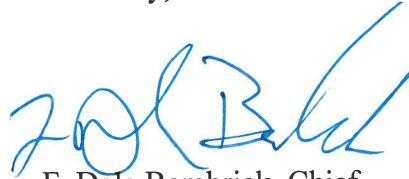
Based on this analysis, NMFS concludes that all effects of the proposed action are NLAA for both subject ESA-listed species and designated critical habitat for UCR steelhead.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by the Forest Service or by NMFS, where discretionary federal involvement or control over the action has been retained or is authorized by law and: (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

Please direct questions regarding this letter to Justin Yeager, Columbia Basin Branch at (509) 962-8911 ext. 805 or justin.yeager@noaa.gov.

Sincerely,



F. Dale Bambrick, Chief
Columbia Basin Branch
Interior Columbia Basin Area Office



CHELAN COUNTY PUBLIC UTILITY DISTRICT
Attn: Customer Service
P.O. Box 1231, Wenatchee, WA 98807-1231

ELECTRIC ESTIMATE

Estimate Date: 08/19/2021
WO Number: 416440 V2

Account No: 2063538510

Icicle Peshastin Irrigation District / WDFW
PO Box 371
Cashmere, WA
98815

Estimate Expiration Date: 10/18/2021

TOTAL AMOUNT DUE: \$14,469.00
(IF YOU CHOOSE TO PROCEED)

AMOUNT ENCLOSED: _____

Service Address: Site 2, Icicle Creek Rd near 7201 Icicle Rd., Leavenworth

PAYMENT BY THE EXPIRATION DATE ABOVE IS REQUIRED ONLY IF YOU CHOOSE TO PROCEED.

Please detach the top portion of this estimate and submit with your payment

Chelan County PUD looks forward to providing new service to Site 2, near 7201 Icicle Road. Below are your costs for your line extension and/or secondary connection fees, if known. Secondary connection fees such as meter and wire fees are separate from line extension fees. Line Extension costs are contingent upon easements and/or permits being obtained, if necessary. Ongoing easements and/or permit fees, if any, will be your responsibility. Please keep in mind that any change in the service size, authorized load or location must be approved and additional charges may apply.

Note: Due to a nationwide conduit shortage, if your line extension includes primary fiber conduit, the ability to obtain conduit from the PUD may be delayed. If you would prefer to obtain/purchase primary fiber conduit from a different source, please contact your PUD Customer Service Engineer prior to paying this estimate.

Description	Amount
Electrical Line Extension Costs - Version 2	\$19,050.00
Less Application Fee Received	- (\$450.00)
Shared Costs (if applicable)	\$N/A
Connection Fees (paid 8/17/2021 \$1,100.00 - 100 amps)	\$paid
Secondary Wire Fee - Not Applicable -Customer supplied wire	\$N/A
Other: Paid \$4,131.00 8/17/2021 for previous estimate	<u>\$-4,131.00</u>

Total Amount Due \$14,469.00
IF YOU CHOOSE TO PROCEED

Please indicate WO number and account number on your payment. Thank you very much!

CSE: CM
CSR: KMH
LE: 8936
CIS: 2063538510



CHELAN COUNTY
www.chelonpud.org

CHELAN COUNTY PUBLIC UTILITY DISTRICT
P.O. Box 1231, Wenatchee, WA 98807-1231

If you have any questions about this estimate, please call us at (509) 661-8400, or toll-free at (888) 663-8121.
Please make your check payable to: CHELAN COUNTY PUD

GENERAL INFORMATION

Payments received or postmarked after the expiration date will not be accepted until a review has been completed to determine if the price has changed.

Once full payment has been received and processed, you will be contacted by the engineer with information on how to pick up your materials at our warehouse, if necessary, in addition to customer provided materials.

Upon full payment, receipt of any/all easements and final PUD approval of your work, your project will be scheduled for construction. *The steps below outline the electrical line extension process.*

As a reminder, if your service is Commercial, the customer provides, installs and maintains all secondary underground conductors per L&I regulations.

PAYMENT INFORMATION FOR LINE EXTENSIONS

Chelan County PUD accepts cash and check payments for line extensions, connection fees and similar costs.

The PUD will assess a charge for all returned checks.

When paying this Estimate, please enclose the top portion of the Estimate to ensure proper credit. When paying in person, please present the entire Estimate to the PUD Representative.

To pay by phone: (509) 661-8504

To pay by mail or in person:

Chelan County PUD – Customer Relations
327 N. Wenatchee Ave
Wenatchee, WA 98801

NEED MORE INFORMATION?

Call (509) 661-8400 or email

service@chelanpud.org for additional assistance.

Chelan County PUD looks forward to working with you to extend power to your property.

We've outlined the steps to bring electricity safely and efficiently to your home or business. For all requirements, please refer to Chelan County PUD's Electric Line Extension Handbook, Utility Service Regulations, Utility Service Policies and Electric Rate Schedules. All can be found at chelanpud.org.

For details or to request a copy of the Electric Line Extension Handbook, call us at (509) 661-8400.

1 Let's get started.
Call us at (509) 661-8400 or go to chelanpud.org to learn more. We'll ask you for details including billing information, how many lots will be served, meter base size, voltage, what type of heating and cooling systems you will use, parcel number and a sketch of your job site.

2 Pay for engineering.
Depending on the size and type of your project, you will need to pay the appropriate application and/or engineering fee. Once payment is made, a Customer Service Engineer will review your plan and contact you.

3 Let's talk.
Our engineer may want to meet with you before designing your project. If so, the engineer will schedule an appointment with you after the application fee is paid. Be prepared to talk in depth about your project. After the meeting, our engineer will design your line extension.

4 Pay for the line extension.

- A letter will be sent to you outlining costs. Payment, in full, must be made before the PUD can move forward.
- Secondary meter and wire fees are separate from line extension fees and are typically paid when the line extension costs are paid.
- Some line extensions are eligible for, or subject to, Latecomers Fees. To learn more about Latecomers Fees, ask your engineer.

5 Sign the easement provided by the PUD.

- Easements allow PUD equipment to be on your property. If the line extension crosses property owned by others, the PUD requires a signed easement from those owners. Easements need to be notarized; PUD staff are available to notarize easements.

If the engineer has determined that all work will be completed by the PUD, skip to step nine.

6 Pick up materials from a PUD warehouse.
If you are completing an underground line extension, you may need to install PUD materials. Your engineer will notify you when you may pick up material(s), after paying your line extension fees.

7 Let's meet.
Schedule a pre-construction meeting by calling (509) 661-8011 after materials are at the job site. A PUD trench inspector will meet you onsite to review the responsibilities and requirements to successfully complete your project.

8 Install electrical pipe and equipment.
Complete your on-site work according to engineer and PUD specifications. Be sure to coordinate inspections with the PUD's trench inspector by calling (509) 661-8011. Obtain approval from the trench inspector before backfilling your trench or electrical facilities.

Remember:

- Call for a locate prior to digging at (800) 424-5555 or "811"
- Be sure to install warning tape in the trench 12 inches below finished grade (warning tape is provided by the PUD).
- Your safety is important to us! Do not attempt to access existing PUD electric equipment without a PUD representative onsite.

9 Scheduling.

- Your electric line extension will be scheduled for installation after:
 - Payment is made in full
 - The trench inspector has approved your work
 - Easement(s) are returned signed and notarized to the PUD
 - Completion of any other requirements specific for your project

Our schedule is often affected by outages, weather, and other unforeseen circumstances. We'll do our best to complete your line extension quickly.

ATTACHMENT 2 – MONITORING PLAN

Inadvertent Discovery Plan for Cultural Resources (IDP)

**WASHINGTON STATE DEPARTMENT OF FISH & WILDLIFE
INADVERTENT DISCOVERY PLAN FOR CULTURAL RESOURCES
FOR THE IPID SNOW CREEK SCREEN - ELECTRICAL AND CONTROLS PROJECT IN
CHELAN COUNTY, WASHINGTON**

The Inadvertent Discovery Plan is intended to provide clear guidance related to the management of an unexpected discovery or unearthing of cultural artifacts, archaeological features or other evidence of cultural materials and/or of skeletal material of human or unknown origin during WDFW projects not governed by a DAHP-issued excavation permit, or by a Monitoring or Site Protection Plan for a specific area or activity.

This plan is to be implemented without exception whenever such discoveries occur, and applies to WDFW staff, contractors, subcontractors, volunteers, and others who may be involved with projects initiated by WDFW, or occurring on WDFW-managed land. This plan does not supersede or satisfy requirements for Monitoring, Site Protection, or other plans developed to address concerns at known archaeological and historic sites.

PRE-FIELD ACTIONS

Prior to ground disturbance, the WDFW project or program manager (PM) will notify work crews/machine operators that they are obligated to cease work in the immediate area and notify supervisory personnel upon discovery of any bones or objects of human manufacture, particularly suspected Native American artifacts. This action will be repeated prior to commencement of work in new locations, after significant changes in field staff, and if work is re-started after a hiatus. Field supervisors will be made aware of their responsibilities for interim protection and notification as detailed below.

FIELD ACTIONS

Specific Procedures for the Inadvertent Discovery of Archaeological Resources

In the event that cultural resources (not including human remains) are encountered during project implementation, the following actions will be taken:

1. All work within the discovery area and a surrounding buffer adequate and sufficient to prevent further disturbance will cease. The field supervisor will notify the PM immediately.
2. The PM will immediately contact WDFW archaeologist or archaeological monitor. If an archaeological monitor is present, he/she will notify the WDFW archaeologist.
3. If the WDFW archaeologist determines that potentially significant archaeological materials or historic sites are present, the PM will be advised of interim protective measures. Work may resume outside the buffer, unless the WDFW archaeologist directs otherwise.

4. The WDFW archaeologist will initiate Tribal and DAHP consultation regarding evaluation of the find's significance, potential for effects caused by the project, and subsequent treatment plans or Memoranda of Agreement (MOA).
5. Wherever possible, the preferred treatment of significant archaeological resources and historic sites will be in situ preservation. If a treatment plan requires that such resources be excavated or removed, an agreement must first be reached between WDFW and the consulting parties.

Specific Procedures for the Inadvertent Discovery of Human Remains

Inadvertent finds of what appear to be human remains introduce cultural concerns and legal requirements that initiate a different response than cultural resources. Human remains must be treated with utmost respect. The following language is to be followed to the letter:

Inadvertent Discovery of Human Skeletal Remains on Non-Federal and Non-Tribal Land in the State of Washington (RCWs 68.50.645, 27.44.055, and 68.60.055)

If ground disturbing activities encounter human skeletal remains during the course of construction, then all activity will cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance until the State provides notice to proceed. The finding of human skeletal remains will be reported to the county medical examiner/coroner and local law enforcement in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the county medical examiner/coroner determines the remains are non-forensic, then they will report that finding to the Department of Archaeology and Historic Preservation (DAHP) who will then take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

Under no conditions are WDFW staff or other project personnel to make the location or contents of inadvertent human remains finds public, unless specifically authorized to do so in the burial treatment plan.

CONTACTS

WASHINGTON STATE DEPARTMENT OF FISH & WILDLIFE

Department Archaeologist

Adam Rorabaugh, CAMP Archaeologist	360-789-3290
Katherine Kelly, WDFW Archaeologist	360-688-0676

Project Manager and Alternative Contact

Shawn Stanley, WDFW Project Manager	360-902-8304
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CONFEDERATED TRIBES OF THE COLVILLE RESERVATION

Guy Moura, Tribal Historic Preservation Officer	509-634-2695
The Honorable Rodney Cawston, Chair	Rodney.cawston.cbc@colvilletribes.com

CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION

Kate Valdez, Tribal Historic Preservation Officer	509-865-1068
The Honorable Delano Saluskin, Chairman	Delano.saluskin@yakama.com
Jerry Meninick, Deputy Director of Cultural Resources	509-865-5121
Holly Shea Barrick, Archaeologist Dept. of Natural Resources	509-881-7091

WASHINGTON STATE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION

Allyson Brooks, State Historic Preservation Officer	360-586-3066
Rob Whitlam, State Archaeologist	360-586-3080
Guy Tasa, State Physical Anthropologist	360-586-3534

CHELAN COUNTY

Chelan County Sherriff's Office	509-667-6851
Chelan County Coroner's Office	509-667-6431

Definitions:

Archaeological Features are physical alterations in the natural environment such as pits or house foundations.

Archaeological materials are the physical remains of human cultural behavior, including artifacts and features left on the landscape.

