

Central Washington University

**Hydrogeologic
Test Well Drilling**

Ellensburg, WA

CWU Project No. 14880-15

**CONSTRUCTION
DOCUMENTS**

Volume 1

Division 00

THRU

Division 01

DATE: 3.5.2024

CWU – Hydrogeologic Test Well Drilling
Ellensburg, Washington
Project No. 111-21101
NAC Architecture

SECTION 00 00 03
PROJECT TEAM DIRECTORY
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Owner:

Central Washington University

Contact: Joe Chanes
400 E. University Way
Ellensburg, WA 98926
509 963 1488

Architect:

NAC Architecture

Contact: Tom Golden
1203 W. Riverside
Spokane, WA 99201
509 838 8240

Geotechnical Engineer:

GeoEngineers, Inc.

Contact: Jonathan Rudders
523 E. Second Ave
Spokane, WA 99202
509 363 3125

END OF SECTION

VOLUME ONE

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00 00 10 ADVERTISEMENT FOR BIDS

Sealed bid proposals will be accepted for the following project:

PROJECT NO: 14880-15

AGENCY: Central Washington University

PROJECT: Hydrogeologic Test Well Drilling

SCOPE: The work consists of the drilling, installation, and testing of a test well at the planned extraction well location for a ground source heat pump (GSHP) heating and cooling system for the North Academic Center Project. The well location is approximately 60 feet northwest of the intersection of East Dean Nicholson Boulevard and North Walnut Street, Ellensburg, WA.

ESTIMATED COST: \$1,100,000.00 (One million one hundred thousand dollars)

SUBMITTAL

TIME/DATE/LOCATION: Sealed Bids will be received up to **2:00:00 PM PST, Tuesday, March 26, 2024** at Central Washington University's Jongeward Plant Services Building, located at 205 E. 11th Avenue, Ellensburg, WA 98926. Bids received after the day and hour stated above will not receive consideration and will be time/date stamped and returned to bidder unopened.

Shortly after 2:00:00 PM PST, bids will then be publicly opened and read aloud.

If hand-delivered, the physical location is:
Central Washington University, Jongeward Plant Services Building
205 E. 11th Avenue, Ellensburg, Washington 98926

If delivery is by United States Postal Service, FEDEX or UPS, the address is:
Central Washington University, Jongeward Plant Services Building
400 E. University Way, Ellensburg, Washington 98926-7523

PREBID CONFERENCE: The Project site is available for inspection by prospective bidders at a **MANDATORY** pre-bid conference and site walk-through at **11:00 AM on Tuesday, March 19, 2024** in Jongeward Room 116. Jongeward is located on the CWU Ellensburg Campus, 205 E. 11th Avenue. Limited visitor parking is available in front of the building, as well as limited street parking or daily passes can be purchased at brown ticket dispensers located throughout campus. A ticket dispenser is available at the CWU Conference Center parking lot at 600 E. University Way, Ellensburg, WA. **Attendance at the pre-bid conference and site walk-through is mandatory for all firms intending to submit responsive bids.** Additional site visits at other times

can be arranged by contacting CWU Project Manager Joe Chanes at (509) 856-7107.

Any questions relating to the project or this advertisement should be directed to Tom Golden (A/E Representative) at NAC Architecture, phone 509-838-8240 or email tgolden@nacarchitecture.com by **5:00 PM PST Tuesday, March 19, 2024.**

Document clarification questions must be submitted in writing.

Contractors may order plans and specifications from Abadan Reprographics, 603 E 2nd Avenue, Spokane, WA 99202, telephone 509-747-2964. Bidders are solely responsible for ensuring the completeness of their bids should they not obtain and review the entire set of plans and specifications.

To view, download or order the Contract Documents on-line, go to NAC Architecture's Planroom webpage at: <https://hosted.onlineplanservice.com/Project/173> To view files for the project, or to order hard copies or digital files of the bid documents, click on the project name. The documents may also be viewed at the office of Capital Planning and Projects Jongeward Plant Services Building, Room 101, 205 E 11th Avenue, Central Washington University, Ellensburg, Washington 98926.

Plans and specifications may be viewed at the following plan centers: Abadan Reprographics & Imaging, Spokane, WA; Associated Builders & Contractors, Spokane, WA; Associated General Contractors, Boise, ID; Builder's Exchange of Washington, Everett, WA; Daily Journal of Commerce Plan Center, Portland, OR; Daily Journal of Commerce, Seattle, WA; Hermiston Plan Center, Hermiston, OR; Contractor Plan Center, Milwaukie, OR; Ridgeline Graphics (Wenatchee Plan Center), Wenatchee, WA; Spokane Regional Plan Center, Spokane, WA; Tri-City Construction Council, Kennewick, WA; Walla Walla Valley Plan Center, Walla Walla, WA; Weekly Construction Reporter, Bellingham, WA; Yakima Plan Center, Yakima, WA.

The State of Washington prevailing wage rates are applicable for this public works project located in Kittitas County. Bidders are responsible to verify and use the most recent prevailing wage rates. The "Effective Date" for this project is the Bid Proposal due date above. The applicable prevailing wage rates may be found on the Department of Labor and Industries website located at <https://lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/>

Voluntary Diverse Business goal of 26%, which is an aggregate of: 10% MBE, 6% WBE, 5% Veteran-owned Business, and 5% Washington Small Businesses, have been established for this project. Achievement of the goals is encouraged. No preference will be included in the evaluation of bids/proposals, no minimum level of MWBE participation shall be required as a condition for receiving an award or completion of the contract works, and bids/proposals will not be rejected or considered non-responsive on that basis. Bidders may contact the Office of Minority and Women Business Enterprise to obtain information on certified firms. For assistance verifying certification, contact: Office of Minority and Women's Business Enterprises, PO Box 41160, Olympia, WA 98504-1160, telephone (866) 208-1064.

No bidder may withdraw its bid after the hour set for the opening thereof, unless the award of the contract is delayed for a period exceeding 60 days.

The Owner reserves the right to accept or reject any or all bids and to waive informalities.

000100 - INSTRUCTIONS TO BIDDERS

1 CONTRACTOR'S REGISTRATION

All bidders must be registered by the Washington State Department of Labor and Industries in accordance with R.C.W. 18.27.020.

2. GENERAL BIDDING REQUIREMENTS

- A. In accordance with RCW 39.04.380 effective *March 30, 2012* the State of Washington is enforcing a **Reciprocal Preference for Resident Contractors**. Any public works bid received from a nonresident contractor from a state that provides an in-state percentage bidding preference, a comparable percentage disadvantage must be applied to the bid of that nonresident contractor.

A nonresident contractor from a state that provides a percentage bid preference means a contractor that:

- a) is from a state that provides a percentage bid preference to its resident contractors bidding on public work contracts.
- b) at the time of bidding on a public works project, does not have a physical office located in Washington.

The state of residence for a nonresident contractor is the state in which the contractor was incorporated or, if not a corporation, the state where the contractor's business entity was formed.

All nonresident contractors will be evaluated for out of state bidder preference. If the state of the nonresident contractor provides an in-state contractor preference, a comparable percentage disadvantage will be applied to their bid prior to contract award.

This section does not apply to public works procured pursuant to RCW 39.04.155, 39.04.280, or any other procurement exempt from competitive bidding.

- B. In accordance with the legislative findings and policies set forth in Chapter 39.19 RCW the State of Washington encourages participation in all of its contracts by MWBE firms certified by the Office of Minority and Women's Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this invitation or as a subcontractor to a bidder. However, unless required by federal statutes, regulations, grants, or contract terms referenced in the contract documents, no preference will be included in the evaluation of bids, no minimum level of MWBE participation shall be required as a condition for receiving an award, and bids will not be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the contract documents will apply.
- C. The State of Washington encourages participation in all of its contracts by Veteran-owned businesses (defined in RCW 43.60.010) and located at <http://www.dva.wa.gov/program/certified-veteran-and-servicemember-owned-businesses> and

Small, Mini and Micro businesses (defined in RCW 39.26.010) which have registered in WEBS at <https://fortress.wa.gov/ga/webs/>.

- D. In accordance with RCW 39.04.320 the State of Washington requires 15% **Apprenticeship Participation** for all projects estimated to cost one million dollars or more. On applicable projects the bid advertisement and Bid Proposal form shall establish a minimum required percentage of apprentice labor hours compared to the total labor hours. Bidders may contact the Department of Labor and Industries, Specialty Compliance Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530, by phone (360) 902-5320, and e-mail at apprentice@lni.wa.gov, to obtain information on available apprenticeship program

3. EXPLANATION TO PROSPECTIVE BIDDERS

- A. Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must submit a request in writing to the Architect/Engineer (A/E) 7 calendar days before the bid due date. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning a solicitation will be furnished promptly to all other prospective bidders by addendum to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

4. SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

- A. The Bid Advertisement provides information on a mandatory pre-bid conference and site walk-through. Primary contractors are required to attend, and major subcontractors are encouraged to attend.
- B Bidder acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the Work and that it has investigated and satisfied itself as to the general and local conditions which can affect the Work or its cost, including but not necessarily limited to (1) local conditions which can affect the work or its cost, including but not limited to conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and road; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during the work.
- C Bidder acknowledges that it has satisfied itself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by Owner, as well as from the drawings and specifications made a part of these Contract Documents or attached for the reference of the Bidder.
- D Bidder acknowledges that adjoining areas will be conducting normal operations during the work. Bidder should anticipate pedestrian and traffic congestion and controls, limited parking, and the requirement that the work be coordinated with ongoing operations.

- E Bidder acknowledges that its bid is based upon a schedule and assumptions which incorporate these conditions.
- F Any failure of the bidder to take the actions described and acknowledged in this paragraph will not relieve the bidder from responsibility for estimating properly the difficulty and cost of successfully performing the work.
- G. Owner assumes no responsibility for any conclusions or interpretations made by bidder based on the information made available by Owner. Should a bidder find discrepancies or omissions in the drawings or specifications, or should bidder be in doubt as to their meaning, bidder shall at once notify the Owner. If appropriate, Owner will send written instructions to all bidders by addenda. Questions received less than 7 days before the time of bid opening may not be answered. All addenda issued shall be incorporated into these Contract Documents.

5. PREPARATION OF BIDS

Bidder shall comply with the following instructions in preparing its bid.

- A. The name, address, and Contractor's license number of bidder shall be typed or printed on the bid in the space provided. The name must match the name on the bid guarantee.

Bids must be (1) submitted on the forms furnished by Owner or on copies of those forms, and (2) manually signed in ink.

- B Bidders shall submit bids in the format provided in the Bid Forms. Only the amounts and information asked for in the Bid Forms furnished will be considered as the bid. All blank spaces must be filled in.
- C Bidder shall bid upon all phases, alternates, allowances, and/or unit prices indicated in the Bid Forms. When bidding on alternates:
 - 1. If an Alternate is listed on the Bid Form, the Bidder shall fill in the applicable blank with an increased or decreased bid amount and indicate which by circling the word "ADD" or the word "DEDUCT" as applicable. The Contracting Authority reserves the right to accept or reject any or all bid amounts for Alternates, in whole or in part, and in any order.
 - a. If no change in the bid amount is required, indicate "No Change" or "\$0".
 - b. Failure to make an entry or an entry of "No Bid," "N/A," or similar entry on any Alternate shall cause the Bid to be rejected as non-responsive if that Alternate is selected.
 - c. Failure to indicate a negative number by circling "DEDUCT," preceding the number by a minus sign, or enclosing the number in parentheses will indicate the Bidder's intent to increase the Base Bid by the amount entered in the applicable blank.
 - d. If an Alternate is not selected, an entry as listed in subparagraph 5.C.1.2 on that Alternate shall not, by itself, render a Bid non-responsive.
- D Names of principal Subcontractors must be included in the Bid Forms. The purpose of this listing requirement is to prevent bid shopping and to assist in the evaluation of the responsibility of the bidder. Bidders shall not list more than one Subcontractor for each principal trade, unless Subcontractors vary with bid alternates, in which case bidder must indicate which Subcontractor will be used with which alternate(s). If bidder intends to do the

work for any principal trade itself, it must list itself for that portion of the work. Failure to properly complete the principal Subcontractor's portion of the Bid Forms is a material irregularity which shall render the bid non-responsive.

- E Public works projects in which trench excavation will exceed a depth of four (4) feet shall include adequate safety systems that meet the requirements of Chapter 49.17 R.C.W. The costs of trench safety systems shall be a separate item in the Bid Forms. This bid item shall be part of the total base bid.
- F Bidders shall acknowledge receipt of all addenda by identifying the addendum number in the space provided in the Bid Form. Failure to do so may result in the bid being declared non-responsive.
- G Bidder shall include in the bid all allowances provided in the Bid Forms.

6. BID AMOUNTS

- A. The bid prices shown for each item on the Bid Form shall include all labor, material, equipment, overhead and compensation to complete all of the work for that item.
- B. The actual cost of the general building permit (only) and any public utility hookup fees will be a direct reimbursement to the Contractor or paid directly to the permitting agency and/or utility by the Owner. Fees for these permits/fees should not be included by the Bidder in the bid amount. All other fees, permits, filings, licenses, or other such costs necessary for the execution of the work shall be the sole responsibility of the Bidder and shall be included in the bid amount.
- C. The Bidder agrees to hold the base bid prices and the prices for any alternates for sixty (60) days from date of bid opening.
- D. The Bidder agrees that the Bid Amount is based upon estimated quantities and that progress payments will be for actual quantities per the Unit Prices listed in the Bid Schedule. Additions and deductions of the estimated quantities will be accommodated by Change Order to the contract.

7. TAXES

- A. The bid shall include all taxes imposed by law. Sales tax shall not be included in the bid price, except that the retail sales tax upon sales and rentals to prime contractors and subcontractors of tools, equipment, and material primarily for use by the Contractor rather than for resale as a component part of the finished structure, shall be included in the bid price.
- B. The Owner will include Washington State Sales Tax (WSST) in progress payments. The Contractor shall pay the WSST to the Department of Revenue and shall furnish proof of payment to the Owner if requested. NOTE: Contractor must bond for contract amount plus the WSST.

8. BID GUARANTEE

- A. When the sum of the base bid plus all additive bid alternates is \$35,000.00 or less, bid security is not required. When the sum of the base bid plus all additive alternates is greater than \$35,000.00, a bid guarantee in the amount of 5% of the base bid amount is required. Failure of the Bidder to provide bid guarantee when required shall render the bid non-responsive
- B. Acceptable forms of bid guarantee are: A bid bond or postal money order, or certified check or cashier's check made payable to the Washington State Treasurer.

The Owner will return bid guarantees (other than bid bond) to unsuccessful Bidders as soon as practicable, but not sooner than the execution of a contract with the successful Bidder. The successful Bidder's bid guarantee will be returned to the successful Bidder with its official notice to proceed with the work of the contract.

- C. The bidder will allow sixty (60) days from bid opening date for acceptance of its bid by the Owner. Where Alternate Bids are included, the Owner shall have up to sixty (60) days following bid opening to incorporate the Alternate into the contract. The Bidder will return to the Owner a signed contract, insurance certificate and bond or bond waiver within 15 days after receipt of the contract. If the apparent successful Bidder fails to sign all contractual documents or provide the bond and insurance as required or return the documents within 15 days after receipt of the contract, the Owner may terminate the award of the contract

9. FILING FEES

- A. Applicable state laws concerning prevailing wages, hours, workers' compensation and other conditions of employment are called to the attention of bidders for their compliance. Bidder shall include in the bid any filing fees required to comply with applicable labor laws.

10. SPECIFIED PRODUCTS

- A. Bids must be based upon use of items named in the specifications, or approved equals or approved substitutions. In certain cases, specific items have been named because of operational or maintenance considerations; approval of equals or substitutions should not be assumed.
- B. Requests for approval of equals or substitutions must be made in writing and received by the A/E at least seven (7) working days prior to the date of bid opening. Said request must include complete descriptions, technical data, and performance records. Any approval of the proposed equal or substitution will be made by addendum issued to all bidders. See Section 01 1600 for instructions.

11. SUBMISSION AND WITHDRAWAL OF BIDS

- A. Bids and bid modifications shall be submitted in sealed envelopes or packages (1) addressed to the office specified in the advertisement for bids and (2) be marked with the project name, bid opening date and time, the name and address of bidder and indicating which part of the bid form is enclosed

- B Bids may be modified if in writing and received before bid opening time.
- C Receipt of bids and bid modifications by telegraph, facsimile, telephone, or orally will not be considered.
- D A bidder may withdraw its bid by submitting a written request before the bid opening time. Owner will return the bid unopened after Contract award.
- E. In the event a bidder discovers an error in its bid following the bid opening, the bidder may request to withdraw its bid under the following conditions:
 - 1. Written notification is received by the Owner within 24 hours following bid opening.
 - 2. The bidder provides written documentation of the claimed error to the satisfaction of the Owner within 72 hours following the bid opening.The Owner will approve or disapprove the request for withdrawal of the bid in writing. If the bidder's request for withdrawal of its bid is approved, the bidder will be released from further obligation to the Owner without penalty. If it is disapproved, the Owner may retain the bidder's bid guarantee.

12. LATE SUBMISSIONS

- A. Any bid, bid modification or request to withdraw a bid which is received after bid opening time will not be considered.
- B. The only acceptable evidence to establish the time of receipt at the office designated in the advertisement for bid is the time/date stamped or printed by Owner on the bid wrapper or other documentary evidence of receipt maintained by Owner.

13. BIDDER RESPONSIBILITY

- A. It is the intent of the Owner to award a contract to the low responsible bidder.
- B. Mandatory Responsibility Criteria
Before award of a public works contract, a bidder must meet the following mandatory responsibility criteria under RCW39.04.350 (1) to be considered a responsible bidder and qualified to be awarded a public works project. The bidder must:
 - 1. At the time of bid submittal, have a certificate of registration in compliance with chapter 18.27 RCW;
 - 2. Have a current state unified business identifier number;
 - 3. If applicable, have industrial insurance coverage for the bidder's employees working in Washington as required in Title. II 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;
 - 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3); and
 - 5. 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.

6. Until December 31, 2015, not have violated the "Off-site Prefabrication" reporting requirement more than one time as determined by the Department of Labor and Industries.

14. BID EVALUATION

- A. Bids which are incomplete, or which are conditioned in any way, or which contain erasures, alterations, or items not called for in the Bid Forms, or which are not in conformity with the law or with these Instructions, shall be rejected as non-responsive if the irregularity is material and may be rejected as non-responsive if the irregularity is not material.
- B. If the bid includes a supplemental schedule of unit prices for labor and materials, or other items for the purpose of establishing a cost basis for unforeseen contract changes, Owner reserves the right to reject, without impairing the balance of the proposal, any or all such predetermined unit prices.
- C. Reciprocal Preference for Resident Contractors. For a public works bid received from a nonresident contractor from a state that provides an in-state percentage bidding preference, a Comparable Percentage Disadvantage (CPD) will be applied to the bid of that nonresident contractor. The CPO is the in-state contractor percent advantage provided by the contractor's home state.
 1. For the purpose of determining the successful bidder, multiply the Nonresident Contractor bid amount by the CPD. The "bid amount" shall be the total of the base bid and all accepted alternate bid items. The CPO shall be added to the Nonresident Contractor bid amount which equates to the Nonresident Disadvantage Total. The Nonresident Disadvantage Total shall be compared to the Washington contractor bid amounts. The bidder with the lowest total shall be the successful bidder
- D. The Owner will evaluate bids responsiveness and responsibility.
 2. A bid will be considered responsive if it meets the following requirements:
 - a. It is received at the proper time and place.
 - b. It meets the stated requirements of the bid proposal.
 - c. It is submitted by a licensed/registered contractor within the state of Washington at the time of bid opening and is not banned from bidding by the Department of Labor and Industries.
 - d. It is accompanied by a bid guarantee, if required.
 3. A bid will be considered responsible if it meets the following requirements:
 - a. It meets the mandatory responsibility criteria established in RCW 39.04.350
- D. The Owner reserves the right to accept or reject any or all bid proposals and to waive informalities.
- E. The determination of the low responsive bid shall be made by Owner based upon any combination of the base bid and alternates which, in Owner's sole discretion, is in Owner's best interest considering price, schedule and other factors. The numbering of the alternates in the Bid Forms bears no relationship to the order in which the alternates may be selected by Owner.

- F. The Owner may negotiate bid price adjustments with the low responsive bidder, including changes in the contract documents, to bring the bid within the available funding per RCW 39.04.015.

15. CONTRACT EXECUTION

- A. Bidder shall submit executed Contract, insurance certificate and bonds within 10 working days after receipt of the Contract form by bidder. If the successful bidder, upon acceptance of its bid by Owner within the period specified for acceptance, fails to execute all Contract Documents or give a bond and insurance as required within the time specified, Owner may reject the bid. The bid guarantee may be retained by Owner as liquidated damages, not as a penalty.
- B. The Contract will only become effective when signed by the Owner. Prior to the Owner's signature, any and all costs incurred shall be the sole responsibility of the Bidder.

16. PHILANTHROPIC PARTNERSHIP

- A. The successful bidder will be invited to work with the Owner's senior management to assist Owner in identifying potential charitable funding sources for programs and activities relating to the Project, such as named gift opportunities, student internships, scholarships, and equipment donation.

END OF DOCUMENT

000300 BID FORM

**STATE OF WASHINGTON
 FACILITIES MANAGEMENT DEPARTMENT
 CENTRAL WASHINGTON UNIVERSITY
 400 EAST UNIVERSITY WAY
 ELLENSBURG, WA 98926-
 7523**

SALES TAX: Do not include any Washington State Sales Tax in any amounts on this Bid form.

The undersigned, having carefully examined the Drawings, Specifications, and related documents, the site of the proposed Work, being familiar with all of the conditions relating to the Work of the proposed project, including the availability of materials and labor hereby proposes to furnish, within the requirements of the schedule for completion, all labor, supervision, materials, services, and equipment and warranties required for the construction of **Hydrogeologic Test Well Drilling** Project at Central Washington University, Ellensburg, Washington, and to perform all Work for the General Contract in accordance with the subject Bid Documents according to the following Bid Schedule:

Item No.	Description Estimated Quantity Units	Estimated Quantity	Units	Unit Price	Cost
1	Mobilization and Demobilization	1	Lump Sum		
2	Drill Minimum 24-Inch-Nominal-Diameter Borehole	600	Lineal Foot		
3	Provide and Install 20-Inch-Outside-Diameter Permanent Casing	602	Lineal Foot		
4	Place Formation Seal	864	Cubic Foot		
5	Drill 20-Inch-Nominal-Diameter Borehole	400	Lineal Foot		
6	Provide and Install 12.75-Inch-Outside-Diameter Blank Casing for Well Screen Assembly	335	Lineal Foot		
7	Provide and Install 12-Inch-Diameter (Pipe-Size) stainless steel well screen and packer	165	Lineal Foot		
8	Place Filter Pack	812	Cubic Foot		
9	Well Development	80	Hour		

10	Video Camera Inspection	1	Each		
11	Well and Equipment Disinfection	1	Lump Sum		
12	Provide and Install Test Pump and Discharge Piping System	1	Lump Sum		
13	Operate Test Pump and Discharge Piping System	76	Hour		
14	OWNER Pre-Authorized Rig Hourly Work	12	Hour		
Total Bid Amount					

DOLLARS

(Please print written total bid dollar amount in space above)

TRENCH EXCAVATION SAFETY PROVISIONS

If the contract contains any work which requires trenching exceeding a depth of four feet, all costs for adequate trench safety systems shall be identified as a separate bid item in compliance with Chapter 39.04 RCW. The purpose of this provision is to ensure that the bidder agrees to comply with all the relevant trench safety requirements of Chapter 49.17 RCW. This bid amount shall be considered as part of the total base bid set forth above. If trench excavation safety provisions do not pertain to this project, put N.A. for dollar amount. Failure to complete this requirement shall be considered as non-responsive to the bid solicitation.

Trench Excavation Safety Provisions Only: \$ _____

TIME FOR COMPLETION

The undersigned hereby agrees to substantially complete all the work under the Base Bid and accepted alternates not later than one hundred and fifty (150) calendar days after the date of Notice to Proceed and to finally complete all work within sixty (60) days following the date of Substantial Completion. Excluded from the 150 calendar day period is the time required for screen design, screen delivery, and filter pack procurement.

LIQUIDATED DAMAGES

The undersigned acknowledges and agrees to abide by all provisions of the "Liquidated Damages" section 3.07 of the General Conditions as it pertains to the Contractor for all work under this contract. The undersigned further agrees to pay the Owner as liquidated damages the sum of **\$994.00** for each consecutive calendar date that they fail to substantially complete work in the time specified in the contract documents.

ADDENDUM RECEIPT

Bidder acknowledges receipt, understanding and full consideration of the following addenda to the

Contract Documents:

Addendum No. _____ Date _____

Addendum No. _____ Date _____

Addendum No. _____ Date _____

BID SECURITY

Enclosed is a Bid Bond, certified check or cashier's check in the amount shown below which is at least 5% of the total bid.

_____ DOLLARS (\$ _____)

LABOR AND INDUSTRIES FEES

In compliance with WAC 296-127 Contractor(s) shall pay to the Department of Labor and Industries required fee with each Statement of Intent to Pay Prevailing Wages or Affidavit of Wages Paid submitted to that department for certification and these costs shall be included in his bid.

BID GUARANTEE

If written notice of acceptance of this bid is mailed, telegraphed or delivered to the undersigned within the time limit noted in the Instructions to Bidders sixty (60) calendar days after the date of bid opening, or any time thereafter before this bid is withdrawn, the undersigned will, within ten (10) days after the date of such mailing, telegraphing or delivering of such notice, execute and deliver a contract on the State of Washington Public Works Contract Forms to the Owner, together with satisfactory payment and performance bond in an amount equal to one hundred percent (100%) of the contract sum - base bid plus Owner accepted alternates (not including Washington State Sales Tax).

The undersigned hereby designates: _____
as his office, to which such notice of acceptance may be mailed or delivered.

Legal Name of Bidder _____

Signed By _____

Title _____

Street Address _____

City and State _____

Telephone _____

State of Washington Contractor's License Number

Federal Tax Identification Number (TIN)

License Expiration Date _____

The Firm represented by the above signature is:

Sole Proprietorship ___
 Partnership _____
 Corporation _____
 Other _____

State of Incorporation _____

CAUTION: Do not include any bids for other work in the envelope.

SUBCONTRACTOR LISTING – RCW 39.30.060

If the base bid and the sum of the additive alternates is one million dollars or more, the Bidder shall provide names of the subcontractors with whom the Bidder will directly subcontract for performance of the following work. If the Bidder intends to perform the work, the Bidder must enter its name for that category of work.

The Bidder shall not list more than one subcontractor for each category of work identified UNLESS subcontractors vary with bid alternates, in which case the Bidder must indicate which subcontractor will be used for which alternate.

Failure of the Bidder to submit the NAMES of such subcontractors or to name itself to perform such work shall render the Bidder’s bid nonresponsive and, therefore, VOID.

The undersigned certifies that if they are the successful bidder, they will utilize the following major Sub-Contractor firms for this project. Any revision to this list is to be approved by the Owner. If a specific trade or Sub-Contractor is not used write in “N.A.”

<u>DISCIPLINE</u>	<u>SUB-CONTRACTOR FIRM NAME</u>	<u>BASE BID DOLLAR AMOUNT</u>
Drilling	_____	\$ _____

In addition to those listed above, list all subcontractors and/or suppliers whose quoted price is 10% or more of the total basic bid

<u>DISCIPLINE</u>	<u>SUB-CONTRACTOR FIRM NAME</u>	<u>BASE BID DOLLAR AMOUNT</u>
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

Attach additional sheets as necessary

MINORITY AND WOMEN OWNED BUSINESS ENTERPRISE (MWBE) PARTICIPATION REQUIREMENTS

The following voluntary Minority, Women, Veteran-Owned and Small Business participation goals have been established for this construction project:

- Minority Business Enterprises: 10%
- Women's Business Enterprises: 6%
- Veteran-Owned Business: 5%
- Washington Small Business: 5%

These goals are voluntary, but achievement of the goals is encouraged. No preference will be included in the evaluation of bids/proposals, no minimum level of MWBE participation shall be required as a condition for receiving an award or completion of the contract work, and bids/proposals will not be rejected or considered non-responsive on that basis. Bidders may contact OMWBE at (866) 208-1064 to obtain information on certified firms. Bids must include the following information for University reporting purposes.

The undersigned, if they are the successful bidder, will use the following certified MBE and WBE firms towards meeting the voluntary goals of this project, in the amounts estimated below:

MINORITY-OWNED COMPANIES

MBE FIRM NAME	MBE CERTIFICATION# OR TAX ID#	AUTHORIZED CATEGORY OF WORK OR SIC CODE	\$ AMOUNT	PERCENT
_____	_____	_____	\$ _____	% _____
_____	_____	_____	\$ _____	% _____
_____	_____	_____	\$ _____	% _____
_____	_____	_____	\$ _____	% _____
TOTAL MINORITY BUSINESS PARTICIPATION			\$ _____	% _____

Attach additional sheets as necessary.

WBE FIRM NAME	WBE CERTIFICATION# OR TAX ID#	AUTHORIZED CATEGORY OF WORK OR SIC CODE	\$ AMOUNT	PERCENT
_____	_____	_____	\$ _____	% _____

			\$	%
			\$	%
			\$	%
TOTAL WOMEN BUSINESS PARTICIPATION			\$	%

WOMEN-OWNED COMPANIES

Attach additional sheets as necessary.

VETERAN-OWNED COMPANIES

VO FIRM NAME	VO CERTIFICATION# OR TAX ID#	AUTHORIZED CATEGORY OF WORK OR SIC CODE	\$ AMOUNT	PERCENT
			\$	%
			\$	%
			\$	%
			\$	%
TOTAL VETERAN-OWNED BUSINESS PARTICIPATION			\$	%

WASHINGTON SMALL BUSINESS OWNED COMPANIES

WSB FIRM NAME	WSB CERTIFICATION# OR TAX ID#	AUTHORIZED CATEGORY OF WORK OR SIC CODE	\$ AMOUNT	PERCENT
			\$	%
			\$	%
			\$	%
			\$	%
TOTAL WASHINGTON SMALL BUSINESS PARTICIPATION			\$	%

END OF BID FORM

**Central Washington University
Hydrogeologic Test Well Drilling**

Contract No: XXXXX-XX
Agency No: 375

THIS CONTRACT, made and entered into this _____ day of _____, by and between

Central Washington University

hereinafter referred to as the Owner, and

Contractor Name

hereinafter referred to as the Contractor, shall be the agreed basis of performing the Work identified herein.

FIRST: The Contractor agrees to furnish all material, labor, tools, equipment, apparatus, facilities, etc. necessary to perform and complete in a workmanship like manner the work called for in the Contract Documents entitled:

Project Name

and dated:

Date

Prepared by:

NAC Architecture

according to the terms of such Contract Documents which documents are incorporated herein by reference.

SECOND: Time for Completion:

The work will be a single project to be substantially complete **150** calendar days following the Notice to Proceed.

Final completion shall be achieved within **60** calendar days after the date of substantial completion.

The Contractor further agrees that, from the compensation otherwise to be paid, the Owner may retain the sum of \$500.00 for each calendar day thereafter that the work remains uncompleted, which sum is agreed upon as the liquidated damages which the Owner will sustain in case of the failure of the Contractor to achieve Substantial Completion at the time stipulated in the Contract Documents, and this sum is not to be construed as in any sense a penalty.

THIRD: In consideration of the Contracts, herein contained on the part of the Contractor, the Owner hereby agrees to pay the Contractor for said work completed according to the Contract Documents, the sum of _____ dollars

(\$ _____ not including State Sales Tax and consisting of the following:

Basic Bid = \$ _____

Alternate(s) (Taken) = \$ _____

TOTAL CONTRACT AMOUNT = \$ _____

This Contract shall be construed and governed by the laws and statutes of the State of Washington.

IN WITNESS WHEREOF: The Owner, Central Washington University, has caused this Contract to be subscribed in its behalf, and the Contractor has signed this Contract.

OWNER:

CONTRACTOR:

Central Washington University
400 East University Way
Ellensburg, WA 98926

Name _____
Street Address _____
City, State Zip Code _____

By: _____
Joel Klucking

By: _____

Title: Senior VP Finance & Administration

Title: _____

Date: _____

Date: _____

State of Washington Contractor's License Number

Federal Tax Identification Number (TIN)

UBI Number (Unified Business Number)

APPROVED AS TO FORM:

Assistant Attorney General

000501 INSURANCE REQUIREMENTS

- A. For Insurance requirements refer to the General Conditions and the Supplemental Conditions to the General Conditions and the Modifications to General Conditions
- B. Insurance Company and the authorized agent shall be licensed with the Washington State Insurance Commissioner per Title 48 of the RCW.
- C. The State may accept a firm to be self-insured if it receives acceptable (1) current financial statement, (2) irrevocable letter of credit for contract amount, (3) project "work in process" schedule with contract values, (4) if "stop loss" involved, limit amount, (5) if Third Party Administrator, who and (6) a current Dunn and Bradstreet Report cost of which to be borne by the Contractor.
- D. Complete the enclosed Endorsement Form #RM-100 attach to the insurance certificate.
- E. Name and address of certificate holder shall be listed as:

State of Washington
Central Washington University 400 East University Way
Ellensburg, Washington 98926-7480



CERTIFICATE OF INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY.
THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE
COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED (Legal name and business address)	CERTIFICATE HOLDER: STATE OF WASHINGTON	<u>CONTRACT NUMBER:</u>
	DEPT. OF GENERAL ADMINISTRATION	DATE ISSUED:
	DIVISION OF E&A SERVICES	
	206 GENERAL ADMINISTRATION BUILDING OLYMPIA, WASHINGTON 98504-1012	

PROJECT DESCRIPTION / LOCATIONS / VEHICLES / RESTRICTIONS / SPECIAL ITEMS:

This is to certify that policies of Insurance listed below have been issued to the Insured named above for the policy period indicated.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	Date Policy Effective (MM/DD/YY)	Date Policy Expires (MM/DD/YY)	ALL LIMITS IN THOUSANDS	
	GENERAL LIABILITY <input type="checkbox"/> Commercial General Liability <input type="checkbox"/> Claims Made <input type="checkbox"/> Occurrence <input type="checkbox"/> Owner's & Contractors Protection Deductible \$ _____				General Aggregate	\$ _____
					Products Comp/Ops Aggregate	\$ _____
					Personal & Advertising Injury	\$ _____
					Each Occurrence	\$ _____
					Fire Damage (Any One Fire)	\$ _____
					Medical Expense (Any One Person)	\$ _____
	AUTOMOBILE LIABILITY <input type="checkbox"/> Any Auto <input type="checkbox"/> All Owned Autos <input type="checkbox"/> Scheduled Autos <input type="checkbox"/> Hired Autos <input type="checkbox"/> Non-Owned Autos <input type="checkbox"/> Garage Liability Deductible \$ _____				CSL	\$ _____
					Bodily Injury (per person)	\$ _____
					Bodily Injury (per accident)	\$ _____
					Property Damage	\$ _____
	EXCESS LIABILITY <input type="checkbox"/> Other Than Umbrella Form				Each Occurrence	Aggregate
					\$ _____	\$ _____
	WORKERS COMPENSATION AND EMPLOYER'S LIABILITY				STATUTORY \$ _____ (Each Accident) \$ _____ (Disease Policy Limit) \$ _____ (Disease-Each Employee)	
	OTHER					

ADDITIONAL PROVISIONS

The State of Washington is included as additional insured as related to the above mentioned project.
Should any of the above described policies be cancelled before the expiration date thereof, the issuing Company must deliver or mail not less than a 45 days written notice to the above Certificate Holder, per RCW 48.18.290

COMPANIES AFFORDING COVERAGE		ISSUING COMPANY, AGENT OR REPRESENTATIVE	
NOTE: Attach a separate sheet to this certificate giving all the company names and their percentage of coverage, if clarification is needed,		NAME:	
Company Letter		ADDRESS:	
		Authorized Signature	
		Title	
		Signature Date	
		Signee Name	
E	Telephone No.		

