Project Manual

Wilke Pole Building

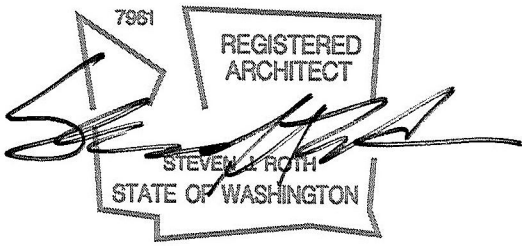
Washington State University
Davenport, WA

Project No. 1931-2023
Issued 04/11/2024
Washington State University
Facility Services, Capital

The Architect or Engineer Stamp on this page applies to all portions of the Specifications below.

ARCHITECTS:

Architects West
210 E Lakeside Ave
Couer d'Alene, ID 83814
208-667-9402



Specification Section 033000 – Cast In Place Concrete
Specification Section 061000 – Rough Carpentry
Specification Section 321313 – Concrete Paving
Specification Section 133419 – Pole Building

END OF ARCHITECTURAL / ENGINEERING STAMPS

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Washington State University
Wilke Pole Building
Davenport, WA

Sealed bids are being requested by the Board of Regents of Washington State University, for the above referenced project.

Project Scope:

The Wilke Pole Barn project includes the development of a 16-foot by 100-ft (16,000 square feet) addition to the existing pole barn. Work also includes the installation of several man doors, a roll up door and concrete flat work. Contract Time shall be 90 Days from Notice to Proceed to Substantial Completion. Proposals MUST BE based on this Contract Time.

Project Physical address: 39440 State Highway 2 E, Davenport, WA 99122

Bid Estimate: $80,000 - $140,000

Alternate 1 - Widen the pole barn addition from 16-feet to 20-feet.
Alternate 2 - Expand the existing concrete floor inside the main structure (Approximately 75-feet by 50-feet).
Alternate 3 - Provide a 20-foot by 66-foot exterior concrete slab in the east end of the existing structure.

Bid Deadline: May 9, 2024, prior to 2:00 p.m., virtual bid opening at 2:30 p.m.

In-Person Pre-bid Meeting: April 25, 2024, 1:00pm, 39440 State Highway 2 E, Davenport, WA 99122

Visit https://facilities.wsu.edu/facilities-services-capital/contractors/ for bid docs and meeting details.

Email contracts@wsu.edu to be added to the Planholder's List.

Owner reserves the right to reject any and all bids and to waive any informalities or irregularities in the bids received.

Maja S. Huff
509-335-9082
Contracts@wsu.edu
Facilities Services
Washington State University

Additional Project Information available on the Website:

Bids will be received either by email to contracts@wsu.edu or in hard copy at McCluskey Services Building, 2425 East Grimes Way., Pullman, WA. Proposals will then be publicly opened and read aloud at 2:30 p.m. by **https://wsu.zoom.us/j/94750867358?pwd=RG1VRjBnMzNsQTk2SXFFMlpjWmJmdz09** **passcode 236151** or Phone 253-215-8782 **and entering Meeting ID 947 5086 7358**. Attendance in person is not allowed.

Printing Disclaimer: The bidding documents are available for all interested bidders and plancenters. The University does not provide printing services; it is the bidder's responsibility to print the drawings to the appropriate scale indicated. We encourage the use of professional printing shops.

END OF SECTION 00 11 13

PART 1 GENERAL

1.01 PROJECT IDENTIFICATION

A. Refer to the Advertisement for Bids for Project identification, availability of bidding documents, Prebid Conference, and Contract completion date. Refer to Summary of Work, Section 01 11 00, for a brief description of the Work.

1.02 BIDDER QUALIFICATIONS

A. Contractor Registration:

1. Bidders subject to the Contractor's Registration Act (RCW Chapter 18.27) must show their State of Washington Contractor's license number on the Form of Proposal. In addition, bidders are cautioned to verify that all subcontractors submitting bids are also registered and licensed in accordance with the laws of the State of Washington. Owner is prohibited by virtue of RCW 39.06.010 from executing any Contract for public works with any contractor who is not registered or licensed in accordance with the laws of this state. Prior to submitting a bid, bidder must obtain an appropriate clearance and license to do business in the State of Washington as follows:

   a. Contractor's License: Make license application to the Department of Labor and Industries, Contractor's Registration, P.O. Box 7689, Olympia, Washington 98504.

   b. Registration Number: Out-of-State Contractors must obtain a registration number and permission to do business in the State of Washington from the Secretary of State, Olympia, Washington 98501.

   c. Other Registrations: Register with the State Department of Revenue as a contractor engaging in business in this state and register with the State Department of Labor and Industries and the Employment Security Department.