Artifacts are the physical objects of a culture, including tools with evidence of intentional modification (such as flaked stone blades) as well as those objects such as fire-cracked rock that reflect human activity.

Burial statutes include the 2008 Washington State legislation that established current practices for inadvertent burial treatment through additions and amendments to the code, including 27.44 RCW (Indian Graves and Records, as amended), 27.53 (Archaeological Sites and Resources, as amended), as well as chapters 27.34, 43.334, 68.60, and 68.60 RCW.

Consulting parties are those which have a legal right to comment on determinations of significance and NRHP eligibility, project effects on cultural resources, and human remains. This may vary according to projects, but typically includes DAHP and Tribes whose Ceded Lands or Usual and Accustomed areas include the project area.

Coroner refers to the office of the local county coroner or medical examiner, and is responsible for confirming that the remains are human and determining whether they are forensic (dead less than 50 years, and therefore a law enforcement matter) or non-forensic (more than 50 years, and therefore subject to burial statutes).

Cultural Deposits are layers or features of sediment containing cultural materials.

Cultural Resources include archaeological resources and historic sites.

Historic sites are locations 50 years old or older, where native or non-native events and activities have taken place since the arrival of Euro-Americans, and which are considered by DAHP to be historic site types.

Human remains are any physical remains that are known to be human, or could be human but have not yet been positively identified.

Physical anthropologist in this case refers to the professional physical anthropologist employed at DAHP, who determines whether human remains are Native American (if possible), and is the individual responsible for handling human remains.

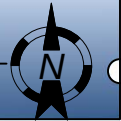
ATTACHMENT 3 – PHOTOS

**PUD Layout for IPID
Electric Motor Nameplate**

CS: ICICLE PESHAISTIN IRRIGATION DISTRICT - ICICLE RD, LEAV

WO# 416440

8/19/2021



POLE SEQUENCE NOTES

- PS00:** POLE# 2724172403 (EXISTING POLE)
INSTALL 1ph PRIMARY RISER ON EXISTING BRACKETS
INSTALL CUTOUT AND FUSE W/ 10A T-LINK
- PS01:** POLE# 272417xxxx (NEW JUNCTION VAULT)
INSTALL NEW 4 POS. LBC IN CUSTOMER INSTALLED 554 CONC. VAULT
PULL IN +/-xxx' #2 ALUM.
INSTALL (2) ELBOWS, (1) FAULT INDICATOR AND TAG CABLE C'xxxxx (IN FROM PS00)
- PS02:** POLE# 272417xxxx (NEW JUNCTION VAULT)
INSTALL NEW 4 POS. LBC IN CUSTOMER INSTALLED 554 CONC. VAULT
PULL IN +/-xxx' #2 ALUM.
INSTALL (2) ELBOWS, (1) FAULT INDICATOR AND TAG CABLE C'xxxxx (IN FROM PS01)
- PS03:** POLE# 272417xxxx (NEW TRANSFORMER)
INSTALL NEW 25kVA TRANSFORMER ON CUSTOMER INSTALLED 554 CONC. VAULT
PULL IN +/-xxx' #2 ALUM.
INSTALL (1) ELBOW AND TAG CABLE C'xxxxx (IN FROM PS02)

**WORK WITH SR91567 FOR SERVICE
**NO FLAGGERS REQUIRED
**NO LOCATES REQUIRED

Township 24 Range 17 Section 27

Feeder # LEA838

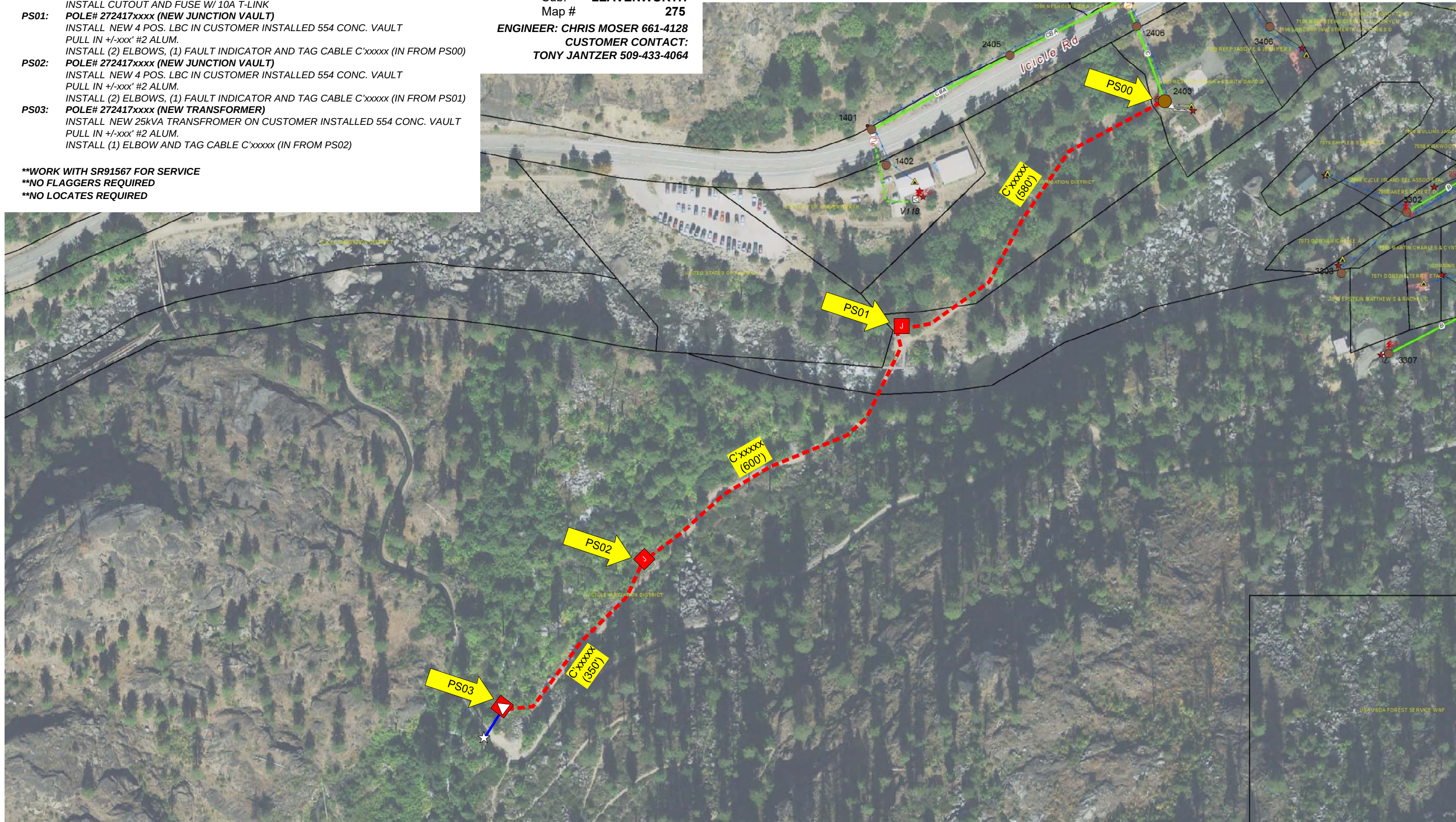
Sub: LEAVENWORTH

Map # 275

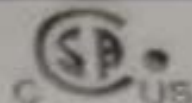
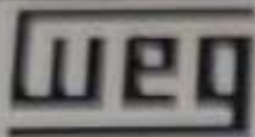
ENGINEER: CHRIS MOSER 661-4128

CUSTOMER CONTACT:

TONY JANTZER 509-433-4064



This is the electric motor nameplate, there are two motors in the system, one running each side of the canal. These motors will need to work with the controls and peripherals in the system.



MADE IN BRAZIL

MAT: 14786477

W01.TE01C0X0X

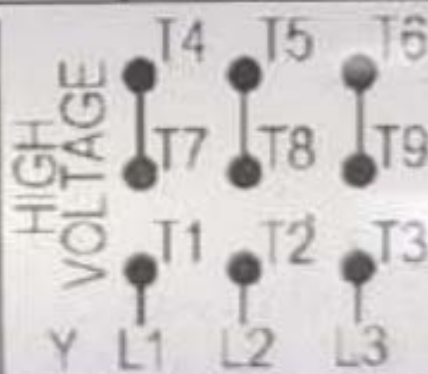
MODEL 7518ES3E56CFL-S

01JUL2021

B/N: 2640459

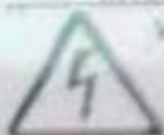
For 60Hz Class I, Zone 2, IIC
Class I, Div2, Gr. A,B,C,D - T3
Div 2 Inverter Duty (SF1 00)
CT 2-1/MT 1000:1

PH 3	Hz 60	HP 0.75
FR 56C		kW 0.55
DUTY CONT.		V 208-230/460
ALT 1000 m.a.s.l		A 2.70-2.44/1.22
INS CL F ΔT 80K	IP55	SFA 2.70-2.81/1.40
AMB 40°C	DES -	SF 1.15
ENCL TEFC	CODE K	PF 0.72
USABLE @ 208V SF1 00		RPM 1755
		NEMA NOM. EFF 78.5%
ALTERNATE RATING: 0.75HP 50Hz 190-220/380-415V SF1 15		
2.74-2.60/1.37-1.38A 1440RPM EFF 76.1% (IE1) IEC 60034-1		
For safe area-Inverter duty motor For 60Hz use on VPMW 1000 1 VT, 10:1 CT		
DE 6203-ZZ	ODE 6202-ZZ	MOBIL POLYREX EM



T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-BRK RED

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION



WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



AVERTISSEMENT: Le moteur doit être mis à la terre conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

**SECTION 16000
GENERAL ELECTRICAL PROVISIONS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. This section describes the electrical components such as power services, metering, controllers, timers, relays, disconnects, wire, and conduits. Contractor shall furnish all labor, materials, services, product accessories, equipment, conduits, conductors, devices, tools, and other incidentals necessary, whether specifically shown and/or mentioned, for the completed, fully operational electrical systems shown on the Drawings.
- B. Contractor shall pay for all permits, inspections, and other costs associated with the electrical installations, except that any utility charges shall be paid direct to the utility company by the State.

1.02 RELATED SECTIONS

Section 16050 - Basic Materials & Methods
Section 16400 - Service & Distribution
Section 17010 - Instrumentation and Controls System-IPID

1.03 REFERENCES AND CODES

- A. The completed installation shall comply with all applicable requirements of the latest edition of the National Electrical Code, State of Washington Electrical Code, and the requirements of any local codes or requirements of the serving utility effective at the construction site. Where conflicts arise between Drawings, Specifications, and code requirements, the code shall prevail UNLESS the Drawings or Specifications are more stringent.
- B. Specified references governing the work of this division include the National Electrical Code (NEC), Underwriters Laboratories Inc. (UL), American National Standards Institute (ANSI), National Fire Protection Association (NFPA), American National Standards Institute (ANSI), National Electrical Manufacturers Association (NEMA), and Institute of Electrical and Electronics Engineers (IEEE).

1.04 DEFINITIONS

- A. The term "provide" shall mean furnish, install, connect, test, and commission equipment and materials complete in operating condition.
- B. The term "approved" as used herein shall mean the written approval of the Engineer.
- C. The term "Drawings" as used herein shall mean all Contract Drawings for all divisions of work.
- D. The term "code" as used herein shall mean all applicable national, state, and local codes.
- E. The term "listed" as used herein shall refer to the definition in the latest edition of the National Electric Code and Washington Administrative Rules (WAC).

1.05 DESIGN REQUIREMENTS

- A. Contractor shall inspect the jobsite before submitting a bid and become familiar with existing conditions that will affect the work. The electrical layouts indicated are generally diagrammatic. The locations of outlets, fixtures, and other equipment and devices are approximate unless dimensioned. The actual location and routing of conduits, fixtures, conductors, etc. may be governed by structural conditions, physical interferences, or location of electrical terminations on equipment. Minor relocations ordered by the Owner required for actual installations shall be made without added costs. Major relocations shall have prior written approval from the Owner and WDFW before the changes are made in the field. All items not specifically shown on the Drawings, but obviously required to obtain a safe, workable installation shall be included without direct reference.
- B. Drawings and Specifications are complementary: What is called for in either is binding as if called for in both. In case of conflict within the Drawings and Specifications, the Contractor in bidding shall select the most expensive method. The Owner will select the method to be taken.
- C. Conduits, conductors, equipment, and devices shown on the Drawings are the minimum required. The Electrical Contractor shall interface with the Mechanical and Controls Contractors to ensure and provide for the adequate connection and operation of the equipment specified.