000503 INSURANCE ENDORSEMENT FORM RM-100

Attached to and forming part of Policy No. _____

of the (Insurance Co.) _____

Issued to (Insured) _____

Agency at _____

Policy period from _____ to _____

RE: CWU CONTRACT NO. XXXXX-XX

1. Subject to all terms, exclusions and conditions contained in the policy, this insurance insures against claims and liabilities that may arise out of or in connection with the performance of Work or the providing of any goods or Services for the State of Washington by the insured, and the insured's liability for claims arising out of the performance of Work of providing Goods or Services by the insured's suppliers or subcontractors.
2. State of Washington, its commissions and boards and employees acting within the scope of their employment are named as additional insured under this policy with respect to claims and liabilities arising out of or in connection with the performance of Work or the providing of any Goods or Services by the insured and the insured's liability for claims arising out of or in connection with the performance by the insured's suppliers or subcontractors.
3. This insurance is primary insurance with respect to the interest of each of the additional insured appearing in 2 above and any other insurance maintained by any of such additional insured in excess and not contributory with this insurance.
4. Any failure of any named insured under this policy to report a claim under this policy shall not in any way prejudice the rights to coverage by this policy of any additional insured appearing in 2 above.
5. Subject to all terms, exclusions and conditions contained in the policy, this insurance insures against liabilities (including, but not limited to, those arising out of within the purview of the indemnification and hold harmless provisions) assumed by the insured in connection with the Work or providing Goods & Services.
6. This policy may not be terminated prior to the policy expiration date, canceled or materially altered (including, without limitation, any reduction of coverage) without giving forty five (45) days prior written notice of such termination, cancellation, or alteration to the Department of the State of Washington granting the contract to provide Work, Goods, or Services. (Central Washington University, Business Services and Contracts, Ellensburg, Washington 98926-7474).

All other terms and conditions of the policy remain unchanged.

Date _____

(Name of Insurance
Company)

(Authorized
Representative)

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

Part 1

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GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

Part 1

PART 1 - GENERAL PROVISIONS

1.01 DEFINITIONS

- A. "Application for Payment" means 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," "Engineer," or "A/E" means a person or entity lawfully entitled to practice architecture or engineering, representing Owner within the limits of its delegated authority.
- C. "Change Order" means 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" means 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 part 8.
- E. "Contract Award Amount" is the sum of the Base Bid and any accepted Alternates.
- F. "Contract Documents" means the Advertisement for Bids, Instructions for 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.
- G. "Contract Sum" is the total amount payable by Owner to Contractor for performance of the Work in accordance with the Contract Documents.
- H. "Contract Time" is the number of calendar days allotted in the Contract Documents for achieving Substantial Completion of the Work.
- I. "Contractor" means the person or entity who has agreed with Owner to perform the Work in accordance with the Contract Documents.
- J. "Drawings" are 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.
- K. "Final Acceptance" means the written acceptance issued to Contractor by Owner after Contractor has completed the requirements of the Contract Documents.
- L. "Final Completion" means that the Work is fully and finally completed in accordance with the Contract Documents.
- M. "Force Majeure" means those acts entitling Contractor to request an equitable adjustment in the Contract Time, as more fully set forth in paragraph 3.05A.
- N. "Notice" means a written notice which 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.
- O. "Notice to Proceed" means a notice from Owner to Contractor that defines the date on which the Contract Time begins to run.
- P. "Owner" means 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.
- Q. "Person" means a corporation, partnership, business association of any kind, trust, company, or individual.
- R. "Prior Occupancy" means Owner's use of all or parts of the Project before Substantial Completion.

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

Part 1

S. "Progress Schedule" means a schedule of the Work, in a form satisfactory to Owner, as further set forth in section 3.02.

T. "Project" means 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.

U. "Project Manual" means the volume usually assembled for the Work which may include the bidding requirements, sample forms, and other Contract Documents.

V. "Project Record" means the separate set of Drawings and Specifications as further set forth in paragraph 4.02A.

W. "Schedule of Values" means a written breakdown allocating the total Contract Sum to each principle category of Work, in such detail as requested by Owner.

X. "Specifications" are 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.

Y. "Subcontract" means a contract entered into by Subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind for or in connection with the Work.

Z. "Subcontractor" means any person, other than Contractor, who agrees to furnish or furnishes any supplies, materials, equipment, or services of any kind in connection with the Work.

AA. "Substantial Completion" means 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 6.07.

AB. "Work" means 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.

1.02 ORDER OF PRECEDENCE

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

1. Signed Public Works Contract, including any Change Orders, and any Special Forms.
2. Supplemental Conditions.
3. Modifications to the General Conditions.
4. General Conditions.
5. Specifications--provisions in Division 1 shall take precedence over provisions of any other Division.
6. Drawings--in case of conflict within the Drawings, large scale drawings shall take precedence over small scale drawings.
7. Signed and Completed Form of Proposal.
8. Instructions to Bidders.
9. Advertisement for Bids.

1.03 EXECUTION AND INTENT

Contractor makes the following representations to Owner:

1. 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;
2. 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, the labor, materials, equipment, goods, supplies, work, 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;

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

Part 1

3. 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; and
4. Contractor is able to furnish the plant, tools, materials, supplies, equipment and labor required to complete the Work and perform the obligations required by the Contract Documents and has sufficient experience and competence to do so.

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

PART 2 - INSURANCE AND BONDS

2.01 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 part 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 bond costs required to complete the base bid work and accepted alternates. Insurance carriers providing insurance in accordance with the Contract Documents shall be acceptable to Owner, and its A. M. Best rating shall be indicated on the insurance certificates.

- A. Contractor shall maintain the following insurance coverage during the Work and for one year after Final Acceptance. Contractor shall also maintain the following insurance coverage during the performance of any corrective Work required by section 5.17.
 - 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; and
 - 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.

2.02 COVERAGE LIMITS

The coverage limits shall be as follows:

- A. Limits of Liability shall not be less than \$1,000,000 Combined Single Limit for Bodily Injury and Property Damage (other than Automobile liability) Each Occurrence; Personal Injury and Advertising Liability Each Occurrence.
- B. \$2,000,000 Combined Single Limit Annual General Aggregate.
- C. \$2,000,000 Annual Aggregate for Products and Completed Operations Liability.
- D. \$1,000,000 Combined Single Limit for Automobile Bodily Injury and Property Damage Liability, Each Accident or Loss.

2.03 INSURANCE COVERAGE CERTIFICATES

- A. Prior to commencement of the Work, Contractor shall furnish to Owner a completed certificate of insurance coverage.
- 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.

2.04 PAYMENT AND PERFORMANCE BONDS

Payment and performance bonds for 100% of the Contract Sum, including all Change Orders and state sales tax, shall be furnished for the Work, and shall be in a form acceptable to the Owner. No payment or performance bond is required if the Contract Sum is \$25,000 or less and Contractor agrees that Owner may, in lieu of the bond, retain 50% of the Contract Sum for the period allowed by RCW 39.08.010.

Part 2

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

2.05 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.

2.06 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 Substantial 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/E's 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/E's subconsultants, separate contractors described in section 5.20, 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 2

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

PART 3 - TIME AND SCHEDULE

3.01 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.

3.02 CONSTRUCTION SCHEDULE

- A. Unless otherwise provided in Division 1, Contractor shall, within 14 days after issuance of the Notice to Proceed, submit a preliminary Progress Schedule. The Progress Schedule shall show the sequence in which Contractor proposes to perform the Work, and the dates on which Contractor plans to start and finish major portions of the Work, including dates for shop drawings and other submittals, and for acquiring materials and equipment.
- B. Unless otherwise provided in Division 1, The Progress Schedule shall be in the form of a bar chart, or a critical path method analysis, as specified by Owner. The preliminary Progress Schedule may be general, showing the major portions of the Work, with a more detailed Progress Schedule submitted as directed by Owner.
- C. Owner shall return comments on the preliminary Progress 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 a portion of progress payments until a Progress Schedule has been submitted which meets the requirements of this section.
- D. Contractor shall utilize and comply with the Progress Schedule. On a monthly basis, or as otherwise directed by Owner, Contractor shall submit an updated Progress Schedule at its own expense to Owner indicating actual progress. If, in the opinion of Owner, Contractor is not in conformance with the Progress Schedule for reasons other than acts of Force Majeure as

identified in section 3.05, Contractor shall take such steps as are necessary to bring the actual completion dates of its work activities into conformance with the Progress Schedule, or revise the Progress Schedule to reconcile with the actual progress of the Work.

- E. Contractor shall promptly notify Owner in writing of any actual or anticipated event which 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 Progress 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.

3.03 OWNER'S RIGHT TO SUSPEND THE WORK FOR CONVENIENCE

- A. Owner may, at its sole discretion, order 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 part 9.
- C. If a written notice suspending the Work is cancelled or the period of the notice or any extension thereof expires, Contractor shall resume Work.
- D. Contractor shall be entitled to an equitable adjustment in the Contract Time, or Contract

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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 part 7.

3.04 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 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.

3.05 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 which could not have been reasonably anticipated; and
 - 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 7.03. 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 7.02 and 7.03.
- 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 7.03, 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.

3.06 NOTICE TO OWNER OF LABOR DISPUTES

- A. 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.
- B. 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

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Subcontractor or Contractor, as the case may be, of all relevant information concerning the dispute.

3.07 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.

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- PART 4 - SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS
- F. Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the A/E.
- 4.01 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.
- 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 reasonably 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 and is within the scope of the Contract Documents even if the Contract Documents do not mention them specifically.
- 4.02 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.
- 4.03 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. 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

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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 which 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,

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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 upon the Project Record.

- E. Unless otherwise provided in Division I, Contractor shall submit to A/E for approval 5 copies of all Shop Drawings. Unless otherwise indicated, 3 sets of all Shop Drawings shall be retained by A/E and 2 sets shall be returned to Contractor.

4.04 ORGANIZATION OF SPECIFICATIONS

Specifications are prepared in sections which 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.

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

- A. The 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 and A/E. Contractor and Subcontractors are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications, and other

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documents prepared by A/E appropriate to and for use in the execution of their Work.

- C. Contractor and all Subcontractors grant a non-exclusive 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. Contractor agrees to defend and indemnify Owner pursuant to the indemnity provisions in section 5.23 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.
- D. The Shop Drawings and other submittals prepared by Contractor, Subcontractors of any tier, 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 of any tier, or material or equipment supplier, 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.

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PART 5 - PERFORMANCE

5.01 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.
- 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 which 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 Ethics in Public Service Act RCW 42.52, 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.

5.02 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.

5.03 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.

5.04 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. The schedule of prevailing wage rates

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for the locality or localities of the Work, is determined by the Industrial Statistician of the Department of Labor and Industries. It is the Contractor's responsibility to verify the applicable prevailing wage rate.

- B. Before commencing the Work, Contractor shall file a statement under oath with Owner and with the Director of Labor and Industries 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.
- C. Disputes regarding prevailing wage rates shall be referred for arbitration to the Director of the Department of Labor and Industries. 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.
- D. Each Application for Payment submitted by Contractor shall state that prevailing wages have been paid in accordance with the prefiled 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 the Department of Labor and Industries where a complaint or inquiry concerning prevailing wages may be made.
- E. In compliance with chapter 296-127 WAC, Contractor shall pay to the Department of Labor and Industries the currently established fee(s) for each statement of intent and/or affidavit of wages paid submitted to the Department of Labor and Industries for certification.

5.05 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 eight 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 eight hours of each calendar day shall be not less than one and one-half times the rate allowed for this same amount of time during eight hours' 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 ten hours in a calendar day. No such agreement may provide that the employees work ten-hour days for more than four 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 forty hours per week, worked pursuant to any such agreement.

5.06 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, Executive Order 11375, 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, 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.

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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, 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.
 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.
- 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; and
 - c. The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and material safety data sheets 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;
 - 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

5.07 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 on site or stored off-site; 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.

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chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and

- d. The details of the hazard communications program developed by Contractor, or its Subcontractors, including an explanation of the labeling system and the material safety data sheet, 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 which 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.

5.08 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS

A. Contractor shall confine all operations, including storage of materials, to Owner-approved areas.

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

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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.

5.09 PRIOR NOTICE OF EXCAVATION

- A. "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 or utilities, through locator services.

5.10 UNFORESEEN 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 and in no event later than 7 days after the first observance of

the conditions. Conditions shall not be disturbed prior to such notice.

- 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 therefor as provided in part 7.

5.11 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, 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.

5.12 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.
- B. Contractor shall lay out the Work from Owner-established baselines and bench marks indicated on the Drawings, and shall be responsible for all field measurements in connection with the layout. Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the Work. Contractor shall be responsible for executing the Work to the lines and grades that may be established. Contractor shall be responsible for maintaining or restoring all stakes and other marks established.

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5.13 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. 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.
- C. 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.

5.14 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.
- 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 the date of Final Acceptance, Contractor shall remove all temporary connections, distribution lines, meters, and associated equipment and materials.

5.15 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; or
 - 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.

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- C. 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.
- D. 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 reinspection or retest necessary. Owner shall perform its inspections and tests in a manner that will cause no undue delay in the Work.

5.16 CORRECTION OF NONCONFORMING WORK

- A. If a portion of the Work is covered contrary to the requirements in 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, at any time prior to Final Completion, Owner desires to examine the Work, or any portion of it, which 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 therefor as provided in part 7. 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

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shall bear all costs of correcting such nonconforming Work, including additional testing and inspections.

- D. If, within one year after the date of Substantial Completion of the Work or designated portion thereof, or within one year after the date for commencement of any system warranties established under section 6.08, 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 one 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 one 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 which are not in accordance with the requirements of the Contract Documents and are neither corrected by Contractor nor accepted by Owner.
- 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 which Contractor might have according to the Contract Documents. Establishment of the time period of one year as described in paragraph 5.16D 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

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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 which 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.

5.17 CLEAN UP

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.

5.18 ACCESS TO WORK

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

5.19 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 with Owner's employees and shall carefully adapt scheduling and perform the Work in accordance with these Contract Documents to reasonably accommodate the other work.

5.20 SUBCONTRACTORS AND SUPPLIERS

- A. Before submitting the 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

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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.

- 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 9.01 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 which Contractor assumed in the Subcontract.
 - 3. The assignment is subject to the prior rights of the surety, if any, obligated under any bond

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provided in accordance with the Contract Documents.

5.21 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; and
 - 4. Be responsible to enforce any subcontractor's, manufacturer's, 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.

5.22 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; and

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.

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PART 6 - PAYMENTS AND COMPLETION

6.01 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.

6.02 SCHEDULE OF VALUES

Before submitting its first Application for Payment, 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, O&M 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.

6.03 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 1.03 are true and correct, to the best of Contractor's knowledge, as of the date of the Application for Payment.
- C. At the time it submits an Application for Payment, Contractor shall analyze and reconcile, to the satisfaction of Owner, the actual progress of the Work with the Progress 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 a 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. Contractor and its surety assume total responsibility for the stored materials; and
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.

6.04 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

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Application for Payment does not comply with the requirements of the Contract Documents.

- B. Owner shall retain 5% of the amount of each progress payment until 45 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. 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.
- D. Payments due and unpaid in accordance with the Contract Documents shall bear interest as specified in RCW 39.76.

6.05 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 5.17;

4. Failure to perform in accordance with the Contract Documents; or
 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.

6.06 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.

6.07 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 be 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.

6.08 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;

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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 of or damage to the Work resulting from Prior Occupancy. Contractor's one 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.

6.09 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 part 8.

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PART 7 - CHANGES

7.01 CHANGE 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 7.02 or 7.03, respectively, and such adjustment(s) shall be incorporated into a Change Order.
- 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 7.02 and 7.03, 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 part 8.

7.02 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: 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 3.05.
 - 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

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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 of any tier, 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 the 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 7.03C. 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.
- 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 paragraph 7.02B.
 - b. By application of unit prices to the quantities of the items involved as determined in paragraph 7.02C.
 - c. On the basis of time and material as determined in paragraph 7.02D.
 - 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

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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, material, 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 upon 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;
 - b. lump sum material;
 - c. lump sum equipment usage;
 - d. overhead and profit as set forth below; and
 - 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 Department of Labor and Industries approved "statement of intent to pay prevailing wages." Direct supervision shall be a reasonable percentage not to exceed 15% of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours.
 - (2) Worker's insurance: Direct contributions to the state of Washington for industrial

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insurance; medical aid; and supplemental pension, by the class and rates established by the Department of Labor and Industries.

- (3) Federal insurance: Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.
 - (4) 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.
 - (5) Safety: Cost incurred due to the Washington Industrial Safety and Health Act, which shall be a reasonable percentage not to exceed 2% of the sum of the amounts calculated in (1), (2), and (3) above.
- 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 first from actual known costs, second from supplier quotations or if these are not available, from standard industry pricing guides. Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges, shall be itemized.
- 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

computed on the basis of actual invoice costs or if owned, from the current edition of one of the following sources:

- (1) Associated General Contractors - Washington State Department of Transportation (AGC WSDOT) Equipment Rental Agreement; 1987 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.

The Data Quest Rental Rate (Blue Book) 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 that shown in the AGC WSDOT Equipment Rental Agreement, 1987 edition.

- d. Allowance for small tools, expendables & consumable supplies: Small tools consist of tools which 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% of direct labor costs.
 - (2) For Subcontractors, 5% 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

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Subcontractors' cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.

- f. Allowance for overhead: 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 in the Contract Sum but not to the cost of any change in the Contract Time for which contractor has been compensated pursuant to the conditions set forth in Section 7.03. This allowance shall compensate Contractor for all noncraft labor, temporary construction facilities, field engineering, schedule updating, as-built drawings, home office cost, B&O 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 rates below:

(1). For projects where the Contract Award Amount is under \$3 million, the following shall apply:

- (a) For Contractor, for any Work actually performed by Contractor's own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
- (b) For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
- (c) For Contractor, for any work performed by its Subcontractor(s), 6% of the first \$50,000 of the amount due each Subcontractor, and 4% of the remaining amount if any.

- (d) For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first \$50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.
- (e) The cost to which overhead is to be applied shall be determined in accordance with subparagraphs a.-e. above.

(2). For projects where the Contract Award Amount is equal to or exceeds \$3 million, the following shall apply:

- (a) For Contractor, for any Work actually performed by Contractor's own forces, 12% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
- (b) For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 12% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
- (c) For Contractor, for any Work performed by its Subcontractor(s), 4% of the first \$50,000 of the amount due each Subcontractor, and 2% of the remaining amount if any.
- (d) For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first \$50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.
- (e) The cost to which overhead is to be applied shall be determined in accordance with subparagraphs a.- e. above.

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- g. Allowance for profit: This is an amount to be added to the cost of any change in

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

contract sum, but not to the cost of change in Contract Time for which contractor has been compensated pursuant to the conditions set forth in section 7.03. It shall be limited to a reasonable amount, mutually acceptable, or if none can be agreed upon, to an amount not to exceed the rates below:

- (1) For Contractor or Subcontractor of any tier for work performed by their forces, 6% of the cost developed in accordance with 7.02 b. 7a.- e. above.
 - (2) For Contractor or Subcontractor of any tier for work performed by a subcontractor of a lower tier, 4% of the Subcontractor cost developed in accordance with 7.02 b. 7a. - h.
- h. 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: 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 allowance for profit are calculated in accordance with subparagraph f. and g. 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;
 - b. Type of reimbursement including pre-agreed rates for material quantities; and

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; and
 - c. Not exceed any cost limit(s) without Owner's prior written approval.
3. Contractor shall submit costs in accordance with paragraph 7.02B. 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; and
 - 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; and
 - 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 time sheets all labor performed in accordance with this

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authorization. Submit copies of daily time sheets 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; and
- e. Not exceed any cost limit(s) without Owner's prior written approval.

3. Contractor shall submit costs in accordance with paragraph 7.02B and additional verification supported by:

- a. Labor detailed on daily time sheets; and
- b. Invoices for material.

7.03 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 record and if requested,

shall promptly furnish copies of such record 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 subparagraph 7.03B.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.

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.

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C. Any change in the Contract Time covered by a Change Order, or based on a request for an

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

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 Progress 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 resequencing of the Work or other reasonable alternatives.

delay;

- e. general and administrative overhead in an amount to be agreed upon, but not to exceed 3% of Contract Sum divided by the Contract Time for each day of the delay.

D. Contractor may request compensation for the cost of a change in Contract Time in accordance with this paragraph, 7.03D, 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 7.02;
3. Contractor shall follow the procedure set forth in paragraph 7.03B;
4. Contractor shall establish the extent of the change in Contract Time in accordance with paragraph 7.03C; and
5. The daily cost of any change in Contract Time shall be limited to the items below, less funds that may have been paid pursuant to a change in the Contract Sum that contributed to this change in Contract Time:

- a. cost of nonproductive field supervision or
- b. cost of weekly meetings or similar indirect activities extended because of the
- c. cost of temporary facilities or equipment rental extended because of the delay;

labor extended because of the delay;

delay;

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- d. cost of insurance extended because of the

PART 8 - CLAIMS AND DISPUTE RESOLUTION

8.01 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 7.01, or on the resolution of any request for an equitable adjustment in the Contract Sum as provided in section 7.02 or the Contract Time as provided in section 7.03, 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 either paragraph 7.01E 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 which 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 Progress

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 7.02; and
- 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.
- D. After Contractor has submitted a fully documented Claim that complies with all applicable provisions of parts 7 and 8, 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 8.02.
- F. Any Claim of the Contractor against the Owner for damages, additional compensation, or additional time, shall be conclusively deemed to have been

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waived by the Contractor unless timely made in accordance with the requirements of this section.

8.02 ARBITRATION

- A. If Contractor disagrees with Owner's decision rendered in accordance with paragraph 8.01D, 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.
- 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

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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.

8.03 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 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;

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13. Cancelled checks (payroll and vendors);
14. Job cost report, including monthly totals;
15. Job payroll ledger;
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 nonprivileged 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. Work sheets 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, the hours for the individuals, and the rates for the individuals; and
24. Work sheets, software, and all other documents used by Contractor to prepare its bid.

hours. Contractor, and all Subcontractors, shall make a good faith effort to cooperate with Owner's auditors.

- 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

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GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

Part 9

PART 9 - TERMINATION OF THE WORK

9.01 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;
 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; or
 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 5.21; and

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 paragraph 9.02B, 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 paragraph 9.01A exist, then such termination shall be deemed a termination for convenience pursuant to section 9.02.

9.02 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.
- 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,

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

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 right, 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; and
 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, plus 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 part 7.
- D. If Owner terminates the Work or any portion thereof for convenience, the Contract Time shall be adjusted as determined by Owner.

GENERAL CONDITIONS FOR WASHINGTON STATE FACILITY CONSTRUCTION

PART 10 - MISCELLANEOUS PROVISIONS

10.01 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 the county in which Owner's principal place of business is located, unless otherwise specified.

10.02 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.

10.03 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 to 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 required to complete the installation.

10.04 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.

10.05 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.

10.06 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.

10.07 RECORDS RETENTION

The wage, payroll, and cost records of Contractor, and its Subcontractors, and all records subject to audit in accordance with section 8.03, shall be retained for a period of not less than 6 years after the date of Final Acceptance.

10.08 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.

10.09 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 which result from antitrust violations commencing after the Contract Sum is established and which 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.

SUPPLEMENTAL CONDITIONS
FOR WASHINGTON STATE FACILITIES CONSTRUCTION
(Paragraphs keyed to the State's General Conditions)

2.02 Replaces Section 2.02 – COVERAGE LIMITS INSURANCE COVERAGE CERTIFICATES

A. Insurance Coverage Certificates

The Contractor shall furnish acceptable proof of insurance coverage on the State of Washington Certificate of Insurance form SF500A, dated 07/02/92.

B. Required Coverages

1. For a contract less than \$100,000.00, the coverage required is:

- a. Public 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. 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 Limit	\$1,000,000.00
Personal and Advertising Injury Limit	\$1,000,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expense Limit (any one person)	\$5,000.00

- b. If the contract is for underground utility work, then 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	\$2,500,000.00
General Aggregate Limits (other than products – commercial operations)	\$5,000,000.00
Products – Commercial Operations limit	\$5,000,000.00
Personal and Advertising Injury Limit	\$2,500,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expense 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.
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 Environmental Impairment 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 one year following the project’s “final completion” through official completion of the project, plus one year following.
- b. 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.

2.04 AIA Payment Bond and Performance Bond forms A312 are required by the Owner for the work of this contract. These forms must be obtained from the Contractor’s bonding company. The Payment Bond shall cover payment to laborers and mechanics, including payments to

Employee Benefit Funds, and payments to subcontractors, material suppliers, and persons who shall supply such person or persons, or subcontractors with materials and supplies.

2.06 Builder's Risk – Add the following at the end of paragraph 2.06 A: “For projects not involving New Building Construction, ‘Installation Floater’ is an acceptable substitute for the Builder’s Risk Insurance.”

3.02 Replaces Section 3.02 B – CONSTRUCTION SCHEDULE

B. The Progress Schedule shall be in the form of a Critical Path Method (CPM) logic network or, with the approval of the Owner, a bar chart schedule may be submitted. The scheduling of construction is the responsibility of the Contractor and is included in the contract to assure adequate planning and execution of the work. The schedule will be used to evaluate progress of the work for payment based on the Schedule of Values. The schedule shall show the Contractor’s planned order and interdependence of activities, and sequence of work. As a minimum the schedule shall include:

- Date of Notice to Proceed;
- Activities (resources, durations, individual responsible for activity, early starts, late starts, early finishes, late finishes, etc.);
- Utility Shutdowns;
- Interrelationships and dependence of activities;
- Planned vs. actual status for each activity;
- Substantial completion;
- Punch list;
- Final inspection;
- Final completion, and
- Float time

The Schedule Duration shall be based on the Contract Time of Completion listed on the Bid Proposal form. The Owner shall not be obligated to accept any Early Completion Schedule suggested by the Contractor. The Contract Time for Completion shall establish the Schedule Completion Date.

If the Contractor feels that the work can be completed in less than the Specified Contract Time, then the Surplus Time shall be considered Project Float. This Float time shall be shown on the Project Schedule. It shall be available to accommodate changes in the work and unforeseen conditions.

Neither the Contractor nor the Owner have exclusive right to this Float Time. It belongs to the project.

3.06 Replaces Section 3.05 A.6 – DELAY

Unusually severe weather, in excess of weather conditions experienced within the area any time in the preceding ten years:

- A. Monthly rainfall in excess of the highest monthly rainfall experienced for the same month.
- B. Annual rainfall in excess of the highest annual rainfall experienced.
- C. Monthly snowfall in excess of the highest monthly snowfall experienced for the same month.
- D. Annual snowfall in excess of the highest annual snowfall experienced.
- E. Average high temperatures, for the summer months, in excess of the highest temperatures experienced.
- F. Average low temperatures for the winter months, lower than the lowest average temperatures experienced.

5.02 Replaces Section 5.02 B – PERMITS, FEES AND NOTICES

- B. The actual cost of the general building permit (only) and the public utility hook-up fees will be a direct reimbursement to the Contractor or paid ***directly to the permitting agency by the Owner. Fees for these permits should not be included by the Contractor in his bid amount.***

5.04 Add New Paragraph F – PREVAILING WAGES

Copies of approved Intents to Pay Prevailing Wages for the Contractor and all subcontractors shall be submitted with the Contractor's first application for payment. As additional subcontractors perform work on the project, their approved Intent forms shall be submitted with the Contractor's next application for payment.

The Contractor and all subcontractors shall promptly submit to the Owner certified payroll copies if requested.

5.20 Replace Paragraph A – SUBCONTRACTORS AND SUPPLIERS

- A. Before submitting the first Application for Payment, Contractor shall furnish in writing to Owner on Owner provided form(s) the names, addresses, telephone numbers, and Tax Identification Numbers (TIN) of all subcontractors, as well as suppliers providing materials in excess of \$2,500.00. The Contractor shall designate whether any of the subcontractors/suppliers are MWBE firms, and indicate the anticipated dollar value of each MWBE subcontract. 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.

7.01 Add Paragraph F – CHANGE IN THE WORK

- F. 1. The Field Authorization (FA) is executed as a directive to proceed with work when the processing time for an approved change order would impact the project.

2. A scope of work must be defined, a maximum not to exceed cost agreed upon, and any estimated modification to the contract completion time determined. The method of final cost verification must be noted and supporting cost data must be submitted in accordance with the requirements of Part 7 of the General Conditions. Upon satisfactory submittal and approval of supporting cost data, the completed FA will be processed into a change order. No payment will be made to the Contractor for FA work until that FA is converted to a Change Order.

10.10 Add Part 10.10 – MINORITY AND WOMEN’S BUSINESS ENTERPRISES (MWBE) PARTICIPATION

In Accordance with the legislative findings and policies set forth in Chapter 39.19 RCW the State of Washington encourages participation in all of its contracts by MWBE firms certified by the Office of Minority and Women’s Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this solicitation or as a subcontractor to a Bidder. However, unless required by federal statutes, regulations, grants, or contract terms referenced in the contract documents, no preference will be included in the evaluation of bids, no minimum level of MWBE participation shall be required as a condition for receiving an award, and bids will not be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the contract documents will apply. Bidders may contact OMWBE to obtain information on certified firms for potential subcontractors/suppliers.

- A. When referred to in this Contract, the terms Minority Business Enterprise (MBE) and Women’s Business Enterprise (WBE) will be as defined by OMWBE, WAC 326-02-030.
- B. The OMWBE has compiled a directory of certified firms. Copies of this directory may be obtained through the OMWBE. For information regarding the certification process or the certification status of a particular firm, contact:

The OMWBE, 406 South Water, P.O. Box 41160, Olympia, Washington 98504-1160, telephone (360) 753-9693.

- C. Eligible MWBEs

All MWBE firms utilized for this project for voluntary MWBE goals must be certified by Washington State OMWBE.

- D. MWBE Voluntary Goals

The Owner has established voluntary goals for MWBE participation for this project. The voluntary goals are set forth in the Advertisement for Bids.

- E. If any part of the contract, including the supply of materials and equipment, is anticipated to be subcontracted, then prior to receipt of the first payment, Contractor shall submit, pursuant to Section 5.20 A, a list of all subcontractors/suppliers it intends to use, designate whether

any of the subcontractors/suppliers are MWBE firms, indicate the anticipated dollar value of each MWBE subcontract, and provide Tax Identification Number (TIN).

- F. If any part of the contract, including the supply of materials and equipment is actually subcontracted during completion of the work, then prior to final acceptance or completion of the contract or as otherwise indicated in the contract documents, the Contractor shall submit a statement of participation indicating what MWBEs were used and the dollar value of their subcontracts.
- G. The provisions of this section are not intended to replace or otherwise change the requirements of RCW 39.30.060. If said statute is applicable to this contract then the failure to comply with RCW 39.30.060 will still render a bid non-responsive.
- H. The Contractor shall maintain, for at least three years after completion of this contract, relevant records and information necessary to document the level of utilization of MWBEs and other businesses as subcontractors and suppliers in this contract, as well as any efforts the Contractor makes to increase the participation of MWBEs as listed in section I below. The Contractor shall also maintain, for at least three years after completion of this contract, a record of all quotes, bids, estimates, or proposals submitted to the Contractor by all businesses seeking to participate as subcontractors or suppliers in this contract. The state shall have the right to inspect and copy such records. If this contract involves federal funds, Contractor shall comply with all record keeping requirements set forth in any federal rules, regulations or statutes included or referenced in the contract documents.
- I. Bidders shall advertise opportunities for subcontractors or suppliers in a manner reasonably designed to provide MWBEs capable of performing the work with timely notice of such opportunities, and all advertisements shall include a provision encouraging participation by MWBE firms. Advertising may be done through general advertisements (e.g. newspapers, journals, etc.) or by soliciting bids directly from MWBEs. Bidders shall provide MWBEs that express interest with adequate and timely information about plans, specifications, and requirements of the contract.
- J. Contractors shall not create barriers to open and fair opportunities for all businesses including MWBEs to participate in all State contracts and to obtain or compete for contracts and subcontracts as sources of supplies, equipment, construction and services. In considering offers from and doing business with subcontractors and suppliers, the Contractor shall not discriminate on the basis of race, color, creed, religion, sex, age, nationality, marital status, or the presence of any mental or physical disability in an otherwise qualified disabled person.
- K. Any violation of the mandatory requirements of this part of the contract shall be a material breach of contract for which the Contractor may be subject to a requirement of specific performance, or damages and sanctions provided by contract, by RCW 39.19.090, or by other applicable laws.

10.11 MINIMUM LEVELS OF APPRENTICESHIP PARTICIPATION

In accordance with Executive Order 00-01 the State of Washington may require apprenticeship participation for projects of a certain cost. The bid advertisement and Bid Proposal form shall establish the minimum percentage of apprentice labor hours as compared to the total labor hours.

- A. Voluntary workforce diversity goals have been established for the apprentice hours. These goals are that one-fifth (1/5) of the apprentice hours be performed by minorities, and one-sixth (1/6) of the apprentice hours be performed by women.
- B. 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).
- C. Bidders may contact the Department of Labor and Industries, Specialty Compliance Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530 by phone at (360) 902-5320, and e-mail at thum235@lni.wa.gov , to obtain information on available apprenticeship programs.
- D. For each project that has apprentice requirements, the contractor shall submit a **“Statement of Apprentice/Journeyman Participation”** on forms provided by the Department of General Administration, 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 data to be collected and submitted 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. Craft/trade/occupation of all (contractor and subcontractor trades working on the project) apprentices and journeymen.
 - 7. Total number of apprentices and total number of hours worked by apprentices, both categorized by gender and ethnicity.
 - 8. Total number of journeymen and total number of hours worked by journeymen, both categorized by gender and ethnicity.
 - 9. Cumulative combined total of apprentice and journeymen labor hours.
 - 10. Total percentage of apprentice hours worked.
- E. 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.

- F. Any substantive violation of the mandatory requirements of this part of the contract may be a material breach of the contract by the Contractor. The Owner may withhold payment pursuant to Part 6.05, stop the work for cause pursuant to Part 3.04, and terminate the contract for cause pursuant to Part 9.01.

SupplementalConditions/WORDHOLD

007400 MODIFICATIONS TO THE GENERAL CONDITIONS

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These Central Washington University Modifications to the General Conditions form a part of, and are incorporated in the Contract Documents and modify, delete, add, and replace provisions of the General Conditions. Provisions not altered remain in effect. All terms defined elsewhere in the Contract Documents shall have the same meaning here.

PART 1 - GENERAL PROVISIONS

1.01A Modify the sentence as follows:

"Application for Payment" means a written request submitted by contractor to Owner for payment of Work.

PART 2 - INSURANCE AND BONDS

2.01 Add the following:

The certificate holder shall be:

Central Washington University
Vice President for Business and Financial Affairs
Ellensburg, WA 98926

PART 4 - SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS

4.02 Add to paragraph 4.02B

...changes and shall be available to Owner and A/E at all times.

PART 5 - PERFORMANCE

5.01 Add a new paragraph

G. Work During Off Hours

When work is to be performed during other than normal working hours or on Central Washington University holidays, Contractor shall give Owner 48 hour prior notice so that Owner's Police Department may be properly notified. Any construction activity between the hours of 7:00 p.m. to 7:00 a.m. PST is subject to approval of Owner.

5.02 Revise Paragraph B to read as follows:

B. Costs for direct participation in the demolition execution by local police, fire, public works, and other public safety and emergency services agencies shall be paid directly by the Owner with no mark-up by the Contractor and shall not be included in the contractors bid.

Add a new paragraph 5.02D

D. Prior to Final Completion, the building permit and City-approved drawings, signed inspection card(s), and any appropriate occupancy permits shall be submitted to Owner.

PART 6 - PAYMENTS AND COMPLETION

6.02 Add a new subparagraph:

This schedule shall be based upon any cost loading required as a part of the progress schedule and shall allocate at least 1% of the contract sum (in addition to the statutory retainage described in Paragraph 6.06 to that portion of the work between Substantial and Final Completion.

6.03D Add a new subparagraph 6.03D(9):

9 For material stored off-site not in a warehouse, Contractor may request payment, provided that the remaining requirements of this paragraph and any additional requirements of Owner are met.

6.04A In the first sentence change "30 days" to "45 days."

6.04B In the first sentence change "Final Acceptance" to "Final Completion."

6.09B Add the following:

Final Acceptance: Final Acceptance of the Work shall be by action of the Board of Trustees or its delegated representative.

PART 8 - CLAIMS AND DISPUTE RESOLUTION

8.01 Add new Paragraphs 8.01 G and 8.01 H:

- G Notwithstanding 8.02 below, upon request by Owner, any claims between Owner and Contractor, Architect/Engineer and Contractor, Owner and Architect/Engineer, Owner and Contractor's Guarantor, or Contractor and its Subcontractors and Suppliers shall be submitted in a single forum and Owner may consolidate or join any of the above named parties in the action. Other parties may be joined upon notice by either Contractor or Owner with the consent of such third party. Thereafter, such third parties shall be bound by the results of such dispute resolution process to the same extent as the original parties to the dispute.
- H Contractor agrees that any contract with a Sub-contractor to perform any portion of the work shall include a provision which contractually requires the Sub-contractor be joined, at the Owner's request, in the dispute process.

8.02 Replace the 8.02 A – E with the following:

DISPUTE RESOLUTION: In order to assist in the resolution of disputes or claims arising out of the work of this project, the Owner has provided for the following procedures in an escalating fashion.