2. Payment and Performance Bonds:

   a. Bidders must be able to furnish satisfactory separate Payment and Performance Bonds for full amount of the initial Contract Sum, plus sales tax.

1.03 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

A. Before submitting a bid or proposal, bidders shall carefully examine the Contract Documents, visit the Project site, and fully inform themselves as to all existing conditions and limitations, and shall include in their bid or proposal a sum to cover the cost of all items included in the Work, and shall rely on their own examination in making their bid or proposal. No change in the Work, the

Contract Sum, or the Contract Time will be allowed for issues that would have been reasonably apparent by the foregoing examination.

B. 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 Project site, including all exploratory work done by Owner, as well as from the Drawings and Specifications made a part of the Contract Documents.

C. Bidder acknowledges that adjoining areas will be in normal course during the Work. Bidder should anticipate pedestrian and traffic congestion, limited parking, and the need to coordinate all Work with ongoing operations.

D. 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 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 issued addenda shall be incorporated into these Contract Documents.

1.04 PREBID CONFERENCE

A. All bidders are encouraged to attend a pre-bid conference. Refer to the Advertisement for Bids for the date, time and location.

1.05 CLARIFICATIONS

A. Should bidders find discrepancies in, omissions from, or unclear information within the Contract Documents, they should notify Owner at once. Owner shall issue a written instruction in the form of an addendum to all bidders. Neither the Owner nor Architect/Engineer will be responsible for any oral instructions. Questions received less than 7 Days before bid opening may not be answered. All addenda issued prior to the opening of bids will be incorporated into the Contract.

1.06 SPECIFIED PRODUCTS

A. Bids must be based upon items identified in the Specifications or approved substitutions. In certain cases, specific items have been named because of operational or maintenance considerations; approval of substitutions should not be assumed.

B. Requests for approval of substitutions must be made in writing and received by Owner at least 7 Days prior to the date of bid opening. Said request must include complete descriptions, technical data, and performance records. Any approval of the proposed substitution will be made by addendum issued to all bidders.

C. To submit substitution requests prior to Bid opening:

1. Only one substitution request per bidder will be considered for each product.

2. Requests for substitutions shall provide sufficient data to allow Owner to evaluate the suitability of the proposed product. Bidder must clearly identify product and model number of proposed substitution.

D. By requesting a substitution, bidder represents and warrants that (1) it has personally investigated the proposed material or product and determined that it is equal or better in all respects to that specified, (2) the same or better warranty will be provided for the substitution, (3) it has coordinated with affected subcontractors, (4) the substitution will not impact other parts of the Work, (5) the aggregate costs associated with the substitution actually reduces its bid amount, (6) all costs associated with the substitution are included in its bid, and (7) it waives any known or unknown future claim for an increase in the Contract Sum or Contract Time associated with the substitution.

E. Owner retains full discretion over whether to approve a substitution, and Owner's approval does not relieve bidder of the above requirements.

1.07 TAXES

A. State of Washington 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, cranes, air compressors, bulldozers, lubricating oil, sandpaper, form lumber, and similar items of material and equipment which are primarily for use by the bidder rather than for resale as a component part of the finished work, shall be included in the bid price. (See WAC 458-20-170 (State Department of Revenue Rule 170))

B. Sales tax applicable to the Contract Sum will be added to the Contract Sum by Owner at the time the Contract (Section 00 50 00) is written and shall be paid to Contractor. Contractor shall then remit payment for the sales tax to the State Department of Revenue in conformance with the law.

1.08 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. Bidders shall include in their bid any and all fees, including filing fees, required to comply with applicable labor laws.

1.09 PAYMENT AND PERFORMANCE BONDS

A. Upon award of the Contract, the successful bidder will be required to provide Owner with satisfactory separate payment and performance bonds. Cost of bond premiums must be included in the bidder's proposal.

1.10 FORM OF PROPOSAL

A. Proposals must be formatted in accordance with the following:

1. Bidder must utilize the Form of Proposal, examples of which are included in the Contract Documents; all numbers must be clearly and legibly stated both in writing and in figures; and signatures must be in longhand.

2. Bids must not contain any recapitulation of the Work to be done.

3. Bidders must include prices for all Alternate Bid items if they are included in the Form of Proposal.

   a. Bidders shall bid upon all Alternates indicated in the Form of Proposal. When bidding on alternates for which there is no charge, bidder shall write the words "No Charge" or some similar designation in the space provided on the Form of Proposal. If a bidder fails to bid an alternate, or notes "no bid," it will be construed as meaning that there will be no change in the Contract Sum and that the alternate is included in the Contract Sum.