1.06 SUBMITTALS

- A. General submittals for this division shall be in accordance with the General Conditions and include all panelboards, equipment, controllers, switches, disconnects, receptacles, plugs, panels, controllers, fixtures, conduit, conductors, support devices, and other items as designated by the Owner.
- B. Provide "Shop Drawings" for special systems, Contractor designed solutions, complex assemblies, or where the execution significantly deviates from the Contract Documents. The Owner and/or WDFW may request Shop Drawings for any installation that is determined to need such clarification.

1.07 QUALITY ASSURANCE

- A. All materials supplied by Contractor shall be new, free from defects, and of the quality specified or shown, and be approved and listed by Underwriter's Laboratories for the purpose for which it is to be used. Similar types of materials shall be of the same manufacturer and quality throughout the work.
- B. Before final acceptance, Contractor shall instruct the facility staff on the proper operation and maintenance of all electrical and mechanical systems, equipment, and controls under this Contract. A qualified technician for each component of this installation shall be made available by the Contractor for this instruction.

1.08 DELIVERY, STORAGE, AND HANDLING

All materials shall be shipped, stored, and handled in a suitable manner to prevent damage. Defective equipment, or equipment damaged in the course of installation or testing shall be replaced or repaired by the Contractor. Failure of the Contractor to protect or properly repair the installation and equipment may be grounds for rejection of the installation or equipment.

1.09 PROJECT AND SITE REQUIREMENTS

Not Used.

1.10 AS-BUILT RECORD DRAWINGS

- A. Continuously maintain a field set of as-built drawings to indicate all significant deviations from the original design and the actual placement of equipment and underground conduits. Location of conduit stub-outs shall be dimensioned from accepted reference lines. Changes shall be shown in red colored pencil while work is in progress. This "As-Built" set shall be clearly marked "AS-BUILT RECORD DRAWINGS – DO NOT REMOVE FROM OFFICE."
- B. As-built prints shall be updated regularly and checked each week by the Project's Inspector.
- C. "As-Built Record Drawings" and "Corrected to As-Built" prints shall be delivered to the Owner and WDFW, one copy each as specified in Section 01000.

1.11 ELECTRICAL EQUIPMENT OPERATION AND MAINTENANCE (O&M) MANUALS

- A. Prepare 3 copies of O&M manuals that contain operating and maintenance information, replacement parts list, shop drawings, wiring diagrams, and equipment test data for all equipment and systems installed under this Contract. Manuals shall be organized as follows:
 - 1. All information contained in the manuals shall be grouped by Specification section categories. The manual shall be provided with a typewritten index identifying divider tab to facilitate future references.
- B. Provide digital PDF files of all O&M manuals and documents listed above, organized in separate folders for each piece of equipment, assembly, or area of construction.

1.12 ELECTRICAL IDENTIFICATION

- A. Nameplates shall be made of 1/16 inch thick, machine-engraved, laminated plastic having white letters not less than 3/16 inch high on black background. Equipment titles shall be completely spelled out on nameplates as shown on the Drawings. The nameplate schedule with line distribution shall be submitted for review and acceptance before engraving. Nameplates shall be secured to the panels with stainless-steel drive screws. Individual devices on control panel faces shall be suitably identified with a nameplate having 1/8 inch high characters, or with standard right nameplates for pushbuttons.
- B. Each motor controller, control station, panelboard, or its field panel shall have a nameplate designating the function of the equipment controlled. Each motor shall have a corresponding nameplate matching its controller.
- C. Relays and other control devices within panels shall be suitably identified by a legible, permanent means, such as painting or self-adhesive markers.
- D. All wiring terminations shall be color-coded and/or labeled using self-adhesive markers.
- E. All wires and spare conduits in handholes shall have permanent nameplates attached with tie wires around each set of individual feeders to identify them.

1.13 GENERAL INSTALLATION AND WORKMANSHIP

- A. Contractor shall cooperate with other contractors engaged in the project and shall execute work in a manner so as not to interfere with WDFW's or Owner's operation. Work shall be coordinated with other contractors regarding location and size of pipes, raceways, wires, ducts, openings, switches, outlets, disconnects, controls, etc., so there is no interference between installation or progress of other contractors.
- B. Contractor shall install all equipment with ample space allowed for removal, repair, or changes to equipment. Provide ready access to removable parts of equipment and to all wiring without moving equipment installed or already in place; and provide access panels for all devices installed above inaccessible ceilings, or within walls or partitions. Contractor is also responsible for installing an outlet and area lighting where equipment is to be serviced.
- C. Where cutting is required to facilitate construction, Contractor shall patch, and repair cut items to original state. Do not cut structural work without prior written approval of the Owner and/or WDFW. Cut holes through concrete and masonry in new and existing structures with a diamond core drill or concrete saw. Pneumatic hammer, impact electric, hand, or manual hammer type drills are not allowed, except where specifically permitted by the Owner. Lay out holes in advance. Notify the Engineer prior to drilling through structural sections for determination of proper layout.

1.14 UTILITY INSTALLATION REQUIREMENTS

Verify service location, service lateral, and 200amp metering equipment with local utility. Verify utility requirements prior to installation of service equipment. Contractor is responsible for non-compliant installation.

PART 2 - PRODUCTS

2.01 MATERIALS

Acceptable Manufacturers: All manufacturers that meet Washington State administrative laws and rules having UL rated (listed and labeled) equipment are acceptable.

2.02 METHODS

Not Used.

PART 3 - EXECUTION

3.01 COOPERATION

- A. Contractor shall cooperate with other contractors engaged in the project and shall execute work in a manner so as not to interfere with other contractors' or Owner's operation. Work shall be coordinated with other contractors regarding location and size of pipes, raceways, ducts, openings, switches, outlets, disconnects, controls, etc., so there is no interference between installation or progress of other contractors.

- B. All work shall be completed by competent craftsmen, skilled in the specific work to be done. Equipment and material shall be installed in a neat and workman-like manner, following the best practice of the trade

3.02 ADJUSTING AND STARTUP

- A. Before final acceptance, Contractor shall instruct the facility staff on the proper operation and maintenance of all electrical, mechanical systems, equipment, and controls under this Contract. A qualified technician for each component of this installation shall be made available by the Contractor for this instruction.
- B. Contractor shall submit bound sets of equipment manuals and operating instructions to the Owner and WDFW. The manuals will consist of complete descriptive data pertinent to all fixtures, equipment, control valves, and automatic controls as well as diagrams, including a complete list of repair and replacement parts essential to maintenance and general servicing of all equipment. The operating instructions in conjunction with the maintenance manuals shall include written step-by-step detail of startup and shutdown procedures.

3.03 CLEANING AND PROTECTION

- A. Contractor shall, at project completion, clean all equipment to the original finish, including removing all shipping labels.
- B. Contractor shall paint conduit and other electrical equipment where specified and touch-up painting of all equipment marred in any way during shipment or installation.

END OF SECTION 16000

**SECTION 16050
BASIC MATERIALS AND METHODS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

This section includes all raceways, fittings, hangers, wire, cable and terminations, and wiring devices, plates, and other appurtenances required for a complete and operational installation.

PART 2 - PRODUCTS

2.01 CONDUITS AND RACEWAYS

- A. All underground and in-slab raceways shall be Schedule 40 or Schedule 80 PVC electrical conduit unless the code requirement, Owner specify otherwise, or if it is subject to severe physical damage. Raceway emergence from the ground or through the cement slab shall be Galvanized Rigid Steel (GRS) up to the equipment it supplies unless vibration dictates the use of liquid-tight flexible (LTF) metal conduit. Outside above ground raceways shall be GRS unless otherwise noted on the Drawings.
- B. Surface metal raceways and wireways shall be rigid metal with hinged or screwed cover, painted steel, UL listed for their purpose, and rated for the environment where installed. Wireways shall have field drilled conduit openings (NKO).
- C. Flexible metal conduit, flexible non-metallic conduit, liquid-tight flexible conduit and cable will be allowed only when specifically shown or approved by the Owner.
- D. Conduit Bodies (Condulets: LB, LR, LL, T, C) shall be malleable iron with cover and gasket designed for the fitting. "Die-cast" or "pot-metal" condulets are not permitted. The condulet shall be properly sized for the conductors it contains.

2.02 FITTINGS

- A. Galvanized Rigid Steel (GRS) fittings, couplings, and connectors shall be galvanized malleable iron or non-corrosive alloy compatible with galvanized conduit and have threaded connections. Erickson couplings, watertight split couplings (OZ type or equivalent) are permitted. Running-thread or setscrew type fittings are not permitted. Install insulating plastic bushings on all threaded conduit ends.
- B. PVC fittings, couplings, and connectors shall be full weight cementable type.
- C. Conduit fittings and supports are not shown on the Drawings. Contractor shall provide all fittings and supports required to suit the conditions.

2.03 CONDUCTORS

- A. All conductors shall be copper (no aluminum), unless otherwise approved by the Owner. Size No. 8 AWG and larger conductors shall be insulated, soft-drawn, Class B stranded copper. Minimum conductor size shall be No. 12 AWG unless otherwise noted. Insulation shall be Type THHN (for indoor use only), THWN-2, USE-2, or THW-2, XHHW-2, 600V, minimum rated 90°C, and be color coded in a consistent manner. Conductors shall not be direct buried unless approved by the Owner.

- B. Conductors shall have colored insulation, except wires larger than No. 6 may be black with colored tape identification at all terminations and splices. Additional colors may be used where such colors will help in identifying wires and different systems. Where conductors of different systems are installed in same raceway, box, or other type enclosure, comply with NEC 300.3 (C) (1). Color-coding of phase conductors shall be accomplished with colored tape approved by Engineer for sizes larger than No. 6 AWG. Identify control wires at each end and in all junction boxes, handholes, panels, switchboards, and other enclosures with designated wire number corresponding to control schematics.

2.04 SPLICES AND JOINTS

- A. Splices above grade shall be in junction or outlet boxes only, using factory manufactured, insulated-wire connectors as stated below.
 - 1. Wire No. 10 or Smaller: Pre-insulated twist-on-type spring connector (Wire Nuts). (3M, Ideal, or equal).
 - 2. Wire No. 8 or Larger: Pre-insulated Mechanical Connectors. ILSCO PBTS (or equal). Other methods require Owner approval.
 - 3. Terminator Lugs of No. 10 Wire and Smaller: Insulated, spade-type, tool applied eye connectors.
- B. Underground feeder and branch circuits shall be pulled continuous without splices unless otherwise shown or approved. No direct burial splices shall be made without prior approval. Necessary and approved splices shall be made in handholes by one of the following methods:
 - 1. IlSCO, NSI or equal Mechanical Watertight Underground Splice Kits. IlSCO USPA-SS, or SS SSK. NSI "Polaris Blue" or ISPB, ISPC Series.
 - 2. Solderless connectors (IlSCO "SPA" or equal) overlaid with rubber splicing tape to 2 1/2 times the original insulation thickness, and then covered with 2 half-lap layers of Scotch No. 33 or equal electrical tape. The completed splice shall then be sealed with Heat-Shrink type insulating cover (Ideal TS-46 or equal) approved for direct bury. In multi-conductor cables, each conductor shall be spliced, with splices staggered, and then all splices double half-lap wrapped with both rubber and electrical tape and sealed.
 - 3. Direct bury or Handhole connector for wire size 10 AWG and smaller: Insulated steel spring twist-on presser connector with plastic cap with prefilled sealant gel listed for the purpose. (Ideal Weatherproof Wire-nut or equal) Approved Mechanical splice kits may be used for multi-wire cables. Treat connections with oxide inhibitor and seal with Heat-Shrink sleeve.

2.05 SEALING

Not Used.

2.06 BOXES AND ENCLOSURES

- A. Boxes include outlet, pull, and junction boxes. Size as required by NEC, or as shown. Whichever is larger. In dry locations, boxes shall be galvanized sheet metal. In outdoor and wet locations, outlet boxes shall be weatherproof malleable steel (Type FS) with threaded hubs and weatherproof "in-use" covers.

- B. Handholes for buried conduit shall be precast concrete with steel top covers, unless otherwise noted on the Drawings. The covers shall be fabricated from galvanized steel diamond plate and have provisions for grounding the cover and ring. The entire assembly shall be designed with AASHTO HS-20 design loads. Handholes shall be Old Castle or Fog-Tite manufacturer, or equal, and correctly sized for the quantity and size of the conduit and wire installed. Vaults or Handholes for primary voltage cables must meet local utility standards.
- C. Alarm, cable, and telephone handholes shall be Fog-Tite #J-11A, Type 1 C, D, G, or rated equal.
- D. All handholes shall be permanently marked on the cover by welded symbology with the intended use: ELECTRICAL (ELECT), TELEPHONE (T), ALARM (A), or CABLE (CTV).