- A Within 20 calendar days after receipt of a written directive from the Owner's Project Manager to proceed with the protested work, in accordance with Paragraph 8.01. D, the Contractor shall, if the Contractor still objects to such instruction, file a written protest with the Owner's Director of Facilities Management, clearly detailing all of the following:
1. The basis of the objection(s), and
 2. The contract provisions that support the protest, and
 3. The actual or estimated dollar cost, if any, of protested work and how that cost was determined, and,
 4. Estimates or actual amounts of additional time incurred, if any.
- B Within 20 calendar days of receipt of the contractor's appeal for review, the Owner shall arrange a meeting to include the Contractor's Senior Principal (or their designee) and the Owner's Business Manager (or his designee). Such meeting shall be held at a mutually agreed time on the Owner's Campus. Either party may request a Mediator be retained to participate in the dispute resolution process. Both must agree on the choice and share equally in the expense. If in disagreement, the parties agree to allow an independent third party such as the Yakima Dispute Resolution Center to pick one.
- C If the Owner and the Contractor are able to resolve their dispute through this process, the Owner will promptly process any contract changes, otherwise the Owner shall, after review of all the pertinent facts, make a written determination of the dispute and such determination shall be final.
- D If the Contractor disagrees with the final determination of the Owner, the Contractor may, within 45 calendar days, file a Complaint which shall be subject to judicial review as provided under State of Washington case law, in the Superior Court of Kittitas County, Washington, which shall have exclusive jurisdiction and venue over all matters in question between the Contractor. Failure to file such Complaint within the time prescribed shall be deemed acceptance by the Contractor.

PART 10 - MISCELLANEOUS PROVISIONS

10.10 Add a new section 10.10:

10.10 AFFIRMATIVE ACTION

- A Goals

Contractor shall maintain a minimum goal of 13% of all hours worked to be worked by minority employees in each craft and shall make a good faith effort to employ female workers in each craft in order to attain a minimum goal of 12%.

If Contractor has been unsuccessful in complying with these goals for any craft, Contractor shall broaden recruitment, training and job referral opportunities for minorities and women by undertaking each of the following:

- 1 Notify Owner;
- 2 Notify state and community organizations of opportunities for employment, and retain evidence of their responses. Trade associations maintain lists of community organizations that refer minority and women workers for employment in construction trade;
- 3 Maintain a file in which is recorded the name and address of each minority and woman worker referred to Contractor and specifically what action was taken with respect to each such referred worker. If such worker was not employed by Contractor, Contractor's file shall document this and the reason therefore;
- 4 Notify Owner whenever the union with which Contractor has a collective bargaining agreement has not referred to Contractor a minority or woman worker requested by Contractor, or Contractor has other information that the union referral process has impeded Contractor's efforts to effect minority or women utilization. Contractor shall show what relief has been sought under the collective bargaining agreement or through appropriate federal and state agencies. Appropriate steps can include, but are not limited to, arbitration or administrative relief;
- 5 Hire directly on a non-discriminatory basis for performance of Work, if a court of competent jurisdiction finds that a union with which Contractor has a collective bargaining agreement racially or sexually discriminates in recruitment or dispatch of worker; and
- 6 Use of apprentices or other appropriate entry classifications up to limits allowed or required by applicable collective bargaining agreements to meet the goals.

B Reports

Contractor shall report monthly the total hours of employment on site by craft and category. Reports will be submitted on the form incorporated in the Special Forms.

C Compliance Meetings

Upon Owner's request, Contractor and Owner will hold a conference to discuss affirmative action with regard to equal employment opportunity. Review will be made of Contractor's reports and evidence of good faith efforts.

D Definitions

- 1 "Minority is defined as Blacks, Asians (Japanese, Chinese, Filipino), American Indians, Spanish-Americans (includes Mexican-American, Puerto Rican and other people with Spanish surnames not otherwise reported) and other (including Korean, Polynesian, Indonesian, Hawaiian, Aleut, and Eskimo).
- 2 "Craft" is defined as a recognized construction trade for which minimum wage categories are established by the Department of Labor and Industries.

10.13 ASBESTOS

A Asbestos Products

Contractor shall ensure that no Asbestos products in any form are incorporated into the Work.

B Good Faith Inspection

- 1 Owner has performed a good faith inspection to determine whether the materials to be worked on or removed contain Asbestos, and will make this inspection report available to all bidders. Contractor shall not commence Work without receiving a copy of this report.
- 2 Contractor shall keep the asbestos inspection report on site.
- 3 The usual policy of the Owner is to identify and abate Asbestos before the Work begins, unless Asbestos abatement is included in the scope of Work of these Contract Documents. In limited cases where Owner is reasonably certain that Asbestos will not be disturbed, Asbestos material are to remain intact in the work area. These materials would be identified in the Asbestos inspection report and Contractor advised of protective measures.
- 4 In some cases, where certain construction or demolition tasks must be performed before the Asbestos can be accessed for removal, or where phasing of the construction does not permit scheduled during the Contract Time. In such cases, Owner and Contractor must coordinate the scheduling of the work of the separate Asbestos contractor.

C Notice

If in the course of performing the Work Contractor encounters an Asbestos Project which was not specifically reference in the Contract Documents, or disturbs Asbestos, Contractor shall immediately stop work and notify Owner. Contractor shall not recommence work until authorized by Owner.

D Delays

Owner will use its best efforts to identify the scope of an Asbestos Project in the Contract Documents. Contractor acknowledges that the condition or scope of an Asbestos Project cannot be fully determined if it would result in disturbance or exposure of asbestos prior to undertaking the Work. If Contractor is significantly delayed during the course of performance because of the presence of Asbestos not identified in the Contract Documents, Contractor may request an equitable adjustment in the Contract Sum in accordance with the provisions of section 7.02.

E Permits

Contractor shall file a Notice of Intent to Remove Asbestos with the Department of Labor and Industries. Prior to submitting such notice to the Department of Labor and Industries, Contractor shall submit for approval to Owner Contractor's proposed procedures for undertaking the Asbestos Project to assure compliance with Owner's performance standards and applicable regulations.

F Safety Precautions

Contractor shall provide, at Contractor's cost, appropriate clothing, caution sign, supply items, and safety equipment in order to perform the Asbestos Project in accordance with the Regulations and the performance standards of Owner.

During the course of performing an Asbestos Project, Contractor shall monitor the work place and adjacent areas in accordance with the regulations and the performance standards of Owner to ensure that permissible levels of airborne concentrations of asbestos fibers are not exceeded. The results of all monitoring shall be immediately provided to Owner. If the prescribed exposure limits are exceeded, Contractor shall immediately execute a compliance program of engineering and work practices approved by Owner.

G Certification

No Contractor or person shall undertake an Asbestos Project unless certified by the Department of Labor and Industries as a qualified asbestos contractor, supervisor, or worker in accordance with the requirements of WAC Chapter 296-65.

H Records

Contractor shall maintain complete records of personal and environmental monitoring. A copy of these records shall be provided to Owner before Final Acceptance. Contractor is also required by regulation to arrange for medical examinations for those employees who work on an Asbestos Project and to maintain those records for at least twenty years.

I Definitions

- 1 "Asbestos" includes different forms of chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.
- 2 "Asbestos Project" means the construction, demolition, repair, maintenance or renovation of any building, mechanical piping equipment or system involving the demolition, removal, encapsulation, salvage, or disposal of material which may release asbestos fibers into the air.
- 3 "Regulations". For purpose of this section Regulations shall mean the National Emission Standards for Hazardous Air Pollutants (40 CFR 61), Occupational Safety and Health Requirements Pertaining to Asbestos (29 CFR 1910), the Regulations of the Washington State Department of Labor and Industries, WAC Chapters 296-62, -65, -155, and Puget Sound Air Pollution Control Agency (PSAPCA) regulating Asbestos Projects as adopted or hereafter amended.

END OF DOCUMENT
AFFIDAVIT OF AMOUNTS PAID MBE/WBE PARTICIPANTS
(provide report monthly with each application for payment)

CONTRACTOR: _____ ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____ DATE: _____

STATE CONTRACT/AGREEMENT NO. JOB TITLE/DESCRIPTION

CONTRACT BID PRICE MBE COND. OF AWARD WBE COND. OF AWARD

MBE/WBE PARTICIPANT MBE DESCRIPTION OF AMOUNT PAID

NAME AND ADDRESS WBE UTILIZATION PARTICIPANTS

AFFIDAVIT

I, the undersigned, do hereby certify that in connection with all work for the project for which this statement is submitted ACHIEVED each MBE/WBE participant contacted by me has been paid the amounts as listed.

\$ _____
TOTAL WBE PARTICIPATION

SIGNATURE

TITLE

Subscribed and sworn to me this _____ day of 20____
_____ Notary Public in and for the State of Washington residing
at _____

INSTRUCTIONS:

1. Complete this form in triplicate and have it notarized.
2. This form is required to be updated monthly and provided with each payment request from the Prime Contractor.

PART 1 - GENERAL

1.1 SUMMARY OF WORK

- A. Work covered by Contract Documents covers the work consisting of the installation of hydrogeologic test well by drilling as described in the technical specifications including in these specifications and specifically the “Specifications – Test Well Drilling, Construction and Testing, by GeoEngineers”.
- B. Project is located on the campus of Central Washington University in Ellensburg, Washington.
- C. Work consists of providing labor, materials, equipment, services, and administrative services required in conjunction with or incidental to Project Construction as described in the Specifications by GeoEngineers.

1.2 CONSTRUCTION CONTRACT AND RELATED WORK

- A. Construct Project under single stipulated sum contract as incorporated in Owner Contract Agreement Forms.
- B. For Installation by Owner or Others: Items listed in the Specifications or designated on the drawings by the abbreviation "FOIO", "FOIV", or "NIC", meaning "Furnished and Installed by the Owner", "Furnished by the Owner but Installed by the Vendor", and "Not in this Contract", respectively, will be furnished and installed by the Owner using his own forces or by means outside of the scope of this Contract. The Contractor shall coordinate its work with the Owner's installation forces.
- C. Work to be Performed Later: Wherever an item is shown on the drawings or referenced in the specifications as "Future", it is to be considered as included in work of another and later contract.
- D. Hazardous Materials: Should the Contractor, after work has commenced, discover/disturb any hazardous material on the Project Site that pre-existed the commencement of construction, the Contractor is directed to immediately cease work activity in the area found to be potentially hazardous, notify the Owner's Project Manager, and await their direction.

1.3 CONTRACTOR RESPONSIBILITIES

- A. Contractor's Duties: In addition to duties specified throughout the Contract Documents, the Contractor's duties include the following:
 - 1. Construction Costs: Except as specifically noted, provide and pay for labor, materials and equipment, tools, construction equipment and machinery, water, heat, electrical power and light, utilities required for construction, and other facilities and services necessary for the proper execution and completion of the Work. Refer to Section 015000 - Temporary Facilities and Controls, for detailed requirements.

2. Taxes: Pay legally required sales, consumer, business, excise, and use taxes; Washington State Sales Tax applied to materials and labor incorporated into the Work will be paid to the Contractor separately from the Contract Sum by the Owner.
3. Permits and Fees: Secure and pay for government fees, licenses, and permits, except as specifically noted in the Contract Documents.
 - a. Building permit to be paid by Owner.
4. Regulations and Notices: Comply with Codes, ordinances, rules, regulations, and other requirements of public authorities which pertain to the completion of the Work and give all required notices, including written notice to the Architect of any observed variances in the Contract Documents with legal requirements. It is not the Contractor's responsibility to make certain that the Contract Documents comply with codes and regulations, except where expressing written into individual sections of the specifications. Refer to Section 014000 - Quality Requirements, for additional requirements.
5. Coordination: Coordinate work of the various trades and subcontractors to assure efficient and orderly sequencing and installation of construction elements, including provisions for accommodating items to be installed by Owner under separate contracts, installed at a later time. Refer to Section 013100 - Project Management and Coordination, for detailed requirements.

1.4 WORK RESTRICTIONS AND SITE ACCESS

A. Contractor Use of Premises:

1. General: Confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents. Allow no materials or equipment to unreasonably encumber the site.
2. Contractor shall have full use of premises for construction operations, including use of site within the construction limits. However, since the premises adjoin, both public right-of-ways and other campus property, the Contractor's operations shall be governed by maintaining continuous use of all normal access on streets and driveways.
3. Where Contractors use of site includes existing streets, sidewalks or right-of-way, the Contractor shall obtain approval and pay for use of such areas in accordance with requirements of the City of Ellensburg.
4. Refer to Section 015000 - Temporary Facilities and Controls, for additional requirements for site utilization, traffic control and dust control.
5. Hot Work on The Premises: Hot Work at the project site will be restricted to the fabrication of structural components indicated on the Contract Documents. Provide Fire Watch procedures during all welding, cutting and other hot-work operations in strict compliance with the prevailing version of the International Fire Code and City of Ellensburg and all other requirements of governing authorities, including restrictions and limitations by the Owner.

- B. Lane Restrictions: Public right-of-ways adjacent to site shall be maintained as required by the City of Ellensburg. Written requests for interim closing of right-of-ways shall be submitted to the City of Ellensburg in advance of scheduled work. Provided traffic control plan, stating purpose, including date and time duration for each request.
- C. Construction Hours: Noise related to construction is allowed from 7:00 a.m. to 7:00 p.m. Monday through Friday and 9:00 a.m. to 7:00 p.m. on Saturday. Construction noise is prohibited on all Sundays. Exceptions to the construction noise hours limitation MAY be granted by the Owner to accommodate Contractor's desired schedule. Exceptions to the construction noise hours limitation will be granted by the Owner to accommodate the test pumping scope.
- D. Site: The Contractor is the custodian of the site and is responsible to provide access, storage, and work space for Contractor's work force. Due to site limitations the Contractor shall be responsible to provide off-site storage for materials, parking and transportation as may be required to maintain the scheduling of the Work.
- E. Existing Improvements, Hardscape and Utilities:
 - 1. General: Protect existing structures, sidewalks, curbs, streets, landscaping, utilities and work of any kind, which is to remain, from damage defacement, or interruption of service, except as may be specially directed or authorized by the Owner's Representative. All damage shall be repaired to approximate original condition within the Contract Sum.
 - 2. Existing Trees: Trees to remain shall be protected and maintained throughout the Construction period.
 - 3. Utilities: Protect and maintain existing utilities from damage or interruption, except as required to make service connections. Verify locations of all utilities and coordinate interruption and relocation with respective utility company.
 - 4. Hardscape: Where curbs and sidewalks are to remain, protect from settlement and Contractors operations. Site improvements which cannot be salvaged or which become damaged shall be replaced to CWU standards and as required by the Contract Documents.
- F. Assume responsibility for protection and safekeeping of products stored on and off site under this Contract.
- G. Conduct operations to ensure least inconvenience to public and to City of Ellensburg.
- H. Obtain and pay for use of additional storage or staging areas needed for operations.
- I. Do not load structure with weight that would jeopardize its safety.

1.5 PROJECT SCHEDULE

- A. All the work under the Base Bid and accepted alternates is to be Substantially Complete not later than one hundred and fifty (**150**) calendar days after the date of Notice to Proceed and to finally complete all work within sixty (**60**) days following the date of Substantial Completion.

- B. Excluded from the 150 calendar day period is the time required for screen design, screen delivery, and filter pack procurement.
- C. Notice to Proceed (NTP) will be issued no later than sixty (**60**) days following the award of the contract. NTP date will be determined based upon the earliest date the Contractor's availability allows within this sixty (**60**) day period.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and supplemental provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to work of this Section. Project is located on the campus of Central Washington University in Ellensburg, Washington.

1.2 SUMMARY

- A. Section Includes: Information and specifications for the construction, placement and testing of the hydrogeologic test well.

1.3 RELATED DOCUMENTS

- A. Specifications – Test Well Drilling, Construction, and Testing by GeoEngineers, Inc, dated January 10, 2024.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

Specifications – Revision 2
Test Well Drilling, Construction, and Testing

North Academic Center
Central Washington University
Ellensburg, Washington

for
NAC Architecture

March 4, 2024



523 East Second Avenue
Spokane, Washington 99202
509.363.3125

**Specifications – Revision 2
Test Well Drilling, Construction, and Testing**

**North Academic Center
Central Washington University
Ellensburg, Washington**

File No. 2538-006-01

March 4, 2024

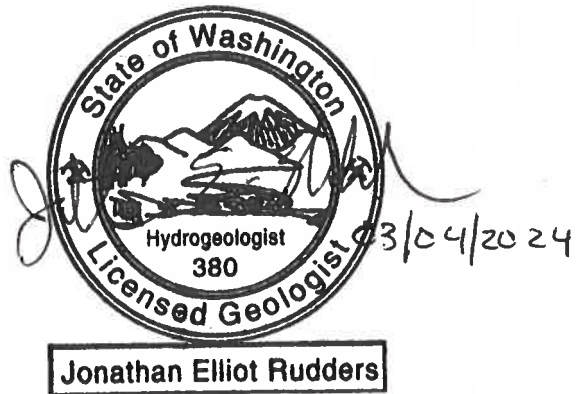
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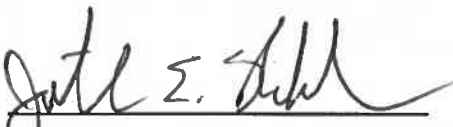
NAC Architecture
1203 West Riverside Avenue
Spokane, Washington 99201-1107

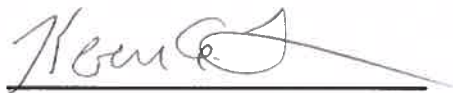
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1.0 GENERAL SPECIFICATIONS AND REQUIREMENTS

1.1. Project Introduction

1.1.1. Project OWNER, Representatives, and Contractor

Central Washington University (CWU) (OWNER) plans to install a ground source heat pump (GSHP) heating and cooling system at the North Academic Center Project. CWU's North Academic Center Project is located southwest of the intersection of East Dean Nicholson Boulevard and North Walnut Street in Ellensburg, Washington. The planned GSHP system will be open-loop and equipped with one or more GSHP extraction wells and one or more GSHP injection wells.

The principal objective of work activities described in these specifications (herein designated the Work) is to drill, install, and test, a test well at the planned extraction well location. The current planned location is approximately 60 feet northwest of the intersection of East Dean Nicholson Boulevard and North Walnut Street, approximately as shown in the Test Well Location Map, Figure A-1 of Appendix A. NAC Architecture is the prime consultant assisting the OWNER with this project. GeoEngineers, Inc. is a hydrogeologic subconsultant to NAC Architecture. Herein, NAC Architecture is referred to as the OWNER'S REPRESENTATIVE and GeoEngineers, Inc. is referred to as the HYDROGEOLOGIST.

Bidders (herein termed CONTRACTOR) for the Work are required to visit the well site before bidding to examine site conditions and site access. A pre-bid meeting will be conducted by the OWNER at the date and time specified in the Contract Documents.

1.1.2. Target Hydrostratigraphic Unit

The project site occurs within the Kittitas Valley, which is a topographic and structural low located along the northwest margin of the Columbia Plateau and filled with a variable sequence of sediments that include the late Miocene-early Pliocene Ellensburg Formation, the Pliocene Thorp Gravel, Pleistocene glacial sediments, and younger alluvium. The target hydrostratigraphic unit for CWU's GSHP system is a portion of the upper Ellensburg Formation that occurs between depths of approximately 600 and 1,100 feet below ground surface (bgs) at the project site. This hydrostratigraphic unit consists of variably indurated sand/sandstone and gravel/conglomerate interbedded with lenses of variably indurated silt/siltstone and clay/claystone. This complex sequence of interconnected water-bearing zones within sand/sandstone and gravel/conglomerate generally acts as a confined aquifer system.

The information provided in these specifications is not intended to be comprehensive with respect to area geology/hydrogeology or North Academic Center construction and/or operational plans. It is the CONTRACTOR's responsibility to acquire and review additional documents, well logs, water well reports, data and/or other information necessary for the CONTRACTOR to efficiently and successfully perform the Work described herein.

1.1.3. Project Location and General Description

The OWNER issues these specifications for drilling, completion, and testing of an approximately 1,000-foot-deep test well within the northeast quarter of the southeast quarter of Section 35, Township 18 North, Range 18 East, Willamette Meridian. The anticipated approximate location of the test well is shown in Figure A-1; however, the actual location could differ from that shown in Figure A-1 at the discretion of the OWNER.

The design of the test well will be contingent upon results of drilling operations and determined by the OWNER. The test well is expected to be permanently cased with 20-inch-outside-diameter steel casing and sealed to a depth of approximately 600 feet bgs. The well shall be drilled as a nominal 20-inch-diameter borehole below the permanent casing and completed with a 12.75-inch-outside-diameter steel screen assembly surrounded by an installed filter pack. The desired pumping capacity of the test well is a minimum of 2,000 gallons per minute (gpm).

Mud-rotary drilling methods are required for test well drilling operations. Mud-rotary drilling using a clay- or polymer-based drilling fluid can be utilized by the CONTRACTOR above the bottom depth of the formation seal. When utilizing mud-rotary drilling below the depth of the formation seal: (1) the CONTRACTOR shall use a polymer-based drilling fluid that can be fully removed from the wellbore, filter pack, and formation during well development; and (2) the CONTRACTOR'S Drilling Plan (described in "Section 1.2, Supplemental Qualifications Criteria") shall fully describe the drilling fluid that will be utilized and the specific methods that will be used to remove the drilling fluid and restore aquifer permeability during well development. When using mud-rotary drilling, the CONTRACTOR shall fully contain all drilling fluids, development fluids, and control and arrange for off-site disposal of drilling mud.

1.2. Supplemental Qualifications Criteria

The OWNER has established project-specific supplemental qualifications criteria, in accordance with Revised Code of Washington (RCW) 39.04.350(3), for determining bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a bidder is not responsible. The apparent low bidder shall submit the following Supplemental Qualifications Criteria documentation to the OWNER within 10 working days after the bid submittal deadline:

1. CONTRACTOR must have been in the business of drilling and constructing groundwater production wells for a minimum of 5 years. The CONTRACTOR'S experience with respect to well drilling and construction must be consistent with the requirements of Item 5 of these Supplemental Qualifications Criteria.
2. CONTRACTOR must provide a Drilling Plan, including (at a minimum) a complete description of their proposed drilling method(s), drill rig(s) and other major equipment to be provided. The CONTRACTOR'S methods must be sufficient to address the anticipated drilling conditions described in "Section 1.4.2, Drilling Conditions." The CONTRACTOR'S drilling plan must sufficiently address restoration of the permeability of the filter pack and aquifer adjacent to the wellbore during well development. The CONTRACTOR'S drilling plan must also describe the methods used to connect dissimilar metals within the well's screen assembly to mitigate for dielectric corrosion. The CONTRACTOR'S equipment must be sufficient to efficiently drill, construct, and develop wells of the diameter and depth planned for the test well based on evaluation by the OWNER, OWNER'S REPRESENTATIVE, and/or HYDROGEOLOGIST.
3. CONTRACTOR must provide a Fluid Management Plan, which shall specifically describe the measures that will be used by the CONTRACTOR to manage fluids produced from the wellbore during drilling, well construction, well development, and testing activities. The Fluid Management Plan shall be consistent with the requirements of "Section 1.16, "Disposal of Fluids from Decommissioning, Drilling, Development, and Pumping Tests," as well as pertinent federal, state, and local regulations regarding fluid management and disposal. The management techniques described in the CONTRACTOR'S Fluid Management Plan must be sufficient to prevent fluids from entering, flooding, and/or damaging area properties and surface water.

4. CONTRACTOR must provide a Traffic Control Plan based on the specific traffic control requirements communicated by the OWNER during the mandatory pre-bid meeting. The CONTRACTOR's Traffic Control Plan must be compliant with requirements associated with the State of Washington and City of Ellensburg.
5. Water well reports associated with existing wells in the Ellensburg area suggest that, at depth, flowing artesian conditions are possible. As such, the CONTRACTOR must provide a written Sealing Plan in accordance with Chapter 173-160-251 of the Washington Administrative Code (WAC).
6. CONTRACTOR must provide a proposed project schedule showing the estimated completion of the Work within the time for completion specified in the Contract Documents.
7. CONTRACTOR must provide resume(s) for the driller(s) who will have primary responsibility for drilling and constructing the test well. The driller(s) must be licensed in the state of Washington and have a minimum of 5 years of experience drilling and constructing production wells with well depth(s) of at least 800 feet and nominal well diameter(s) of at least 16 inches. The driller(s) whose resume(s) is (are) provided must be on-site while the drilling and well construction work described herein is performed.
8. CONTRACTOR must have completed a minimum of four groundwater production well projects in similar aquifer systems with well depth(s) of at least 800 feet and nominal well diameter(s) of at least 16 inches. The CONTRACTOR must provide descriptions for a minimum of three similar projects (as defined by the criteria in the previous sentence) to include a summary of well construction details, well yield, drilling conditions and project duration. The CONTRACTOR must include contact names and associated phone numbers of references who can describe the CONTRACTOR's performance during execution of these projects.

The OWNER reserves the right to reject any bid if, at the OWNER's sole discretion, the CONTRACTOR's proposed equipment, proposed methods, personnel and/or experience level are considered by the OWNER to be insufficient for the Work described herein. The OWNER reserves the right to contact references supplied by the CONTRACTOR and use the information for bid evaluation.

1.3. Description of the Work

1.3.1. General

The CONTRACTOR shall mobilize their equipment onto the well site designated by the OWNER. The CONTRACTOR shall be responsible for providing all personnel, equipment and materials appropriate for completing the Work in accordance with these specifications. The CONTRACTOR shall be responsible for obtaining necessary permits to perform the Work, other than water right permitting from the Washington State Department of Ecology (Ecology), which the OWNER shall obtain. Equipment used to drill, construct, develop and/or test the well shall be brought to the site in a clean and disinfected state. The OWNER, OWNER'S REPRESENTATIVE, and HYDROGEOLOGIST are not responsible for damage or vandalism to the CONTRACTOR's equipment while at the drilling site.

A driller and helper employed by the CONTRACTOR must be assigned to project field activities at all times during well drilling, and construction activities. **The CONTRACTOR is solely responsible for the safety of the CONTRACTOR's personnel at the job site.**

Work completed under these specifications shall meet the requirements of Chapter 173-160 of the Washington Administrative Code (WAC), Minimum Standards for the Construction and Maintenance of Wells. Overall, the well drilling, construction and testing specifications are intended to provide for the construction of a new test well that meets applicable federal, state, and local regulatory requirements. The CONTRACTOR shall advise the OWNER in writing of potential conflict between the specifications and pertinent regulatory requirements. In no case are these specifications intended to replace state of Washington and local well construction standards for potable water supply wells. The OWNER, OWNER'S REPRESENTATIVE, and HYDROGEOLOGIST shall not be responsible for the CONTRACTOR's failure to construct the test well to Ecology minimum well construction standards or to the requirements of a waiver or variance approved by Ecology. Correction of conditions not meeting the standards or requirements of an approved waiver or variance shall be completed by the CONTRACTOR at no expense to the OWNER.

The principal components of the Work to be performed under these specifications are specified below:

- Obtain necessary well drilling permits and mobilize all required equipment, materials, and personnel to the test well site.
- Drill and construct one test well to a depth of about 1,000 feet bgs, depending on the subsurface conditions encountered during drilling and as directed by the OWNER. Anticipated drilling and well construction activities consist of the following:
 - Furnish and install minimum 24-inch-nominal-diameter temporary (conductor) casing to the depth required to stabilize the upper portion of the wellbore, as determined by the CONTRACTOR at the time of drilling. The minimum conductor casing depth shall be 100 feet bgs.
 - Drill a minimum 24-inch-nominal-diameter borehole to an estimated depth of 600 feet bgs.
 - Furnish and install permanent 20-inch-nominal-diameter steel casing equal to the depth of the minimum 24-inch-nominal-diameter borehole.
 - Construct a formation seal to the depth of the minimum 24-inch-nominal-diameter borehole by removing conductor casing (if applicable) and grouting the annulus between the 20-inch-nominal diameter casing and minimum 24-inch-nominal-diameter borehole.
 - Drill a 20-inch-nominal-diameter borehole to an estimated depth of 1,000 feet bgs.
 - Furnish and install a permanent 12.75-inch-outside-diameter steel casing and well screen assembly (well screen, tailpipe and bottom plate) and filter pack from a depth of approximately 500 to 1,000 feet bgs. Associated casing and screen lengths will be based on formations encountered and as directed by the OWNER.
 - Sample geologic materials during all drilling operations at a minimum 5-foot interval or change in lithology.
- Develop the well.
- Conduct up to two downhole video camera inspections of the well.
- Conduct plumbness and alignment testing of the completed well.
- Clean and disinfect the well in accordance with American Water Works Association (AWWA) Standard C-654.

- Furnish and install a test pump system, including temporary power, capable of discharging up to 2,000 gpm and discharge piping to conduct step-rate and constant-rate pumping tests.
- Conduct step-rate and constant-rate pumping tests consistent with the requirements of these specifications and under the observation of the HYDROGEOLOGIST.
- Cleanup the drill site and demobilize equipment and crews from site.

1.4. Drilling, Well Diameter and Depth

1.4.1. Drilling Operations

Unless otherwise approved, the test well shall be drilled using the methods specified herein and result in a permanent string of sealed, 20-inch-outside-diameter casing extending from 2 feet above ground surface to an approximate depth of 600 feet bgs. A 20-nominal-diameter wellbore shall be drilled between depths of approximately 600 and 1,000 feet bgs. The well shall be completed with a permanent string of 12.75-inch-outside-diameter casing, well screen, and tailpipe surrounded by filter pack and extending from approximately 500 to 1,000 feet bgs. Based on encountered conditions, the OWNER will provide the CONTRACTOR with the following test well depth elements, as described in these specifications: (1) total well depth; (2) filter pack and seal depths; and (3) depths of the cased and screened portions of the well. Under no circumstances shall commingling of water from different aquifers be allowed.

The CONTRACTOR shall use potable water for well drilling and construction activities. Specific fluids and/or additives utilized by the CONTRACTOR during the well drilling and construction process shall be described in the CONTRACTOR'S Drilling Plan. The Drilling Plan shall contain copies of the related Material Safety Data Sheets (MSDS), including documentation that the fluids and/or additives are not a risk to human health. Under no circumstances shall these fluids and/or additives be placed in the well until the CONTRACTOR receives authorization from the OWNER for their use. Only those drilling fluids approved by the Washington State Department of Health for potable water supply wells shall be used.

The CONTRACTOR shall be responsible for containing drill cuttings and fluids produced during drilling. Because of the relatively small drill site that is available for the project, the CONTRACTOR shall contain drill cuttings and fluids in tanks rather than excavated pits. The containment methods used shall be in accordance with federal, state, and local regulatory requirements. CONTRACTOR shall use reasonable containment methods to control undesirable runoff from the project site.

The CONTRACTOR shall be responsible for costs associated with damage to or loss of downhole equipment during drilling or well construction operations.

1.4.2. Drilling Conditions

The test well will be completed within an aquifer system associated with the Ellensburg Formation, which consists of layers of variably indurated sand/sandstone and gravel/conglomerate interbedded with layers of variably indurated silt/siltstone and clay/claystone. The CONTRACTOR should expect to encounter variable and potentially difficult drilling conditions. These include, but are not limited to:

- Unstable drilling conditions.
- Borehole sections that cave if not supported by casing or other means.
- Water-bearing zones of varying hydraulic head conditions.
- The potential for lost circulation of drilling fluids.

Encountering difficult drilling and well construction conditions should be expected by the CONTRACTOR and do not constitute a basis for a changed condition that would necessitate additional hourly (or other) payment. The CONTRACTOR shall develop a Drilling Plan (as described in “Section 1.2, Supplemental Qualifications Criteria”) and rate schedule appropriate for the anticipated conditions. This plan will be approved by the OWNER prior to CONTRACTOR mobilization. The Drilling Plan shall address the methods and materials used to control borehole instability and/or loss of circulation.

1.5. Well Casing

1.5.1. General

The casing shall be a new steel pipe of sufficient wall thickness, seamless or welded, in conformance with ASTM International (ASTM) A-53A or A-53B specifications for steel pipe and shall be free of dents, corrosion and defects. Prior to installation, the ends of each casing section shall be completed with a factory-installed bevel. The lead sections of each casing string used for the project shall be fitted with casing shoes welded to the casing. The casing shoes shall be compatible with the casing diameter, expected subsurface conditions and depths planned for drilling.

The casing diameters specified herein and shown on the attached drawing shall be interpreted as the minimum allowable diameter of the well casing (inside or outside-diameter as specified). The diameter of the casing shall not be less than the nominal diameter specified. Pipe used for well casing shall be joined by fully penetrating welds that meet the requirements of AWWA Standard C-206. Welds shall be at least equal in thickness and strength to the original casing. It shall be the CONTRACTOR’s responsibility to verify that the strength and wall thickness of the casing is sufficient to withstand installation, casing pullback, and grouting operations. The CONTRACTOR shall be fully responsible for breaks or failures of the temporary and permanent casing strings during the course of the Work.

1.5.2. Conductor Casing

The top of the conductor casing shall be installed from at least 12 inches above ground surface to the depth required to implement the CONTRACTOR’S Drilling Plan. Conductor casing shall be steel pipe with a minimum wall thickness that complies with WAC 173-160-201 and diameter that complies with the requirements of these specifications. When used to support installation of the formation seal, conductor casing diameter shall be consistent with WAC 173-160-241. Under no circumstances will a reduction in well diameter be allowed as a consequence of the CONTRACTOR’s inability to construct an adequate formation seal surrounding the 20-inch-outside-diameter permanent casing or adequate filter pack surrounding the 12.75-inch-outside-diameter well screen assembly.

Prior to removal, the CONTRACTOR shall cut the casing shoe on installed conductor casing. The CONTRACTOR can omit this requirement at their discretion but assumes responsibility for well damage, compromise to the seal, and/or the inability to complete the well per these specifications as a result of this omission. The conductor casing removed from the well during installation of the formation seal shall remain the property of the CONTRACTOR and be removed from the project site prior to completion of the Work.

1.5.3. Permanent Casing

The CONTRACTOR shall install the permanent well casing inside the wellbore and construct the formation seal as required by these specifications. The permanent well casing shall be steel pipe of 20-inch-outside-diameter with a minimum wall thickness of 0.375 inches. The permanent casing shall extend from 24 inches above the existing ground surface at the well site to approximately 600 feet bgs, as determined by the OWNER. Casing centralizers shall be installed at least every 50 feet to keep the permanent casing centered within the wellbore.

After the test well has been completed and tested for yield, the top of the casing shall be covered with a 0.25-inch-thick steel plate cap to protect the well. The cap shall be designed and installed so that there are no gaps between the casing and cap. A 2-inch-diameter by 2-inch-tall threaded nipple and pipe cap shall be mounted and welded to the center of the top of the well cap to allow the OWNER to obtain water level measurements in the well.

1.6. Formation Seal

The CONTRACTOR shall provide 48-hour notice to the OWNER, OWNER'S REPRESENTATIVE, and HYDROGEOLOGIST before starting installation of the formation seal in the test well. The formation seal shall completely fill the annular space around the installed permanent casing. The formation seal, which shall extend from the final depth drilled for the permanent casing up to ground surface and be placed in one continuous operation, shall be constructed in accordance with the methods, materials, and minimum diameter specified in WAC 173-160-221 through WAC 173-160-251. Only clean, potable water shall be used to mix grouts. The 20-inch-outside-diameter permanent casing shall be outfitted with an appropriate shoe (such as a float shoe) to ensure proper grout placement and prevent reverse flow of sealant from the annulus into the permanent casing.

During sealing, conductor casing (where applicable) shall be extracted concurrently with grout placement. For depths above the bottom of the conductor casing (before extraction), the CONTRACTOR shall not allow less than 2 feet of grout mixture inside the annulus between the permanent casing and bottom of the conductor casing as the seal is constructed. Sealing shall be completed, and sealants allowed to set according to the requirements of WAC 173-160-221 before drilling is initiated at depths below the bottom of permanent casing. Sealant shall be placed at no greater rate than recommended by the manufacturer or supplier.

1.7. Well Alignment and Plumbness

1.7.1. Test Timing and Procedure

The CONTRACTOR shall take every precaution to drill the test well to the required depth and install the permanent casing plumb and in true alignment. To verify plumbness and alignment, the CONTRACTOR shall conduct a plumbness and alignment test after the permanent casing and formation seal have been installed and the well has been drilled and constructed to final depth.