4. Bids shall be received either electronically or in hard copy:

   a. Electronic Bids: Bidders may submit their bid via email to contracts@wsu.edu prior to the bid submission deadline. The emailed bid must include all documents that would have normally been submitted in the sealed envelope, including but not limited to the Form of Proposal and bid bond, in either PDF or Image format.

      1) The official clock for receipt of electronic bids will be the time and date stamp by WSU email services, not bidders email services.

   b. Hard Copy Bids: Each part of the Form of Proposal must be sealed in its own opaque envelope and marked "Proposal, Wilke Pole Building". Bidders name shall appear on the outside of this sealed envelope. All bids are to be delivered or mailed to Facilities Services, P.O. Box 641150, McCluskey Services Building, Washington State University, Pullman, WA 99164-1150. If mailed, the Bid envelope shall be enclosed in another envelope for mailing.

      1) An official clock, at the office location designated for receipt of bids, will be designated by Owner for determining the timely receipt of each bid.

   c. Bidders are solely responsible for delivery of their proposals at the specified location and before the specified time set for receipt of bids.

5. Bids will be received on the dates and at the times indicated in the Advertisement for Bids.

6. Proposals received and determined untimely by Owner, may be considered as non-responsive and hard copy bids will be returned to bidder unopened, or notification will be made by email for electronic bids.

7. Bids will be received until the respective times indicated in the Advertisement for Bids. They must be received prior to the respective times stated; i.e., where bids are required until 2:00 p.m., all bids received by 1:59:59 p.m. are timely; all bids received on or after 2:00:00 p.m. are untimely.

8. Proposals shall consist of the following components:

   a. Proposal: Completed Part A proposal indicating the following:

      1) Base Bid and Alternate Bid (if any) amounts;

      2) Acknowledgment of Addenda received;

      3) Signature, Corporate Identification, and Contractor License number; and

      4) Bid Security to be attached to Part A proposal form.

9. All proposals will remain sealed/unshared until the bid opening. Together with the required bid security, up until the time set for receipt of the first submittal.

1.11 BID ALTERNATES, ALLOWANCES AND UNIT PRICES

A. Bid Alternates, Allowances, and Unit Prices adjust the Project scope by adding, deleting, or modifying specific parts of the Work as stated hereinafter.

B. An Alternate is an amount proposed by bidders and stated on the Bid Form for certain construction activities defined in the bidding documents that may be added to or deducted from the Base Bid amount and/or the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

   1. Each bidder shall submit, on the Form of Proposal, an amount for each Bid Alternate stating the difference in cost from the Base Bid amount for adding, deleting, or modifying specific materials and/or construction.

   2. The difference in cost shall include all deletions, additions, and adjustments to all trades as may be necessary by each modification.

   3. Only Alternates authorized by these specifications or pursuant to addenda will be considered.

C. An Allowance is an amount established in the Contract Documents for inclusion in the Contract Sum to cover the cost of prescribed items not specified in detail sufficient to estimate at time of bid.

1. Each bidder shall include in the Base Bid amount the amount for each Allowance as identified in the bidding documents.

1.12 BID GUARANTEE

A. Bidder shall furnish a bid guarantee in the form of a cashier's check or bid bond made payable to the Board of Regents of Washington State University for an amount equal to at least 5% of the total Base Bid amount, as evidence of good faith and as a guarantee that, if awarded the Contract, the bidder will execute the Contract and provide payment and performance bonds as required.

1. Electronic submission of the Bid Guarantee shall constitute full submittal as if delivered in hard copy.

B. Should the successful bidder fail to enter into a Contract and furnish satisfactory bonds within 10 Days after its proposal has been accepted, the bid security shall be forfeited as liquidated damages.

C. Owner reserves the right to hold the bid guarantee of the 3 lowest bidders until the successful bidder has entered into a contract and furnished required bonds.

1.13 MWBE PARTICIPATION

A. Washington State University is committed to the enhancement of opportunities for minority and women owned and controlled businesses in public contracting. The use or solicitation of minority and women's business enterprise firms is expressly encouraged.

1.14 CONTRACTOR AND SUBCONTRACTOR PARTICIPATION – NOT USED

1.15 MODIFICATION OF PROPOSALS

A. Modifications to proposals already submitted will be permitted only if requested in writing over the signature of the bidder and provided such requests are received prior to the time set for receipt of bids.

B. The original Form of Proposal will remain unopened until bid opening. Modifications in the form of facsimile transmissions will not be accepted.

C. Withdrawal of proposals will be permitted only if requested in writing over the signature of the bidder and provided such requests are received prior to the time set for receipt of bids.