2.07 SWITCHES

Switches shall be commercial grade 20-amp/125-volt toggle-type, Hubbell, Leviton, or other approved type unless called out as special.

2.08 RECEPTACLES

- A. General purpose receptacles shall be commercial grade straight blade, 3-wire, safety-grounded, duplex type, 20-amp/125-volt, Hubbell, Leviton, or other approved type, except where called out as special. GFI-type receptacles shall have an automatic trip device and a sensing and testing circuit. Individual GFCI receptacles shall be 15-amp with 20-amp feed-through rating, unless called out as special.
- B. Outdoor receptacles shall be W/R rated. Tamper-proof receptacles are NOT permitted, except where required by applicable codes.

2.09 CIRCUIT AND MOTOR DISCONNECTS

Not Used.

2.10 SUPPORTING DEVICES

Surface Mounted Conduit: Provide 1-hole galvanized steel straps for conduits 3/4 inch or less. Provide clampbacks on exterior walls below grade or in wet areas. For conduit larger than 3/4 inch, use galvanized strut channel anchored to wall with conduit attached to channel with split pipe (strut) clamps.

PART 3 - EXECUTION

3.01 INSTALLATION OF CONDUIT, RACEWAYS, AND FITTINGS

- A. Install Exposed conduits and raceways parallel to, and at right angles to structural lines and mounted in the least obvious locations, unless otherwise approved.
- B. Conduits and raceways shall be continuous from outlet to outlet, and from outlets to cabinets, pull or junction boxes, and shall be secured to all boxes with locknuts, and bushings installed in such a manner that each system shall be electrically continuous throughout. Stubbed conduit ends shall have a manufactured end cap to prevent entrance of foreign materials during construction.

- C. Joints shall be cut square, reamed smooth, and drawn tight. Bends or offsets shall be made with standard conduit ells; field bends made with a bender or hickey, or hub-type conduit fittings. Number of bends per run shall conform to NEC limitations. Bends shall conform to NEC radius requirements and shall not have kinks or flat spots.
- D. Install galvanized rigid steel (GRS) for all conduits upon emergence from ground (from minimum 6 inches below finished grade or floor to related equipment enclosure), up through concrete slab, and where subject to physical damage, and as noted on the Drawings. Metallic conduits in direct contact with earth, or concrete shall be wrapped in 10mil "pipe-wrap" with 1/2 minimum overlap. Exposed conduits attached to exterior structures, and in damp or wet locations shall be GRS, except as approved in writing by the Owner. Connections shall be watertight in damp or wet locations.
- E. Where possible, practical, or shown; service entrance, feeder, branch, and limited energy conduits shall be installed underground or under slab, per best practices. If the opportunity is available for under slab or underground installations, and the Contractor elects not to use that method, notify the Owner in writing of that intent BEFORE surfaces are closed. The design intent may be for under-surface installation, even if not specifically called out in the documents.

3.02 FLEXIBLE CONDUIT

- A. Provide metallic liquid-tight-flexible (LTF) conduit connections to motors, transformers, and equipment subject to vibration with adequate slack to allow for isolation and flexibility. Use LTF for all pumps, motors, and equipment that require a flexible connection in wet or damp locations. Provide bonding jumper as required by NEC.
- B. Steel or aluminum flexible metallic conduit shall only be used in dry, exposed locations with written approval of the Owner.

3.03 UNDERGROUND INSTALLATIONS

- A. All trenching and backfilling shall be coordinated with Owner. Feeder & branch conduit trenching shall be as required by code and as shown on the Drawings. Appropriate bedding and backfill material approved by the Owner shall be used. The Contractor shall coordinate backfilling of incoming service lines with utility company personnel. Yellow or red warning tape shall be installed over all underground runs 12 inches above the electrical installation. Surface of warning tape shall be labeled with the words "CAUTION – BURIED ELECTRICAL CABLE" printed on it.
- B. Ground shall be excavated in open trenches to the width, depth, and direction necessary for the proper installation of the underground work. Burial depth of underground raceways shall not be less than NEC minimums and shall be deeper where so noted herein or required to avoid conflicts. Maintain all trenches and excavations free of standing water. Conduit shall be bedded firmly and continuously on sand or pea gravel and provide a minimum of 6 inches of covering of sand or pea gravel on all sides of conduit prior to final backfilling.
- C. Handholes shall be installed with top of handhole set flush with top of finished grade. All entrances to handholes shall be suitably sealed to prevent the entrance of foreign material. Handholes & Vaults shall be installed square with adjacent structures, fences, roads, etc.

- D. Galvanized rigid steel and PVC are acceptable for underground use where permitted by code. Metallic conduits in direct contact with earth, or concrete shall be wrapped in 10mil "pipe-wrap" with 1/2 minimum overlap. Provide code-sized ground wire in all underground conduits. Conduit emergence into handhole may be PVC unless the run is over 300 feet; then all 90° bends shall be rigid steel.
- E. Arrange and slope conduits entering buildings to drain away from the point of entry, or if impractical, provide for the drainage of water entering the building through the conduit system.
- F. Conduits in the foundation area shall be installed so as not to undermine the footings. Install all inserts and sleeves necessary for Division 16 installation prior to pouring of concrete slabs and walls. Check structural Drawings for any specific instructions. Backfill over conduits, under footings, and concrete slabs shall conform to the requirements of the Structural Engineer. Use lean concrete unless otherwise noted.
- G. Minimum spacing between conduits in trenches shall be 1 inch.
- H. Locate all underground utilities before any excavation is attempted, including but not limited to power utility, telephone, gas, water, cable, alarm, and secondary service laterals.

3.04 CONDUCTOR INSTALLATION

- A. Do not pull any cable or wire in a raceway until conduit system is complete and internal raceway has been cleaned. Strain on cables shall not exceed manufacturer's recommendations during pulling. Pulling shall be done from the conductor and not by the insulation. Use pulling lubricant compatible with insulation and covering that will not cause deterioration of insulation or jacket covers of cables or conductors. Do not make splices except in outlet or junction boxes. Make all feeder cables continuous from origin to panel or equipment terminations without running splices in intermediate pull or boxes, unless specifically indicated on the Drawings or approved in writing by the Owner.
- B. All wire shall be stranded copper, #12 AWG minimum, unless otherwise shown on the Drawings. Do not exceed conduit fill established by NEC.
- C. Provide each cable or conductor in panels, pull boxes, or troughs with a permanent pressure-sensitive label with suitable color, numbers, or letters for easy identification. Identify control wires at each end and in junction boxes with designated wire numbers corresponding to control schematic drawings.
- D. Provide wires and cables entering equipment, junction boxes, or panels with enough slack to eliminate stretched, strained, or angular connections. Neatly arrange wiring bundle and fan out to termination points using cable ties, if practical. Make minimum bending radius for conductors in accordance with NEC. Leave at least 6 inches of conductor at each outlet for installation of devices or fixtures. Conductors NOT connected to a device or fixture shall be neatly tucked into box with wires identified, junctioned circuits connected, and/or ends capped.
- E. Upon completion of cable and wire installation, but before termination to equipment, test each wire for grounds and short circuits. Replace or correct defective wiring.

3.05 SEALING RACEWAY INSTALLATIONS

Not Used.

3.06 INSTALLATION OF BOXES AND ENCLOSURES

- A. The location of all boxes and enclosures shall be coordinated prior to rough-in.
- B. Outside boxes and enclosures shall be mounted on galvanized racks, secured to structures or embedded in concrete and be rated for their location. Enclosures mounted on structures shall be mounted with reversible anchors ("wedge anchors" or inserts with bolts). Lead "drive-pins" are not permitted.

3.07 SWITCHES, RECEPTACLES, AND OTHER DEVICES

- A. Rigidly fasten each switch, receptacle, or device to the box. Set plumb & level with the structure lines and at proper position with the wall or surface to bring receptacle flush with plate or switch handle the proper distance through the plate. Covers, plates, or enclosures shall be of the correct type for the location, box type, and device, installed as required, or as called for on the Drawings, and fit tight without gaps or strain.
- B. Set switches vertical, with handle operating vertically, with the up position being "ON." Switches and receptacles shall be wired with the wire looped clockwise and fully seated under the head of the terminal; no stab-type connections allowed. Provide bonding wire between receptacle grounding terminal and box (all devices). Devices rated as "grounding" will not be an acceptable substitute for a wired ground connection.
- C. Set switches 48 inches above finished floor, and receptacles 18 inches above finished floor to the top of the box, unless otherwise noted on the Drawings or required by ADA. Height may vary slightly to accommodate construction. All devices of the same type in any one room shall be installed at the same height, unless otherwise noted on the Drawings. Devices for special equipment shall be mounted as to be readily accessible.
- D. Receptacle devices shall be pigtailed to circuit wiring, allowing continuous feed-through operation. (Do not feed through the device).

3.08 DISCONNECTS

- A. All circuit or motor disconnects shall be of the circuit-breaker type (no fuses). Enclosures shall be of the proper type for the intended location or as indicated on the Drawings.
- B. Make all final connections to motors and equipment with liquid-tight-flexible (LTF) conduit. Provide ground wire to motor frame. Adequately support conduit at each motor or piece of equipment.
- C. Manual overload resets shall be coordinated to reset the device without opening the door.

3.09 SUPPORTING DEVICES

- A. Provide channels, angles, and trapeze and metal supports where indicated, or as required for the proper support of equipment. Unless otherwise indicated on the Drawings, supports shall be galvanized or stainless steel. Use galvanized fittings, bolts, and nuts. Where welding is necessary, the welds shall be cleaned, given a prime coat of zinc chromate, and finished to match the existing paint in type and color.

DIVISION 16 - ELECTRICAL

- B. Support conduits by pipe straps, wall brackets, hangers, or ceiling trapeze and within 2 feet of box, couplings, and each side of offsets or bends. Horizontal and vertical conduit runs shall be supported by 1-hole, heavy-duty, malleable iron straps, clamp backs, or other devices with suitable bolts, expansion shields (where needed), or beam-clamps for mounting to building structure or special brackets. Support flexible conduit within 12 inches of every outlet box or fitting.
- C. The use of perforated straps or wire for supporting conduits is prohibited. Beam clamps shall be bolted to structure or secured by integral bolt-clamps. "Drive-on" clip-style supports shall only be used within finished walls. They are not permitted for exposed work.
- D. In existing concrete slabs and walls, utilize drilled-in threaded inserts (wedge anchors), installed as recommended by the manufacturer where additional supports are required. Neatly core drill openings where additional sleeves are required.

END OF SECTION 16050

**SECTION 16400
SERVICE AND DISTRIBUTION**

PART 1 - GENERAL

1.01 SECTION INCLUDES

This Section consists of all electrical service, feeder, branch circuit, distribution equipment, secondary grounding of all equipment, and panelboards complete with all accessories, options, and miscellaneous materials to form a complete functional electrical system of proper voltage, capacity, and location to serve the project as shown on the Drawings.

1.02 RELATED WORK

Section 16050 – Basic Materials and Methods

PART 2 - PRODUCTS

2.01 METERING

Meter Base enclosure and hardware shall be provided and installed as, and where required by the serving utility. It shall be the Contractor's responsibility to coordinate this work with the utility company.

2.02 SERVICE DISCONNECT SWITCH

The main disconnect switch shall be a circuit-breaker, rated as shown on the Drawings, and suitable as "Service Entrance Equipment." The unit shall be permanently installed in Main Distribution Panel (MDP) as a MAIN Breaker. Install Surge-Protective devices on each ungrounded conductor on the supply side of the main service disconnect.

2.03 ENCLOSED BREAKERS

Where a disconnecting means and overcurrent protection (OCP) is required, an Enclosed Breaker shall be used, unless otherwise specified. No fuses are allowed. Enclosed Breakers shall be Eaton / Cutler-Hammer General Purpose. For damp or wet locations (or as shown) NEMA 3R Rainproof enclosures with exterior, lockable operating handles shall be used. Size enclosure and breaker as shown or called out. Provide adjustable trip mechanism when specified breaker frame size exceeds maximum allowable overcurrent rating of the feeder it serves.

2.04 SAFETY SWITCHES

Where a disconnecting means is required but overcurrent protection (OCP) is not, a safety switch shall be used. Safety Switches shall be Eaton Heavy-Duty 100% fully rated Non-Fused. Switch enclosure type shall be selected for the environment in which they are installed. Switches shall be "Lock-out" equipped and sized as shown, or for the load served. Whichever is greater. Where OCP is required, an enclosed breaker shall be used.