Plumbness and alignment tests shall be performed and evaluated by the CONTRACTOR or a specialty company under subcontract to the CONTRACTOR. Because of the anticipated depth of the permanent casing and the inherent inaccuracy of plummet-based tests in deep wells, the CONTRACTOR shall use gyroscopic methods for plumbness and alignment testing. The use of other test methods will be considered if the OWNER decides the methodology, time required for the test, and/or other considerations are acceptable. Any test methods other than gyroscopic must be pre-approved by the OWNER before testing. No standby time shall be accrued by the CONTRACTOR while the OWNER is considering alternative test methods.

The test shall be witnessed by the HYDROGEOLOGIST. The CONTRACTOR shall provide 48 hours' notice to the OWNER, OWNER'S REPRESENTATIVE, AND HYDROGEOLOGIST before conducting the test. The CONTRACTOR shall deliver a copy of the test data, as well as his/her analysis of test compliance with project criteria, to the OWNER and HYDROGEOLOGIST within 48 hours of test completion.

The required plumbness and alignment test, as well as any rig time required to remove and reinstall drilling tools before and after testing, will be considered incidental to drilling activities and no additional payment will be made by the OWNER for making this test. The CONTRACTOR has the option to conduct additional plumbness and alignment tests at his/her discretion; these additional tests shall be conducted and analyzed by the CONTRACTOR at the CONTRACTOR's expense and do not have to be performed in the presence of the HYDROGEOLOGIST.

1.7.2. Evaluation Criteria

Plumbness and alignment testing shall be conducted to the bottom of the permanent casing. Test results will be evaluated by the following criteria:

- If, per 100 feet of depth, the permanent casing varies from the vertical in any horizontal direction in excess of two thirds the inside diameter of the permanent casing, the well fails the plumbness test.
- An objective of this project is to construct a test well that has the capability of supporting up to a 10-inch-outside-diameter line-shaft turbine pump within a range of depths within the permanently cased portion of the well. To pass the alignment portion of testing, the CONTRACTOR shall demonstrate that the effective diameter of the well above the bottom of the permanent casing is 10 inches or greater and a 10-inch-outside-diameter pump can be set at any depth above the top of the well screen assembly without bending the line shaft.

The CONTRACTOR shall demonstrate compliance with alignment criteria using the graphical method described in Appendix D of AWWA Standard A-100-06.

In addition, the test well (including the open-borehole section) must be sufficiently aligned to allow installation of the screen assembly and associated filter pack. The screen assembly must be able to pass to the specified depth without binding and without any damage to permanent casing or the screen assembly. If any of these criteria are not met, the well fails the alignment portion of testing.

1.7.3. Well Alignment and Plumbness Correction

If the well fails the plumbness and/or alignment criteria, the plumbness and/or alignment of the well shall be corrected by the CONTRACTOR at no additional expense to the OWNER. Should the CONTRACTOR fail to correct faulty alignment or plumbness within 30 days of failing the alignment and/or plumbness criteria, the OWNER may refuse to accept the well. In such case, the CONTRACTOR, at his sole expense, shall abandon the well at that time in accordance with state and local regulations and shall begin drilling a new well within 2 weeks at a location designated by the OWNER.

1.8. Geologic Sampling

The CONTRACTOR shall collect 1-quart-sized representative samples of the geologic units encountered in the well bore associated with the test well. The samples shall be obtained at 5-foot-depth increments starting at 5 feet bgs and at changes in strata. Sampling may be requested by HYDROGEOLOGIST at 2- or 3-foot intervals within specific water-bearing zones. Care shall be taken to minimize mixing of drill cuttings so that the collected samples are representative of geologic materials at the base of the borehole at the time of sampling. Costs for sampling shall be incidental to the Work and no separate payment will be made.

Samples shall be placed in containers or seam-sealable plastic bags, and each container or bag shall be clearly marked with the following information:

- Abbreviated project name and well name/number.
- Sample depth interval.
- Date and time of collection.

The CONTRACTOR shall make the formation samples available to the HYDROGEOLOGIST when the drilling crew is at the site. Samples shall be picked up by/delivered to the HYDROGEOLOGIST during their site visits. The CONTRACTOR shall be responsible for protecting the samples from loss or damage until delivery is made to the HYDROGEOLOGIST.

1.9. Well Screen Assembly

The installation of 12.75-inch-outside-diameter (pipe-size), continuous-wrap, Grade 304 stainless steel well screen surrounded by the below-described filter pack ("Section 1.10, Filter Pack") is planned. The well screen assembly shall be constructed with factory-installed weld rings and could include blank steel casing separating screen sections, a pressure relief screen section, and/or a blank steel casing tailpipe, depending on encountered subsurface conditions. The screen sections shall be designed for the column pressures inherent to the well design. Blank sections shall consist of new 12.75-inch-outside-diameter carbon steel casing with a minimum 0.375-inch wall thickness manufactured in conformance with ASTM A-53A or A-53B specifications for steel pipe and shall be free of dents, corrosion and defects. The bottom of the well screen assembly shall be sealed by a steel bottom plate welded to the casing.

Casing and screen material used for well screen assembly construction shall be joined by fully penetrating welds that meet the requirements of AWWA Standard C-206. Welds shall be at least equal in thickness and strength to the original screen assembly casing. It shall be the CONTRACTOR's responsibility to verify that the strength of the screen assembly is sufficient to withstand installation, well development and testing

operations. The CONTRACTOR shall be fully responsible for breaks or failures of the well screen assembly during the course of the Work. The CONTRACTOR shall be fully responsible for any breaks or failures of the screen assembly or welds during the course of the Work. Should the CONTRACTOR fail to install the well screen assembly within 3 feet (vertically) of the design depth, the OWNER may refuse to accept the well.

The screen assembly shall be equipped with a factory-manufactured slip packer attached to the top of the assembly. The design, construction, and installation procedures associated with the slip packer shall be proposed by the CONTRACTOR within the CONTRACTOR'S Drilling Plan and approved by the OWNER prior to installation.

1.10. Filter Pack

The CONTRACTOR shall install filter pack in the annular space between the well screen assembly and the wellbore. The filter pack shall consist of Shur-Pak™ Glass Bead Filter Pack manufactured by Johnson Screens or equivalent. The material shall be disinfected and free of impurities.

The CONTRACTOR shall provide 48-hour notice to the OWNER, OWNER'S REPRESENTATIVE, and HYDROGEOLOGIST before initiating installation of the filter pack in the test well. The filter pack shall completely fill the annular space around the installed screen assembly. If conductor casing was installed below the depth of the formation seal, before beginning filter pack installation the CONTRACTOR shall pull back the conductor casing approximately 1 foot to confirm that the casing shoe has been severed from the casing string and/or that the conductor casing can be extracted during installation of the filter pack.

1.11. Filter Pack and Well Screen Design

The CONTRACTOR shall provide the HYDROGEOLOGIST with representative geologic samples from the production well, as described in "Section 1.8, Geologic Sampling," of these specifications. Depending on encountered subsurface conditions and as a basis for well screen design, the OWNER might elect to conduct a downhole geophysical survey of the wellbore after the wellbore has been drilled to final depth. At no additional cost to the OWNER, the CONTRACTOR shall provide the OWNER with sufficient access to the wellbore to complete the downhole geophysical survey, if conducted.

The OWNER will conduct the downhole geophysical survey (if applicable) and provide the CONTRACTOR with design details for the production well's filter pack and well screen assembly within 15 business days of the completion of test well drilling, the HYDROGEOLOGIST's receipt of geologic samples, or the completion of the geophysical survey (if implemented) whichever occurs last. No additional charges will be accrued by the CONTRACTOR during the 15-business-day design period.

Design details provided by the OWNER to the CONTRACTOR will include:

- Shur-Pak™ Glass Bead Filter Pack (or equivalent) size and installation depths.
- Well screen slot size(s), required minimum screen open area and screen installation depths.
- Blank casing depths.
- Tailpipe depth, if applicable.

Before purchase and delivery of material to the project site, the CONTRACTOR shall provide documentation to the OWNER on manufacturer-generated submittal sheets of: (1) the grain-size and composition characteristics of the Shur-Pak™ Glass Bead Filter Pack (or equivalent); (2) the open area provided by the planned screen material (in square inches per vertical foot of screen); (3) screen strength characteristics presented on manufacturer-generated submittal sheets; and (4) the conformance of the planned screen material with the requirements of these specifications. The CONTRACTOR shall be responsible for ensuring that the screen strength is appropriate for the column pressures inherent to the well design and placement method. No additional charges will be accrued by the CONTRACTOR while waiting for materials delivery.

1.12. Well Development

The CONTRACTOR shall provide at least a 48-hour notice to the HYDROGEOLOGIST before starting well development in the test well so that the CONTRACTOR's activities can be observed by the HYDROGEOLOGIST. The CONTRACTOR shall completely remove drilling fluid during development operations. As applicable based on drilling fluid composition, the CONTRACTOR shall use a chemical dispersant for drilling fluid removal. The specific type of chemical dispersant, associated MSDS, and method of utilization shall be fully described in the CONTRACTOR's Drilling Plan and approved by the OWNER prior to use. Phosphate-containing chemicals will not be allowed by the Owner. The CONTRACTOR is responsible for proper disposal of drilling fluid and associated chemicals removed during development operations.

The screened portions of the well screen assembly shall be developed using air-lift, bailing, surging, and/or pumping techniques until the well produces water that is clear and sediment-free. The elevation of the top of the filter pack shall be monitored by the CONTRACTOR during development and an additional filter pack installed as necessary to maintain the filter pack design. Upon completion of the development work, the interior of the well shall be cleaned of sediment.

1.13. Video Camera Inspection

The CONTRACTOR shall perform a video camera inspection of the test well after well screen assembly installation and well development operations are completed. The water column within the well shall be clear prior to conducting the video camera inspection. The video camera inspection of the well shall extend from the ground surface to the well bottom. The video camera used for inspection shall be capable of both downhole and side viewing. The video inspection shall be of sufficient quality (in both downhole and side viewing mode) to allow the HYDROGEOLOGIST to fully evaluate the well casing and screen integrity, as well as weld penetration.

The CONTRACTOR shall provide at least 48 hours of notice to the OWNER, OWNER'S REPRESENTATIVE, and HYDROGEOLOGIST before conducting the video camera inspection so that the HYDROGEOLOGIST can observe the inspections. The CONTRACTOR shall provide the OWNER, ENGINEER, and HYDROGEOLOGIST with USB flash drives that contains footage, in color, of the entire video inspection. The footage shall include a continuous display of camera depth relative to ground surface.

1.14. Disinfection

The CONTRACTOR shall thoroughly clean the drill rig and equipment before initiating work on the site. After completing well development and before test pumping the test well, the CONTRACTOR shall disinfect the well, test pump and pump discharge system in accordance with American Water Works Association (AWWA) Standard C-654 and pertinent federal, state, and local requirements, in particular WAC 173-160-331.

The CONTRACTOR shall be responsible for disposal of any chlorinated water pumped from the well. The disposal shall be in accordance with federal, state, and local regulations and requirements. At the conclusion of the project, the CONTRACTOR shall leave the well in a disinfected condition.

1.15. Pumping Tests

1.15.1. Anticipated Testing Program

After the well has been developed, the CONTRACTOR shall conduct pumping tests in the test well for the purpose of estimating well yield and aquifer properties. Testing shall include an approximately 4-hour-long step-rate pumping test and a constant-rate pumping test, expected to be 24 to 72 hours in duration. The CONTRACTOR should assume a duration of 72 hours for the constant-rate pumping test for bidding purposes.

The HYDROGEOLOGIST will advise the CONTRACTOR regarding the pumping rate and duration of each step during the step-rate test. The HYDROGEOLOGIST also will determine the pumping rate for the constant-rate pumping test, based on results of the step-rate pumping test. A recovery period shall follow both the step-rate and constant rate pumping tests. The water level in the pumping well shall be allowed to recover to at least 95 percent of the pre-test static water level before both the step-rate pumping test and the constant-rate pumping test are started, and before the pump is removed from the well following the constant-rate test. No additional payment will be accrued by the CONTRACTOR during recovery periods.

The step-rate and constant-rate tests shall be run uninterrupted. In the event a period of shutdown occurs, and the OWNER determines that the results of the test are nullified, the CONTRACTOR shall allow the water level within the well to recover in compliance with these specifications and repeat the test at the CONTRACTOR's expense. However, the CONTRACTOR can interrupt the test to avert damage to surrounding property and/or prevent discharge water from entering surface water, as described in "Section 1.16, Disposal of Water from Drilling, Development, and Pumping Tests." In this case, the interruption will not result in expense to the CONTRACTOR.

1.15.2. Test Equipment

The CONTRACTOR shall be responsible for furnishing all materials, equipment, fuel, and labor required for the pumping tests. The test pump and all related equipment shall be suitable for use in a potable water supply well and shall be disinfected and free of oils, dust, and foreign matter. The CONTRACTOR shall be responsible for the efficient and reliable operation of the pumping equipment, flowrate measuring device and water disposal facilities. The CONTRACTOR shall provide, install, and maintain the discharge piping to the discharge point selected by the OWNER.

The CONTRACTOR shall provide a pump capable of pumping a maximum of 2,000 gpm against a dynamic lift of up to 600 feet plus the friction loss associated with the installed discharge piping system. For costing purposes, the CONTRACTOR shall assume a pump intake depth setting of 595 feet bgs and the length of above-ground discharge piping specified by the OWNER during the mandatory pre-bid meeting.

The pumping equipment also shall include the following:

- A gate valve installed within the discharge piping system for controlling the pumping rate.
- Flow measurement devices consisting of a calibrated flowmeter with totalizing and instantaneous capability and/or a manometer tube and orifice plate. The measurement device(s) shall be capable of measuring flows between 500 gpm and 2,000 gpm. The CONTRACTOR shall provide the HYDROGEOLOGIST with proof that the flowmeter has been factory-calibrated within 1 year prior to the completion of project pumping tests.
- Two, minimum 1-inch-inside-diameter sounding tubes provided and installed within the test well by the CONTRACTOR concurrent with the test pump and made continuously accessible to the HYDROGEOLOGIST during testing and recovery periods. The bottom 10 feet of the sounding tubes shall be perforated. The bottom of the sounding tubes shall have an end cap and shall be located within 5 feet of the top of the test pump assembly.
- A port within the discharge piping system that is suitable for collection of water samples. The CONTRACTOR shall provide the HYDROGEOLOGIST with continuous access to the sampling port during the pumping tests.
- A check-valve installed within 20 feet (or as an integral part) of the pump to prevent backflow.
- Temporary power and all required electrical and mechanical accessories for proper and continuous operation during the testing periods.

If the check-valve is omitted or fails to work correctly, such that recovery data are compromised, the check-valve shall be installed or replaced and the affected test shall be repeated at the CONTRACTOR's expense.

1.15.3. Test Maintenance and Data Collection

During testing, the pumping equipment and measuring devices shall be continuously attended to by the CONTRACTOR. The CONTRACTOR shall maintain the pumping discharge rate within 5 percent of the indicated rate during both the step-rate and constant-rate tests. Discharge rate shall be checked and recorded by the CONTRACTOR every 10 minutes during the first hour of pumping and at 30-minute intervals thereafter. Each discharge rate measurement and associated time of measurement shall be recorded, and a note made of any adjustments.

The HYDROGEOLOGIST will install and operate a pressure transducer within one of the installed sounding tubes. In the other sounding tube, the HYDROGEOLOGIST will install an electronic water level meter. The HYDROGEOLOGIST will be responsible for collecting water level data using the electronic water level meter during step-rate testing, and during the first 2 hours of constant-rate testing and recovery periods. During the constant-rate testing and recovery periods that extend from 2 hours to the end of pumping or recovery, the CONTRACTOR shall measure and record water levels within the new well using the electronic water level meter on 30-minute intervals.

1.16. Disposal of Fluid from Drilling, Development, and Pumping Tests

Disposal of water and fluids produced during drilling, development, and pumping tests shall be according to the CONTRACTOR'S Fluid Management Plan. The CONTRACTOR shall be responsible for proper disposal of water and fluids so that no damage will result to the surrounding property and turbid water does not enter streams or surface water bodies. Physical constraints the CONTRACTOR shall incorporate into their Fluid Management Plan are as follows:

- During drilling and development:
 - All water and fluids (including drilling mud) shall be contained in on-site tanks.
 - The CONTRACTOR shall be solely responsible for off-site drilling mud disposal.
 - Water and fluids (excluding drilling mud) shall be collected/transported by the CONTRACTOR to one or more location(s) specified by the OWNER. The location(s) will be located within one mile of the drill site.
 - If the CONTRACTOR uses drilling additives (other than drilling mud and related materials) to assist in lifting drilling cuttings to the surface, these materials must be neutralized to prevent any impacts to the location where water and fluid is discharged to. This includes the CONTRACTOR'S use of a foaming agent, if applicable.
 - Discharge of water and fluids onto adjacent land, into storm drains, and/or into ditches and streams is not allowed.
- During pumping tests:
 - Native formation water may be discharged by the CONTRACTOR to nearby storm drains and/or ditches as designated by the OWNER.
 - The OWNER and/or OWNER'S REPRESENTATIVE will monitor the turbidity and flow rate of discharge water during the pumping tests.
 - The CONTRACTOR might be directed by the OWNER and/or OWNER'S REPRESENTATIVE to terminate pumping tests if: (1) discharge water exceeds a turbidity threshold of 25 nephelometric turbidity units (NTUs); and/or (2) the discharge rate exceeds the capacity of the receiving structure to convey water from the project area.

Water and fluid discharge location(s) and access will be identified by the OWNER during the mandatory pre-bid meeting. Upon completion (by the CONTRACTOR) and acceptance (by the OWNER) of the pumping tests, the Contractor shall remove the materials, equipment, and supplies required for water and fluid disposal from the site.

1.17. Submittals

1.17.1. Prior to Award

Within 10 calendar days after the submittal deadline, the apparent low bidder shall provide to the OWNER the information specified in "Section 1.2, Supplemental Qualifications Criteria."

1.17.2. Pre-Mobilization

Before mobilization to the project site, the CONTRACTOR shall provide the following information to the OWNER:

1. Copy of the CONTRACTOR'S current Water Well Constructor License issued by the state of Washington.
2. Copies of permits, registrations, and notifications required by agencies having jurisdiction.
3. Manufacturer's certification that the casing and screen materials conform to the specification requirements.
4. A Drilling Plan, as described in "Section 1.2, Supplemental Qualifications Criteria."
5. A Fluid Management Plan, as described in "Section 1.2, Supplemental Qualifications Criteria."
6. A Traffic Control Plan, as described in "Section 1.2, Supplemental Qualifications Criteria."
7. A Sealing Plan, as described in "Section 1.2, Supplemental Qualifications Criteria."
8. A Spill Control Plan for Work activities.
9. A copy of the CONTRACTOR'S Health and Safety Plan to include MSDSs for materials that the Contractor proposed to use during the Work.

1.17.3. Project Submittals

During drilling, construction, and testing of the test well, the CONTRACTOR shall prepare and keep complete daily driller's reports. The reports shall be carefully and accurately kept with entries made in sequence so that each can be correlated with the depth of the well bore at the time. The report shall be complete at the end of each shift and open to inspection at all times. For each week (Sunday through Saturday) that the CONTRACTOR performs work associated with these specifications, daily driller's reports shall be forwarded to the OWNER'S REPRESENTATIVE and HYDROGEOLOGIST by noon the following Monday.

When applicable, the daily driller's report shall give a complete description of:

- The reference point for all depth measurements.
- Number of feet drilled, including borehole depths at the beginning and end of the work shift.
- The depth at which borehole diameters (bit sizes) change.
- Number of hours in the work shift.
- Number of formation samples taken, and associated depths.
- Shutdown times caused by equipment breakdown.
- Materials used.
- The depth at which each change of formation occurs.
- Descriptions and thicknesses of each formation.
- The depth(s) at which water was first encountered.
- The water level in the well at the beginning and end of each shift.
- Water level at each change of formation and any rapid changes in water level.
- Water losses, when appropriate; heaving or other problems (water color, odor, etc.).
- Feet of casing set or extracted.

- Sealing depths.
- Drilling and development water discharge estimates.
- Total depth of completed well.
- Types and quantities of additives.
- Drilling mud weight, sand content and viscosity (when applicable).
- Depth, volume and specifications of filter pack or formation stabilizer (when applicable).
- Depth or location of any lost drilling fluids, drilling materials or tools.
- Well development progress, and amount of material generated.
- Record of authorized hourly work.
- Cause of delays.
- Other pertinent data as requested by the OWNER.

Within 30 days of completing the test well, the CONTRACTOR shall file a Water Well Report with Ecology and furnish a copy of the report to the OWNER and the HYDROGEOLOGIST.

1.18. Well Schematic

A schematic drawing showing the conceptual design of the new well is presented in Preliminary Test Well Schematic (Figure B-1 of Appendix B). Dimensions shown are preliminary and subject to change by the OWNER based on actual conditions encountered during drilling and well construction.

“END OF SECTION”

2.0 PAYMENT CONDITIONS

2.1. General

Payment for the various items in the Bid Schedule, as further specified herein, shall include compensation to be received by the CONTRACTOR for furnishing tools, equipment, supplies and manufactured articles, and for labor, operations, and incidentals appurtenant to the items of the Work being described, as necessary to complete the various items of the Work in accordance with the requirements of these specifications. No separate payment will be made for any item that is not specifically set forth in the Bid Schedule (unless otherwise negotiated), and all costs therefore shall be based on the unit or lump sum prices named in the Bid Schedule for the various items of the Work.

2.2. Mobilization and Demobilization (Bid Item No. 1) [Lump Sum Price]

Payment for mobilization and demobilization shall be based upon furnishing all labor, equipment, material, overhead, profit, and other incidentals necessary to complete the Work described in these specifications. Upon completion of the Work, the work sites shall be left in a clean condition as close as practical to their condition at the beginning of the project.

Mobilization also shall include the following:

- The cost of all permits, the CONTRACTOR must secure to drill and complete the Work.
- Cost and labor associated with moving drilling equipment and personnel to and from the drilling location.
- The cost for setting up the drill site, rigging up and rigging down.
- The cost of obtaining, transporting, and storing potable water to be used for drilling or other purposes.

It is the CONTRACTOR's responsibility to inspect the work sites and identify any requirements pertaining to access, equipment foundation support, required operating space, or other special conditions required for satisfactory completion of the work. Costs for such requirements shall be included in the CONTRACTOR's fee for mobilization. No additional compensation or relief from any obligations of the contract will be granted because of lack of knowledge of the site or the conditions under which the Work will be accomplished.

Eligibility for payment of the initial 50 percent of the mobilization/demobilization fee (Bid Item 1) shall occur upon mobilizing to drill the test well. The CONTRACTOR shall be eligible for payment of the remainder of mobilization/demobilization fee after: (1) the completion of test well drilling, construction, and testing; (2) all equipment has been removed from the well site; and (3) the Work has been accepted by the OWNER.

The work site shall be left in a clean condition as close as practical to their condition at the beginning of the project.

2.3. Drill 24-Inch-Nominal-Diameter Borehole (Bid Item No. 2) [Lineal Foot Price]

Payment for drilling of the minimum 24-inch-nominal-diameter borehole that will allow for installation of the formation seal shall be from ground surface to the bottom of the formation seal. Payment for the drilling of the borehole shall be based on the unit price per lineal foot, which price shall constitute full compensation for operating drilling equipment during drilling, sampling of drilled materials, sample

containers, daily reports and containment, removal and disposal of drill cuttings and drilling water. Payment also includes costs associated with the control and off-site disposal of drilling fluid. This bid item also includes costs for any rig time associated with modifications to the drill bit assembly or other tooling.

Payment for this bid item shall constitute full payment for furnishing and placing the conductor casing. Payment also shall constitute full compensation for furnishing and installing a high-strength drive shoe to reinforce the conductor casing and cutting the drive shoe from the conductor casing after the final casing depth is reached if the CONTRACTOR elects to do so.

2.4. Provide and Install 20-Inch-Outside-Diameter Permanent Casing (Bid Item No. 3) [Lineal Foot Price]

Payment for the permanent 20-inch-outside-diameter casing shall be made to the nearest ½ foot of casing installed in the test well, including up to 2 feet of casing that extends above ground. Payment for providing and installing the 20-inch-outside-diameter casing shall be based on the unit price per lineal foot and shall include furnishing, hauling, handling, welding, and installing the casing shoe. This bid item also includes costs for any rig time associated with addressing difficulties installing the permanent casing.

2.5. Place Formation Seal (Bid Item No. 4) [Cubic Foot Price]

Payment for the formation seal shall be based upon the completion of a seal in the test well that meets the minimum requirements of WAC 173-160 and these specifications. Payment for the seal shall constitute full compensation for sealing the annular space between the permanent 20-inch-nominal-diameter casing and minimum 24-inch-nominal-diameter borehole to ground surface and removing any conductor casing from the borehole and drill site.

The estimated quantity included in the Bid Schedule is approximately 150 percent of the calculated annular space for 600 lineal feet of formation seal installed in the test well. Payment for this pay item shall be based on the unit price per cubic foot according to the actual quantity used by the Contractor during well construction operations.

2.6. Drill 20-Inch-Nominal-Diameter Borehole (Bid Item No. 5) [Lineal Foot Price]

Payment of the drilled 20-inch-nominal-diameter borehole under this bid item shall be from the bottom of the 20-inch-outside-diameter permanent casing to the final depth drilled in the test well. Payment for the drilling of the hole shall be based on the unit price per lineal foot, which price shall constitute full compensation for operating drilling equipment during drilling, sampling of drilled materials, sample containers, daily reports and containment, removal and disposal of drill cuttings, and water produced during drilling. Payment shall also include full compensation for standby during the maximum 10-business-day period between completion of drilling/sample delivery and the CONTRACTOR's receipt of screen assembly design. This bid item also includes costs for any rig time associated with modifications to the drill bit assembly or other tooling.

2.7. Provide and Install 12.75-Inch-Outside-Diameter Blank Casing for Well Screen Assembly (Bid Item No. 6) [Lineal Foot Price]

Payment for the 12.75-inch-outside-diameter, carbon steel, blank casing shall be made to the nearest 0.5 foot of pipe installed in the test well. Payment for providing and installing the 12.75-inch-outside-diameter blank casing shall be based on the unit price per lineal foot and shall include furnishing, hauling, handling, welding and installing the blank casing. For bidding purposes, the CONTRACTOR shall assume that 335 feet of blank casing will be required.

2.8. Provide and Install 12-Inch-Diameter (Pipe-Size) Stainless Steel Screens and Slip Packer (Bid Item No. 7) [Lineal Foot Price]

Payment for the 12-inch-diameter (pipe-size), Grade 304 stainless steel, continuous-wrap screens shall be made to the nearest 0.5 foot of screen installed in the test well. Payment for providing and installing the screen shall be based on the unit price per lineal foot and include furnishing, hauling, handling, welding and installing the screen. Payment for this bid item also includes costs associated with furnishing and installing the manufactured slip packer for the top of the assembly. For bidding purposes, the CONTRACTOR shall assume that 165 feet of screen with a 0.060-inch slot size will be required.

2.9. Place Filter Pack (Bid Item No. 8) [Cubic Foot Price]

The filter pack shall consist of Shur-Pak™ Glass Bead Filter Pack manufactured by Johnson Screens or equivalent. Payment for the Shur-Pak™ Glass Bead Filter Pack shall be based upon the completion of a filter pack in the test well that meets the minimum requirements of WAC 173-160 and these specifications. Payment for the filter pack shall constitute full compensation for filter packing the annular space between the well screen assembly and 20-inch-nominal-diameter borehole from well bottom to the design depth and removing any associated conductor casing from the borehole and drill site.

The estimated quantity included in the Bid Schedule is approximately 150 percent of the calculated annular space for 500 lineal feet of filter pack installed in the test well. Payment for this pay item shall be based on the unit price per cubic foot according to the actual quantity used by the Contractor during well construction operations.

2.10. Well Development (Bid Item No. 9) [Per Hour Price]

Payment for well development shall constitute full compensation for the equipment, materials and personnel required to develop the test well according to the requirements of these specifications. Payment for well development work shall be based on a unit price per hour. For bidding purposes, the CONTRACTOR shall assume 80 hours of well development will be required.

2.11. Video Camera Inspection (Bid Item No. 10) [Per Inspection Price]

Payment for video camera inspections shall constitute full compensation for the rig time, equipment, materials, and personnel required to perform video camera inspection in the test well according to the requirements of these specifications. Payment for video inspection work shall be based on a unit price per inspection and will be paid after delivery of an approved USB flash drive for the inspection.

2.12. Well and Equipment Disinfection (Bid Item No. 11) [Lump Sum Price]

Payment for well and equipment disinfection shall constitute full compensation for the equipment, materials and personnel required to disinfect the well casing, pump and drilling equipment according to the requirements of these specifications. Payment for well and equipment disinfection work shall be based on a lump sum price.

2.13. Provide and Install Test Pump and Discharge Piping System (Bid Item No. 12) [Lump Sum Price]

Payment for the test pump and discharge piping system shall constitute full compensation for the equipment, materials and personnel required to install a satisfactory and fully functional test pump, temporary power, associated electrical, mechanical and monitoring equipment, and discharge piping for step-rate, constant-rate and recovery testing as specified herein. Payment for this item shall be based on a lump sum price. The price shall include removal of the test pump and associated materials and equipment.

2.14. Operate Test Pump and Discharge Piping System (Bid Item No. 13) [Per Hour Price]

Payment for test pump operation shall constitute full compensation for the CONTRACTOR to operate the installed test pump and associated discharge piping for step-rate and constant-rate testing as specified herein. Payment also shall include all electrical work, generators and/or other equipment, arrangements and fees for use of temporary on- or off-site electrical power. Payment also shall constitute full payment for collecting and recording specified test data. Measurement for payment for operating the test pump shall be based on a per hour price. No additional payment shall be made for time spent allowing the well to recover following well development, the step-rate test, or the constant-rate test.

2.15. OWNER Pre-Authorized Rig Hourly Work (Bid Item No. 14) [Per Hour Price]

OWNER Pre-Authorized Operated Rig Hourly Time refers to additional work that could be necessary to adjust to subsurface, site, or project conditions that could require supplemental tasks or a deviation in project design and will be authorized in writing by the OWNER in a contract amendment. Payment for OWNER Pre-Authorized Operated Rig Hourly Time shall constitute full compensation for the equipment, materials, and personnel required to operate the drill rig for the intended purpose. A total of 12 hours is assumed in Table 1, Bid Items. However, the OWNER does not warrant that any OWNER Pre-Authorized Operated Rig Hourly Time shall be accrued by the CONTRACTOR during execution of the Work.

Measurement for payment for OWNER Pre-Authorized Operated Rig Hourly Time is based on activities that require a working rig that are not specified herein. Payment for OWNER Pre-Authorized Operated Rig Hourly Time shall be based on a unit price per hour, as documented by the CONTRACTOR and confirmed by the HYDROGEOLOGIST.

2.16. Provide Extra Materials (Bid Item No. 15) [Actual Cost Plus 15%]

The use of extra material by the CONTRACTOR will be approved by the OWNER prior to use. Payment for extra materials such as backfill materials or other incidental items not included in the specifications shall be made at cost plus 15 percent handling fee. Invoices shall be provided to OWNER for review prior to payment.

“END OF SECTION”

3.0 BID ITEMS

3.1. General

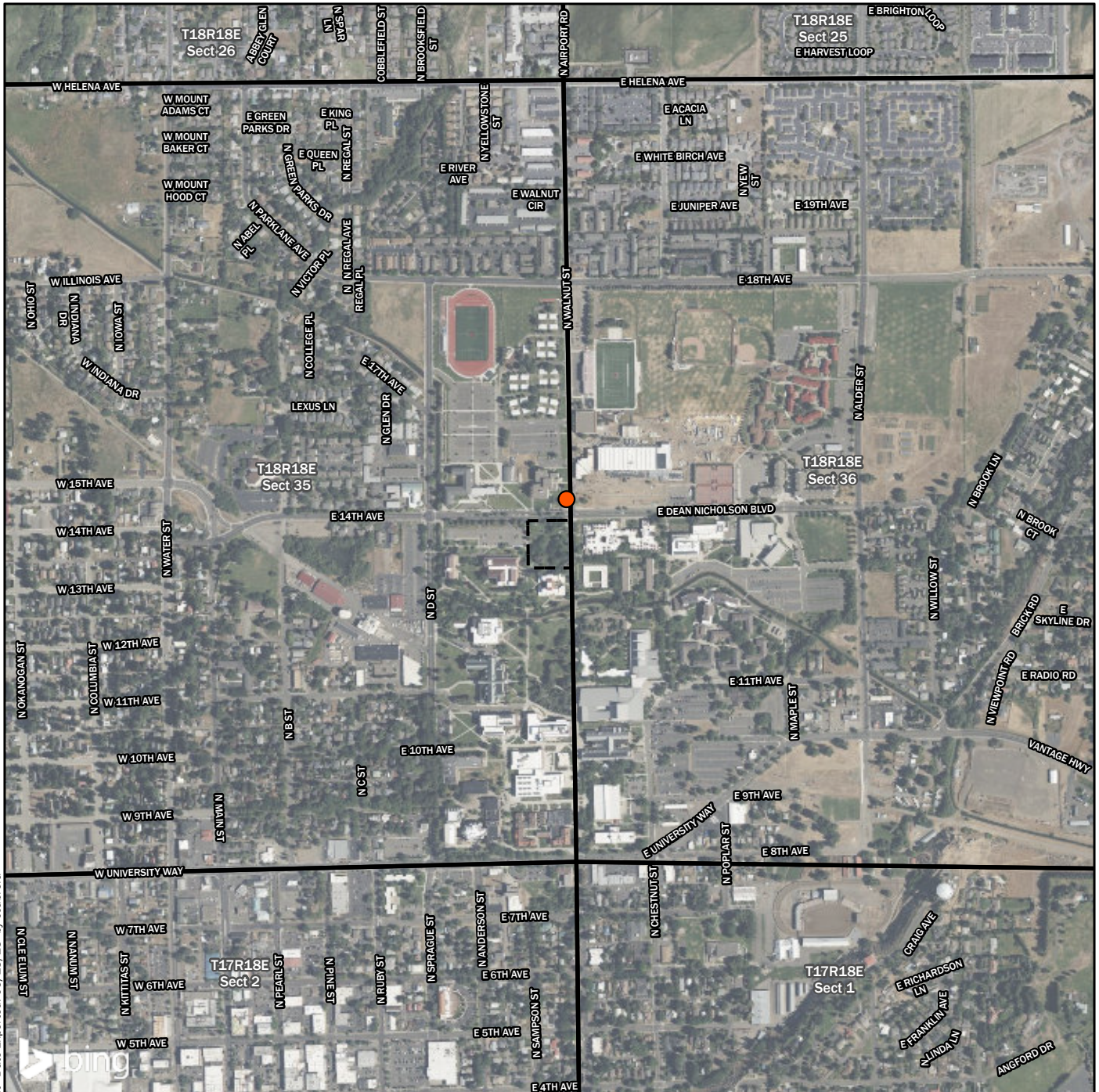
Below is a Bid Schedule for drilling, construction, and testing of the test well in accordance with these specifications. The quantities presented in this schedule are estimates and could vary depending on encountered field conditions.