D. Withdrawal requests in the form of facsimile transmissions will not be accepted.

E. After the scheduled closing time for the receipt of Form of Proposals, no bidder will be permitted to withdraw a proposal unless said award is delayed for a period exceeding 60 Days.

1.16 ALTERATIONS PROHIBITED

A. Except as otherwise provided herein, Forms of Proposal which are incomplete, or which are conditioned in any way, or which contain items not called for in the Proposal Form, or which are not in conformity to the law, may be rejected.

B. The Form of Proposal invites bids on specific Drawings and Specifications. Only the amounts and information asked for on the Form of Proposal furnished will be considered.

1.17 BID PROTEST PROCEDURES

A. A bidder protesting for any reason the bidding documents, a bidding procedure, the University's objection to a bidder or a person or entity proposed by the bidder, including but not limited to, a finding of non-responsibility, the award of the Contract or any other aspect arising from, or relating in any way to, the bidding, shall file a written protest with the University within two (2) business days of the event giving rise to the protest. (Intermediate Saturdays, Sundays, and legal holidays are not counted as business days.) The written protest shall include the name of the protesting bidder, the title of the bid under which the protest is submitted, a detailed description of the specific factual and legal grounds for the protest, copies of all supporting documents, evidence that the apparent low bidder has been given notice of the protest, and the specific relief requested. The written protest shall be sent by email to contracts@wsu.edu.

B. Upon receipt of the written protest, the University will consider the protest. The University may, within three (3) business days of the University's receipt of the protest, provide any other affected bidder(s) the opportunity to respond in writing to the protest. If the protest is not resolved by mutual agreement of the protesting bidder and the University, the Assistant Vice President for Facilities Services, Capital of the University, or her or his designee, will review the issues and promptly furnish a final and binding written decision to the protesting bidder, and any other affected bidder(s), within six (6) business days of the University's receipt of the protest. (If more than one (1) protest is received, the University's decision will be provided within six (6) business days of the University's receipt of the last protest.) If no reply is received from the University during the six (6) business-day period, the protest will be deemed rejected.

C. Failure to comply with these protest procedures will render a protest waived.

D. Timely and proper compliance with, and exhaustion of, these protest procedures shall be a condition precedent to any otherwise permissible judicial consideration of a protest.

1.18 LOW RESPONSIBLE BIDDER

A. It is the intent of Owner to award the Contract to the low responsible bidder. Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required by Owner to submit documentation demonstrating compliance with the criteria. Bidder must:

1. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable:
    a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
    b. Have a Washington Employment Security Department number, as required in Title 50 RCW;
    c. Have a Washington Department of Revenue 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).
5. 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 first date of advertising for this project.
6. Not have been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries, or through a civil judgment entered by a court of limited or general jurisdiction, to have willfully violated, any provision of chapter 49.46, 49.48, or 49.52 RCW, as defined in RCW 49.48.82.

B. In addition to the bidder responsibility criteria above, bidder must also meet the following supplemental bidder responsibility criteria applicable to the Project:

1. The ability, capacity, and skill of bidder to perform the service required;
2. The experience and efficiency of bidder;
3. Whether bidder can perform the Contract within the time specified;
4. The satisfactory completion of previous contracts or services;
5. Such other information having a bearing on the decision to accept a bid proposal.

C. Within 48 hours of receipt of request, apparent low bidder will provide such information about its team as Owner determines to be reasonably necessary to evaluate the responsibility of the bidder. Failure to reply with requested information will render a bidder non-responsible at Owner's option. At minimum, a bidder shall provide:

1. A financial statement;

2. List of projects currently under construction, including current contract amount and status of each;
3. Names and resumes of proposed Project Manager, Project Engineer, and Superintendent;
4. Name of bonding company/agent; and
5. References including project and owner name, a project contact, and project contact telephone number.

D. As evidence that bidder meets the bidder responsibility criteria, the apparent low bidder must submit documentation as may be required above to the Owner within 48 hours of the bid submittal deadline. Owner reserves the right to request such documentation from other bidders also.

E. Owner will review Contractor's past Contract Performance to assist in evaluating the contractor's qualifications and proven ability to successfully perform future contracts only when past performance has been previously documented via the Contract Performance Program.

F. If Owner determines bidder does not meet the bidder responsibility criteria above and is therefore not a responsible bidder, Owner shall notify bidder in writing with the reasons for its determination. If bidder disagrees with this determination, it may appeal the determination within 24 hours of receipt of Owner's determination by presenting additional information to Owner. Owner will consider the additional information before issuing its final determination. If the final determination affirms that bidder is not responsible, Owner will not execute a Contract with any other bidder until 2 business days after the bidder determined to be not responsible has received the final determination.