2.05 TRANSFORMERS

Not Used.

2.06 PANELBOARDS

- A. Panelboards shall be Eaton Pow-R-Line 1a, 2a, 3a, or 3E as shown or called out in the drawings or schedules. Panelboards shall have copper bussing. Panelboard model shall be selected to accommodate branch circuit/feeder breaker sizes required for the application. Use NEMA rating 3R suitable for the environment where installed. Exterior mounted panelboards shall have integral thermostatically controlled panel heater. Coordinate with vendor to assure the smallest enclosure possible to meet requirements.
- B. Circuit Breakers installed in panelboards shall be Bolt-on type of the same manufacturer (Eaton) as the cabinet. Order panelboards with sufficient capacity for all circuits, spares, and spaces shown, or known. It is the contractor's responsibility to order all mounting hardware, covers, and appurtenances for panelboards, whether shown, or not.

2.07 LOADCENTERS

Not Used.

2.08 POWERCENTERS

Not Used.

2.09 CIRCUIT BREAKERS

- A. Provide thermal-magnetic type circuit breakers of the sizes shown on the panel schedule. Provide common trip on all multiple pole breakers. Use breakers designed for the purpose and panel type called for in the drawings. Circuit breakers intended for switching loads, HID lighting fixture loads, or HVAC loads shall have the appropriate ratings for use. Eaton / Cutler-Hammer is the agency standard. No other brands will be approved.
- B. Provide "spare" over-current devices, as noted on the Drawings, complete and ready for future circuit connections. Breaker count shall include "known" future loads, such as Heat Pump or Furnace upgrades that are planned.
- C. Provide "space" for future over-current devices as noted on the Drawings, including all bussing and device mounting hardware. Provide approved cover plates or over-current devices in all future spaces. Open spaces are not permitted.

PART 3 - EXECUTION**3.01 MAIN SERVICE**

An incoming primary service system shall be provided from existing utility company lines to the point shown on the Drawings. All equipment not furnished and installed by the utility company shall be supplied and installed by the Contractor according to the utility company's specifications. It shall be the Contractor's responsibility to coordinate this work with the utility company. Any utility company charges for work or equipment will be paid directly to the utility company by the State.

3.02 METERING

Metering at the site shall be accomplished at the location indicated on the drawings, or as field coordinated by the serving utility, WDFW Engineering, and the Contractor. Meter Base shall be provided and installed as required by the serving utility.

3.03 SERVICE DISCONNECT SWITCH

Main Disconnect Switch shall be permanently installed in the MDP (P-1), in the location shown on the Drawings. Install plumb and level and securely fasten to the support. Provide all conduit, wire, and grounding as required. Cover of enclosure shall have an engraved label reading MAIN SERVICE DISCONNECT, as well as identification specified elsewhere in this contract.

3.04 TRANSFORMERS

Not Used.

3.05 PANELBOARDS & LOADCENTERS

- A. Secure panelboards in place with top of cabinet at 6'-6" above finished grade, unless otherwise noted. Top of cabinet and trim shall be level. Trim and door shall fit neatly without gaps, openings, or distortion. Securely anchor panelboards to structural framing or walls with approved fasteners and concealed bracing as required. Panels mounted to block, masonry, or concrete walls shall utilize reversible anchors for mounting. (Not lead drive pins) Provide steel galvanized channel support framing where panelboard is freestanding, as shown on the Drawings. Coordinate final installation method and location with Owner before work begins.
- B. Provide a typewritten directory under transparent plastic to identify each circuit load and location served from the panel, and a phenolic nameplate attached to the outside of the panelboard via screws or rivets to indicate panel name or designated usage, voltage, phase and source.

3.06 GROUNDING

Provide a complete grounding system with grounding continuity throughout. Ground rods shall be copper or galvanized iron of not less than 5/8 inch by 8 feet, providing 25 ohms maximum resistance. Ground wire shall be bare and of a size required for the system as defined by the NEC and WAC. Coordinate with Owner to provide a connection point to structural rebar.

END OF SECTION 16400

**SECTION 17010
INSTRUMENTATION AND CONTROL SYSTEMS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Scope:

1. General: This section specifies general requirements applicable to process instrumentation systems consisting of process sensors, monitoring and control devices, and accessories required to provide a complete and fully functional monitoring and control system.
2. Responsibility: The Contractor shall provide, configure, calibrate, program, test, and commission all components of the instrumentation, control, communications, and network systems supplied (UNO). The Contractor shall place the completed systems in operation, including tuning loops and making final adjustments to instruments as required during plant start-up. The Contractor shall provide the services of instrument technicians for testing and adjustment activities.
3. Related Requirements: Division 17 is an extension of, and includes all of the requirements of Division 16, Electrical. All work performed under Division 17 shall also comply with the applicable sections of Division 16 as well as the general provisions of Divisions 0 and 1.

B. Contract Requirements:

1. General Conditions, Supplementary Conditions, and Division 1 apply to Work in this Section.

C. Definitions:

1. General: The definitions of terminology used in these specifications shall be defined in ISA Standard S51.1, unless otherwise specified.
2. Approved Equal: Items that are accepted and approved by the Owner, WDFW, or the Engineer as being functionally equivalent for the application and acceptable substitutes for items specified in the Contract Documents.
3. Contractor: The general contractor is responsible for overall project construction. The party with whom the Contract is executed.
4. CSI: Control System Integrator. An organization engaged in the business of detail design, component purchase, assembly, programming, and implementing process control and industrial electronic systems.
5. Data Sheets: Data sheets as used in this Specification shall refer to ISA S20.
6. Galvanic Isolation: Pertaining to an electrical node having no direct current path to another electrical node. As used in this Specification, galvanic isolation refers to a device with electrical inputs and/or outputs which are galvanically isolated from ground, the device case, the process fluid, and any separate power supply terminals, but such inputs and/or outputs are capable of being externally grounded without affecting the characteristics of the devices or providing path for circulation of ground currents.
7. GC: General Contractor.
8. HMI: Human Machine Interface.

9. Integrated Circuit: A number of circuit elements inseparably associated on or within a continuous body to perform the function of a circuit.
10. NA: Not Applicable.
11. Panel: An instrument support system which may be either a flat surface, a partial enclosure, or a complete enclosure for instruments and other devices used in process control systems. Panels may provide mechanical protection, electrical isolation, and protection from dust, dirt, and chemical contaminants which may be present in the atmosphere. "Panel" shall be understood to include consoles, cabinets, and racks.

Contractor should reference and use previous control panel design contained in Control Panel Resubmittal as a basis of design. There is some functionality that is needed in the system that is not covered by the previous design work however the bulk of the design and equipment is already complete.
12. OIT: Touch screen Operator Interface Terminal. Used for HMI as specified.
13. Project: In reference to a person the term project shall be used to refer to the Owner or representatives of the Owner designated by the owner, such as WDFW. Synonymous with Project Representative.
14. Packaged System: Integrated equipment systems that are specified in other Divisions and Sections of the Specifications. These systems include process and mechanical equipment as well as electrical and controls equipment that conforms to the requirements of Divisions 16 and 17. These systems may include skid mounted and loose items. Some items provided with the equipment may require installation and connection by others. Some related items identified as "supplied by others" may not be supplied with the system but may nonetheless be required for some of the functions of the system.
15. Signal Types: The following types of signals are used in systems specified in this Division.
 - a. Low Level Analog: A signal that has a full output level of 100 millivolts or less. This group includes thermocouples and resistance temperature detectors.
 - b. Digital Code: Coded information such as that derived from the output of an analog to digital converter or the coded output from a digital computer or other digital transmission terminal. This type includes those cases where direct line driving is utilized and not those cases where the signal is modulated.
 - c. Pulse Frequency: Counting pulses such as those emitted from speed transmitters.
 - d. High Level Analog: Signals with full output level greater than 100 millivolts but less than 30 volts, including 4-20 mA transmission.
 - e. Modulated Signals: Signals emanating from modems or low level audio signals. Normal signal level is plus 4 dBm to minus 22 dBm. Frequency range is 300 to 10,000 hertz.
 - f. Discrete Events: Dry contact closures monitored by solid-state equipment. If the conductors connecting to dry contacts enter enclosures containing power or control circuits and cannot be isolated from such circuits in accordance with NEC Article 725, this signal shall be treated as low voltage control.
 - g. Low Voltage Control: Contact closures monitored by relays, or control circuits operating at less than 30 volts and 250 milliamperes.
 - h. High Level Audio Signals: Audio signals exceeding plus 4 dBm, including loud speaker circuits.

- i. Radio Frequency Signals: Continuous wave, alternating current signals with fundamental frequency greater than 10 kilohertz.
 - j. 120 VAC control: Contact closures monitored by relays, or control circuits operating at 120 volts AC.
16. Solid State: Circuitry or components of a type which convey electrons by means of solid material such as silicon or crystals, or which work on magnetic principles such as ferrite cores. Vacuum tubes, gas tubes, slide wires, stepping motors, or other devices are not acceptable substitutes for solid-state components or circuitry.
17. Two-wire Transmitter: A transducer which derives operating power supply from the signal transmission circuit and therefore requires no separate power supply connections. As used in this Specification, two-wire transmitter refers to a transmitter which produces a 4 to 20-milliampere, current-regulated signal in a series circuit with a 24-volt direct current driving potential and a maximum circuit resistance of 600 ohms.
18. UNO: Unless specifically Noted Otherwise. All general requirements statements shall apply as stated except where specific exceptions are stated, in which case the general requirement shall be modified by the stated exception.
- D. Reference Section: Requirements of the sections listed below apply to and are related to the work of this Section. Other Sections, not referenced below, may also apply and be related to the proper performance of this work. The Contractor is responsible to perform all the work required by the Contract.
- 1. Section 16000: General Requirements for Electrical Work.

1.02 QUALITY ASSURANCE

- A. Referenced Standards: The latest edition of the documents listed below are included in the Contract where referenced. The most stringent collective interpretation of the requirements shall govern where conflict or overlap exists between any of these documents and the Contract Documents.
- 1. American National Standards Institute (ANSI).
 - 2. Institute of Electrical and Electronic Engineers (IEEE).
 - 3. Underwriters' Laboratories (UL).
 - 4. The Instrumentation, Systems, and Automation Society (ISA).
 - 5. API RP550: Manual on Installation of Refinery Instruments and Control Systems, Part I – Process Instrumentation and Control Sections 1 Through 13.
 - 6. API RP 551: Process Measurement Instrumentation.
 - 7. API RP 552: Transmission Systems - first Edition.
 - 8. ANSI/ISA S5.4: Instrument Loop Diagrams.
 - 9. ISA S20: Specification Forms for Process Measurement and Control Instrumentation, Primary Elements, and Control Valves.
 - 10. ANSI/ISA S5.1: Instrumentation symbols and Identification.
 - 11. ANSI/ISA S51.1: Process Instrumentation Terminology.
 - 12. ISA S5.3: Graphic Symbols for Distributed Control/Shared Display Instrumentation, Logic, and Computer systems.

13. ISA RP12.2.02: Recommendations for the Preparation, Content, and Organization of Intrinsic Safety Control Drawings.
14. NFPA 70 National Electric Code (NEC).
15. NFPA 79 Electrical Standards for Industrial Machinery.
16. NFPA 820 Fire Protection in Wastewater Treatment and Collection Facilities.
17. IBC 1632 International Building Code.
18. UL 508 Industrial Control Equipment.

B. Listing:

1. All materials and equipment specified herein shall be within the scope of Nationally Recognized Testing Laboratory (NRTL) examination services, be approved by the NRTL for the purpose for which they are used, and shall bear the appropriate listing/label.
2. Equipment shall be listed/labeled by an NRTL acceptable to the local authority having jurisdiction.
3. When a product is not available with a listing/label for the purpose for which it is to serve, the product may be required by the inspection authority to undergo a special inspection at the manufacturer's place of assembly or as a completed assembly in the field. All costs and expenses incurred for such inspections shall be included in the original Contract price.

1.03 SUBMITTALS

A. General: Submit information per Division 1.

B. Media: All submittals shall be provided in hard copy (paper) in accordance with Division 1 and electronic format. Electronic format shall be PDF format on CD that is compatible with Microsoft Windows/Adobe Reader. One CD shall be provided for each hard copy required per Division 1.