TABLE 1. BID SCHEDULE

Item No.	Description	Estimated Quantity	Units
1.	Mobilization and Demobilization	1	Lump Sum
2.	Drill Minimum 24-Inch-Nominal-Diameter Borehole	600	Lineal Foot
3.	Provide and Install 20-Inch-Outside-Diameter Permanent Casing	602	Lineal Foot
4.	Place Formation Seal	864	Cubic Foot
5.	Drill 20-Inch-Nominal-Diameter Borehole	400	Lineal Foot
6.	Provide and Install 12.75-Inch-Outside-Diameter Blank Casing for Well Screen Assembly	335	Lineal Foot
7.	Provide and Install 12-Inch-Diameter (Pipe-Size) Stainless Steel Well Screens and Slip Packer	165	Lineal Foot
8.	Place Filter Pack	812	Cubic Foot
9.	Well Development	80	Hour
10.	Video Camera Inspection	1	Each
11.	Well and Equipment Disinfection	1	Lump Sum
12.	Provide and Install Test Pump and Discharge Piping System	1	Lump Sum
13.	Operate Test Pump and Discharge Piping System	76	Hour
14.	OWNER Pre-Authorized Rig Hourly Work	12	Hour
15.	Provide Extra Materials	0	Actual Cost-Plus 15 percent

“END OF SECTION”

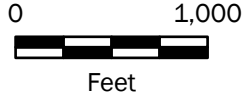
APPENDIX A
Test Well Location Map



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Legend

- Preliminary Test Well Location
- North Academic Center Project Site
- Section Boundary



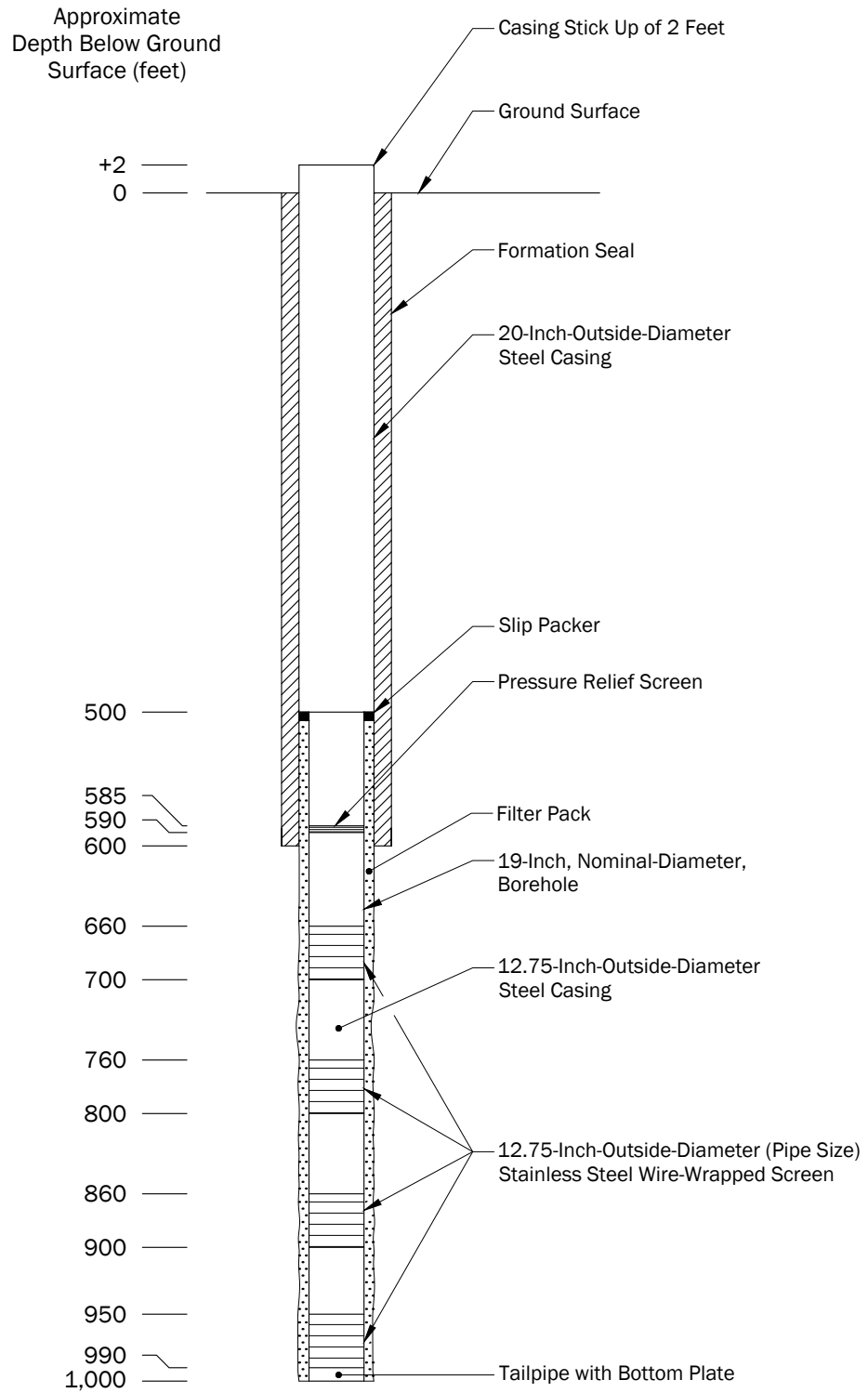
Source(s):
 • Bing Imagery
 • Sections from Washington State GIS
 • Parcels and roads from Kittitas County GIS

Coordinate System: NAD 1983 StatePlane Washington South FIPS 4602 Feet
Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

Test Well Location Map	
Central Washington University Ellensburg, Washington	
GEOENGINEERS	Figure A-1

APPENDIX B
Preliminary Test Well Schematic

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Not To Scale

Preliminary Test Well Schematic

Central Washington University
Ellensburg, Washington




Figure B-1

Notes:

1. The depths presented in this figure are approximate and provided to establish a basis for bid development. Actual well design will depend on encountered subsurface conditions.



 Potential Construction Site Parameters

 Staging and Laydown Area

 Proposed Drilling/Well Location

 Test Pumping to Storm Drain Locations

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative procedures for handling requests for substitutions made before and after award of Contract.
- B. Related Sections:
 - 1. 016000 – Product Requirements: Product options which authorize a substitution request form.
 - 2. Individual Technical Sections: Expressed restrictions related to substitutions.
- C. Attachments following this section:
 - 1. Substitution Request Form

1.2 PRODUCT SUBSTITUTIONS

- A. General: If the proposer or Contractor desires approval of some material or product other than that specified, submit a written request for approval of the substitute item in accordance with the following requirements:
 - 1. Requests for approval of equals or substitutions must be made in writing and received by the Architect at least ten (10) working days prior to scheduled time for receipt of bids. Requests for substitution will not be considered after Notice to Proceed, except under one or more of the conditions stated in paragraph 1.3, below.
 - 2. All such requests must be made on the Substitution Request Form; see attached at end of this Section.
 - 3. Any approval of the proposed equals or substitutions will be made by Addendum prior to receipt of bids, and by duly executed Change Order after receipt of bids. Proposers shall not rely upon any approval not incorporated into the Contract Documents in this matter.
 - 4. Requests received after the time stated above will not be reviewed or considered. No request for approval will be considered unless submitted in accordance with this Section.
 - 5. Final decision as to whether an item is an equal or satisfactory substitution rests with the Architect.
 - 6. Clearly mark manufacturer's literature to indicate equality in performance and appearance.
- B. Substitution Requests: Every substitution request must state whether the item offered is an equal or equivalent to the specified product. The substitute material or product must be accompanied by its reference in the Contract Documents and complete catalog, technical and other information, as appropriate. In addition to requirements indicated on the Substitution Request Form, comply with following:

1. Provide a side-by-side matrix of the specified criteria comparing it to the proposed substitution.
 2. Where relevant, include samples showing comparison of physical and other pertinent characteristics as required to establish equivalence of acceptability for the proposed application.
 3. Where specific test results are required by the Contract Documents, the comparison data for the proposed item shall be based upon the same test methods as those specified, or they shall be correlated to clearly demonstrate comparability.
 4. The same guarantee/warranty described for the specified product is required for the substitution.
 5. Coordination information, including a list of changes or modifications needed to other parts of the Work that will become necessary to accommodate the proposed substitution.
 6. Contractor shall accompany any request for substitution with such drawings, specifications, samples, manufacturer's literature, performance data, and other information necessary to describe and evaluate the proposed substitution completely. The burden of proof shall be on the Contractor.
 7. Provide references of three (3) similar projects where proposed substitute product has been used successfully, on a separate sheet, include names, addresses, date of installation and contact name of Owner or facilities manager.
 8. Proposed substitution satisfies specified LEED requirements.
- C. Coordination and Redesign: In making request for approval of substitute materials, the Contractor must represent that it has investigated the proposed product and, in its opinion, it is equal or equivalent in all respects to that specified. Also, Contractor will coordinate all trades including changes thereto as may be required, that it waives all claims for additional costs or time extension for Completion which subsequently become apparent as a consequence of the substitution and that it will bear all costs related hereto, including costs of Architect's services for redesign if deemed necessary.
1. If any substitution will affect a correlated function, adjacent construction, or the work of other trades or contractors, the necessary changes and modifications to the affected work shall be considered as an essential part of the proposed substitution, to be accomplished by the Contractor without additional expense to the Owner if and when accepted.
- D. Substitutions will not be considered if they are indicated or implied on Shop Drawings or other project data submittals, without proper notice shown on attached form.
- 1.3 SUBSTITUTIONS AFTER TIMES STATED ABOVE
- A. Request for Approval: Substitution requests for approval of substitute materials will not be considered after the time period stated above, except if one or more of the following conditions exists. With its request, the Contractor shall indicate which condition it believes applies.

1. Unavailability: A substitution is required because the specified item is not available, due to factors beyond the control of the Contractor or Subcontractor. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the work promptly or coordinate activities properly.
2. Unsuitability: Subsequent information or changes disclose inability of the specified item to perform as intended, and where the Contractor certifies that the proposed substitution will overcome such non-performance.
3. Regulatory Requirements: Final interpretation of Code, regulatory requirements, safety requirements, or insurance requirements necessitate a change due to inability of the specified item to conform, and the proposed substitution can be approved.
4. Warranty: Manufacturer or fabricator cannot certify or warrant performance of specified item as required, and where the Contractor certifies that the proposed substitution will provide the required warranty.
5. Owner's Benefit: Acceptance of the proposed substitution is clearly in the Owner's best interest because of cost, quality, or other consideration. In requesting a substitution under this clause, the Contractor shall furnish substantiation of any such reason along with the other information required by paragraph 1.2 B above.

1.4 ARCHITECT'S REVIEW

- A. Considerations for acceptance will be based on conformance with Contract Documents, including following as applicable:
 1. Physical dimension and clearance requirements to satisfy space limitations.
 2. Static and dynamic weight limitations; structural properties.
 3. Audible noise levels.
 4. Vibration generation.
 5. Interchangeability of parts or components.
 6. Accessibility for maintenance to allow possible removal or replacement.
 7. Design aesthetics.
 8. Colors, textures, and finishes.
 9. Compatibility with other materials, products, assemblies, and components.
- B. Architect's decision to accept or reject requested substitution will be final.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

Substitution Request Form

Date

Forward To: NAC Architecture
1203 W. Riverside, Spokane, WA 99201
509 838 8261
Contact: Tom Golden
tgolden@nacarchitecture.com

Project: Central Washington University
Hydrogeologic Test Well Drilling
Ellensburg, Washington

The undersigned request for consideration, the following product instead of the specified item for above Project:

<u>SECTION</u>	<u>PARAGRAPH</u>	<u>SPECIFIED ITEM</u>
_____	_____	_____

Proposed Substitution: _____

Reason for Substitution: _____

REQUIREMENTS FOR REQUEST TO BE CONSIDERED – To support the substitution, provide product data, dimensional data, photographs, samples, performance and test data, and project references as necessary to evaluate the substitution request. In addition, a side-by-side matrix must be included of the specified criteria comparing it to the proposed substitution.

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY

The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:

1. The function, appearance and quality of the proposed substitution are equivalent or superior to the specified item.
2. The proposed substitution does not affect dimensions shown on Drawings.
3. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.
4. The proposed substitution will have no adverse affect to: other trades, cost to Owner, the construction schedule or specified warranty requirements, and is acceptable to the jurisdiction having authority. For LEED projects, substitution meets criteria to achieve Credit Point(s) as indicated.
5. Maintenance and service parts will be locally available for the proposed substitution.
6. This submittal includes all necessary substantiating data to provide equal quality, performance, and appearance to that specified, including references for three projects where substitution has been successfully installed per Section 012500 – Product Substitution Procedures.

Submitted by Contractor:

Signature

Name

Firm

Address

City, State, Zip

Date

Phone, Fax

Action by the A/E:

ACCEPTED ACCEPTED AS NOTED

NOT ACCEPTED RECEIVED TOO LATE

By

Date

Remarks:

PART 1 - GENERAL

1.1 SUMMARY

- A. Requirements for contract changes are also included in Part 7 of the General Conditions for Washington State Facility Construction and Supplemental Conditions. This Section specifies additional detail regarding administrative and procedural requirements for handling and processing contract modifications. In the event of conflicts between this specification and Part 7, the General Conditions and Supplemental Conditions shall supersede any requirements identified herein.

- B. Work Includes: Administrative and procedural requirements for handling and processing Contract modifications and changes in the Project. The requirements of this Section are in addition to those stated in the "General Conditions". In general, this Section includes the following:
 - 1. Architect's Supplemental Instructions (ASI).
 - 2. Change Order Proposal (COP)
 - 3. Field Authorization (FA).
 - 4. Change Order Request (COR).
 - 5. Change Order (CO).

- C. Related Sections:
 - 1. 007200 – General Conditions.
 - 2. 007300 – Supplemental Conditions
 - 3. 012500 - Product Substitution Procedures.
 - 4. 012900 - Payment Procedures.
 - 5. 013300 - Submittal Procedures.
 - 6. 016000 - Product Requirements.
 - 7. 017700 - Closeout Procedures.

1.2 INITIAL REQUIREMENTS

- A. Prior to submitting any cost proposals, the Contractor shall submit a breakdown of all applicable trade and class wage rates intended to be incorporated into this Project using a form acceptable to the Owner. As a minimum, the breakdown shall show:
 - 1. Basic wage rate (based on L&I Intent to Pay Prevailing Wages or union agreement);
 - 2. Fringe Package (based on L&I Intent to Pay Prevailing Wages or union agreement);
 - 3. FUI (Federal Unemployment Insurance);

4. FICA (Federal Insurance Compensation Act);
5. SUI (State Unemployment Compensation Act);
6. WC (Workers Compensation);
7. Medicare;
8. Any other specific trade costs that affect hourly rate. If an acronym is used, also identify the full name for it.

- B. Contractor shall submit verification of the above rates if requested by the Owner.
- C. Within 30 days of the Notice to Proceed, the Contractor shall submit a list of all equipment anticipated to be used on the project and whether it is owned or to be rented, using a form acceptable to the Owner. If during the construction process additional equipment is brought to the Project site, the Contractor shall submit an updated list.

1.3 MINOR CHANGES IN THE WORK

- A. Supplemental instructions will be issued authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on an Architect's Supplemental Instructions (ASI) form. If the contractor believes a cost is associated with the supplemental instructions, the Contractor is to provide written notice to the A/E and Owner within 7 days of receipt of the instructions.
- B. Architect's Supplemental Instructions (ASI).
1. Architect will prepare supplemental instructions on the attached form.
 2. Architect's Supplemental Instructions are effective upon receipt.

1.4 OTHER CHANGES IN THE WORK

- A. Changes to the work can be by:
1. Change Order Proposal issued by the A/E to the Contractor on the Owner's behalf.
 2. Field Authorization issued by the A/E to the Contractor on the Owner's behalf.
 3. Request initiated by the Contractor and submitted to the A/E.
- B. Change Order Proposal (COP): The A/E will issue a detailed description of proposed Owner initiated changes in the Work on the Owner's standard COP form that may require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
1. COP requests issued by the A/E are for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.

2. Within 14 calendar days of receipt of a proposal request, or quicker if the project schedule necessitates, the contractor shall submit an estimate of cost necessary to execute the change to the Owner who will evaluate the cost.
- C. Field Authorization (FA). The A/E may issue, on behalf of the Owner, a FA instructing the Contractor to proceed with a change or specific portion of the change in the Work or specific portion of a COP, for subsequent inclusion in a Change Order.
1. The FA will contain a complete description of the change in the Work. It also designates the method to be followed to determine change in the Contract Sum or Contract Time.
 2. The Contractor must provide a Not to Exceed (NTE) amount to be indicated on the FA.
 3. As the Work progresses, the Contractor is to monitor its costs. If the costs indicate they will exceed the NTE prior to being able to complete the work, the Contractor is to stop work and notify the Owner. A decision will be made by the Owner to stop the change at that time, or authorize an increase in the NTE amount.
 4. The Contractor is not to proceed with the work until the FA is signed by the Contractor, A/E, and Owner.
 5. Maintain detailed records of time and material documentation of work as required by each field authorization issued to the contractor.
 - a. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
 - b. Include daily accounting of time spent by each person working specifically on such work, acknowledged by Owner's Site Representative, together with copies of all related purchase orders.
 - c. When final cost of Work associated with the Field Authorization has been determined and agreed to, Field Authorization will be incorporated into a Change Order.
- D. Contractor Initiated Change Request. When latent, unforeseen, or other conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the A/E.
1. Provide initial documentation describing the proposed change, reason for changes, and why the proposed change is not part of the Base Bid.
 2. Change Order Requests shall be submitted on the Change Order Request form attached, including Proposal Worksheet Summary and Proposal Worksheet Detail. With approval of Owner and Architect, a similar form suggested by Contractor may be utilized.
- E. Detailed Documentation of Owner or Contractor Initiated Changes.
1. Support each lump sum proposal quotation, and each unit price (not previously established) with sufficient substantiating data.
 - a. Change Order Proposals and Change Requests shall be submitted on the Change Order Request form attached, including Proposal Worksheet

Summary and Proposal Worksheet Detail. With approval of Owner and Architect, a form suggested by Contractor may be utilized.

2. Provide data to support time and cost computations:
 - a. Labor required.
 - b. Equipment required.
 - c. Products required.
 - 1) Recommended source of purchase and unit cost.
 - 2) Quantities required.
 - d. Taxes, insurance, and bonds.
 - e. Documented credit for work deleted from Contract.
 - f. Overhead and profit.
 - g. Justification for any change in Contract Time.
2. Support each proposal for additional costs, and time-and-material/force account work with documentation, as required for lump-sum proposal. Include additional information:
 - a. Dates and times work was performed, and by whom.
 - b. Time record, summary of hours worked, and hourly rates paid.
 - c. Receipts and invoices for:
 - 1) Equipment used, listing dates and times of use.
 - 2) Products used and listing of quantities.
 - 3) Subcontracts.
3. Statement as to whether overtime work is, or is not, authorized.

F. Approval or Rejection of Proposal.

1. When change is initiated by A/E or Owner through a COP.
 - a. Contractor to submit a detailed proposal in writing. Quotation will be guaranteed for period specified in Proposal Request beginning from signing of proposal. If no period is specified, guarantee quotation for sixty (60) days from signing.
 - a. Owner reviews proposal and responds in writing as follows:
 - 1) Request for additional information.
 - 2) Proposal will be incorporated into a Change Order.
 - 3) Rejecting the proposal.
 - b. Contractor is not to proceed with work until a signed Change Order is received from the Owner.
2. When change is initiated by Contractor.
 - a. Owner reviews and responds in writing as follows:
 - 1) Agrees with Contractor's cost proposal;
 - 2) Request for additional information;
 - 3) Rejecting the proposal.
 - b. If the Owner responds by agreeing to the Contractor's change proposal, a Change Order will be processed.
 - c. If additional information is requested by Owner, respond in writing within fifteen (15) days of Owner's request.

1.5 CHANGE ORDER PROCEDURES

- A. Upon final agreement of costs and/or time on an Owner COP, FA or a Contractor initiated proposal, a Change Order will be processed by the Owner.
 - 1. The Contractor shall not submit an invoice for Work changes until a fully executed Change Order is completed.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

Architect's Supplemental Instructions

Project **CWU Hydrogeologic Test Well Drilling**

Location Ellensburg, Washington

Date *Month- date,-year*

To Owner: Central Washington University

To Contractor:

From Architect: NAC Architecture

Architectural Civil Structural Mechanical Electrical Other

No.
0000

These instructions are issued for the purpose of clarifying the Contract Documents, based on an interpretation reasonably inferable from the Contract Documents, and therefore have no effect on the Contract Sum and/or Contract Time.

Commencement of the work described in these instructions indicates Contractor's acceptance with no change in the Contract Sum and/or Contract Time. Contractor must submit written notification to the Owner within seven (7) calendar days of receipt of these instructions if the clarification causes any change to the Contract Sum and/or Contract time.

Description:

Comments:

Attachments:

.....
.....
.....
.....

Issued By:

.....
.....
Architect's Representative Date

.....
.....
Owner's Representative Date

CHANGE ORDER REQUEST (PROPOSAL)

Project: CWU Hydrogeologic Test Well Drilling COR Number: _____
_____ From (Contractor): _____
To: _____ Date: _____
_____ A/E Project Number: _____
RE: _____ Contract For: _____

This Change Order Request (COR) contains an itemized quotation for changes in the Contract Sum and/or Time in response to proposed modifications to the Contract Documents base on Proposal Request Number _____

Description of Proposed Change:

Attachment

Reason for Change:

Does Proposed Change involve a change in Contract Sum or Contract Time? Yes No

If Yes: Proposed Change in Contract Sum _____
Proposed Change in Contract Time _____

Attached Pages: Proposed Worksheet Summary
Proposed Worksheet Detail(s)

Signed by: _____

Attached is supporting information from Subcontractor Supplier _____ _____

Copies: Owner Contractor Consultants Field _____ _____

PROPOSAL WORKSHEET SUMMARY

Project: _____ COR Number: _____

_____ From (Contractor): _____

To: _____ Date: _____

Proposal Request Number: _____ A/E Project Number: _____

Complete and attach Proposal Worksheet Detail for each Subcontractor. Enter Work Sheet Information below.

SUBCONTRACTORS' ADDITIONS:

Sheet	Description	Material	Labor	Sub-Total
1				
2				
3				
4				
5				
6				
7				
Sub-Total				

SUBCONTRACTORS' DEDUCTS:

Sheet	Description	Material	Labor	Sub-Total
1				
2				
3				
4				
5				
6				
7				
Sub-Total				

Subcontractors' Net: _____
 Subcontractors' OH&P: _____
 Subcontractors' Bond: _____
 Subcontractors' Total: _____
 General Contractor OH&P: _____
 General Contractor Bond: _____
 Insurance: _____
 Tax: _____
WORKSHEET TOTAL: _____

PROPOSAL WORKSHEET DETAIL

Project Name: _____ COR Number: _____

Project Number: _____ Detail Sheet Number: _____

Subcontractor Name: _____ Date: _____

Phone Number/Contact Person: _____ **DO NOT MARK IN SHADED AREAS.**

ADDITIONS

	Ref. No.	Item Description	Quantity	UNIT PRICES				SUB-TOTALS					
				Materials		Labor		Materials		Labor		TOTAL	
1													
2													
3													
4													
5													
Sub-Total (Enter this number on Work Sheet Summary.)													

DEDUCTIONS

	Ref. No.	Item Description	Quantity	UNIT PRICES				SUB-TOTALS					
				Materials		Labor		Materials		Labor		TOTAL	
1													
2													
3													
4													
5													
Sub-Total (Enter this number on Work Sheet Summary.)													

FIELD AUTHORIZATION FORM

FA NO.:

To:	Distribution:	
	CPP (Project Manager)	_____
	Architect/Engineer	_____
	Contractor	_____

PROJECT TITLE: CWU Hydrogeologic Test Well Drilling
CWU PROJECT NUMBER: xxxxx-xx
CONTRACT NUMBER:

You are directed to proceed with work as described below and/or detailed on the attachments noted:

Reason for Change:

-
- _____ This work is not perceived to result in a change to the contract amount or schedule. If the Contractor considers the above work to warrant an increase or decrease to the contract, it is necessary to indicate below and to prepare and submit cost project data as described.
 - _____ This work is perceived to be a change to the contract. The Contractor is authorized to proceed based upon a maximum cost (increased) (decreased) (no change) of \$ _____. This cost includes all associated tasks and impacts to this contract caused by the conditions stipulated.
- Contract completion will be (increased) (decreased) (unchanged) by _____ days.

*Payment for this Field Authorization will be made upon incorporation of this FA into a change Order. Final negotiated price is subject to submittal of labor and materials records.

COST DATA (collected by one of the following methods in accordance with the General Conditions)

- _____ Unit Prices per Unit of Measurement
- _____ Lump Sum with Detailed Cost Breakdown
- _____ Actual Cost: Time and Material charges with daily work sheets that list the name, trade, firm, hours, itemized materials, equipment and other job related costs. Verification of hours must be coordinated with the Owner within _____ days of completion of the work.

AGREED TO (Contractor): date _____

_____ by:

APPROVED (Architect/Engineer): date _____

_____ by:

AUTHORIZED (CWU Project Manager): date _____

Approval to proceed for amounts of \$ 5,000.00 plus 2% of contract amount, not to exceed \$ 20,000.00)

_____ by:

CENTRAL WASHINGTON UNIVERSITY

FIELD AUTHORIZATION FORM PROCEDURE

THIS FORM IS NOT INTENDED AS A MEANS TO CHANGE A CONTRACT. IT IS INTENDED AS A VEHICLE TO EXPEDITE THE AUTHORIZATION OF CHANGES TO OR CLARIFICATIONS OF PROJECT SCOPE WHICH REQUIRE IMMEDIATE ACTION DUE TO PROJECT CONSTRAINTS. RESULTANT CONTRACT CHANGES WILL BE ADDRESSED THROUGH NORMAL CHANGE ORDER PROCEDURES.

Description of the Field Authorization Process

1. A question or problem is identified by the Contractor, Project Manager, or Architect which requires immediate response.
2. The Architect/Engineer identifies the work as either a clarification of the work covered by the existing contract or a change to the contract which involves the potential for a change in either the contract sum or completion schedule.

If the work is simply a clarification, then pertinent spaces on the form are filled in indicating a no cost item, and the change in project completion if any is defined.

If the work is identified as a change in project scope, then the Architect/Engineer establishes a not to exceed cost and stipulates the methodology for the establishment of the actual costs.

Options available include:

- Unit Prices - Amount of work is unknown due to hidden conditions, and work is performed in easily verified units.
- Lump Sum with Detailed Cost Breakdown - Typical method to be used
- Time and Materials - Amount of work is unknown due to hidden conditions

3. Concurrence is obtained from Architect/Engineers, Facilities Planning and Construction Services Project Manager, and Contractor to proceed within the maximum amount stipulated.
4. Authorization to proceed is obtained from the Director of Facilities Management Department.
Authority to authorize work is limited to the following:
Project Managers: \$ 5,000.00 plus 2% of contract amount, not to exceed \$ 20,000.00
5. Copy of the executed Field Authorization is distributed as a Notice to Proceed.
6. Work is performed.
7. Cost data is reviewed and approved by the Architect/Engineer.
8. Cost data is reviewed and approved by the Project Manager.
9. The Field Authorization is incorporated into a future Change Order prepared by the Architect/Engineer.
10. Change Order is reviewed by Capital Planning and Projects of the Facilities Management Department, and forwarded to the Business Office for Authorization.
11. Copies of the executed Change Order are distributed to Capital Planning & Projects office, Architect/Engineer, Contractor, and the Business Office.
12. Payment for work involved is addressed through the next scheduled application for payment after change order is executed.

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
- B. Requirements for Schedule of Values and Applications for Payment are also included in Part 6 of the General Conditions for Washington State Facility Construction. This specification section includes additional detail regarding procedural requirements. In the event of conflicts between this specification and Part 6, the General Conditions shall supersede any requirements identified herein.
- C. Contractor to provide a digital copy of the Project Record Document to the owner as part of the monthly payment processing”.
- D. Contractor shall submit all invoices and applications for payment on forms provided by the Owner, available electronically in Excel format.

1.2 SCHEDULE OF VALUES

- A. Submit a list of all Subcontractors and Material Suppliers.
- B. The Schedule of Values and the Contractor's Construction Schedule are to be developed and agreed to with the Subcontractors.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's Construction Schedule.
 - b. Application for Payment forms, including Continuation Sheets.
 - c. List of subcontractors.
 - d. Schedule of allowances (if any).
 - e. Schedule of alternates.
 - f. List of products.
 - g. List of principal suppliers and fabricators.
 - h. Schedule of submittals.
 - 2. Submit the Schedule of Values to the A/E and Owner for approval at the earliest possible date but no later than 30 days after the issuance of the Notice to Proceed, and not less than 14 days prior to the first application for payment.
- C. Use the Project Manual table of contents as a guide to format the Schedule of Values. Provide at least one line item for each listed Specification Section beginning with Division 2. Relate applicable activities of the Progress Schedule with each line item broken down separately for labor and materials. Include the following as a minimum:

1. Include separate line item values for construction progress schedule and updates, mobilization, permits/bonds/insurances, temporary facilities, supervision, survey and layout, demobilization, commissioning and equipment/systems start-up, and project closeout retainage.
 - a. General Conditions and Mobilization shall not exceed 3% of the Contract amount.
 - b. Demobilization shall be not less than 1% of the Contract amount.
 - c. Project closeout retainage value, for duration between Substantial Completion and Final Acceptance shall be not less than 2% of the Contract amount. Of that amount, 1% shall be for "Punchlist Work". This amount will not be released until Final Completion is reached.
 - 1) This closeout retainage shall be in addition to the 5% retainage withheld under General Conditions item 6.04, and shall be for the purpose of protection of the Owner in the completion of outstanding items on the Final Acceptance Punch List, and for reimbursing the Architect and their consultants for additional 'punch list' re-inspections beyond the first re-inspection; refer to Section 017700.
 - d. Schedule preparation and updates shall not be less than 1/2% of the Contract amount.
2. Major cost items, which are not directly a cost of actual work-in-place, such as distinct temporary facilities, may be either shown as items in the Schedule of Values or included in General Conditions and Mobilization or Demobilization at the Contractor's option.
3. Line item amounts shall be rounded off to nearest whole dollar, with total of the primary schedule of values breakdown equal to the Contract Sum.
4. Provide at least one line item for each Specification Section, and at least one line item for each pertinent item within each specification section.
5. No line item of the Schedule of Values shall be greater than \$30,000 unless approved by Owner.
6. Break down items of work that include both labor and material into those respective components.
7. Provide breakdown by construction phasing or area of work.
8. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. Include requirements for insurance and bonded warehousing, if required.
 - b. Include separate line item cost for shop drawing preparation.
9. Unit Cost Allowances: Show the line-item value of unit-cost allowances (if any) as a product of the unit cost, multiplied by the measured quantity. Estimate quantities from the best indication in the Contract Documents.

10. Margins of Cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
 - D. Contractor to provide a project invoice (cash flow) projection forecast schedule for the entire project. Showing accounts payable for each month throughout the duration of the project, construction to completion and Owner acceptance.
 - E. Identify work, if any, to be performed by minority-owned business enterprises (MBE) and women-owned business enterprises (WBE).
 - F. Identification: Include the following Project identification on the Schedule of Values:
 1. Project name and location.
 2. Name of Architect.
 3. Owner's Project Number.
 4. Contractor's name and address.
 5. Date of submittal.
 - G. Listing: Arrange the Schedule of Values in tabular form with separate columns indicating the following for each item listed:
 1. Related Specification Section.
 2. Description of Work.
 3. Name of subcontractor or manufacturer/supplier (as applicable).
 4. Dollar value.
 5. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - H. Schedule of Values Updating: Update and resubmit Schedule of Values prior to the next Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum. Add a new line item for each Change Order, and provide a breakdown of several line items for large or complicated Change Orders.
- 1.3 APPLICATIONS FOR PAYMENT
- A. General
 1. Submit itemized payment request as required in General Conditions together with Schedule of Values and other submittals as listed herein.

2. Except as otherwise indicated, sequence of progress payments is to be regular, and each must be consistent with previous applications and payments; it is recognized that certain applications involve extra requirements, including initial application, application at times of Substantial Completion, and final payment application.
 3. Contractor shall not "project" work completed beyond the date of Application for Payment submittal for the purpose of payment request.
- B. Each Application for Payment shall be consistent with previous applications and payments as certified and paid for by the Owner.
1. If the Contractor withholds any portion of a previous payment from a subcontractor or material supplier, other than normal retainage, the Contractor shall provide a letter to the Owner with the next Application for Payment stating the reasons for withholding the payment.
- C. Payment Application Times: Progress payments will be based upon a monthly period.
- D. Draft Payment Application: Draft copies shall be provided to the Owner. The draft payment request shall be a copy of the previous month's approved payment request, with proposed percentages and dollar amounts (rounded off to nearest whole dollar) beside each line item, and a total percentage complete and dollar amount for the month. Once the amounts are reviewed and agreed to by the Owner, the Contractor shall prepare the actual payment request as required in this section based upon the amounts agreed to in the draft application.
1. Have available for Owner review current Project Record Documents delineating any and all revisions since the previous application for payment.
- E. Application Preparation: Complete every entry on the actual payment request form. The Owner will return incomplete applications without action.
1. Entries shall match data on the Schedule of Values and the Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders issued prior to the last day of the construction period covered by the application.
- F. Transmittal: Submit 1 original signed copy (no photocopies of signatures are permitted) of each Application for Payment to the Owner by a method ensuring receipt within 48 hours.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the Owner.

- G. Initial Payment Application: The principal administrative actions and submittals which must precede or coincide with submittal of first payment application can be summarized as follows, but not necessarily by way of limitation:
1. Submit Statement of Intent to Pay Prevailing Wages on Public Works Contract on form issued by the State of Washington, Department of Labor and Industries. One is required from the Contractor and one from each of those subcontractors who will provide labor on the project site. When these forms have been filled in, the Contractor shall send them to the Industrial Statistician in Olympia for certification. After certification, three copies will be returned to the Contractor. The Contractor shall forward the Owner's copy directly to the Owner (do not send through the A/E). The Contractor shall also post on the project site one certified copy of each Statement of Intent. For further information, phone the Industrial Statistician (360) 902-5335. Processing of an application will not begin until an approved copy is on file with the Owner for each classification of laborers, workers, or mechanics employed by the Contractor or Subcontractor that are included in an application for payment; no exceptions.
 2. Submit and receive review comments for latest construction schedule.
 3. Submit Schedule of Values, allocated to the various portions of the work; the schedule shall be used as a basis for the Contractor's Application for Payment.
 4. List of Subcontractors, complete with phone numbers, business address and contact person.
 5. List of major material suppliers and fabricators, complete with phone numbers, business address and contact person.
 6. Contractor's Progress Schedule (preliminary if not final).
 7. Schedule of Unit Prices, as applicable.
 8. Schedule of Submittals (preliminary if not final).
 9. Copies of acquired building permits and similar authorizations and licenses from governing authorities for current performance of the work.
 10. Initial settlement survey and damage report, if required.
 11. Quality Control Plan.
 12. Safety Plan.
 13. MWBE participation listing.
 14. Waste Management Plan.
 15. List of emergency contact information.

16. Other documents as may be required in the Contract Documents.

H. Applications each Month during Construction:

1. Submit itemized application; in number of copies as specified herein, each with waivers of mechanics liens from principal subcontractors, sub-subcontractors and suppliers as specified below.
2. Applications are to be signed by a responsible officer of contracting firm. Do not sign in black ink; no photocopies of signature permitted.
3. Application for Payment shall include the following:
 - a. Application and Certificate for Payment on Contract.
 - b. Invoice Voucher
 - c. Invoice Voucher - Escrow.
 - d. Certificate for Material Stored on Job Site.
 - e. Updated Construction and Submittal Schedules: If substantial changes have occurred in the project Construction Schedule, or if enough changes have occurred that the schedule is rendered inaccurate or ineffective, submit with Application for Payment a revised updated Construction Schedule for evaluation and measurement of actual work-in-place with said application for payment, together with updated submittal schedule. If the Contractor does not submit a revised schedule with a payment request it is agreed by the Contractor that the project is still on schedule according to the last submitted schedule.
 - 1) If actual work completed is more than 14 days behind schedule, submit a recovery schedule per requirements of Section 013200, Construction Progress Schedule.
 - f. Digital copy of the Project Record Documents shall be provided to the owner for review.
 - g. Certificates of Notice of Potential Hazards
4. When the Owner finds Application for Payment properly completed and correct, the Owner will sign and process all copies of Application for Payment for payment.
5. If the Owner finds the Application for Payment improperly or incorrectly executed, an annotated copy will be returned for a NEW SUBMITTAL.
6. Only minor corrections are allowed, with approval of Owner.

I. Application at Time of Substantial Completion: See Section 017700 for principal administrative actions and submittals which must precede or coincide with such special applications.

1.4 PAYMENT FOR STORED MATERIAL

A. See General Conditions for Washington State Facility Construction Article 6.03.

1.5 SUBSTANTIATING DATA

- A. When the Owner requires substantiating information, submit data in a timely manner justifying line item amounts in question.

1.6 APPLICATION FOR FINAL PAYMENT

- A. Application for a FINAL pay request will be accepted for processing only after satisfactory completion of the following:
 - 1. Punchlist items complete and accepted;
 - 2. Agreement on all Change Order costs;
 - 3. Required permits signed off;
 - 4. Submittal of Project Record Documents
 - 5. Submittal of O&M Manuals;
 - 6. Submittal of Warranty Manuals;
 - 7. Certification of Asbestos Free Materials.
 - 8. All training has been provided to Owner's designated staff and signed rosters of those attending submitted to the PM.
 - 9. All security badges and building keys have been returned.
 - 10. Other requirements as specified in Section 017700 - Closeout Procedures.

1.7 RELEASE OF RETAINAGE

- A. Pursuant to the completion of Work performed in accordance with a public works contract and Final Acceptance by the Owner, the following requirements must be satisfied to allow the release of retained contract funds at the earliest possible date.
 - 1. All Contract Closeout items have been reviewed by the A/E, any corrections made by the Contractor, and final copies received by the Owner.
 - 2. The A/E maintain a Construction Completion Checklist of requirements for completing the project. When the A/E determines that the checklist has been completed, the A/E consults with the Owner for concurrence that all requirements have been met for establishing Final Completion.
 - 3. If there are no outstanding items required of the Contractor on the Construction Completion Checklist, the A/E provides a letter to the Owner with a copy to the Contractor that to the best of its knowledge, information, and belief, the Contractor has reached Final Completion on the project in conformance with the Contract Documents.