C. Organization and Format: Submittal organization shall be the same as the Specifications. Provide submittals bound with section coversheets and tabbed dividers with Specification Section numbers for submittal organization. Bill of materials, cut sheets, shop drawings, schematics, panel layouts, schedules, etc., shall be cross-referenced, indexed, or otherwise related by unique identifier for each item. The project may reject improperly organized or notated submittals. Provide .pdf file page numbers in table of contents as well as bookmark links to section coversheets in pdf file.

D. Reviews and Resubmittals: Suppliers shall provide re-submittals which include responses to all submittal review comments separately and at a level of detail commensurate with each comment. Supplier responses shall indicate how the supplier resolved the issue pertaining to each review comment. Responses that only indicate that the review comment was noted, will be looked into, etc., are not satisfactory. Re-submittals which do not comply with this requirement may be rejected and returned without review. Contractor shall be allowed no extensions of any kind to any part of their Contract due to the rejection of non-compliant submittals. Submittal review comments not addressed by the Contractor in re submittals shall continue to apply whether restated or not in subsequent reviews until adequately addressed by the Contractor to the satisfaction of the reviewing and approving authority.

DIVISION 17 – INSTRUMENTATION

- E. Product Data: Submit catalog cut sheets for all products. Identify all cut sheets by unique bill of material item number, index, or key. Notate catalog cuts to indicate only those items, models, options, or series of equipment to be furnished. Cross out or otherwise obliterate all extraneous materials and information. Clearly identify all configuration options for the equipment to be furnished.
- F. Bill of Materials: Submit bill of materials including all items, products, and assemblies supplied. Documents shall be updated following submittal review, factory test, and commissioning. Updates shall be provided to the Project Representative in a timely manner. Bill of materials shall include the following information:
 - 1. Item number, index, or key relating to submitted cut sheets, drawings, schedules, etc.
 - 2. Item manufacturer's name, model, and part numbers. Supplier unique part numbers are not acceptable.
 - 3. Description.
 - 4. Quantity supplied.
 - 5. Supplier contact information.
- G. Notated Specifications: Submit copies of all Division 17 Specification sections with each paragraph notated to indicate compliance. A check mark shall indicate complete compliance. Explanations shall be provided for all non-compliant items in accordance with Division 1.
- H. Notated P&ID Drawings: Submit copies of all project Process and Instrumentation drawings with each drawing element notated to indicate compliance. A check mark shall indicate complete compliance. Explanations and markups shall be provided for all non-compliant items and in accordance with Division 1.
- I. Notated Electrical and Instrumentation Drawings: In the case of deviations from the Contract Documents, particularly related to the impact of the configuration of submitted packaged equipment supplied to the project, submit marked up copies of applicable Electrical and Instrumentation Contract Drawings notated to identify and explain all proposed deviations from the Contract Documents. Items not notated on the submitted marked up copies shall be assumed to be 100% compliant with the bid documents. This requirement applies to electrical one lines, MCCs, MCC control schematics, panel schedules, and control schematics. This requirement does not apply to plan drawings and conduit schedule which shall be marked up to reflect the as constructed project configuration and submitted as record drawings.
- J. SEISMIC: Submit Seismic design information per 16010-2.01D. Include a list of equipment weighing 200 pounds or more.
- K. O&M: Submit operation and maintenance information as specified in any Division 17 Specification section. O&M manuals shall include product data for all materials and items supplied in compliance with the submittal requirements of this section.
- L. Division 17: Submit information as required by all Division 17 Specification Sections.
- M. CSI: Submit information about proposed CSI including employee resumes, company information, etc., as required by any Division 17 Specification sections.
- N. Drawings: Submit all Drawings described in this and other Division 17 sections including elementary, loop, schematic, fabrication, installation, field wiring, panel layout and assembly, etc., drawings. Drawings shall be updated following submittal review, factory test, and commissioning. Updates shall be provided to the Project Representative in a timely manner. Cross reference drawing elements with BOM and catalog cut sheet unique references.

Drawings shall use project tag formats and numbers. Unique and separate drawings shall be provided for each item supplied including but not limited to all panels and all MCC units. Typical drawings that apply to multiple panels or multiple MCC motor control units are not acceptable.

- O. Packaged Equipment: All packaged equipment suppliers shall provide submittals in compliance with Division 17. This shall include packaged equipment purchased under the Contract as well as any pre purchased packaged equipment assigned to the Contractor.
- P. Software and Programming: Per Section 17802.
- Q. Component Drawings: Dimensional, installation, and wiring diagrams and drawings for all supplied components.
- R. Testing and Calibration: Test plans, calibration forms, test forms, test results, and test reports required by any Division 17 Specification Section. Per Section 17804.
- S. Spare Parts: Spare parts lists.

1.04 SERVICE REQUIREMENTS

- A. Environmental Conditions: All equipment shall be suitable for operation in the following ambient conditions. Modify equipment if necessary as required to function in the specified environment.
 - 1. Atmospheric contaminants:
 - Hydrogen sulfide: 0.1 mg/L
 - Chlorine: 0.01 mg/L
 - Ammonia: 0.5 mg/L
 - Dust: 50.0 ug/m³
 - 2. Electromagnetic radiation:
 - 27/500 MHz: 10 volts/m
 - 3. Control Rooms:
 - Temperature: 60 to 95 degrees F
 - Humidity: 20 to 80 percent
 - 4. Pump Rooms:
 - Temperature: 40 to 120 degrees F
 - Humidity: 10 to 100 percent
 - 5. Outdoor Field Locations:
 - Temperature: -10 to 120 degrees F
 - Humidity: 10 to 100 percent

1.05 DESCRIPTION OF SYSTEM

- A. General:
 - 1. System Scope: The instrumentation and control system shall include the instruments, control devices, programmable controllers, input and output devices, sensors, interfacing devices, communications devices, cabinets, enclosures, and other components, as required to implement the functional requirements of the Contract.

DIVISION 17 – INSTRUMENTATION

2. Design and Assembly: The instrumentation and control system shall be designed and assembled by the CSI to be an integrated system composed completely of components that are specifically designed and intended to be used for and in conjunction with the control and operation of motor-driven pumps and process equipment. The control system shall be designed and assembled by the CSI to provide:
 - a. Control of motors, equipment, and processes.
 - b. Monitoring of operation of motors, equipment, and processes.
 - c. Indication of operating status of motors, equipment, and processes.
 - d. The capabilities indicated and implied by Contract Documents.
3. Custom Parts: System components shall be commercial, off-the-shelf (COS) components. Custom designed or manufactured components shall require Project Representatives approval.

B. Functional Requirements:

1. Bid Documents: As defined in Division 17 Specifications and the Contract Drawings.
2. Manual Functions: The system shall readily enable manual operation of any and all equipment functions. Manual equipment operation shall not be reliant on any programmable electronic devices or equipment.
3. Fault Tolerance: The system shall be immune to single point failures to the maximum extent practical.
4. Location of Functions: The system shall include manual, automatic, programmed, and hardwired functions. The devices that provide these functions shall be located at field mounted control stations, packaged system local control panels.
5. The main equipment the control panel will be interfacing with or controlling are as follows:

Qty	Manufacturer Part Number
2	WEG Electric Corp .7518ES3E56CFL-S 3/4 HP 1800 3 60 208-230/460
2	Boston Gear RFWA738-300ET-B5-G Worm Speed Reducer

The designed electrical and controls systems must be sized appropriately and be compatible with this equipment. A photo of the electric motor nameplate has been provided for reference on BXWA.

C. Preselected Equipment:

1. Functional Requirements: Preselected equipment purchased outside of the Contract by RFP shall be governed by the RFP and equipment procurement contract. The components, configuration, functions, and features of preselected systems and equipment shall be as negotiated during the selection process and as approved by the project upon vendor selection. The selected vendors will prepare and submit system Drawings and documents as required by the RFP which shall include but not be limited to the following:
 - a. Process and Instrumentation drawings and detailed control strategy for the system.
 - b. Detailed control panel shop drawings, loop drawings, communications drawings, field wiring drawings, etc.
 - c. System layout plan drawings and elevations showing the location of all Division 16 and 17 components.

- d. A list of all Division 16 and 17 items supplied by the vendor that require installation or connection by the Contractor.
- e. A list of items required by the system that are scheduled to be provided by others.
- f. The preselected system shall be assigned to the Contractor for installation and integration during the execution of the Contractor's Contract. The system supplier shall provide a full, detailed, and complete Submittal concurrent with the Contract Submittal phase.

1.06 CONTRACTOR AND SUBCONTRACTOR SCOPES OF WORK

A. Systems Responsibility:

- 1. With the exception of packaged systems and third party programming, all instrumentation and industrial electronic systems and functions shall be provided under the supervision of a single Control System Integrator, chosen by the Contractor, who is regularly engaged in the design, programming, configuration, and installation of similar systems of equal or greater scope and complexity. The Control System Integrator shall be enjoined by the Contractor as a Subcontractor. The assignment of specific responsibilities herein to the Control System Integrator shall not, in any way or under any conditions, diminish the Contractor's full and complete responsibility for all work performed and all materials installed under the Contract. The Contract between the Contractor and the Control System Integrator shall specifically require that the Control System Integrator conform to and meet all requirements specified in the Contract Documents. The assignment of the Control System Integrator as an equipment supplier shall not be acceptable.

B. Intent of Drawings and Specifications:

- 1. General: Due to the fact that the Contract Documents cannot dictate the use of specific brands or models of components and equipment unless there is a compelling reason to do so, the control system drawings are intended to primarily convey detailed functional and operational requirements of the control system rather than specific component selection, assembly, and interconnection information. The substantial interconnection information provided in the Contract Drawings is general in nature and is provided for the purpose of indicating the general scope of work and the aforementioned functional and operational requirements, and shall not be construed to represent detailed shop drawings or parts thereof.
- 2. Ancillary Components Required: Components not explicitly indicated in the Contract Documents but none-the-less implied, required for the environment or area classification indicated, or required for the proper functioning of the system as indicated shall be considered required just as though they had been explicitly indicated. The aforementioned components shall be considered incidental to the Contract and shall not constitute a basis for claim by the Bidder for additional compensation or time allowed to complete the Work.
- 3. Conflicts in Documents: In any case of conflicting statements or requirements in the Contract Drawings and Specifications, the most demanding statement or combination of statements shall govern. All stated requirements shall be met or exceeded.

C. Control System Integrator's Responsibilities:

- 1. Sole Responsibility: In accordance with A and B above, the Control System Integrator (CSI) shall be solely and completely responsible for the detailed design, assembly, programming, and commissioning of the entire control system with the exception of control equipment provided as a part of packaged equipment systems or otherwise noted as exceptions.

2. **Design and Performance:** The control system hardware and assemblies shall be designed by the CSI to provide the control capabilities and functions indicated in and implied by the drawings and these Specifications and to provide trouble-free operation with a minimum of maintenance.
3. **Coordination and Integration:** The CSI shall be directly responsible for the coordination and integration of the control system with motor controls, packaged equipment controls, and other related equipment. The CSI shall be responsible to obtain submittal information on equipment specified or provided by other suppliers or disciplines and to integrate all the equipment into the control system to form a complete working system as outlined by the Contract Documents.
4. **Proactive Communication:** The CSI shall communicate directly with the manufacturer(s) and supplier(s) of all related equipment to determine all details of the equipment that may influence or affect the control system. The CSI shall determine all requirements for and shall cause integration of the control system into a unified operating system. All correspondence shall include Carbon Copying (cc:) the General Contractor.
5. **Itemized Responsibilities:** The CSI shall be responsible for the following equipment and services:
 - a. **Detailed Design of Control Panels:** The drawings depict the functional and operational requirements of the control system and are at times diagrammatic. The CSI shall provide detailed, scaled design of all components on and in control panels and determine specific physical, thermal, and electrical requirements.
 - b. **Detailed Design of Control Circuitry:** The drawings depict the functional and operational requirements of the control system and are at times diagrammatic. The CSI shall be responsible for the final selection of all control system components, except for components specified as “no equal”, and all detailed circuit design and component interconnection required to meet the general and functional requirements indicated in or implied by the Drawings and Specifications. Where components are specified as “no equal”, the CSI shall provide all detailed design, including Specification of miscellaneous or interfacing components required to integrate the specified component into the CSI’s control system design. It is the responsibility of the CSI to ensure that all devices selected, and the proposed interconnection of those devices, perform as intended to provide a complete and operable system meeting the requirements of the anticipated environment and area classifications. The CSI shall define all requirements for all interfacing components and shall supply all appurtenances, accessories, and all such devices which may be required for proper functioning and interfacing of components as part of the control system. An example of such appurtenances would be interposing relays or analog isolators. All such aforementioned necessary ancillary components not specifically indicated in the Contract Documents shall be considered incidental to the contract and shall be required just as if they had been specifically indicated.
 - c. **Interconnecting Wiring:** The design of all interconnecting wiring of control equipment, including remote control panels, packaged equipment panels, mechanical equipment with control components, etc.
 - d. **Coordination with GC:** Coordinate with the Contractor for specific requirements and locations of raceway penetrations and field wiring in control panels. The CSI shall supply the Contractor with all necessary detailed installation drawings and/or written instruction for installation of all control components and sensing devices as required for proper system operation.