4. Upon receipt of the signed Notification of Project Completion, the Owner issues its Completion Notice to the Department of Revenue and its Notice of Completion of Public Works Contract.
5. Final Acceptance shall be issued to the Contractor when all the foregoing requirements are met and the project is formally accepted by the CWU Board of Trustees at their regularly-scheduled meeting.
6. Certificate of Payment of State Excise Taxes by Public Works Contractor; following receipt of Owner's notice of completion and after determining that all taxes, increase and penalties due from Contractor have been paid, the Department of Revenue will issue this certificate to the Owner, releasing the state's lien on the retained percentage.
7. Certificate of Payment of Contributions, Penalties and Interest on Public Works Contract; upon receiving a copy of the Owner's notice of completion from the Department of Revenue and determining that the Contractor is in compliance with the provisions of the Employment Security Act, the Employment Security Department will issue this certificate to the Owner, releasing its lien on the retained percentage.
8. Request for Release. This form must be completed by the Contractor and mailed to the Department of Labor and Industries, Industrial Insurance division, Contract Release Section, Olympia, Washington 98504. One copy of the Contractor's request for release, including attached list of Subcontractors, shall be transmitted to Owner.
9. Certificate of Release. Upon receipt of Contractor's request for release and verification from its records that the industrial insurance and medical aid premiums have been paid by Contractor and each Subcontractor, the Department of Labor and Industries will so note on its internet site. The owner will review L&I's internet site for status compliance. Once full compliance is noted, it is confirmation that L&I does not hold a lien against the project.
10. At the time the Owner sends the Contractor written notice of Final Acceptance, it advertises the acceptance of the project which begins the forty five (45) day period for liens to be filed.
11. At the end of the forty five (45) day period, releases have been received, or confirmed, and there are no liens filed that have not been released, the retainage will be released.
 - a. If the retainage was placed in an escrow account, the Owner will notify the escrow company that the retainage may be released. No invoice billing from the Contractor for the retainage is required.
 - b. If the Contractor has elected to not put the retainage in escrow, an invoice for the retainage amount must be submitted and processed to allow release of the retained money.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings, which include responsibilities for the General Contractor and specific Subcontractors.
 - 3. Bidder-design systems.
 - 4. Requests for Information (RFIs).
 - 5. Project meetings.
- B. Related Requirements:
 - 1. 013200 - Construction Progress Documentation: for preparing and submitting Contractor's construction schedule.
 - 2. 017300 – Execution Requirements: for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. 017700 - Closeout Procedures: for coordinating closeout of the Contract.

1.2 SUBMITTALS

- A. General: Make submittals in accordance with Section 013300 – Submittal Procedures.

1.3 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work, and that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Pre-installation conferences.
 7. Project closeout activities.
 8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
- 1.4 REQUESTS FOR INFORMATION (RFI)
- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in a form that has been prior approved by the Owner's Representative and Architect.
1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Date.
 3. Name of Contractor, and subcontractor
 4. Name of Architect and Owner.
 5. RFI number, numbered sequentially.
 6. Specification Section number and title and related paragraphs, as appropriate.
 7. Drawing number and detail references, as appropriate.
 8. Field dimensions and conditions, as appropriate.

9. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 10. Contractor's signature.
 11. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Form bound in Project Manual or Software-generated form with substantially the same content as indicated above, acceptable to Architect.
1. Attachments shall be electronic files in PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow ten working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. PST, will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit a Change Order Request (COR) according to Section 012600 - Contract Modification Procedures.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect and Owner's Representative in writing within 10 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly on a form that is acceptable to the Owner's Representative and Architect.
1. Project name.
 2. Name and address of Contractor.
 3. Name of Architect and Owner.
 4. RFI number including RFIs that were returned without action or withdrawn.
 5. RFI description.

6. Date the RFI was submitted.
 7. Date Architect's and Owner's Representative's response was received.
- F. On receipt of Architect's and Owner's Representative's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect and Owner's Representative within seven days if Contractor disagrees with response.
1. Include identification of related Minor Change in the Work or and Change Order Request (COR), as appropriate.

1.5 PROJECT MEETINGS

- A. General: Contractor shall schedule and conduct meetings and conferences at Project site unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner's Representative and Architect of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting shall record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner's Representative and Architect, within three days of the meeting.
- B. Preconstruction Conference: Contractor shall schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 20 days after Notice to Proceed.
1. Conduct the conference to review responsibilities and personnel assignments.
 2. Attendees: Authorized representatives of Owner, Architect and selected consultants; Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Critical work sequencing and long-lead items.
 - c. Designation of key personnel and their duties.
 - d. Lines of communications.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for RFIs.
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.

- k. LEED requirements.
 - l. Preparation of as-built documents.
 - m. Use of the premises.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for moisture and mold control.
 - s. Construction waste management and recycling.
 - t. Parking availability.
 - u. Office, work, and storage areas.
 - v. Equipment deliveries and priorities.
 - w. Safety and first aid.
 - x. Security.
- C. Progress Meetings: Contractor shall conduct progress meetings at weekly intervals.
- 1. Coordinate dates of meetings with preparation of payment requests.
 - 2. Attendees: In addition to representatives of Owner, Owner's Commissioning Authority, and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project. At minimum, agenda shall include:
 - a. Approval of minutes of previous meeting.
 - b. Construction Schedule: current activities, planned progress during succeeding Work period, critical activities, off-site fabrication, deviations from schedule, issues that may impede planned progress, and corrective measures to regain projected schedule.
 - c. Field observations, problems, conflicts, and decisions.
 - d. Deficiencies: Identification of items and status of corrections.
 - e. Requests for Information (RFIs): review of RFI log, status of clarifications and change order requests.
 - f. Changes and modifications: Status of change orders, pending changes and claims.
 - g. Submittals: submittal schedule, status of submittals, and effect on construction progress schedule.
 - h. Adequacy of work forces.
 - i. Coordination between elements of Work.
 - j. Maintenance of As-Built Documents.
 - k. Other business relating to progress of Work.
 - l. Progress for Sustainable Design Requirements for LEED Certification.
- D. Pre-installation Conferences: Contractor shall conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, Owner's Representative, and Owner's Commissioning Authority (when appropriate) of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Related RFIs.
 - c. Related Change Orders.
 - d. Purchases.
 - e. Deliveries.
 - f. Submittals.
 - g. LEED requirements.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- E. Project Closeout Conference: Contractor shall schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 60 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.

2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Architect and selected consultants; Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of as-built documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for completing LEED documentation.
 - e. Requirements for preparing operations and maintenance data.
 - f. Requirements for delivery of material samples, attic stock, and spare parts.
 - g. Requirements for demonstration and training.
 - h. Preparation of Contractor's punch list.
 - i. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - j. Submittal procedures.
 - k. Owner's partial occupancy requirements.
 - l. Installation of Owner's furniture, fixtures, and equipment.
 - m. Responsibility for removing temporary facilities and controls.
4. Minutes: Entity conducting meeting will record and distribute meeting minutes.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Preliminary Construction Schedule.
 - 2. Contractor's Construction Schedule.
 - 3. Submittals Schedule.
 - 4. Material location reports.
 - 5. Field condition reports.
 - 6. Special reports.
- B. Related Sections:
 - 1. 012900 - Payment Procedures: Submitting the Schedule of Values and review of Project Record Documents.
 - 2. 013100 - Project Management and Coordination: Submitting and distributing meeting and conference minutes.
 - 3. 013300 - Submittal Procedures: Submitting schedules and reports.
 - 4. 014500 - Quality Control: Submitting a schedule of tests and inspections.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.

- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. Fagnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- G. Major Area: A story of construction, a separate building, a significant space, or a similar significant construction element.
- H. Milestone: A key or critical point in time for reference or measurement.
- I. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.
- J. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.3 SUBMITTALS

- A. Submittals Schedule: Submit electronically as PDF. Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor.
 - 5. Description of the Work covered.
 - 6. Scheduled date for Architect's and Owner's Representative's final release or approval.
- B. Preliminary Construction Schedule: Submit electronically as PDF.
- C. Preliminary Network Diagram: Submit electronically as PDF, large enough to show entire network for entire construction period. Show logic ties for activities.
- D. Contractor's Construction Schedule: Submit electronically as PDF.
- E. Material Location Reports: Submit with payment application.
- F. Field Condition Reports: Submit at time of discovery of differing conditions.

- G. Special Reports: Submit at time of unusual event.

1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Initial Submittal: Submit concurrently with initial Construction Schedule. Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.

2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 - Submittal Procedures, in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
 4. Startup and Testing Time: Include not less than 14 days for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's and Owner's Representative's administrative procedures necessary for certification of Substantial Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Section 011000 – Summary of Work. Delivery dates indicated stipulate the earliest possible delivery date.
 2. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011000 - Summary. Delivery dates indicated stipulate the earliest possible delivery date.
 3. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Uninterruptible services.
 - c. Use of premises restrictions.
 - d. Provisions for future construction.
 - e. Seasonal variations.
 - f. Environmental control.
 4. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Mockups.
 - e. Fabrication.
 - f. Sample testing.
 - g. Deliveries.
 - h. Installation.
 - i. Tests and inspections.
 - j. Adjusting.
 - k. Curing.
 - l. Startup and placement into final use and operation.
 5. Area Separations: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - a. Structural completion.

- b. Permanent space enclosure.
 - c. Completion of mechanical installation.
 - d. Completion of electrical installation.
 - e. Substantial Completion.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion and the following interim milestones:
- 1. Structural topping out.
 - 2. Temporary dry-in.
 - 3. Final dry-in.
- F. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall project schedule.

2.3 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within seven days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 60 days of construction.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Preliminary Network Diagram: Submit diagram within 14 days of date established for the Notice to Proceed. Outline significant construction activities for the first 60 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's Construction Schedule using a computerized, time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than **30** days after date established for the Notice to Proceed.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Architect's approval of the schedule.

2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
 3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 4. Use "one workday" as the unit of time. Include list of nonworking days and holidays incorporated into the schedule.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the preliminary network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.
 - i. Testing and commissioning.
 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
 - a. Sub-networks on separate sheets are permissible for activities clearly off the critical path.
- E. Initial Issue of Schedule: Prepare initial network diagram from a list of straight "early start-total float" sort. Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
 2. Description of activity.
 3. Principal events of activity.
 4. Immediate preceding and succeeding activities.
 5. Early and late start dates.

6. Early and late finish dates.
 7. Activity duration in workdays.
 8. Total float or slack time.
- F. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
 2. Changes in early and late start dates.
 3. Changes in early and late finish dates.
 4. Changes in activity durations in workdays.
 5. Changes in the critical path.
 6. Changes in total float or slack time.
 7. Changes in the Contract Time.
- G. Form of 2 Week Bar Chart Schedule:
1. Contractor's Representative shall prepare 2 week look-ahead time scaled Bar Chart Schedules.
 2. Contractor's Representative shall distribute and explain Bar Chart Schedules to all parties at Progress Meetings specified in Section 013100.
 3. Update Bar Chart Schedules for each weekly Progress Meeting, projecting Work for the following 2 weeks.

2.5 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner's Representative within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, responses by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner's Representative in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.

2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect, Owner's Representative, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements for submittals required for performance of the Work, including the following:
 - 1. Product data, shop drawings, samples and supporting data as required in the technical sections.
 - 2. Informational submittals.
 - 3. Deferred Submittals per 2015 International Building Code, as required and as indicated on Drawings.
- B. Related Sections:
 - 1. 013100 - Project Management and Coordination
 - 2. 013200 - Construction Progress Documentation: Submittal Schedule.
 - 3. 017800 - Closeout Submittals: Submittals required at final acceptance.

1.2 SUBMITTAL PROCEDURES

- A. Schedule submittals to expedite Project in accordance with approved Construction Progress Schedule and in such sequence as to cause no delay in the Work or in the activities of Owner or of separate contractors. Clearly identify lead times and routing for “Deferred Submittals”.
- B. Deliver submittals to Architect's office. Submittals accepted only from Contractor.
- C. Submit product data, shop drawings, samples, calculations, certificates, manufacturer's instructions, and other items requested within each specification section.
- D. Transmit each submittal using form attached to this Section. Number submittals using Specification section number and unique numeric reference number. Number resubmittals with a lower case letter in alphabetic sequence for subsequent submittals.
 - 1. For example, Submittal “074113-02”: Specification Section - 074113; Reference Number -02. Resubmittal “074113-02b”: second resubmittal for this item.
- E. Marking Data Sheets: Identify each data sheet by Project, Contractor, subcontractor or supplier, pertinent Drawing sheets and detail numbers, and Specification section number, including respective referenced paragraph(s), item name(s) as applicable, and system type or assembly as appropriate.
- F. Apply Contractor's stamp, sign or initial and date certifying that review, verification of products, field dimensions, adjacent construction Work, and coordination of information, is in accordance with requirements of Work and Contract Documents.

- G. Submittals will be returned without processing if they have not been reviewed and stamped by Contractor for coordination of work and conformance with the Drawings and Specifications prior to submission to Architect, if they are not initialed or signed by authorized person, if they are not dated, or if it becomes evident that they have not been properly reviewed. Delays resulting there from are not the responsibility of Architect.
- H. Maintain in field office a copy of submittal schedule, the log of submittals indicating current status of each item, including a complete set of approved submittals for use by Architect and Owner. Approved submittals may be incorporated into Project Record Document files to be submitted to Owner at Project closeout, if maintained in an archival condition.

1.3 DEFERRED SUBMITTALS

- A. Deferred submittals are those portions of the design that are bidder-designed and that are required to be submitted for review and approval to the Authority Having Jurisdiction (AHJ) during the construction period. (Refer to IBC 107.3.4.1, 2015 edition).
- B. Refer to the Drawings for a listing of deferred submittals.
- C. Contractor shall be responsible for expediting deferred submittals for review and approval by the AHJ after the Architect's review and prior to fabrication and installation.
 - 1. Submit documents to the Architect and AHJ in the form and manner required by the AHJ.

1.4 PRODUCT DATA

- A. Modify product data and installation instructions to delete information which is not applicable to the work.
- B. Supplement standard information to provide information specifically applicable to the work.
- C. Form: Make submittals as electronic files.
 - 1. Electronic submittals.
 - a. Submit as PDF (Portable Document Format) document(s). Describe each submittal or submittal group under cover of an electronic transmittal. Submittals shall be grouped for individual, or like products. Include separate transmittals for unrelated products. Setup electronic submittals to be searchable.
 - b. Transmittal shall constitute the Contractor's certification that the submittal has been reviewed and is proposed for incorporation into the work.
 - c. Where documents are scanned, scan resolution shall be sufficient for readability, but not less than 150 dpi.
 - d. Product data submittals shall be sufficiently edited and/or annotated to clearly indicate the intended product, including of size(s), color(s), and

- e. selection of available accessories and options to be included, as appropriate.
 - e. Electronic product data submittals shall not be locked or password protected.
- D. Brochures, catalog cuts, and other product data which do not clearly indicate specific products intended will be rejected.
- E. The Architect will review product data, annotate as necessary, and return it.
- 1. Data for products approved for incorporation into the work will be returned with Architect's submittal review stamp marked for appropriate action.
 - 2. For electronically submitted data, where modifications to data indicated on the submittal are required by the Architect, such documents will be printed, revised and rescanned, or electronically modified and/or annotated, and may incorporate an additional page indicating action to be taken.

1.5 SHOP DRAWINGS

- A. Submit Shop Drawings required by individual Sections of the Specifications, and as otherwise required for proper performance of the work. Submit detail drawings of special accessory components not included in manufacturer's product data.
- B. Title each Drawing with the Project name and Number; identify each element of the drawings by reference to sheet number and detail, schedule, or room number of Contract Documents.
- C. Illustrate fully the requirements of the Specifications and the Contract Drawings, and accurately show quantities, kinds of materials, methods of assembly, and all data required for fabrication, erection, and installation.
- D. Show layout, details, materials, thicknesses, methods of assembly, attachments, the relationship of adjoining work, wiring diagrams, rough-in requirements, relevant field conditions and dimensions; coordinate with affected subcontractors and suppliers if in conflict. Clearly indicate field dimensions and field conditions.
- E. Electronic data of portions of the Contract Documents may be available for use as bases for preparation of shop drawings. The General Contractor shall be responsible for all subsequent distribution of such information to subcontractors and suppliers. Request documents by submitting an executed copy of the "Electronic Media Release Form" (EMR) form. Use of such documents implies Contractor's and subcontractors' agreement to the terms described on the form. Fully describe requirements for each request.
- F. Form: Make submittals as electronic files.
- 1. Electronic submittals.
 - a. Submit as PDF (Portable Document Format) document(s). Describe each submittal or submittal group under cover of an electronic transmittal. Submittals shall be grouped for individual, or like products. Include

separate transmittals for unrelated products. Setup electronic submittals to be searchable.

- b. Transmittal shall constitute the Contractor's certification that the submittal has been reviewed and is proposed for incorporation into the work, as indicated on the shop drawings.
 - c. Where documents are scanned, scan resolution shall be sufficient for readability, but not less than 150 dpi.
 - d. Electronic shop drawing submittals shall not be locked or password protected.
- G. The Architect will review shop drawings, annotate as necessary, and return them.
1. One copy of shop drawings for items approved for incorporation into the work will be returned with Architect's submittal review stamp marked for appropriate action.
 2. For electronically submitted shop drawings, where modifications are required by the Architect, such documents will be printed, revised and rescanned, or electronically modified and/or annotated, and may incorporate an additional page indicating action to be taken.

1.6 SAMPLES

- A. Submit quantity required by Contractor, plus 1 set, except where indicated otherwise in Specification sections, to be retained by Architect.
- B. Include identification on each sample with full Project information.
- C. Submit samples to illustrate functional and aesthetic characteristics of product, including integral parts and attachment devices. Coordinate sample submittals for interfacing Work.
- D. Except where specified otherwise, submit samples from full range of manufacturer's standard colors illustrating textures, patterns, and finishes where Architect's selection is required.
- E. Where custom colors are specified, submit samples illustrating colors, textures, patterns, and finishes for Architect's review. Architect will advise colors required or furnish samples for color matching.

1.7 SUPPORT REACTION DESIGN DATA

- A. When specified in individual Sections, submit support reaction design data.
- B. Furnish separate submittal indicating complete description of loads, forces, and moments transferred to "base building" structure at each point of contact.
- C. Include secondary forces resulting from connections used.
- D. Do not submit engineering calculations for support reactions.

- E. Submit design data bearing seal and signature of professional engineer responsible for design.

1.8 CALCULATIONS

- A. When specified in individual Sections, submit calculations.
- B. Submit engineering calculations for component sizes, deflections, and connections.
- C. Submit calculations bearing seal and signature of professional engineer responsible for design, registered in State of Washington.
- D. Where existing conditions deviate from Contract Documents or shop drawings, submit calculations for existing condition, including calculations for anticipated corrective action required, and changes to loads transferred to "base building" structure.

1.9 INFORMATIONAL SUBMITTALS

- A. Informational submittals upon which Architect is not expected to take responsive action may be so identified in Contract Documents. When professional certification of performance criteria of materials, systems, or equipment is required by Contract Documents, Architect shall be entitled to rely upon accuracy and completeness of such certifications.
- B. Types of Informational Submittals:
 - 1. Design data: Submit with shop drawings.
 - 2. Test reports: Submit within two weeks of testing.
 - 3. Certifications:
 - a. Submit certifications when specified in individual Specification sections.
 - b. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
 - c. Certifications may be recent or previous test results on material or product, but must be acceptable to Architect.
 - d. Submit welder certifications with shop drawings.
 - e. Submit manufacturer or fabricator certifications with product data.
 - f. Submit copy of Contractor-obtained 'Hot-Work' permits.
 - g. Submit certificates of compliance within two weeks following approval or acceptance by authority having jurisdiction.
 - h. Submit installation certifications within two weeks following completion of product installation.
 - 4. Engineering Certifications:
 - a. Submit certified statement, signed and sealed by professional structural engineer responsible for design attesting to the following:
 - 1) Conformity to applicable governing codes.
 - 2) Conformity to criteria in Contract Documents.
 - 3) Component parts were designed or selected for locale and application intended.

- 4) State of origin within jurisdiction of project.
 - b. Submit with shop drawings. Submit prior to fabrication if shop drawings are not required by individual specification sections.
5. Qualification Data:
 - a. When specified in individual Sections, submit manufacturers', fabricators', and installer's qualifications verifying years of experience.
 - b. Include list of completed projects having similar scope of Work identified by name, location, date, reference names, and phone numbers.
 - c. Submit manufacturer qualification data with proposed products list.
 - d. Submit fabricator or installer qualification data with list of subcontractors at least 15 days prior to submitting first Application for Payment.
6. Manufacturer's Instructions:
 - a. Refer to Section 016000 – Product Requirements and 017300 – Execution Requirements, for requirements.
 - b. When specified in individual Specification sections, submit manufacturer's printed instructions for delivery, storage, assembly, installation, adjusting, finishing, and other pertinent data.
 - c. Identify conflicts between manufacturer's instructions and Contract Documents.
 - d. Submit with product data.
7. Manufacturer's Field Reports:
 - a. Refer to Section 014000 – Quality Requirements, for requirements.
 - b. When specified in individual Specification sections, submit written results and findings of manufacturer's field services specified as part of Field Quality Control.
 - c. Submit within two weeks following completion of field services covered in individual reports.
8. Coordination Drawings: Refer to Section 013100 – Project Management and Coordination requirements related to trades indicated, unless otherwise indicated.

1.10 INCOMPLETE AND PARTIAL SUBMITTALS

- A. Incomplete Submittal: Submittal not complying with specified submittal requirements.
- B. Partial Submittal: Submittal subdivided into components as indicated in submittal schedule and each component submitted separately.
- C. Architect will not review incomplete submittals. Complete submittals for each item are required. Submittal will not be considered official until it is complete in every respect. Delays resulting from incomplete submittals are not responsibility of Architect.

1.11 CONTRACTOR REVIEW

- A. Review and approve submittals prior to transmittal to Architect. By approving and submitting shop drawings, product data and samples, Contractor represents that he has determined and verified all materials, field measurements, and field construction

criteria related thereto, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

- B. Coordinate submittals with requirements of Work and of Contract Documents.
- C. Stamp, sign or initial, and date each submittal to certify compliance with requirements of Contract Documents. Contractor's stamp shall bear the words as follows: REVIEWED AND APPROVED FOR COORDINATION AND CONFORMANCE WITH CONTRACT DOCUMENTS.
- D. Do not fabricate products or begin Work which require submittals until approved submittals have been received from Architect.

1.12 ARCHITECT REVIEW

- A. General: Architect's Review of Submittals: The Architect will review submittals only for conformance with the design concept of the Project and general compliance with the information given in the Contract Documents. The Architect's approval of such submittals shall not relieve the Contractor from the following:
 - 1. Responsibility for confirming and correlating dimensions at job site for tolerances, clearances, quantities, and fabrication processes;
 - 2. For information that pertains solely to the means, methods, techniques, sequences, and procedures of construction, which should not be submitted;
 - 3. For deviations from drawings or specifications, unless he has in writing specifically called the Architect's attention to such deviations at the time of submission, and secured his written approval;
 - 4. For coordination of the Work with other trades;
 - 5. For installation of the Work in full compliance with the Construction Documents, and responsibility for providing work not indicated on the shop drawings, but otherwise required for the completion of the Work.
- B. Architect will review construction progress schedules, submittal schedules, product lists, shop drawings, product data, and samples and return within 15 working days of receipt.
 - 1. Consultants' reviews will occur within scheduled time period with comments coordinated by Architect, prior to Architect's action stamp and return to Contractor.
- C. Do not make "Mass" submittals (6 or more submittals) to Architect at one time. If mass submittals are received, Architect's review time stated above will be extended as necessary to perform proper review. Architect will review Mass submittals based upon priority determined by Architect after consultation with Owner and Contractor.
- D. Informational submittals and other similar data are for Architect's information and do not require Architect's responsive action.

- E. Architect's Review Stamp
 - 1. "No Exception Taken": No corrections or resubmittal required; fabrication may proceed.
 - 2. "Make Corrections Noted": Comply with noted corrections and modifications; resubmittal not required; fabrication may proceed. If for any reason noted corrections and modifications cannot be fully complied with, resubmit for review requesting clarification; do not proceed with fabrication.
 - 3. "Rejected/Resubmit": Revise and resubmit for review; do not proceed with fabrication. Disapproved submittals will not be considered valid cause for construction delay
- F. Submittal approval does not authorize changes to Contract requirements, unless accompanied by a Change Order, Architect's Supplemental Instruction, or Construction Change Directive.
- G. After review, the Architect will then forward each electronic submittal back to the Contractor with copy of transmittal to the Owner.

1.13 RESUBMITTALS

- A. Make resubmittals under procedures specified for initial submittals; identify changes made since previous submittal.
- B. Architect will record time required to review resubmittals after original submittal and first resubmittal. Contractor shall reimburse Owner for charges of Architect and Architect's Consultants for reviewing submittal more than 2 times.

1.14 DISTRIBUTION OF APPROVED SUBMITTALS

- A. Contractor shall be responsible for all costs for duplicating and distributing reproductions of shop drawings, product data, samples, and other submittals which bear Architect's stamp of approval.
 - 1. Provide copies to Owner's Representative, Project site file, subcontractors, suppliers, other affected contractors, and other entities requiring information.
 - 2. Provide each testing and inspection agency, and governing authority with approved submittals for their exclusive use in providing specified quality control testing and inspection services.
 - 3. Maintain additional set of approved submittals for Project Record Documents file; refer to Section 017800 – Closeout Submittals.

1.15 USE OF ARCHITECT'S ELECTRONIC MEDIA FOR SHOP DRAWING SUBMITTALS

- A. Subject to the acceptance of the terms and conditions of the Electronic Media Release Form by the Contractor and affected Subcontractors, appended to the end of this section, the Architect will furnish selected construction drawings for assisting in preparation of shop drawings and interdisciplinary coordination drawings for the project. The transmitted documents are for reference only, and are not to be used as

shop drawings in their transmitted form of development. The transmitted documents will be provided to the Contractor on a one-time, project-specific basis.

- B. Available Drawings: Upon receipt of signed Electronic Media Release Form from the Contractor, the Architect will furnish electronic media to the Contractor.
- C. Request for Other Drawings: On a limited basis, Contractor's request for drawing files other than those listed above may be approved by Architect upon receipt of signed Electronic media Release Form
- D. Drawing Format and Availability:
 - 1. Files will be posted on LMN's Infoexchange® website with instructions for use as identified by the Architect.
- E. Contractor's Responsibility: Distribution of electronic files to Subcontractors shall be the Contractor's responsibility. In advance of receiving files from the Contractor, each Subcontractor who requests such files shall submit a signed Electronic Media Release Form to the Contractor and Architect.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SUBMITTAL TRANSMITTAL

NUMBER

TO *Contact Person*
Company Name
Street address
City, State. Zip

FROM
 DATE

Forward to:

PROJECT NAME: **Central Washington University
 Hydrogeologic Test Well
 Drilling**

WE TRANSMIT:

- SHOP DRAWINGS
- PRODUCT DATA
- SAMPLES
- OTHER:

ACTION CODE KEY

- A. NO EXCEPTION TAKEN
- B. MAKE CORRECTIONS NOTED
- C. REJECTED, RESUBMIT

COPIES	SECTION #	DESCRIPTION OR SHEET NUMBERS	ACTION CODE

Checking is only for conformance with the design concept of the project and compliance with the information given in the contract documents. Dimensions and quantities have not been checked and responsibility for their accuracy and conformance with actual job conditions remains the responsibility of the contractor. Contractor is responsible for information that solely pertains to fabrication process or to construction techniques and for coordination of the work of all trades.

REMARKS:

DELIVERED VIA

By:

PART 1 - GENERAL

1.1 REGULATORY REQUIREMENTS

- A. General: Reference to codes, standards or regulatory requirements made on Drawings or in Specifications are considered an integral part of Contract Documents as minimum requirements. Nothing in Contract Documents should be understood to conflict with laws, by-laws, or regulations of municipal, State, Federal, and other authorities having jurisdiction.
1. Effective Dates: Comply with the date in effect as of date of the Contract Documents, for respective codes and reference standards, unless otherwise indicated.
- B. Code Requirements:
1. International Code Council (ICC), Country Club Hills, Illinois.
 - a. 2018 International Building Code (IBC) with State of Washington amendments includes ICC A117.1-2009 Accessible and Usable Buildings and Facilities
 - b. 2010 ADA Standards for Accessible Design
 - c. 2018 International Fire Code (IFC) with State of Washington amendments
 - d. 2018 International Mechanical Code (IMC) with State of Washington amendments
 - e. 2018 Uniform Plumbing Code (UPC) with State of Washington amendments
 2. National Codes
 - a. 2020 National Electrical Code (with WAC amendments)
 - b. National Fire Protection Association Standards (2013 NFPA 13)
 3. State of Washington, Current in effect.
 - a. State of Washington Amendments Series (WAC 51) refer to item B.1. above
 - b. State of Washington Energy Code Commercial Construction (WAC51-11C) 2015
 - c. Washington State Labor and Industries, General Safety and Health Standards, current edition.
 - d. 2010 ASME A17.1a Safety Code for Elevators and Escalators current edition with State of Washington amendments.
 4. Other Codes and Ordinances as referenced in technical Sections of Specifications and as required to meet governmental regulations.

1.2 REFERENCE STANDARDS

- A. Comply with association, trade, federal, commercial, standards generating organization (such as ANSI and ASTM), and other similar standards referenced within Specification sections, except where more explicit or stringent requirements are indicated or required by Specification or applicable codes.

- B. Reference standards include their associated amendments and supplements.
- C. Except where a specific date is indicated, date of standard is latest edition in effect at date of Contract Documents, or date of standard required by code.
- D. Reference standards have same force and effect as if bound into or copied directly into Contract Documents; standards are made a part of Contract Documents by reference.
- E. Contractual relationship of parties to the Contract shall not be altered from Contract Documents by mention or inference otherwise in reference standards.
- F. Names and titles of standards are frequently abbreviated. Where acronyms or abbreviations are used in Specifications, they are defined to mean the recognized name of trade association, standards generating organization, governing authority, or other entity applicable to context of text provision.
- G. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding with Work.
- H. When indicated by individual Specification section, obtain copy of standard. Maintain copy at Project site during submittals, planning, and progress of specific work, until Substantial Completion.
- I. Units of measurements required by specifications govern regardless of units of measurement used in reference standards.

1.3 PROJECT MANUAL CONTENT

- A. Language:
 - 1. Imperative mood of sentence structure is generally used which places verb as first word in sentence. Except as otherwise indicated, requirements expressed imperatively are to be performed by Contractor.
 - 2. In certain circumstances, the language of specifications and other contract documents are of abbreviated type. It implies words and meanings that will be appropriately interpreted. Words such as "the," "shall," "shall be," "Contractor shall," "a," "all," "an," "any," and other similar words are eliminated.
 - 3. Singular words will be interpreted as plural and plural words will be interpreted as singular where applicable and where full context of Contract Documents so indicates.
 - 4. The words "shall be" are implied wherever a colon (:) is used within a sentence or phrase.
 - 5. Alpha-Numeric Abbreviations: Alpha-numeric abbreviations (e.g. **MTLP-1** for Metal Panel type 1) denote material and finish, type or system, as shown on the drawings, defined in abbreviation list, and described in the respective specification Section.
- B. Specialist Assignments:

1. In certain circumstances, Specification text requires or implies that specific elements of Work are to be assigned to specialists who must be engaged to perform that element of Work. Such assignments are special requirements of Contract.
2. Such assignments are intended to establish which party or entity involved in a specific element of Work is considered as being sufficiently experienced in indicated construction processes or operations to be recognized as "expert" in those processes or operations. Nevertheless, ultimate responsibility for fulfilling Contract requirements remains with Contractor.
3. These requirements should not be interpreted to conflict with enforcement of building codes and similar regulations governing the Work. They are also not intended to interfere with local trade union jurisdictional settlements and similar conventions.

C. Minimum Quality/Quantity:

1. Quality level or quantity shown or specified is intended to be minimum for Work to be performed or provided.
2. Except as otherwise specifically indicated, actual Work may either comply exactly with that minimum within specified tolerances, or may exceed that minimum within reasonable limits.
3. In complying with these requirements, indicated numeric values are either minimums or maximums as noted, or as appropriate for context of requirements.
4. Refer instances of uncertainty to Architect for decision before proceeding.

1.4 SYMBOLS

A. List of Symbols:

- # Number.
- % Percent.
- F Degrees Fahrenheit.
- C Degrees Celsius.
- ' Feet.
- " Inches.
- ± Plus to Minus; Plus or Minus.
- +/- Plus to Minus; Plus or Minus.

1.5 DEFINITIONS

- A. Basic Contract definitions are included in Conditions of the Contract.
- B. And: Conjunction indicating that items in series are to be taken jointly. It may also mean plus or in addition to preceding items in the series.
- C. Approved: Where used in conjunction with Architect's response or action, meaning will be held to limitations of Architect's responsibilities and duties as specified in General and Supplementary Conditions. In no case will Architect's approval be interpreted as

release of Contractor from responsibilities to fulfill requirements of Contract Documents.

- D. Directed, Requested: Terms such as "directed," "requested," "authorized," "selected," "approved," "required," "accepted," and "permitted" mean "directed by Architect," "requested by Architect," and similar phrases. However, no such implied meaning shall be interpreted to extend Architect's responsibility into area of construction supervision.
- E. Finish: The manner or method of completion. The final appearance of a surface, including texture, smoothness, sheen, and color, after finishing operations have been performed. Finishing operations include preparation of substrate and application, curing, and protection of specified finish materials.
- F. Furnish: Means to supply, purchase, procure and deliver complete with related accessories, ready for assembly, application, installation, and similar operations, as applicable in each instance.
- G. General Contractor and Contractor: These terms are used interchangeable throughout Division 01 and technical sections 02 through 33, referring to the procedural requirements affecting both the administration of the work and the work of individual trade contractors.
- H. Indicated: Refers to graphic representations, notes, or schedules on Drawings, or other paragraphs or Schedules in Specifications, and similar requirements in Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help reader locate the reference. Location is not limited.
- I. Install: Means to construct, assemble, erect, mount, anchor, place, connect, apply and similar operations, complete with related accessories, as applicable in each instance.
- J. Installer: An "Installer" is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor, or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. The term "experienced" when used with the term "Installer" means having successful previous experience with projects similar in size and scope to this Project, being familiar with the precautions required, and having complied with requirements of the authority having jurisdiction.
 - 2. Trades: Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- K. Or: Used to introduce any of the possibilities in a series. Items in the series are not required to be taken jointly. It does not mean that individual items in the series are optional requirements.

- L. Product: Includes natural and manufactured materials, components, machinery, fixtures, equipment, devices, furnishings, systems, and their associated accessories to be incorporated into the Work.
- M. Project Site: The space available to the Contractor for performance of construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings, and may or may not be identical with the description of the land upon which the Project is to be built
- N. Provide: Means to furnish and install, complete and ready for operations and use for purpose intended.
- O. Regulations: Includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within construction industry that control performance of the Work.
- P. Similar: Interpreted in its general sense and not as meaning identical. Elements defined as "similar" shall be coordinated in relationship to their location and connection with other parts of the Work.
- Q. Testing Agency: A "testing agency" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.
- R. True To Line, Plumb, Level, and Flat: Except as otherwise indicated in individual specification sections, install Work within following tolerances:
 - 1. True to line: Allowed deviation from straight line within plus or minus 1/16 inch in one foot; plus or minus 1/8 inch in 10 feet; plus or minus 1/4 inch in 20 feet; and plus or minus 3/8 inch in lengths over 20 feet.
 - 2. Level: Allowed deviation from horizontal plane within plus or minus 1/16 inch in one foot; plus or minus 1/8 inch in 10 feet; plus or minus 1/4 inch in 20 feet; and plus or minus 1/2 inch in lengths over 20 feet.
 - 3. Plumb: Allowed deviation from vertical plane within plus or minus 1/16 inch in one foot; plus or minus 1/8 inch in 10 feet; plus or minus 1/4 inch in 20 feet; and plus or minus 1/2 inch in lengths over 20 feet.
 - 4. Flat: Allowed deviation from flat plane in any planar direction within plus or minus 1/16 inch in one foot; plus or minus 1/8 inch in 10 feet; plus or minus 1/4 inch in 20 feet; and plus or minus 3/8 inch in lengths over 20 feet.
 - 5. Tolerances are not accumulative.