- e. Communications and Networks: Set up, configuration, test, and verification of all communications equipment, channels, and networks including new and reused telephone circuits.
 - f. Instruments: Provide all instruments specified unless specifically noted otherwise. Some instruments shall be provided by packaged equipment vendors. The CSI shall integrate vendor provided instruments and equipment.
 - g. Equipment Submittal Review: Review all equipment and packaged system submittals which include Division 17 items. Notify the Contractor of any and all needed modifications to submitted equipment, package system scope of services or supply, or CSI supplied equipment required to accommodate and integrate submitted equipment into the CSI's work. Specifically note how submittals which include variances from the Contract Documents will impact CSI provided control panels and MCC's if accepted by the Contractor.
- D. General and Electrical Contractor's Responsibility: The General and Electrical Contractor shall be responsible for the following equipment and services:
- 1. CSI Submittal Review: Review of the CSI's submittals and wiring diagrams for coordination with space requirements, raceway requirements of field wiring, etc.
 - 2. Equipment Submittals: Supply the Integrator with information submittals on all equipment which impacts or connects to the control system, which the Integrator must incorporate into their shop drawings and integrate into the project. This includes items such as pumps, motors, packaged control panels, other equipment, valve actuators, etc.
 - 3. Installation:
 - a. Installation of control panels provided by the CSI.
 - b. Installation of Motor Control Equipment (MCC) provided by the CSI.
 - c. Installation of interconnecting wiring in accordance with the Contract Documents and the CSI's wiring diagrams.
 - d. Installation of Instrumentation and Control System components in accordance with the Contract Documents and instructions of the CSI.

1.07 SHOP DRAWINGS

- A. General: The CSI, suppliers of packaged control systems, and suppliers of MCCs shall develop all shop drawings required for design, fabrication, assembly, installation, operation, and maintenance of the supplied control system components. Drawings shall be prepared utilizing a computer aided drafting program. CAD shop drawings shall be updated and provided to the Project Representative prior to factory testing, prior to system installation, and with the O&M manuals. All drawings shall be supplied in hardcopy and electronic file formats per Paragraph 1.3.B of this section.
- 1. Diagrams: Submit detailed interconnection diagrams, wiring diagrams, elementary diagrams, communications diagrams, and loop diagrams with all electrical and electronic components clearly identified by project tag number consistent with the contract drawings and schedules. Diagrams for each circuit or element shall be separate and unique. Typical diagrams are not allowed. Diagrams shall carry a date and brief description of the revisions. Diagrams shall carry a uniform and coordinated set of wire and terminal block numbers in compliance with panel work wiring as shown on Drawings.

DIVISION 17 – INSTRUMENTATION

2. Panel Layouts: Submit detailed construction drawings for panel layouts and equipment enclosures with dimensions in inches. Show both exterior and interior views.
 3. Wire and TB Numbers: Wiring and loop diagrams shall carry a uniform and coordinated set of wire numbers and terminal block numbers in compliance with.
 4. Unique Drawings: Each control circuit, control loop, control panel layout design, motor control schematic, etc., shall be presented on a unique drawing. Control circuits, loop diagrams, and panel layouts referenced to typical diagrams are not acceptable.
 5. Symbols: Drawing symbol format shall comply with NFPA 79, ISA 5.1, ISA 5.3 and where appropriate, ISA RP 12.2.02.
 6. Record Drawings: Provide record Drawings per Section 1000.
 7. Format: Drawings shall be prepared utilizing a computer based drafting program and shall be formatted as follows:
 - a. Size: Hardcopy plots shall be 11-inch by 17-inch (half-size).
 - b. Text: Minimum Text size: 0.125 inch for 22 x 34 inch drawings, 0.063 inch for 11 x 17 inch drawings.
 - c. Borders: Drawings shall have borders and title blocks identifying the Contract, facility, system, revisions to the drawing, and type of drawing.
 - d. Revisions: Each release of a drawing shall carry a revision number, date, and a brief description of the changes. All changes associated with a given release shall be indicated on the drawing by a revision flag. Changes on the latest revision shall be indicated by clouding.
 - e. CAD: Drafting software shall be AutoCAD 2018 or later. Bind all x-refs.
 8. Field Equipment Terminals: All schematics, diagrams, and drawings showing connections to field equipment shall provide correct terminal block numbers for the connections at the field equipment. This includes packaged system control panels, MCCs, stand alone motor controls, valve actuators, instruments, switches, etc. The contractor, subcontractors, and suppliers shall coordinate as needed to accomplish this.
- B. Elementary and Loop Diagrams: Provide elementary diagrams for all discrete loops. Loop diagrams shall be prepared in compliance with ISA S5.4 and shall be provided for all analog loops. Elementary diagrams and loop diagrams shall show circuits and devices of a system. These diagrams shall be arranged to emphasize device elements and their functions as an aid to understanding the operation of a system and maintaining or troubleshooting that system.
1. Provide complete elementary diagrams for equipment control.
 2. Comply with NFPA 79.
 3. Show wire numbers, color codes, signal polarities, and terminal block numbers. Tables for wire numbers, signal polarity, and terminal block numbers are not acceptable.
- C. Schematic Diagrams: Provide schematic drawings showing all control panel components, the interconnection of all control panel components, all field devices, and the connection of all field devices to control panels. Schematic diagrams shall also show all communications components, their interconnection, and their interface with other control panel components. Provide wire and terminal block numbers in compliance with panel work wiring as shown on Drawings.

- D. Panel Fabrication and Arrangements Drawings: Provide arrangement drawings of all panel front and internal-mounted instruments, switches, devices, and equipment indicated. All panel mounting details shall be shown. Outer dimensions of all panels shall be included on the drawing. Deviations from approved arrangements shall require Project Representatives approval prior to installation. Arrangement drawings shall be drawn to scale using standard Architectural or Engineering scales.
- E. Record Drawings:
1. Also referred to as as-built drawings.
 2. Shop Drawings: All submitted drawings shall be updated over the course of the construction project to reflect the installations and equipment as-built. A full set of record drawings shall be provided to the Project Representative upon completion of the project and shall be included in the O&M manuals. Record drawing requirements shall be the same as submittal drawing requirements.
 3. Contract Drawings: The contractor shall maintain a set of record plan and P&ID markup drawings on site during construction. The contractor shall mark up the record drawing set to indicate any and all deviations of the installed systems from the Contract Documents. The marked-up drawings shall be provided to the project representative at project close out.
- F. Wiring Diagrams:
1. Panels: comply with NFPA79.
 2. Show components of a control panel in an arrangement similar to the actual layout of the panel.
 3. Show internal wiring between devices within the panel.
 4. Show all terminal blocks whether used for internal or field wiring. Those used for field wiring shall be clearly identified as such.
 5. Wiring diagrams shall indicate insulation color code, signal polarities, wire numbers, and terminal block numbers.
- G. Interconnection Diagrams:
1. Submit complete interconnection diagrams for field wiring.
 2. Show each panel and field devices.
 3. Show wire numbers, cable numbers, panel numbers, and field device tag numbers.
 4. Comply with NFPA79.
- H. Certifications:
1. Temperature: Provide test data certified by the manufacturer to demonstrate that field electronic devices are suitable for the specified ambient temperatures.
 2. Corrosion: Provide test data showing design features of the electronic equipment provided to protect against damage by the specified atmospheric contaminants and specific evidence that similarly protected electronic equipment has operated in similar environments for a period of not less than five years without failure due to corrosion.

1.08 SEISMIC DESIGN:

- A. Structures and equipment shall be braced to prevent damage from specified forces.
- B. Equipment shall not be required to function properly during periods of seismic disturbance, but shall be capable of manual restart without repair or modification following a disturbance.

1.09 ACCEPTABLE CONTROL SYSTEM INTEGRATORS

- A. System Execution Personnel: The Control System shall be designed, constructed, and commissioned by full time or contract employees with a minimum of 5 years of experience and a minimum of one year with Integrator. The CSI shall configure and program all devices and equipment supplied to perform the functions indicated in the Contract Documents unless specifically noted otherwise. Engineering and programming services shall only be provided by staff members directly employed by the CSI. Contract labor is not acceptable for engineering and programming services.
- B. Recommended Integrators: CSI's recommended for this project include the following companies:
 - 1. Technical Systems, Inc. – Lynnwood, Washington.
 - 2. Quality Controls, Inc. – Lynnwood, Washington.
 - 3. Control Systems International - Tumwater, Washington.
- C. Approval of Personnel and Alternates:
 - 1. Withholding of Approval: The Contractor and the proposed CSI shall anticipate that the Project Representative may withhold approval of a proposed CSI or employee if, in the opinion of the Project Representative, the CSI or employee does not have the experience, capability, or an acceptable performance and execution record of similar projects in the past. No Contractor, CSI, or employee denied approval by the Project Representative shall be entitled to any extension of time or to any claim for damages related to any consequences resulting from the withholding of approval for any reason whatsoever. Applicable consequences may include but are not limited to associated extra or unanticipated costs, hindrances, delays, or complications of any kind.
- D. Requirements for Alternates: The acceptability of a proposed alternate CSI will be determined solely by the Project Representative. The CSI shall be an instrument and control system manufacturing company that conforms to the following requirements:
 - 1. Location: The CSI's manufacturing and assembly facility shall be located within a 100 mile drive from the Owner's offices and the job site.
 - 2. Specialty: The CSI shall be specialized in the design, assembly, testing, installation, programming, commissioning, and service of municipal control and communication systems in the Pacific Northwest for at least five years.
 - 3. Employee Experience: The CSI shall employ technicians and engineers with documented experience in the design, assembly, testing, installation, operation, calibration, troubleshooting, service, and repair of control and communication systems for municipal waterworks and sewerage facilities.
 - 4. Similar Experience: The CSI shall have completed the design, assembly, testing, installation, and commissioning of control systems which include the instruments, components, equipment, and devices cited on the Plans by specific manufacturer's name.

5. Spare Parts Stock: The CSI shall maintain a stock of spare parts for the instruments and devices cited on the Plans by specific manufacturer's name.
6. Alternate Supplier Info: Prior to placement of purchase orders for services and equipment, the Contractor shall provide the following information about a proposed alternate CSI:
 - a. Company Info: Description of ownership and organization of Integrator.
 - b. Resumes: Resumes of principals and/or key employees who will be working directly in the engineering, design, assembly, testing, and commissioning of the system for this project.
 - c. Expertise: Description of expertise in design, assembly, testing, and installation of control systems for municipal waterworks and sewerage facilities.
 - d. Project Resume: Description of municipal control systems designed, assembled, and installed in the last five years. Description shall include:
 - 1) Names of employees involved in each system.
 - 2) Detailed description and drawings of each system.
 - 3) Cost of each system.
 - 4) Names and telephone numbers of persons involved in operation and maintenance of each system.
 - e. Service Description of the service capabilities normally provided by the company including resumes of employees assigned to field service and listing of service equipment.
 - f. Spare Parts Description of spare parts normally stocked and of restocking procedures.
 - g. Additional Info: Additional information that may assist the Project Representative in ascertaining the company's general ability to perform the work.
 - h. Warranty: Written agreement to the warrantee service terms of the Contract Documents.

1.10 PRECEDENCE OF REQUIREMENTS

The Contractor, Sub Contractors and equipment suppliers shall comply with all requirements specified in the Contract Documents, individually and in combination. In the case of redundant, overlapping, or conflicting requirements, the most stringent and demanding interpretation of the requirements statements collectively shall govern unless specifically clarified by the project. The Contractor and equipment suppliers shall request needed clarification of requirements during bid, otherwise the project's interpretation shall govern. The System Supplier shall diligently scrutinize all parts of all bid documents prior to bid.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

Products: All products provided by the CSI shall be manufactured to comply with the listing requirements identified in Part 1 and other requirements as indicated in the Contract. System components shall be commercial, off-the-shelf components to the maximum extent possible. Custom designed or manufactured components shall require Project Representative's approval.

2.02 MATERIALS

- A. General: Material shall be new, free from defects, and of the quality specified. All equipment and materials utilized in the system shall be the products of Manufacturers with at least five years of experience in the manufacture of similar equipment. Similar items in the system shall be the products of the same Manufacturer. All equipment shall be of industrial grade and of standard construction, shall be capable of long, reliable, trouble-free service, and shall be specifically intended for control and monitoring of operation of motor-driven pumps and process equipment. All equipment shall be of modular design to facilitate interchangeability of parts and to assure ease of servicing.
- B. Electronic Components: Unless otherwise specified, electronic equipment shall be of solid-state construction. Components of standard electronic assemblies shall not be replaced with components of different characteristics in order to meet the performance requirements of the Specification. Parts shall be as shown in the instruction manuals and shall be replaceable with standard commercial components of the same description without degrading the performance of the completed assembly.

2.03 INSTRUMENTS

Instrument Schedule: Application requirements are specified in the Instrumentation Schedule, individual Specification Sections, and/or on the Drawings. The Instrumentation Schedule lists major instruments required to implement the process instrumentation and control systems. Instruments listed with equipment specification number references other than Division 17 shall be supplied by equipment suppliers. All instrument functions specified on this list with Division 17 Specification references shall be provided by the CSI. Any additional instruments or devices required to complete the instrument loops because of unique characteristics of the particular equipment selected by the CSI (such as isolation I/Is) shall be provided. Such additional instruments shall be considered incidental to the contract and shall be provided and included in the original contract price even when not specified in the instrument index or on the contract drawings.

2.04 SPARE PARTS

- A. In addition to spare parts mentioned elsewhere in Divisions 16 and 17 Specification Sections, the CSI shall supply the following spare parts:
 - 1. Qty 1 Relay of each type used or 10%, whichever is the greater amount.
 - 2. Qty 10 lamps of each type used or 100%, whichever is the greater amount.
 - 3. Qty 200% spare fuses, two spare fuses for each type of fuse supplied minimum.

PART 3 - EXECUTION**3.01 DESIGN AND ASSEMBLY**

- A. General: With the exception of any packaged equipment control systems, the supplied control systems shall be designed by the CSI per paragraph 1.6. The supplied control system shall be completely assembled in the shop of and by the CSI. All components and equipment shall be prewired to the maximum extent possible.

- B. Integration: The CSI shall determine all requirements for and shall cause integration of the supplied control systems, and any supplied packaged equipment control systems into a complete and unified system. The CSI shall be responsible for the coordination and integration of the supplied control system with motor controls and other related equipment.
- C. Review of Submittals: The CSI shall be directly responsible to obtain submittal information on related equipment supplied by others and to integrate this information as required with the overall control system to form a complete working package.
- D. Coordination: The CSI shall communicate directly with the Manufacturer(s) and Supplier(s) of all related equipment to determine all details of the equipment that may influence or affect the supplied control system components. The CSI shall make any and all adjustments or revisions required to integrate the submitted equipment into the job at no additional expense to the Owner and with no extension of the schedule.

3.02 DELIVERY, STORAGE, AND HANDLING

- A. Shipping:
 - 1. Anchor, brace, and protect equipment during shipping handling.
 - 2. No internal wiring shall be disconnected for transportation.
- B. Delivery Inspection: Notify the Project Representative and provide access for inspection upon arrival of any material or equipment to be incorporated into the work. Remove protective covers when required.
- C. Supplied Control Panels:
 - 1. Completely wired and tested in the factory prior to being shipped to the job site.
 - 2. Shipped as a single unit to job site after testing is complete.
 - 3. No internal wiring shall be disconnected for transportation.

3.03 INSTALLATION

- A. General:
 - 1. Installation by Contractor: The control system and associated instruments and connections shall be installed by the contractor.
 - 2. Installation Instructions: The control system shall be installed in accordance with the installation drawings and instructions provided by the CSI, packaged system suppliers, and other equipment suppliers.
 - 3. Supervision: The CSI's instrumentation and controls project engineer shall supervise and coordinate all activities related to the installation of Division 17 requirements.
 - 4. Expertise of Installer: Installation shall be performed by the workers who are skilled and experienced in the installation of electrical instrumentation and control systems. Installation shall include all elements and components of the control systems and all conduit and interconnecting wiring between all elements, components, sensors, valve operators, etc.
 - 5. Location: Equipment shall be located so that it is readily accessible for operation and maintenance.

6. Instrument Technician: The CSI shall provide the services of skilled instrument technicians for testing, calibration, and adjustment activities.
- B. Signal Connection and Transmission:
1. Unless otherwise specified, analog signal transmission between electric or electronic instruments not located within a common panel shall be 4 to 20 milliamperes and shall have a loop compliance of at least 500 ohms.
 2. Two-wire loop transmitters shall operate at 24 VDC.
 3. Loops shall be grounded at the field terminal block by bonding to the instrument panel signal ground bus. Separate grounded conductors shall be provided for each loop. Daisy chaining of grounded conductors from one loop to another is not allowed.
 4. Provide isolating amplifiers for field equipment possessing a grounded input or output, or having a common mode voltage other than system ground.
- C. Tagging: All field devices shall be labeled with tag number indicated in the bid documents or consistent with project tagging conventions when not shown in the bid documents. Comply with project naming and numbering conventions. Tag shall be 10ga, 316 stainless steel with stamped letters and numbers attached to device with 12ga, 316 stainless steel wire.
- D. Field Equipment:
1. Installation: Equipment shall be provided as specified on the drawings such that ports and adjustments are accessible for in-place testing and calibration. Where possible, equipment shall be located between 48 inches and 60 inches above the floor or a permanent work platform. Instrumentation equipment shall be mounted for unobstructed access, but mounting shall not obstruct walkways. Equipment shall be mounted where shock or vibration will not impair its operation. Support systems shall not be attached to handrails, process piping or mechanical equipment except for measuring elements and valve positioners. Instruments and cabinets supported directly by concrete or concrete block walls shall be spaced out not less than 5/8 inch by framing channel between instrument and wall.
 2. Support Systems: Steel used for support of equipment shall be hot-dip galvanized after fabrication. Support systems including panels shall be designed in accordance with the applicable building code and seismic zone and shall prevent deformation greater than 1/8 inch under the attached equipment load and an external load of 200 pounds in any direction.
- E. Electrical Power Connections:
1. Division 16: Electric power wiring and equipment shall be in compliance with Division 16.
 2. Disconnect Switches: Power disconnect switches shall be provided within sight of equipment and shall be labeled to indicate opened and closed positions and specific equipment served. "Within sight of" is defined as having a clear unobstructed view from the equipment served and within 50 feet of the equipment served. Disconnect switches shall be mounted between 36 inches and 72 inches above the floor or permanent work platform. Where equipment location is such that the above requirements cannot be met by a single disconnect switch, two switches, one at the equipment and one at the work platform, shall be provided.
 3. Surge Arrestors: Each disconnect switch serving equipment located outdoors shall be provided with a surge arrestor, General Electric 9L15CCB001, or equal. The surge arrestor shall be bonded to the plant ground grid with a No. 8 AWG bare copper conductor.

4. Control Panels: All control panels shall be provided with a main power disconnect equipped with auxiliary contacts as required to disconnect all power sources to the panel or shall be labeled to indicate the multiple power sources not disconnected by the main disconnect. Field wiring for all power sources not disconnected by the main disconnect shall land on fused disconnect type terminal blocks.

3.04 SYSTEM MAINTENANCE AND WARRANTY

- A. CSI Solely Responsible: The CSI shall be solely and completely responsible for all maintenance of control systems they supply from time of installation to the date of substantial completion of all work under the contract. The CSI shall correct all deficiencies and defects and make any and all repairs, replacements, modifications, and adjustments as malfunctions or failures occur. The CSI shall perform all such work required or considered to be required by the Owner to properly maintain the system.
- B. Defects and Repairs: The CSI shall make any and all repairs, replacements, modifications, and adjustments required to eliminate any and all defects in design, materials, and workmanship which are discovered within the one- year guarantee period. The CSI shall begin all repairs, replacements, modifications and adjustments within 24 hours of notification by telephone by the Owner and shall complete such repairs, replacements, modifications and adjustments within 48 hours of notification.
- C. Acceptance of Work: The CSI shall anticipate that the Owner may delay acceptance of all work under the contract if, in the judgment of the Owner, malfunctions or failures in operation of the supplied control system repeatedly occur after start-up to an unacceptable extent. The CSI shall not be entitled to an extension of time or to any claim for damages because of hindrances, delays, or complications caused by or resulting from delay by the Owner in accepting the work because of malfunctions or failures in operation of the supplied control system.
- D. Packaged Systems: Packaged system suppliers shall provide warranty support meeting the above stated requirements for their supplied systems.

3.05 OPERATION AND MAINTENANCE DATA

- A. O&M Manuals: The CSI shall prepare and assemble six sets of operation and maintenance (O&M) manuals in accordance with the project general requirements and Paragraph 1.3 of this section. These manuals shall be submitted two weeks prior to training. O&M manuals shall include, but not be limited to, the following:
 1. Trouble-shooting procedures.
 2. Calibration procedures.
 3. Testing procedures.
 4. Component replacement procedures.
 5. Preventative maintenance procedures.
 6. Listing of recommended spare parts.
 7. Listing of recommended maintenance tools and equipment.
 8. Catalog data for all equipment and devices supplied, organized per submittal requirements.
 9. Configuration, setup, and programming manuals for all programmable devices supplied including PLC, VFD, instruments, etc.
 10. Communication channel test forms.

11. Configuration files for all configurable or programmable electronic devices and equipment supplied for this project.
12. Application software program documentation for all programs and configurations developed or supplied by the contractor for this project.
13. System user's manual covering all functions supplied by the contractor for this project as described below.

B. Record Documents: All contract P&ID drawings and control strategy Specification Sections and all submittal drawings shall be revised to reflect as-built conditions at the end of the project. Record drawings and documents shall be submitted in accordance with the project general requirements and Paragraph 1.3 of this section. Record drawings and documents shall be submitted with the O&M manuals. Record drawings and documents shall include the following:

1. Shop drawings per 1.7 of this section.
2. Wiring diagrams of cabinet and enclosure contained assemblies.
3. Wiring diagrams of all system connections and interconnections including all loops, field equipment, communications interfaces, networks, etc.
4. All other submitted shop and installation drawings and details not listed.
5. Bill of Material.
6. Contract P&ID drawings.
7. Contract control strategy Specification Sections.

3.06 SYSTEM USER'S MANUAL

A. Scope: The CSI shall develop and submit a detailed user manual covering all aspects of the operation and use of the components and systems they supply. The manual shall cover the following:

1. Overview: An overview of the architecture of the control system including control panels, MCC's, field devices, PLC, remote alarm notification, communications, networks, remote access, etc.
2. Functions: All hardware/hardwired, programmed, manual, automatic, display, control, alarming, communications, networking, etc. features and functions of the systems and components they supply.
3. Hardwired Elements: Descriptions of the meaning and function of all hardwired panel, MCC, and field mounted discrete operator interface monitoring and control devices. Correlate functions to the control strategies.
4. Tag Lists: PLC, remote alarm notification system, and process data historian tag data base lists.
5. Configuration Setup: Configuration screens for all PLC. remote alarm notification, communications, and network system components.
6. Start Up: System start up procedures for systems supplied and configured by the contractor for the project.

B. Used in Training: The system users' manual shall be completed prior to and shall be used for required training. The manual shall be updated to incorporate comments received during training and re submitted for inclusion in the O&M manual. Submit 2 weeks prior to training.

- C. Packaged Equipment: Packaged equipment suppliers shall supply user's manuals per the above requirements for the systems they supply.
- D. Third Party Programming: Third parties other than the contractor or packaged equipment suppliers who provide PLC, or other programming shall provide users manuals for the programming they provide.

3.07 TRAINING

- A. General: The CSI shall conduct specifically organized training sessions to educate and train the Owner's personnel in the maintenance and operation of all aspects and components of the control system they supply. Training on all system components shall include, but not be limited to, the following subjects:
 - 1. All O&M manual items.
 - 2. All system users' manual items.
- B. Training Sessions: The CSI shall provide a minimum of 16 hours of on-site instruction to the Owner's employees after start-up and commissioning of the system. The Owner shall be allowed to video tape all or any part of the training sessions. The CSI shall prepare and assemble specific instruction materials for each training session and shall supply such materials to the Project Representative at least two weeks prior to the time of the training. The O&M manuals and the system users' manual shall be complete and shall be used in the training sessions.

END OF SECTION 17010