1.6 QUALITY ASSURANCE

- A. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.

- B. Monitor quality control over products, suppliers, manufacturers, services, site conditions, and workmanship to ensure Work complies with Contract Documents.
- C. Comply with specified reference standards for minimum quality of Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.7 MANUFACTURER'S FIELD SERVICES AND REPORTS

- A. Submit reports in accordance in accordance with Section 013300 – Submittal Procedures.
- B. When specified in individual Specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces, quality of workmanship, and conditions of installation as applicable, and to initiate instructions when necessary.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.
- D. Submit reports within 7 days of observation. Distribute copies to Architect, Project site file, subcontractor, and other entities requiring information.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Testing laboratory services for non-structural elements

1.2 GENERAL REQUIREMENTS:

- A. Provide inspections, tests, and other services specified in individual specification sections and the Authority Having Jurisdiction (AHJ).
- B. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Where terms "Laboratory," "Inspector," "Inspection Laboratory," "Testing" or "Testing Laboratory" are used, they mean and refer to officially designated and accredited testing laboratory.
- D. Provide testing laboratory with one set of relevant approved submittals.

1.3 SELECTION AND PAYMENT:

- A. Owner will appoint, employ, and pay for services of an independent testing laboratory to perform specified inspections and testing, unless specified otherwise.

1.4 TESTING LABORATORY:

- A. Laboratory Qualifications:
 - 1. Maintain staff size and qualifications required by testing standards and specification.
 - 2. Maintain instruments and equipment in accordance with testing standards.
 - 3. Authorized to operate in state where Project is located.
- B. Laboratory Responsibilities:
 - 1. Cooperate with Architect and Contractor; provide qualified personnel after due notice.
 - 2. Perform inspections, sampling, and testing in accordance with specified standards.
 - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 4. Provide inspections, tests, and other services specified in individual specification sections.
 - 5. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products with Contract Documents.

- C. Laboratory and inspection personnel are not authorized to:
 - 1. Release, revoke, alter, relax, or enlarge any requirements of Contract Documents.
 - 2. Perform any duties of Contractor.
 - 3. Approve or accept any portion of Work.
 - 4. Stop the Work.

1.5 CONTRACTOR RESPONSIBILITIES:

- A. Cooperate with laboratory personnel, provide access to Work and manufacturer's operations.
- B. Deliver samples or test mock-ups to testing laboratory prior to being incorporated into Work.
- C. Furnish copies of product tests or mill test reports as specified or required.
- D. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at Project site or at source of product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- E. Coordinate and schedule the work for timely performing testing and inspections.
- F. Notify laboratory 48 hours prior to expected time for operations requiring inspection and testing services.
- G. When inspections or tests cannot be performed after proper notification and at no fault of laboratory, reimbursement costs for laboratory expenses incurred will be charged to Contractor by deducting charges from Contract Sum.

1.6 SUBMITTALS:

- A. Laboratory Reports:
 - 1. Include with each report:
 - a. Date issued.
 - b. Project title and number.
 - c. Testing laboratory name, address, and telephone number.
 - d. Record of temperature and weather conditions.
 - e. Names of individuals making tests and inspections. Name and signature of person submitting report.
 - f. Dates, times, and locations of sampling, testing, and inspection.
 - g. Identification of specification section and products.
 - h. Location in Project.

- i. Type of inspection or test.
 - j. Reference standards used for test.
 - k. Name of material suppliers.
 - l. Results of tests and interpretation of test results.
 - m. Professional opinion of whether tested and inspected Work complies with Contract Documents.
 - n. Certified statement, signed and sealed by testing laboratory attesting to accuracy of testing results.
 - o. Recommendations on retesting.
 - p. Number pages.
 2. Submit test reports within 2 weeks of test date.
 3. After each inspection and test, promptly submit copies of written reports as follows:
 - a. Owner's Representative.
 - b. Architect.
 - c. City of Ellensburg agencies as required.
 - d. Contractor.
 4. When requested by Architect, provide interpretation of test results and suggested remedies.
- 1.7 FAILURES AND RETESTING:
- A. When initial inspections and tests indicate Work does not comply with Contract Documents, subsequent testing will be performed by same Testing Agency and will be done at Contractor's expense and deducted from Contract Sum.
 - B. Removal and replacement of Work necessitated by such non-compliance of Contract Documents shall be at Contractor's expense.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. Protect construction exposed by testing service activities.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes

1. Temporary Utilities: Electrical power, lighting, heat, ventilation, telephone service, water, and sanitary facilities.
2. Temporary Controls: Barriers, fencing, water control, exterior enclosures, protection of the Work, protection of existing items from construction activities, and security.
3. Construction Facilities: Parking; progress cleaning; existing tree and plant protection; landscape restoration; traffic and pedestrian obstructions; removal of utilities, facilities and controls; protection of existing utilities; hazardous materials spills; and confined space.

B. Related Sections

1. 007200 – General Conditions.
2. 007300 – Supplemental Conditions
3. 011000 – Summary of Work
4. 017329 – Cutting and Patching
5. 014500 – Quality Control Services
6. 017700 – Closeout Procedures

1.2 PHOTOGRAPHIC DOCUMENTATION

- #### A.
- Prior to the start of construction, the Owner, A/E and Contractor shall jointly photo-document all existing conditions and features within the area of Work. Each party shall retain copies in their files for future reference for determination of the existing conditions prior to the start of the Work.

1.3 TEMPORARY UTILITIES

A. General:

1. The contractor will reimburse the Owner for the cost of selected utilities when they are accessed through the Owner's on-site systems. The selected utilities are listed immediately below. The Owner will meter at the point(s) of connection and take readings on a monthly basis. A deductive change order will be executed monthly for the quantity indicated on the meter(s), multiplied by these rates:
 - a. Pay for electric energy used at the prevailing rate for service required, not to exceed the City of Ellensburg rates

- b. When the building's systems are fully functional and temporary utility systems are disconnected, the contractor may use the building's utilities without charge.
2. Electrical Power:
 - a. Existing building power may be used for temporary lighting and small hand tools during construction. Protect existing circuits from overload and protect existing equipment, especially motors, to be reused. Any damage to equipment or facilities or other effects, as a result of such usage, shall be repaired or replaced immediately to an equal to or better condition.
 - b. Provide power outlets for construction operations, with branch wiring and distribution boxes located at each floor. Provide flexible power cords as required.
 - c. Permanent convenience receptacles may be utilized during construction. If damaged, they shall be replaced by the Contractor.
3. Lighting:
 - a. Furnish and maintain a temporary wiring system providing general lighting throughout the structure to be constructed under this contract. Provide not less than 10 foot candles of light in the stairways, passageways, corridors, and windowless areas to assure safe working conditions.
 - b. Provide and maintain temporary lighting for construction operations sufficient to perform and inspect work being performed in all other areas during working hours.
 - c. Provide and maintain 1 foot candle of light to interior work areas after dark for security purposes.
 - d. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtailed, and lamps as required.
4. Heat:
 - a. Provide heat devices and heat as required to maintain specified conditions for construction operations as specified.
 - b. Maintain minimum ambient temperature of 65 degrees F in occupied spaces and 50 degrees F in unoccupied spaces, and a dust free atmosphere in areas where construction is in progress, unless indicated otherwise in specifications.
 - c. The university steam system may be utilized by the Contractor for temporary heat provided that:
 - 1) The Contractor shall provide all heating devices and equipment, pressure reduction piping, connections and disconnections, and appurtenances.
 - 2) All interruption of university steam system shall be performed by the Owner's personnel.
 - 3) Condensate must be returned to the system and not wasted.
 - 4) All work performed by the Contractor to utilize the steam system be coordinated with and approved by the Owner
 - 5) The exterior enclosure of the areas receiving temporary heat is complete and sealed to the satisfaction of the Owner.
 - d. The Owner reserves the right to discontinue providing temporary heat if, in his/her judgment, the enclosure of heated spaces is not adequately sealed.

5. Ventilation:
 - a. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
6. Telephone Service:
 - a. Provide, maintain and pay for telephone service to field office at time of project mobilization.
7. Water Service:
 - a. Existing Owner water service may be available for construction; verify with Owner. Coordinate tapping locating with Owner.
 - b. Extend branch piping with outlets located so water is available by hoses with threaded connections. Connections to the Owner's water supply system shall be protected by a tested and backflow prevention device that is approved by the Owner and separate shut-off valve.
 - c. All interruptions of university water system shall be performed by the Owner's personnel.
8. Sanitary Facilities:
 - a. Provide and maintain required facilities and enclosures at the worksite during construction. Contractor shall place facilities where directed by the Owner and maintain cleanliness. New toilet rooms SHALL NOT be used by the Contractor.
 - b. Comply with all applicable requirements for cleaning and/or disposal of waste from temporary sanitary facilities. Do not dispose of waste in either the existing sanitary or storm sewer systems.

1.4 TEMPORARY CONTROLS

- A. Barriers:
 1. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
 2. Provide warning tape and "Keep Out" signs to prevent unauthorized access to the construction areas.
 3. Protect non-owned vehicular traffic, stored materials, site and structures from damage. Security of the construction site materials and equipment is the sole responsibility of the Contractor.
- B. Dust-Proof Enclosures: In existing facilities install and maintain dust-proof enclosures to separate the work from equipment sensitive to dust including but not limited to HVAC, DDC, and fire alarm systems. Contractor shall implement provisions to prevent construction dust and smells from entering the building through ductwork. The Contractor shall seal off the ductwork within the work area that penetrates the dust barrier to prevent transmission of dust via the ductwork.
- C. Fencing:
 1. Provide sturdy, neat appearing, 6 foot high chain link fence around construction site as indicated on the drawings. Contractor shall provide and maintain gates

with locks, coordinating widths and locations with the Owner and Fire Marshal. No orange roll-up type fencing is allowed

2. Provide equivalent 6 foot high chain link fence around trees to be protected within the perimeter of the project site per the provisions of this section pertaining to protection of existing trees indicated to remain.
3. Fencing that is in-place at the start of construction will have been left by the previous contractor. The contractor of this phase shall assume the rental fee for all remaining fencing. It is anticipated that the fencing shall remain in-place

D. Water Control:

1. Grade site to drain. Maintain excavations free of water, including control of continuous underground water flow or build-up conditions. Provide, operate, and maintain pumping equipment until positive drainage system as designed is installed and operational. Disposal of waste water shall be the responsibility of the Contractor.
 - a. It is anticipated that heavy groundwater will be encountered in excavations deeper than 6 feet.
2. The Contractor shall exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution and shall conduct and schedule its operations so as to minimize or avoid muddying and silting of said channels, drains, and waters. Water pollution control work shall consist of constructing those facilities which may be required to provide prevention, control, and abatement of water pollution in accordance with guidelines established by the Washington State Department of Ecology and authorities having jurisdiction.
3. The Contractor shall maintain drainage within and through the work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the site as soon as their use is no longer necessary.
4. Protect site from standing water or running water including underground water sources by installation of temporary drainage control systems or piping to storm drain system coordinated with the storm utility provider.

E. Exterior Enclosures:

1. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification Sections,

F. Protection of Installed Work:

1. Protect installed Work and provide special protection where specified in individual specification Sections.
2. Provide temporary protection for installed Products. Control activity in immediate work area to prevent damage.

3. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
4. The Contractor shall provide suitable protection for finished floors, stairs, and other finished surfaces from traffic, dirt, wear, damage, or the movement of heavy objects by protection with suitable materials.
5. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
6. Prohibit traffic from all finished landscaped areas.
7. Smoking shall be allowed in all areas of the project site but is prohibited in interior areas of the building after the installation of gypsum board has begun. Smokers shall observe State Law and university policies when smoking outside with respect to distances from doorways and operable windows.

G. Security:

1. Provide security and facilities to protect Work and existing facilities from unauthorized entry, vandalism, or theft.
2. The Owner will not be responsible for losses resulting from the Contractor's failure to secure materials, equipment and the work area. Security of construction site materials and equipment is the sole responsibility of the Contractor.

1.5 CONSTRUCTION FACILITIES

A. Parking

1. Parking on site will not be permitted. There will be no parking within the lines designated as limits of work and construction fencing shown on the documents/drawings. Contractor's employee vehicles parking on-site or illegally parking in University parking lots or on University property will be ticketed for the first offense and may be towed for repeated violations at the vehicle owner's expense. Public parking is available close to site for daily fee of \$3.00 a day. Parking is first come basis.
2. Comply with Central Washington University traffic and parking regulations. These traffic and parking regulations are available upon request. Parking citations, impounding of vehicles and loss of parking privileges on campus may result from failure to comply with the regulations.
3. Within 14 days of the Notice to Proceed submit to Owner for review and approval a traffic/parking management plan. The following provisions shall be made part of Contractor's plan:

B. Traffic

1. Delivery and Storage: Conduct operations in such a manner as to avoid unnecessary interference to existing pedestrian and vehicle traffic. Minimize heavy vehicle traffic to and from site during peak traffic hours (7-9 a.m. and 3-6 p.m.). Do not park vehicles in traffic lanes. Provide flag persons, and traffic

control signs and devices as required. Notify Owner in advance of any unusually long or large deliveries. Assemble cranes during off hours. Storage of materials adjacent to the Project site outside of the construction fence is not permitted unless authorized by Owner.

2. Right-of-Way: Strict attention should be paid to maintaining fire lanes, roadways, walkways, and loading areas with a minimum interruption, with appropriate safety measures, and as required by Owner, the City of Ellensburg Police and Fire Departments. The University Police are authorized to enforce reasonable safety procedures.

C. Progress Cleaning:

1. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition to eliminate concerns related to personnel health and safety.
2. Remove all debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space. Prior to enclosing such area, obtain an inspection and approval from the Owner's on-site representative.
3. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
4. Collect and remove waste materials, debris, and rubbish from site daily and legally dispose of off-site. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids. Provide Owner with copies of all dump receipts with each Application for Payment Request.
5. Provide vehicles to haul materials off site that are constructed and loaded so as to prevent any leaking of materials from the vehicle (RCW 46.61.655). Keep sidewalks, lawns, parking areas and streets clear of all construction materials, debris, gravel, rock and dirt attributed to the Contractor or sub-contractors. Clean up sidewalks, lawns, parking areas and streets on a weekly basis and/or upon request by the Owner.

D. Field Offices and Sheds:

1. Office: Provide structurally sound, weather-tight facility, with lighting, electrical outlets, heating, and ventilating equipment, and equipped with drawing display table. Field office shall be located within the fenced area of construction or may be located within the existing building with the approval of the Owner.
2. Provide and maintain other temporary storage sheds, building or trailers as may be required. Locate only within the fenced area of construction unless otherwise approved by the Owner.

1.6 TEMPORARY HOISTS AND LIFTS

- A. General: Provide temporary lifts, hoists and other types of lifting equipment for hoisting materials and employees as required for the completion of the Work; verify requirements of all trades.

1. Number and capacity of lifting equipment is the Contractor's responsibility and no additional time or cost will be allowed by the Owner for the Contractor's lack of planning for vertical hoisting of materials.
2. Contractor may furnish transportation by its own forces, or may require its subcontractors to furnish their own, at its option.

1.7 EXISTING TREE AND PLANT PROTECTION

- A. Critical Root Zone: Generally a circular area surrounding a tree, the center of which is the center of the tree trunk and the radius is the distance from the outside of the trunk to any point 12 times the diameter, as measured at 4½ feet from the ground on the low side of the trunk, which point constitutes the circumference of the critical root zone.
- B. Zone of Protection: The area of the critical root zone shall be fenced with no construction-related activities allowed within this zone of protection. The diameter of the fencing shall not be reduced without written instructions from the Owner. The restricted activities are, but are not limited to, storage, paving, grading, cutting, filling, stockpiling, equipment wash-down, travel within, dumping, or spillage of any solid or liquid unless otherwise shown on the Drawings.
- C. Open trenches are not to be routed beneath the outside boundary of the tree drip line that is to be preserved unless otherwise approved by the Owner; in which case damage may be reduced by careful placement of trenches to avoid and protect large tree roots of by tunneling under rather than cutting roots greater than 1-1/2" diameter.
- D. Construction and Post-Construction Requirements:
 1. The protective fence shall not be disturbed or removed until all exterior construction has been completed.
 2. Water shall be applied 2 times a week during growing season until the completion of exterior construction.
 3. Removal of interfering branches will be supervised by the Owner.
 4. No roto-tilling or major soil disturbance shall take place within this zone of protection, before, during, or after the construction.
 5. If trees are damaged, notify the Owner immediately and promptly repair trees damaged by construction within 24 hours. Treatment of damaged trunks, limbs, and roots will conform to ANSI A300-Part 1-1995 pruning standards.
 6. With Owner's approval, prior to Final Completion, prune trees; all pruning will conform to ANSI A300-Part 1-1995 pruning standards, with the supervision of the Owner, to remove damaged branches and encourage healthy new growth. Owner will review completed pruning, and if unsatisfactory, direct additional work at no additional cost to the Owner.
- E. The Contractor shall protect all trees and other plant types on site from damage until project completion. If any tree or other type of plants are destroyed, disfigured, or damaged so that in the Owner's opinion removal is required, Contractor will remove and replace the plant with like plant species and size materials. Provide new trees of

6-inch caliper size and of a species selected by Owner when trees more than 6 inches in caliper size, measured 12 inches above grade, are required to be replaced.

- F. At the completion of construction, aerate surface soil, compacted during construction, 10 feet beyond drip line and no closer than 36 inches to tree trunk. Drill 2-inch-diameter holes a minimum of 12 inches deep at 24 inches o.c. Backfill holes with an equal mix of augered soil and sand.
- G. If at any time the Contractor judges that the protection of a tree designated to be saved is incompatible with work required, or if operations necessarily threaten the health of a tree, immediately notify the Owner's and do no further work affecting the tree until a written agreement is reached concerning acceptable resolution.

1.8 LANDSCAPE RESTORATION

- A. If landscape areas are affected by construction work, staging and/or parking area(s) protect surface adequately to avoid major damage. Replace all damaged areas with sod. The Contractor shall restore the area to existing or better condition per the following requirements:
 - 1. Remove all construction equipment, building material, debris and remnants of destroyed sod or plantings before commencing landscape restoration.
 - 2. Rough grade the site according to the existing conditions or specified grading plan.
 - 3. Till or handpick (except under trees) soil to a depth of 8 inches. Remove any rocks over 1 inch in diameter, torn roots and debris.
 - 4. Amend soil, if topsoil does not exist or was removed, with organic material to a depth of 12 inches.
 - 5. Fine grade the area according to existing conditions or to exact grading specifications.
 - 6. Sod specifications:
 - a. Sod (Preference): Bluegrass, no netting.
 - b. Sod bed preparation shall consist of incorporation of 4 lbs of 5-25-25 Starter Fertilizer and 50 lbs of Dolomite Lime per 1000 square feet into the top 4" of soil. Fine grade and roll the surface.
 - c. Sod shall be laid in a staggered pattern so joints do not match. After the sod is laid it must be rolled smooth to ensure good soil contact and eliminate any uneven surfaces. Apply irrigation to the sod on a daily basis to allow for root growth. Sod shall be continued to be irrigated on a daily basis for up six (6) weeks based on seasonal weather conditions as directed by the Owner.
 - d. Provide adequate barriers and signs to prevent pedestrians from traversing the newly sodded areas.

1.9 TRAFFIC AND PEDESTRIAN OBSTRUCTIONS

- A. Provide signs and/or flag persons in accordance with WAC 296-155-305 and RCW 47.36.200 for deliveries or operations which obstruct traffic in surrounding streets and parking areas.
- B. Contractor's equipment located on sidewalks or other pedestrian ways shall be suitably barricaded for cane detection as a warning for sight-impaired persons. Barricade shall include a horizontal member at a maximum of two feet above the walking surface. Pedestrian traffic will be diverted with appropriate signs, barricades, fences, etc., from any area where contractor equipment or operations may pose a threat to the safety and health of passing pedestrians.

1.10 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

- A. Remove temporary above-grade or buried utilities, equipment, facilities, materials, prior to final inspection.
- B. Clean and repair damage caused by installation or use of temporary work to the existing condition(s) in accordance with the construction schedule.
- C. Restore existing facilities used during construction to original condition as established by photographic documentation.
- D. Remove all barrier fencing from site. Leave site clean and free from post holes, ties and ground scars and restore to existing condition prior to construction.

1.11 PROTECTION OF EXISTING UTILITIES

- A. The existing concealed utilities shown on the drawings are not necessarily exact with respect to location or completeness; therefore, Contractor shall take all necessary precautions and give proper notice to the Owner and Companies whose utilities have the possibility of being encountered in the area of Work.
 - 1. Prior to excavation of any area, the Contractor shall notify the "One-Call" service no later than 48 hours prior to digging.
 - 2. The Contractor shall coordinate any shutdown of campus utilities (power, steam, water, chilled water, etc.) with the Owner's on-site representative 72 hours prior to the anticipated shutdown.
 - 3. Proceed with sufficient caution to preclude damaging any utilities known or unknown, (e.g., hand digging or probing). In the event unidentified utilities are encountered, notify Owner immediately.
 - 4. In the event utilities are damaged during construction, temporary services or repairs must be made immediately at Contractor's expense, to maintain continuity of service.
 - 5. Indicate on as-built drawings the elevation and location of any underground utilities encountered during construction.

1.12 HAZARDOUS MATERIALS SPILLS

- A. Contractor and all subcontractors shall immediately report all spills of hazardous materials to the Owner, including leakage from vehicles. The Contractor shall be responsible for spill containment, regulatory reporting, cleanup, decontamination, and waste disposal meeting all federal, state and local laws, regulations and ordinances (specifically WAC 173-340 and 173-303). If hazardous materials are released on the construction premises, a record of type of materials spilled, quantity, containment, cleanup, decontamination and disposal mechanisms used, reports made to regulatory agencies, and records of regulatory agency activity, if any, shall be kept by the Contractor and provided to the Owner.

1.13 CONFINED SPACE

- A. The tunnels are non-permit confined space. Contractor shall provide a written confined space entry program within fourteen (14) calendar days of notice to proceed for Owner review. Contractor shall follow confined space program and follow WISHA regulations when entering and occupying tunnels.

1.14 LOCK-OUT, TAG-OUT PROGRAM

- A. Contractor shall provide a written program for lock-out, tag-out, and coordinate its program with the Owner's program. The lock-out, tag-out program shall be submitted within fourteen (14) calendar days of notice to proceed for Owner review.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements:
 - 1. Selection of products for use in Project.
 - 2. Product delivery, storage, and handling.
 - 3. Manufacturers' standard warranties on products.
 - 4. Special warranties.
 - 5. Product substitutions.

1.2 BASIC PRODUCT REQUIREMENTS

- A. Furnish like products from single manufacturer to greatest extent possible.
- B. Provide products complete with accessories, trim, finish, and other devices and details needed for complete installation and intended use and effect.
- C. Product Identifications: Nameplates, trademarks, logos, and other identifying marks on products are not permitted on surfaces exposed to view in public areas, interior or exterior. Plumbing, mechanical, and electrical equipment not exposed to public view are excluded from foregoing limitation. Required testing laboratory labels (such as UL, FM, or WH) are also excluded from foregoing limitation.

1.3 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with Construction Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
 - 1. Where available, provide standard products of type and manufacture used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by Construction Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
 - 1. Proprietary Specification Requirements: Where only a single product or manufacturer is named, followed by "no equals, no substitution, or no exceptions" provide the product indicated.
 - 2. Non-Proprietary Specification Requirements: Where the specifications name products or manufacturers of the type and quality, followed by the term "or approved equal" or "other acceptable", or similar language, comply with the requirements in Section 012500 concerning Product Substitutions Procedures to obtain approval for use of an unnamed product, prior to award of contract.
 - a. Descriptive Specification Requirements: Where the specifications describe a product or an assembly defining the characteristics required, but with or without use of a brand or trade name, provide products or assemblies that provide the characteristics indicated and otherwise comply with Construction Document requirements.
 - b. Performance Specification Requirements: Where Specifications require compliance with a reference standard for performance requirements, provide products that comply with these requirements, which are recommended by the manufacturer for the application indicated. Submit evidence of compliance at time of product data submittals.
 - c. Visual Matching: Where matching an established sample is required, the Architect's decision will be final. Where there is no product available within the specified product category which matches satisfactorily and also

complies with other specified requirements, comply with product substitutions requirements for the selection of a matching product in another product category.

- d. Visual Selection: Where specified product requirements include the phrase "...as selected from the manufacturer's standard colors, patterns, textures..." or similar phrases, Architect will select a product from all currently available manufacturer's 'non-custom' choices that comply with the specified requirements.
- C. "Basis of Design" Specification: Specifications naming products as the basis of design are not intended to imply preference and should not be construed as restrictive specifications. The product named as basis of design has been investigated by the designer and is deemed suitable for use as indicated in terms of function, size, color, texture, pattern, strength, arrangement, or other appropriate characteristics.
1. Where other manufacturers are named as acceptable, they are deemed to make products of similar function and acceptable quality (generally). There is no implied warranty that standard products of other named manufacturers are suitable for the work without design modification. The Contractor is responsible for assuring coordination of the product as if no "basis of design" had been named.
- 1.4 PRODUCT DELIVERY REQUIREMENTS
- A. Arrange deliveries in accordance with construction progress schedules. Schedule deliveries to allow adequate time for product inspection prior to installation. Schedule shall also take into consideration and allow adequate time for reordering of products damaged during delivery or do not meet Contract requirements.
 - B. Coordinate to avoid conflict with Work and conditions at site.
 - C. Deliver products in undamaged condition, in manufacturer's original unopened containers or packaging, with identifying labels intact and legible.
 - D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- 1.5 PRODUCT STORAGE, AND HANDLING REQUIREMENTS
- A. Storage:
 1. Store and protect products in accordance with manufacturer's instructions with labels intact and legible.
 2. Store environmentally sensitive products in weather tight, climate controlled enclosures.
 3. Provide off-site storage and protection when site does not permit on site storage.
 4. Protect and cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
 5. Arrange storage to permit access for inspection. Periodically inspect to ensure products are undamaged and are maintained under specified conditions.
 6. Store loose granular materials on solid flat surfaces in well-drained area. Prevent contamination with other materials.
 - B. Handling:
 1. Handle products in accordance with manufacturer's instructions.
 2. Do not load structure during construction by storing products with load greater than structure is calculated to safely support.
 3. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
 - C. Do not use products in Work which have deteriorated, become damaged, or are otherwise unfit for use.

1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 - 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.
 - 4. Submittal Time: Comply with requirements in Section 017700 - Closeout Procedures.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: General procedural requirements governing execution of the Work including, but not limited to, preparing, installing, and protecting the Work.
- B. Related Sections:
 - 1. 014000 - Quality Requirements: For Basis of Tolerances for Finish Work.
 - 2. 016000 - Product Requirements: Basic Product Requirements.
 - 3. 017400 – Cleaning: Construction and final Cleaning.

1.2 EXAMINATION OF CONDITIONS

- A. Do not proceed with Work until unsatisfactory conditions have been corrected.
- B. Commencement of installation constitutes acceptance of conditions and cost of any corrective measures are responsibility of Contractor.

1.3 PREPARATION

- A. Require compliance with manufacturer's printed installation instructions, including each step in sequence. Do not omit preparatory steps or installation procedures unless specifically modified or exempted by Contract Documents.
- B. Maintain one set of complete instructions at Project Site during installation and until completion.
- C. Should Project conditions or specified requirements conflict with manufacturer's instructions, request clarification in writing from Architect before proceeding.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information (RFI) to Architect. Include a detailed description of concerns encountered, together with recommendations for changing the Contract Documents.

3.2 PRODUCT EXECUTION

- A. Install, erect, connect, condition, use, adjust, and clean products in accordance with manufacturer's instructions and in conformity with specified requirements.
- B. Verify and coordinate clearances, dimensions and installation of adjoining construction, equipment, piping, ducts, conduits, or other mechanical or electrical items or apparatus.
- C. Prior to fabrication, field measure actual existing conditions to ensure proper fit.
- D. Inspect each item of material or equipment immediately prior to installation. Reject damaged and defective items.
- E. Recheck measurements and dimensions of Work, as an integral step of starting each installation. Whenever stock manufactured products are specified, verify actual space requirements for setting or placing into allotted space. No extra cost will be allowed for adjustment of Work to accommodate particular product.
- F. Provide attachment and connection devices and methods for securing Work. Secure in place with devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
- G. Allow for expansion of materials and building movement.
- H. Isolate each unit of Work from incompatible Work as necessary to prevent deterioration and electrolytic action.
- I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components to ensure operability without damaging effects.
- J. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.3 PROTECTION OF INSTALLED WORK

- A. Protect installed Work in manner to prevent damage from subsequent construction operations.
- B. Provide special protection where specified in individual Specification sections.
- C. Provide temporary and removable materials for protection of installed products. Control activity in immediate work area to minimize damage.

- D. Ensure materials, systems, and components will be without damage or deterioration at time of Substantial Completion.
- E. Protect finished Work from damage, defacements, stains, scratches, and wear.
- F. Protect finished floors, stairs, and other surfaces from traffic dirt, wear, damage, or movement of heavy objects, by protection with durable sheet materials.
- G. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- H. Prohibit traffic from lawn and landscaped areas.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: The Contractor shall be responsible for all cutting, fitting and patching required to accomplish the Work. This includes:
1. Execute cutting, fitting, or patching of Work required to:
 - a. Make several parts fit properly.
 - b. Uncover work to provide for installation of ill-timed work.
 - c. Remove and replace defective work, prior to completion of work in other sections.
 - d. Remove and replace work not conforming to requirements of Contract Documents.
 - e. Inspect concealed work which requires inspection prior to covering.
 2. In addition to Contract Document requirements, upon written instructions of Owner's Representative, as required to:
 - a. Uncover work to provide for Architect's or Owner's observation of covered work.
 - b. Remove samples of installed materials for testing.
 3. Unless otherwise specified, requirements of this Section apply to all aspects of the Work. Refer to Divisions 21 through 28 for additional requirements and limitations on cutting and patching of mechanical and electrical work.
- B. Related Sections:
1. 013100 - Project Management and Coordination.
 2. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.2 SUBMITTALS

- A. Product Data: Submit proposed material data sheets for all replacement materials for approval to the Architect well in advance of the time cutting and patching will be performed caused by cutting or alteration work.
- B. Written Request: Submit a written request for approval to the Architect well in advance of the time cutting and patching will be performed and request approval to proceed; written request is required for any cutting or alteration which affects:
1. The work of the Owner or any separate contractor;
 2. The structural value or integrity of any element of the Project;
 3. Building aesthetic qualities for exterior areas; and
 4. The efficiency, operation life, maintenance, or safety of operational systems.
- C. Cutting and Patching Proposal: Written request shall include the following:

1. List products to be used and firms or entities that will perform the Work.
 2. Describe the extent of cutting and patching required. Show how it will be performed and indicate why if cannot be avoided.
 3. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
 4. Indicate dates when cutting and patching will be performed.
 5. List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
- D. Structural Elements: Where cutting and patching involves addition of reinforcement to structural elements, submit details and engineering calculations to show how reinforcement is integrated with the original structure to satisfy requirements.
- E. Should conditions of work or schedule indicate change of materials or methods, submit written recommendations to Architect, including:
1. Conditions indicating change.
 2. Recommendations for alternative materials or methods.
 3. Resubmittal as required for substitution.
- F. Approval by the Architect to proceed with cutting and patching work does not waive the Architect's right to later require complete removal and replacement of a part of the Work found to be unsatisfactory.

1.3 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load carrying capacity or load deflection ratio. Obtain prior approval from the Architect of the cutting and patching procedures proposed.
- B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety. Obtain prior approval from the Architect of the cutting and patching procedures proposed.
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching.
1. If possible retain the original Installer or fabricator to cut and patch exposed Work. If it is impossible to engage the original Installer or fabricator, engage another recognized experienced and specialized firm.

2. Remove and replace construction cut and patched in a visually unsatisfactory manner.

1.4 PAYMENT FOR COSTS

- A. Contractor shall pay cutting and patching costs caused by ill-timed or defective work, or work not conforming to the Contract Documents, including costs for additional services of the Architect.

1.5 WARRANTY

- A. General: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Wherever available, use materials identical in form and function to the original existing materials, or materials which are compatible and provide the same level of performance. If identical materials are not available, use materials that visually match existing adjacent surfaces to the fullest extent. Use substitute materials whose installed performance will equal or surpass that of original existing materials.
 1. Where surfaces are deteriorated beyond level of reparation indicated in respective technical sections, provide additional cleaning and surface preparation as required by the respective patching and repair materials manufacturer to properly install materials.
 2. Where supplementary material are indicated to cover existing substrates and assemblies, provide in accordance with best standards of practice and install in manner to match adjacent substrates and finishes as indicated.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
- B. After uncovering work, inspect conditions affecting installation of new products.
- C. Report unsatisfactory or questionable conditions to the Architect in writing and do not proceed with the Work until further instruction is provided.

3.2 PREPARATION PRIOR TO CUTTING

- A. Temporary Support: Provide shoring, bracing, and support as required to maintain structural integrity of the affected portion of the Work.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Provide materials and control operations to prevent spread of dust in surrounding area. Provide drop cloths or other suitable barriers.
- D. Avoid cutting in service pipes, ducts, or conduit until provisions have been made to bypass them.

3.3 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer; comply with the original installer's recommendations.
 - 1. In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
 - 4. Comply with requirements of applicable Sections of Division 31 where cutting and patching requires excavating and backfilling.
 - 5. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
 - 6. Execute in manner which does not void required or existing warranties.
- C. Fitting: Perform using skilled craftsmen.
 - 1. Execute fitting and adjustment to produce finished installation complying with specified products, functions, tolerances, and finishes.

2. Fit work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
 3. At penetrations of fire-rated assemblies, completely seal with firestops in accordance with Section 078413 – Firestopping and Smoke Seals.
- D. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Where removal of walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary to achieve uniform color and appearance.
 4. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken area containing the patch, after the patched area has received primer and second coat.
 5. Patch, repair or rehang existing ceilings as necessary to provide an even plane surface of uniform appearance.

3.4 CLEANING

- A. General: Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Construction and final cleaning prior to Certification of Substantial Completion for new and existing surfaces within the Work Area.
- B. Related Sections:
 - 1. 015000 – Temporary Facilities And Controls: Coordination with removal, cleaning, and restoration requirements.
 - 2. 017300 – Execution Requirements: Protection of installed Work.
 - 3. 017329 – Cutting and Patching: Coordination for cleaning during cutting and patching Work.
 - 4. 017419 – Construction Waste Management.

1.2 SYSTEM DESCRIPTION

- A. Execute cleaning during progress of work and at completion of work as required by this section and the Conditions of the Contract.
- B. Hazards Control:
 - 1. Store volatile wastes in covered safety containers.
 - 2. Remove containers from premises daily.
 - 3. Prevent accumulation of waste which creates hazardous conditions.
 - 4. Provide adequate ventilation during use of volatile or noxious substances.
- C. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on Project Site.
 - 2. Do not dispose of volatile wastes or hazardous materials such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 - 3. Do not dispose of wastes into sewers and drainage systems.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS

- A. Use only materials and methods recommended by manufacturer of material being cleaned.
- B. Do not use materials with flammable or harmful vapors, which will damage surfaces, that will negatively impact the indoor air quality during and after construction, or in any way create hazards to health to occupants or property.

1. Refer to Section 018119 - Indoor Air Quality (IAQ) Management Plans for prohibited chemical constituents.
- C. Provide covered containers for deposit of waste materials, debris, and rubbish.

PART 3 - EXECUTION

3.1 CLEANING DURING CONSTRUCTION

- A. Execute periodic cleaning to keep building, site, and adjacent properties free of accumulations of waste materials, debris, rubbish, and wind-blown debris resulting from construction operations.
- B. Prior to Substantial Completion remove construction tools, scaffolding, equipment, machinery, and surplus materials.
- C. Broom clean and vacuum interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Schedule cleaning operations so that dust and other contaminants will not fall on or adhere to wet or newly-coated surfaces.
- E. Do not throw materials from heights.
- F. Open free-fall chutes not permitted. Terminate closed chutes into appropriate containers with lids.
- G. Collect and remove waste materials, debris, and rubbish from site periodically until execution of final cleaning and dispose off site in lawful manner.

3.2 FINAL CLEANING

- A. Comply with manufacturer's instructions.
- B. Remove tools, construction equipment, machinery, and surplus material from Project site.
- C. Cleaning: Employ experienced personnel or professional cleaning firm.
 1. Clean exposed exterior and interior hard-surfaced finishes to dirt-free condition, free of stains, films, and similar foreign substances.
 2. Remove labels which are not required as permanent labels.
 3. Clean glossy materials to polished condition; remove foreign substances.
 4. Polish reflective surfaces to clear shine.
 5. Glass and glazing:
 - a. Wash and clean both sides of glass.
 - b. Remove putty and other substances which obscure vision.
 - c. Replace chipped, scratched, and broken glass.

6. Clean concrete slabs in all areas and spaces.
 7. Clean resilient flooring, tile, concrete and other similar hard-surface flooring, including associated bases. Refer to individual Specification sections for requirements of sealing, buffing, waxing, and polishing.
 8. Clean carpet and similar soft surfaces, removing debris, soil, and excess nap.
 9. Clean exposed surfaces of equipment; remove excess lubrication.
 10. Clean plumbing fixtures, drinking fountains, and similar equipment to sanitary condition.
 11. Clean light fixtures and lamps; replace burned-out lamps.
- D. Heating and Ventilating Systems:
1. Clean airways, blowers, and grilles.
 2. Replace air filters on HVAC Units.
- E. Site:
1. Clean areas disturbed by construction activities, including landscape areas, free of rubbish, litter and foreign substances.
 2. Sweep paved areas to broom clean condition.
 3. Remove stains, spills, and other foreign deposits.
 4. Rake grounds that are neither paved nor planted to even-textured surface.
- F. Remove waste, foreign matter, and debris.
- G. Prior to final completion, conduct inspection of sight-exposed interior surfaces, exterior surfaces, and associated work areas to verify that entire Work is clean.
- H. Maintain cleaning until Project, or portion thereof, is accepted by Owner.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Job Site Waste Reduction Requirements
 - 2. Description of a Job Site Construction Waste Management Plan
- B. Related Sections:
 - 1. Section 013300 – Submittal Procedures
- C. Drawings, the provisions of the Agreement, the General and Supplementary Conditions, and Division 1 specification sections apply to work of this Section.
- D. Job Site Waste Reduction Requirements
 - 1. Divert through salvage, reuse and/or recycle at least 75% of all construction and demolition (C&D) waste generated. Calculations may be based on dry weight or volume, but must be consistent throughout.
 - 2. To achieve this requirement the Contractor shall develop for review a Construction Waste Management (CWM) Plan for this Project. See Submittals 1.3.B below.
 - 3. Sub-Contractors shall report how much waste is taken off site that is not controlled through the on-site collection system being monitored by the CWM plan.
 - 4. Contractor should focus on generating less waste, rather than just diverting waste from the landfill/disposal.

1.2 REFERENCES

1.3 SUBMITTALS

- A. Make submittals in accordance with Section 013300 – Submittal Procedures.
- B. Within thirty (30) calendar days after receipt of Notice of Award and prior to any waste removal by the Contractor from the Project, the Contractor shall develop and submit to the Architect for review a draft Construction Waste Management Plan.
 - 1. The waste management plan shall include:
 - a. Types and estimated quantities (where reasonably available) of salvageable materials that are expected to be generated during demolition. Calculations may be based on dry weight or volume, but must be consistent throughout.
 - b. The method to be used to recycle these materials. Methods shall include one or more of the following options: contracting with a demolition specialist to salvage all or most of materials generated, selective salvage

- as part of demolition contractor's work, or reuse of materials on-site or in new construction.
- c. Types and estimated quantities (where reasonably available) of recyclable materials expected to be generated during construction in significant amounts including but not limited to wood, concrete, metals, cardboard, and drywall. Calculations may be based on weight or volume, but must be consistent throughout.
 - d. The method to be used to recycle these materials. Methods shall include one or more of the following options: requiring subcontractors to take materials back for recycling at a permitted facility, contracting with a full service recycling service to recycle all or most materials at a permitted facility, or processing or reusing materials on-site.
2. At a minimum, the waste management plan shall be designed to divert the following waste categories from the landfill:
- a. Acoustical ceiling tiles
 - b. Asphaltic concrete paving
 - c. Cardboard (from supplies and packaging)
 - d. Carpet and carpet pad
 - e. Concrete and concrete masonry units (CMU's)
 - f. Excavated soils
 - g. Fluorescent tubes and ballasts (if not recycled designate as hazardous waste)
 - h. Gypsum drywall (clean, unpainted)
 - i. Metals (concrete reinforcing steel, structural and miscellaneous steel, doors/frames, studs)
 - j. Paint
 - k. Plastic film (sheeting, shrink wrap, packaging)
 - l. Window glass
 - m. Wood (clean, unpainted, untreated wood scrap including pallets and engineered wood, trim and paneling)
 - n. Job-shack wastes, including office paper, blueprints, cans and bottles, and office cardboard.
 - o. Roofing
 - p. Insulation
- C. Final Construction Waste Management Plan. Within 14 days after Architect has determined that the recycling options addressed in the draft Construction Waste Management Plan are acceptable and prior to waste removal, submit the final Construction Waste Management Plan.
- D. Progress Reports. Submit with each Application for Payment a summary of construction waste generated. Include the following:
1. For each material recycled, reused, or salvaged from the Project, the amount (in tons or cubic yards), the receiving party, and the net total cost or savings of salvage or recycling the material. For co-mingled materials, the Contractor shall include the co-mingled C&D recycling rate of the receiving facility.
 2. The amount (in tons or cubic yards) of material disposed of as garbage from the Project, the location of the Receiving Facility, and the total disposal cost.

3. The Contractor shall be responsible for providing such information whether directly involved in recycling the materials or not (whether the Contractor performs recycling tasks or hires or requires others to do so, such as subcontractors to haul their own drywall or metal).
- E. Final Report: The Contractor shall submit within (14) calendar days of completing the project a final waste management report of waste generated at the Project. The final report shall be submitted on a form acceptable to the Architect and shall contain the following information:
1. For each material recycled, reused, or salvaged from the Project, the total amount (in tons or cubic yards), the receiving party, and the net total cost or savings of salvage or recycling the material. For co-mingled materials, the Contractor shall include the co-mingled C&D recycling rate of the receiving facility.
 2. The total amount (in tons or cubic yard of material) of material disposed of as garbage from the Project, the location of the Receiving Facility, and the total disposal cost.
 3. The Contractor shall be responsible for providing such information whether directly involved in recycling the materials or not (whether the Contractor performs recycling tasks or hires or requires others to do so, such as subcontractors to haul their own drywall or metal).
- F. LEED Documentation: Complete LEED Credit Form on LEED-Online for LEED Credit MR 2.

1.4 DEFINITIONS

- A. Waste: For the purpose of this section, the term applies to all excess building materials. Waste includes materials that can be salvaged, returned, recycled, or reused.
- B. Trash (or Garbage): That part of the waste that cannot be returned, reused, recycled, or salvaged.
- C. Construction & Demolition Waste (C&D): All non-hazardous solid wastes resulting from construction and demolition activities. C&D waste includes, but is not limited to, building materials, demolition rubble, landscaping materials, soils, packaging materials, debris, and trash.
- D. Proper Disposal: As defined by the jurisdiction receiving the waste.
- E. Landfill: Public or private business involved in the practice of trash disposal.
- F. Hazardous Waste: Any material or byproduct of construction that is regulated by Environmental Protection Agency and that may not be disposed in landfill or other waste end-source without adherence to applicable laws.

- G. Material Recovery Facility (MRF): A general term used to describe a waste-sorting facility. Mechanical, hand-separation, or a combination of both procedures are used to recover recyclable materials from other waste, which is then disposed of as trash.
- H. Recycling: The process of sorting, cleaning, treating, and reconstituting materials for the purpose of using the material in the manufacture of a new product. Can be conducted on site (as in the grinding of concrete and reuse on site).
- I. Recycling Facility: An operation that can legally accept materials for the purpose of processing the materials into an altered form for the manufacture of a new product. Recycling facilities have their own specifications for accepting materials. Depending on the type of facility, it may accept source-separated waste or co-mingled waste or both.
- J. Recycling Services. Types of services include:
 - 1. Source-Separated: Construction waste is sorted on the job-site in separate containers as it is generated. The recycling hauler takes the materials directly to a recycler or a transfer site.
 - 2. Co-mingled: This service allows contractors to put select recyclables such as wood, cardboard, and metals in one container. The recycling hauler takes the materials to a sorting facility where the materials are separated for recycling.
- K. Reuse: Making use of a material without altering its form.
- L. Salvage: Recovery of materials for on-site reuse or donation to a third party.
- M. Source-separated Materials: Materials that are sorted at the site for the purpose of reuse or recycling.
- N. Co-mingled Materials: Mixed recyclable C&D material that has not been source-separated. Some facilities will separate co-mingled materials off-site for recycling.

1.5 REVENUES

- A. Revenues or other savings obtained from recycled, reused, or salvaged materials shall accrue to Contractor unless otherwise noted in the Contract Documents.

PART 2 - PRODUCTS

2.1 ENVIRONMENTALLY PREFERABLE MATERIALS

- A. Recycled-content, salvaged, rapidly renewable, or otherwise resource-efficient products are specified in appropriate sections.

PART 3 - EXECUTION

3.1 COMMUNICATION

- A. Designate an on-site party (or parties) responsible for instructing workers and overseeing and documenting results of the Construction Waste Management Plan for the Project.
- B. Distribute copies of the Construction Waste Management Plan to each entity performing work at the site.
- C. Use safety meetings, signage, and subcontractor agreements to communicate the goals of the waste reduction plan, including instruction about appropriate separation, handling separation, handling, and recycling, salvage, reuse and return methods to be used by all parties at the appropriate stages of the Project.
- D. Sub-contractors must report all waste and how much was diverted that they take off site that is not controlled through the on-site collection system being monitored by the Construction Waste Management plan.

3.2 MATERIALS CONSERVATION

- A. Protect products from damage during storage, installation, and in-place. Materials that become wet or damp due to improper storage shall be replaced at contractor's expense.
- B. Include in supply agreements a waste reduction provision specifying a preference for reduced, returnable, and/or recyclable packaging.
- C. Use detailed take-offs and use to identify location and use in structure to reduce risk of unplanned and potentially wasteful cuts.

3.3 MATERIALS HANDLING

- A. Designate specific area(s) to facilitate separation of materials for potential recycling, salvage, reuse and return. Maintain recycling and waste bin areas clean and clearly marked to avoid co-mingling of materials. Bins shall be protected during non-working hours from off-site contamination.
 - 1. Separate recycling waste in accordance with requirements of recycling facility/hauler.
- B. Protect materials to be recycled or reused from contamination. Handle, store, and transport materials in a manner that meets the requirements of the designated acceptance facility.
- C. Separately store and dispose of hazardous wastes according to local regulations.
- D. As part of regular clean-up, schedule and conduct visual inspections of dumpsters and recycling bins to identify potential contamination of materials.

- E. Burning or burying of C&D waste is not permitted.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:
 - 1. Training of Owner's personnel.
 - 2. Maintenance Materials submission.
 - 3. Substantial Completion.
 - 4. Final Acceptance.

1.2 SEQUENCE OF CLOSE-OUT

- A. The Contractor's superintendent shall perform a review of all installed work (general, mechanical, electrical) and note any corrections, touch-up, or otherwise restore marred, exposed surfaces that are necessary to comply with the Contract Document requirements before requesting the A/E to review the Work. The Contractor shall develop a written correction list (pre-punch list) and track the completion of the items by initialing and dating each item, signifying that it has been reviewed and properly completed.
- B. Comply with items under SUBSTANTIAL COMPLETION by submitting documentation and the Contractor's initialed correction list to the A/E with a written request that the A/E reviews the project.
- C. Upon receipt of the information from the Contractor, the A/E will visit the site and review the Project with the Owner for compliance with the Contract Documents. The A/E will develop a punch-list of any work that still needs corrections. If the list is incidental corrective punch work to complete, the A/E will issue the notice of Substantial Completion with the corrections list attached. If the correction work is still significant, the Contractor shall complete the corrections in the same format as its pre-punch list and request additional reviews by the A/E as necessary to establish that the Project is complete to the point where the Substantial Completion notification can be issued.
- D. Provide operation and maintenance instruction on installed equipment to the Owner.
- E. The Contractor shall correct any outstanding punch list items and submit all other close-out documentation to the A/E as indicated under FINAL ACCEPTANCE. When punch lists have been verified by the A/E as being complete and all documentation is satisfactory and accepted by the A/E, the A/E will issue its recommendation for Final Acceptance to the Owner.
- F. Upon receipt of the A/E's notification of Final Acceptance, the Owner shall, through administrative action, declare the Project as being accepted, starting the 45 day lien period.

1.3 PROJECT RECORD DOCUMENT SUBMITTAL

- A. Refer to Section 017800 - Closeout Submittals.

1.4 OPERATION AND MAINTENANCE MANUALS

- A. Refer to Section 017800 - Closeout Submittals.

1.5 OPERATING INSTRUCTION OF OWNER'S PERSONNEL

- A. The Contractor shall provide for operating and maintenance instruction of Owner's personnel for items installed under this contract. Contractor shall provide for this instruction at a mutually agreeable time and place, which may be outside of Contractor's normal working hours.
1. Prior to any training, the Contractor is to complete all system start-up and functionality testing. The Contractor/Sub-contractor will then assist the Owner's commissioning agent to review and confirm the systems are performing in accordance with the Contract Documents. Commissioning shall be completed prior to the Contractor and major subcontractors providing qualified personnel for conducting full on-site operation and maintenance training and instruction to Owner's designated user personnel and maintenance crews. Instruction shall include the proper operation, adjustment and maintenance of all general, mechanical and electrical operating systems and equipment. Contractor shall schedule this period in advance with the Owner and appropriate subcontractor or vendor's representative. This shall be scheduled one (1) week after submittal of the final Operating and Maintenance Manuals so that such information will be available for Owner staff familiarization prior to the time of this instructional period. Provide a minimum of eight (8) hours of such training and instructions on site, unless otherwise directed, conducted to Owner's satisfaction. Such instruction shall be given in time blocks not exceeding (4) hours in any one-day and shall be exclusive of off-site factory training for the energy management system.
 2. At each training session, provide a sign-in sheet for signature of all Owner staff that attends. Identify the sign-in sheet with the training being provided and the date of the training. Submit the sign-in sheet(s) with FINAL ACCEPTANCE procedure.
 3. Except as otherwise specified, arrange for each installer of work requiring continuing maintenance or operation to meet with Owner's personnel at project site to provide basic instructions needed for proper operation and maintenance of entire work. Include instructions by manufacturer's representatives where installers are not expert in the required procedures.
 4. Use operation and maintenance manuals as the basis for instruction. Review contents of manual with personnel in full detail to explain all aspect of operations and maintenance; include as a minimum record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards, cleaning and renewal of finishes, and similar procedures and facilities.

5. For operational equipment, demonstrate start-up, shut-down, emergency operations, noise and vibration adjustments, safety, economy/efficiency adjustments, and similar operations. Review maintenance and operations in relation with applicable warranties, agreements to maintain bonds, and similar containing commitments.
6. In addition, provide (4) hours training for the energy management system.
7. Provide a minimum of (4) hours additional follow-up training sessions to be conducted four (4) months following initial training. Systems/equipment to be covered under these training sessions shall be as determined by the Owner.
8. In addition to or in conjunction with these training sessions, provide for (4) seasonal adjustment training sessions of the energy management system.

- B. For additional requirements for operating instructions, see respective Specification Sections.

1.6 MAINTENANCE MATERIALS

- A. Provide maintenance materials (tools, spare parts, extra stock, etc) indicated in other sections of the specifications.
1. Submit a receipt to the Owner identifying the product and quantity that is being provided.
 2. Obtain Owner's signature on the receipt.

1.7 SUBSTANTIAL COMPLETION

- A. Substantial Completion is defined in the General Conditions. Before requesting A/E's review for certification of Substantial Completion, complete the following, and provide a written request for Substantial Completion.
1. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Advise the Owner of pending insurance changeover requirements.
 3. Advise the Owner's personnel of changeover in security provisions.
 4. Complete startup testing and commissioning of systems; submit Balancing Logs.
 5. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, surplus materials, and similar elements.
 6. Complete final clean-up requirements.
 7. Return all keys that were issued to the Contractor.

1.8 FINAL ACCEPTANCE

- A. Before requesting certification of Final Acceptance and final payment, complete the following. Submit all of the following items together no partial submittals will be accepted.

1. Submit an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work for which the Owner of property might in any way be responsible, have been paid or otherwise satisfied. (AIA Document G706).
2. Submit Contractor's Affidavit of Release of Liens (AIA Document G706A): If any liens are filed and cause the Owner to employ the services of any attorneys, the cost of the services will be deducted from the retainage.
3. Submit a letter from the Contractor's Bonding Company addressed to Owner and submitted to A/E approving release of final payment and waiving submittal of final receipts as well as a statement confirming the extension of the Bond for the one-year warranty period. Final receipts from all subcontractors and material and equipment suppliers shall be furnished to the A/E by the Contractor if the Surety does not waive this requirement.
4. Submit a copy of the A/E's final review list ("punch list") of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, identifying the name and company of the individual who confirmed completion of each item, and date when confirmation inspection was performed.
5. Submit consent of surety to final payment on AIA Form G707.
6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
7. Submit certified Statement(s) indicating asbestos or lead containing material were not utilized or incorporated on the Project provided by Contractor under this contract.
8. Submit final As-Built Documents.
9. Submit final Operation and Maintenance Manuals.
10. Submit final Warranties, Bonds, and Permit Manual.
11. Submit evidence of completion of commissioning of designated building systems.
12. Submit evidence of compliance with requirements of governing Authorities.
 - a. Certificate of Occupancy, if not submitted at time of Substantial Completion. (Note: Certificate of Occupancy is required to be submitted with Substantial Completion Request unless otherwise exempted by Owner in writing.)
 - b. Others as required by Regulatory Agencies.
13. Submit all other required close-out documents.

1.9 REVIEW FEES

- A. The A/E will complete one initial and one final project review of the Work at Substantial Completion and at Final Acceptance to establish and verify completion of punch list work. Should it be necessary for the A/E to perform any additional reviews due to failure of Work to comply with completion status claimed by the Contractor, the Contractor shall bear all costs incurred by the A/E for each additional review required

until the Work is satisfactorily completed. This compensation shall be at the A/E's standard hourly billing rate at the time of the review, and expenses associated with the visit. Compensation by the Contractor will be through a deductive change order to the Contractor's contract.

PART 2 - PRODUCT- NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARYS

- A. Section Includes
 - 1. Project Record Document submittal.
 - 2. Operation and Maintenance manuals.
 - 3. Warranties, Bonds, Extra Stock, and Permits manuals.

1.2 SUBMITTALS

- A. Project Record Documents: Submit documents to A/E. The following submittal procedure shall occur prior to Final Acceptance.
 - 1. Submit original copy of as-builts (drawings & specifications) to A/E for review.
 - 2. Compile and organize any drawings or schedules in the Project Manual onto sheets of the same size as the Contract Drawings and submit with other record documents.
 - 3. Contractor will be notified within 15 work days if the submitted documents are acceptable.
 - 4. Should the submittal be unacceptable for any reason, the Contractor shall make requested modifications and resubmit to the A/E. Continue to resubmit as necessary until the submittal is acceptable.
 - 5. Upon acceptance of the submittal, A/E will incorporate the Contractor's as-builts into the A/E's original Contract Documents.
- B. Operation and Maintenance Data:
 - 1. Submit one (1) copy of preliminary Operating and Maintenance Manuals for operational and non-operational equipment for review by A/E. Submit for each system upon attaining 50% system completion, together with respective training synopsis; refer to Section 017700. Upon review, A/E will return copy with comments.
 - 2. Submit 1 copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with A/E comments. Revise content of all document sets as required prior to final submission.
 - 3. Within 10 days following receipt of the A/E approval and comments, and prior to Owner training, Contractor shall prepare and transmit to the A/E one (1) final copy of each of the above manuals.
- C. Warranties, Bonds, Extra Stock, and Permits:
 - 1. Obtain and assemble executed certificates, warranties, bonds, receipts for extra stock, permits signed by any authorities having jurisdiction, and any required service and maintenance contracts from the respective manufacturers, suppliers,

- and Subcontractors. These may be tabbed in the front of the General Operation and Maintenance Manual provided they do not over-fill the binder.
2. Verify that documents are in proper form and contain full information.
 3. Include originals of each in operation and maintenance manual, indexed separately on Table of Contents.
 4. Co-execute submittals when required.
 5. Submittal of warranties, bonds, extra stock and permit manual to match submittal requirements of Operation and Maintenance Manual.
 6. Provide Table of Contents neatly typed, in complete and orderly sequence. Include complete information for each of the following:
 - a. Product or work item;
 - b. Firm, with name of principal, address, and telephone number;
 - c. Scope;
 - d. Date of beginning of warranty or service and maintenance contract;
 - e. Duration of warranty or service maintenance contract;
 - f. Proper procedure in case of failure;
 - g. Instances which might affect validity of warranty or bond; and
 - h. Contractor, name or responsible principal, address, and telephone number.
 7. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
 8. Make other submittals within ten days after Date of Substantial Completion.
 9. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.
 10. Furnish one (1) executed copy for inclusion into Operation & Maintenance manuals.

PART 2 - PRODUCTS

2.1 PROJECT RECORD DOCUMENTS

- A. Project Record Documents include the following:
 1. Marked-up copies of Contract Drawings.
 2. Marked-up copies of Project Manuals, all volumes.
 3. Addenda.
 4. Reviewed and marked-up copies of shop drawings and product data.
 5. Newly prepared drawings.
 6. Change Orders, RFIs and other modifications to the Contract issued in printed form during construction.

7. Architect's Clarifications and Proposal Request with all supporting documentation.
8. Field Authorizations. Record Samples.
9. Field records for variable and concealed conditions.
10. Record information on Work that is recorded only schematically.
11. Manufacturer's instruction for assembly, installation, and adjusting.
12. Other miscellaneous record documents as listed below and applicable.
 - a. Field records on excavations and foundations.
 - b. Field records on underground construction and similar work.
 - c. Survey showing locations and elevations of underground lines.
 - d. Invert elevations of drainage piping.
 - e. Surveys establishing building lines and levels.
 - f. Authorized measurements utilizing unit prices or allowances.
 - g. Records of plant treatment.
 - h. Ambient and substrate condition tests.
 - i. Certifications received in lieu of labels on bulk products.
 - j. Batch mixing and bulk delivery records.
 - k. Testing and qualification of tradesmen.
 - l. Documented qualification of installation firms and/or personnel.
 - m. Load and performance testing.
 - n. Inspections and certifications by governing authorities.
 - o. Leakage and water-penetration tests.
 - p. Fire-resistance and flame-spread test results.
 - q. Final inspection and correction procedures.

PART 3 - EXECUTION

3.1 PROJECT RECORD DOCUMENTS

A. Maintenance of Documents and Samples:

1. Store and maintain in field office apart from the Contract Documents used for construction, one complete set of record documents and samples which are used to record as-built conditions.
2. Do not use Project Record Documents for construction purposes; protect from deterioration and loss in a secure fire-resistant location. Maintain record documents in good order and in a clean, dry, legible condition.
3. Make record documents and samples available at all times for review by A/E and the Owner.
4. Record actual revisions to the Work concurrent with construction progress.
5. Ensure entries are complete and accurate, enabling future reference by Owner.
 - a. Following each monthly progress schedule meeting, Contractor shall meet with all major subcontractors whose work is in progress at the site, including but not limited to mechanical, plumbing, electrical, security, fire protection, civil, and as otherwise designated, to review all "as-built"

revisions on the day-by-day working set of "Project Record Copy" and verify installed record information from the previous month is properly recorded on the day-by-day "Project Record Copy", with all revisions and pertinent information clearly indicated.

- B. Record Drawings and Shop Drawings: A clean, undamaged set of Contract Drawings including coordination drawings and shop drawings shall be kept at the job site as as-built record documents. Record drawings shall be comprised of all sheets contained in the Contract Drawings, as well as all special equipment or systems drawings.
1. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawings that show conditions fully and accurately. Where shop drawings, RFI's or other communication record are used to identify a change, record a cross-reference at the corresponding location on the Contract
 2. Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date. Items required to be marked include, but are not limited to, the following:
 - a. Indicate field changes of dimension and detail.
 - b. RFIs.
 - c. Depths of foundations below the first floor.
 - d. Horizontal and vertical measurements of underground services and utilities, referenced to the building or other permanent construction.
 - e. Note changes of directions and locations, by dimensions and elevations, as utilities are actually installed.
 - f. Duct size and routing. Indicated locations of mechanical dampers, valves, reheat boxes, cleanouts, and other items that require maintenance.
 - g. Show measured locations of construction-concealed internal utilities and appurtenances referenced to visible and accessible features of the structure.
 - h. Record accurate locations of piping, valves, traps, dampers, duct work, equipment, and the like.
 - i. Revisions to electrical circuitry.
 - j. Indicate details not on original Contract drawings.
 - k. "X-out" conditions not constructed and appropriately annotate "not constructed" to convey the actual "as constructed" condition.
 3. Mark record sets in a clear, legible manner, using red ink (no pencils); use other colors to distinguish between variations in separate categories of the work. Use 'whiteout' to erase errors.
 4. Mark new information that is important to Owner, but which was not shown on Contract Documents or Shop Drawings.
 5. Show addenda items, change orders, RFI, or other means of communication used in the construction process.
 6. Show and date revisions to drawings with a "cloud" drawn around the revision.
 7. Organize record drawing sheets in manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover

of each set. Where shop drawings, RFI's or other communication record are used as a reference, include a copy of them as part of the record drawings.

8. Shop Drawings:
 - a. Maintain as record documents; legibly annotate to record changes made after review.
 - b. Include subcontractor reproducible shop drawings for all special equipment including as a minimum where applicable to the project, ductwork layout, fire sprinkler system layout, temperature control system, fire alarm system, intrusion alarm system, communications systems, data systems, detention security systems and others as deemed appropriate. Record Drawing shop drawings shall be easily reproducible; as appropriate and approved by the A/E.
9. Project Manual(s): During the construction period, maintain one complete copy of the Project Manual(s), including Specifications, Detail Book(s), addenda, and one copy of other written construction documents, such as Change Orders and RFI's issued in printed form during construction.
 - a. Legibly mark these documents in red ink to show substantial variations in actual work performed in comparison with the text of the specification and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and product data. Record at each product section description of actual products installed, including the following:
 - 1) Manufacturer's name and product model and number.
 - 2) Product substitutions or alternates utilized.
 - 3) Changes made by Addenda and modifications.
 - b. Mark schedules, details, etc., to indicate the actual installation where the installation varies from that indicated in the documents and modifications issued. Complete information in accordance with paragraph below for all detail drawings.
 - c. Each prime contractor (Subcontractor) is responsible for marking up Sections that contain its own Work.
 - d. General Contractor shall be responsible for collecting marked-up record Sections from each of the other prime contractors. General Contractor shall also be responsible for collating these Sections in proper numeric order with its own Sections to form a complete set of record Specifications.
 - e. General Contractor shall be responsible for submitting the complete set of record Specifications as specified.
10. Record Product Data:
 - a. Maintain one copy of each product data submittal, and mark-up variations in actual work in comparison with submitted information. Include both variations in product as delivered to site, and variations from manufacturer's instructions and recommendations for installation.
 - b. Give particular attention to concealed products and portions of the work which cannot otherwise be readily discerned at a later date by direct observation. Note related change orders and mark-up of record drawings and project manuals.

- c. Note related Change Orders and mark-up of record Drawings, where applicable.
 - d. Upon completion of mark-up, submit complete set to Architect for Owner's records.
 - e. Where record Product Data is required as part of maintenance manuals, submit marked-up Product Data as an insert in the manual instead of submittal as record Product Data.
 - f. Each prime contractor (Subcontractor) shall be responsible for marking up and submitting record Product Data for its own Work.
 - g. Insofar as possible, insert record product data in individual sub-sections of O&M Manuals. Refer to 3.5 below.
11. Record Sample Submittal: Immediately prior to date(s) of substantial completion, A/E will meet with Contractor at site, and will determine which (if any) of submitted samples maintained by Contractor during progress of the work are to be transmitted to Owner for record purposes. Comply with A/E's instructions for packaging, identification marking, and delivery to Owner's sample storage place.
12. Miscellaneous Record Submittals: Refer to paragraph above for listing of miscellaneous record documents and to other Sections of these specifications for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the work. Immediately prior to date of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to A/E for Owner's records.

3.2 OPERATION AND MAINTENANCE DATA – GENERAL

- A. General: For all operational equipment installed, Contractor shall submit operation and maintenance documents in manuals as specified herein.
- B. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.3 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. Content for Operational Equipment.
 1. Product Data.

- a. Compile product data and related information for Owner's maintenance and operation. All manufacturer literature shall be original printed matter; photocopies, printouts from websites or other non-original reproductions are not acceptable.
 2. Product data shall contain detailed information relative to the following:
 - a. Description of unit or system, and component parts.
 - b. Equipment functions, normal operating characteristics, and limiting conditions.
 - c. Assembly, installation, alignment, adjustment and checking instructions.
 - d. Operating instructions and sequences for start-up, break-in, routine and normal operation, regulation and control, shutdown, and emergency conditions. Include control diagrams and sequence of operation by controls manufacturer.
 - e. Routine procedures and guide for preventative maintenance and trouble shooting, including a schedule of recommended checks; disassembly, repair, and reassembly instructions.
 - f. Detailed servicing and lubrication schedule. Include list of lubricants required.
 - g. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
 - h. Complete nomenclature and model number of replaceable parts. Include with list manufacturer's current prices and recommended quantities to be maintained in storage.
 - i. Safety precautions and safety features.
 - j. Outline, cross-section and assembly drawings, engineering data, and color coded wiring diagrams as installed.
 - k. Test data and performance curves.
 - l. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
 - m. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
 - n. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
 - o. Test and balancing reports.
 3. Include only sheet pertinent to specific product.
 4. Annotate each sheet to:
 - a. Clearly identify specific product or part installed.
 - b. Clearly identify data applicable to installation.
 5. Delete references to inapplicable information.
- B. Drawings.
1. Supplement product data with drawings as necessary to clearly illustrate relations of component parts of equipment and systems.
 2. Coordinate drawings with information in Project Record Documents to ensure correct illustration of completed installation.
 3. Do not use Project Record Documents as maintenance drawings.

- C. Supplement product/installation data with written text.
 - 1. Organize in consistent format under separate headings for different procedures.
 - 2. Provide logical sequence of installations for each procedure.
- D. Special Mechanical Subcontractor Requirements: Comply with Divisions 21 through 25 requirements.
- E. Special Electrical Subcontractor Requirements: Comply with Divisions 26 through 28 requirements.

3.4 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For all A/E non-operational products, applied materials and finish items installed, including but not limited to, floor coverings such as vinyl composition tile, acoustical ceiling panels, marker boards, etc., Contractor shall submit maintenance information as specified herein. Provide detailed information relative to the following:
 - 1. Manufacturer's data, giving full information on products.
 - a. Catalog number, size, and composition.
 - b. Color and texture designations.
 - c. Information required for re-ordering special manufactured products.
 - 2. Instructions for care and maintenance.
 - a. Manufacturer's recommendation for types of cleaning agents and methods.
 - b. Cautions against cleaning agents and methods, which are detrimental to the product.
 - c. Recommended schedule for cleaning and maintenance.
 - d. Instructions and recommendations for repair of finish.
 - e. Moisture protection and weather-exposed products.
 - 1) Include product data listing applicable reference standards, chemical composition, and details of installation.
 - 2) Provide recommendations for inspections, maintenance, and repair.
- B. For additional requirements for maintenance data, see respective Specification Sections.
- C. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

3.5 OPERATION AND MAINTENANCE MANUALS

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products. Prepare data in the form of an instructional manual.
- B. Format of Operation and Maintenance Manuals
 - 1. Binders:
 - a. Commercial quality, stiff cover, metal-hinged 8-1/2 x 11 inch three D side ring binders with durable and cleanable plastic covers.
 - b. Provide suitable ring size for content with a 3-inch maximum size.

- c. When multiple binders are used, correlate data into related consistent groupings.
2. Cover and Spine: Identify the cover and spine of each volume with typed or printed title of the project, project number, and the words OPERATION AND MAINTENANCE INSTRUCTIONS.
3. For Contractor produced pages, paper shall be 8-1/2" x 11", white, 20 pound minimum.
4. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
5. Text: Manufacturer's printed data, or typewritten data.
6. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages and inset into prepared document sleeves.
7. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
8. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
 - a. Part 1: Directory, listing names, addresses, and telephone numbers of A/E, A/E Consultants, Contractor, Subcontractors, and major equipment suppliers.
 - b. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers.
Identify the following:
 - 1) Significant design criteria.
 - 2) List of equipment.
 - 3) Parts list for each component.
 - 4) Operating instructions.
 - 5) Maintenance instructions for equipment and systems.
 - 6) Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - c. Part 3: Project documents and certificates, including the following:
 - 1) Shop drawings and manufacturer's printed product data.
 - 2) Air and water balance reports.
 - 3) Certificates.
 - 4) Photocopies of warranties and bonds.
 - 5) Materials Safety Data Sheets (MSDS) for each product used on the Project.
 - d. Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.
 - e. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect, Consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.

3.6 WARRANTIES, BONDS, AND PERMIT MANUAL

A. Project Warranty - General:

1. If, within one (1) year after the Date of Substantial Completion of the Work, or designated portion thereof, or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor, and where applicable, his subcontractor that portion of the work, shall correct it promptly after receipt of a written notice from the Owner or Architect to do so. This obligation shall survive Termination of the Contract. The Owner will give such notice promptly after discovery of the condition.
2. Refer to Section 017836 for administrative and procedural requirements for tracking project warranty issues subsequent to date of Substantial Completion.

B. Categories Of Specific Warranties:

1. Warranties on the work are in several categories, including those of General Conditions, and including (but not necessarily limited to) the following specific categories related to individual units of work specified in the technical sections of these specifications.
 - a. Special Project Warranty (Guarantee): A warranty specifically written and signed by Contractor for a defined portion of the work; and, where required, countersigned by subcontractor, installer, manufacturer or other entity engaged by Contractor.
 - b. Specified Product Warranty: A warranty which is required by contract documents, to be provided for a manufactured product incorporated into the work; regardless of whether manufacturer has published warranty without regard for specific incorporation of product into the work, or has written and executed warranty as a direct result of contract document requirements.
 - c. Coincidental Product Warranty: A warranty which is not specifically required by contract documents (other than as specified in this section); but which is available on a product incorporated into the work, by virtue of the fact that manufacturer of product has published warranty in connection with purchases and uses of product without regard for specific applications except as otherwise limited by terms of warranty.
2. Refer to individual sections for the determination of units of work which are required to be specifically or individually warranted, and for the specific requirements and terms of those warranties (or guarantees).

C. Disclaimer and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

D. General Limitations:

1. It is recognized that specific warranties are intended primarily to protect Owner against failure of the work to perform as required, and against deficient, defective and faulty materials and workmanship, regardless of sources.
 2. Except as otherwise indicated, specific warranties do not cover failures in the work which result from: 1) Unusual and abnormal phenomena of the elements, 2) The Owner's misuse, maltreatment or improper maintenance of the work, 3) Vandalism after time of substantial completion, or 4) Insurrection or acts of aggression including war.
- E. Related Damages & Losses:
1. General: In connection with Contractor's correction of warranted work which has failed, remove and replace other work of project which has been damaged as a result of such failure, or must be removed and replaced to provide access for correction of warranted work.
 2. Consequential Damages: Except as otherwise indicated or required by governing regulations, special project warranties and product warranties are not extended to cover damage to building contents (other than work of Contract) which occurs as a result of failure of warranted work.
- F. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- G. Reinstatement Of Warranty Period: Except as otherwise indicated, when work covered by a special project warranty or product warranty has failed and has been corrected by replacement or restoration, reinstate warranty by written endorsement for the time period starting on the date of acceptance of replaced or restored work and ending upon date original warranty would have expired if there had been no failure, with an equitable adjustment for depreciation.
- H. Replacement Cost, Obligations: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. Contractor shall be responsible for the cost of replacing or restoring defective Work regardless of whether the Owner has benefited from use of the Work through a portion of anticipated useful service life.
- I. Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, right, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- J. Rejection of Warranties: Owner reserves the right, at time of final acceptance or thereafter, to reject coincidental product warranties submitted by the Contractor, which in opinion of Owner tend to detract from or confuse interpretation of requirements of Contract Documents.
- K. Contractor's Procurement Obligations: Do not purchase, subcontract for, or allow others to purchase or sub-subcontract for materials or units of work for project where a

special project warranty, specified product warranty, certification or similar commitment is required, until it has been determined that entities required to countersign such commitments are willing to do so.

- L. Co-execute warranties when required. Provide originals of each for inclusion in each operation and maintenance manual.
- M. Retain warranties and bonds until time specified for submittal.

END OF SECTION