1.19 CONTRACT AWARD

A. Owner intends but is not required to enter into a contract with the successful bidder, for all Work called for in the Contract Documents.

B. The determination of the successful bidder will be made on the basis of the sum of the Base Bid together with Owner-selected Alternates.

C. The responsibility of bidder and its subcontractors will be considered in making the award. Owner reserves the right to reject any or all bids and to waive informalities advantageous to Owner and/or the protection of the public interest.

D. Reinstatement of Bid Alternate not initially selected shall be in accordance with provisions of the Bid Proposal Form of Proposal.

1.20 CONTRACT FORMS

A. Owner's standard form Contract is included with the Contract Documents.

END OF SECTION 00 21 13

Washington State University
Wilke Pole Building
Davenport, WA

Refer to Instructions to Bidders for bid submittal procedures.

Bidder's Firm Name: _____ Date:_____

To: Facilities Services, Capital
McCluskey Services Building, P.O. Box 641150
Washington State University
Pullman, Washington 99164-1150

Pursuant to and in compliance with the Advertisement for Bids and the Instructions to Bidders, the Bidder, having carefully examined the Contract Documents entitled "Wilke Pole Building" and having visited the Project site and examined the conditions affecting the Work, hereby proposes and agrees to provide all labor, materials, equipment, services, and incidentals necessary to complete the Work for the following stipulated sums:

A. BASE BID

_____

_____DOLLARS ($_____),

B. UNIT PRICES – NOT USED

C. ALTERNATES

The Bidder proposes to modify the Base Bid by deleting from, adding to or otherwise modifying the Work as further described by the Contract Documents for the following stipulated sums:

Alternate No. & Description

Alternate No. 1 – Widen pole barn addition from 16-feet to 20-feet

_____DOLLARS ($_____.),

Alternate No. 2 – Expand the existing concrete floor inside the main structure (Approximately 75-feet by 50-feet)

_____DOLLARS ($_____.),

Alternate No. 3 – Provide a 20-foot by 66-foot exterior concrete slab in the east end of the existing structure.

_____DOLLARS ($_____.),

For Alternates, which do not affect the Base Bid, indicate a zero (0) in the space provided for the Alternate.

D. REINSTATEMENT OF BID ALTERNATES

The Bidder agrees that Owner has the right to reinstate any Alternate not incorporated in the original Contract, for the sum originally proposed, provided Owner notifies the Bidder within 60 Days of Notice to Proceed.

E. SALES TAX

The Bidder agrees that the amounts indicated in the proposal do not include Washington State and local sales taxes except as required by the Instructions to Bidders.

F. CONTRACT PROVISIONS

Should the Bidder be notified of the acceptance of this proposal within 60 Days from the date set for the opening thereof or at any time thereafter before this proposal is withdrawn, the bidder agrees to execute a Contract for the Work and to furnish the required bonds.

1. TIME OF COMPLETION
   The bidder agrees, if awarded a Contract for the Work, to complete the Work within the Contract Time specified.
2. LIQUIDATED DAMAGES
   The bidder agrees that time is of the essence of the Contract and acknowledges that the amount of damages specified is a measure of the damages which the Owner will sustain should the Bidder fail to complete the Work within the Contract Time.

G. BID GUARANTEE

The Bidder agrees that the bid guarantee accompanying the Part A Form of Proposal is left in escrow with Owner, that the amount of the guarantee is the measure of the damages that Owner will sustain by failure of the bidder to execute a Contract for the Work and furnish required bonds, and that if the bidder fails to deliver said documents within 10 Days after receipt of notice of award to the bidder, the bid guarantee shall become the property of Owner.

H. MINORITY AND WOMEN'S BUSINESS ENTERPRISE (MWBE) PARTICIPATION

Owner is committed to the enhancement of opportunities for minority and women owned and controlled firms in public contracting. While neither required, nor a part of bidder responsiveness, the use or solicitation of minority and women business enterprises is expressly encouraged.

I. CONTRACTOR AND SUBCONTRACTOR PARTICIPATION – NOT USED

J. ADDENDA

The bidder hereby acknowledges receipt of Addendum by number(s):

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____

K. PREVAILING WAGE CERTIFICATION

The bidder has not been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries, or through a civil judgment entered by a court of limited or general jurisdiction, to have willfully violated, any provision of chapter 49.46, 49.48, or 49.52 RCW, as defined in RCW 49.48.82.

L. DECLARATION

The bidder represents and warrants that he/she possess the authority to sign for and bind bidder.

The Bidder declares under penalty of perjury under the laws of the State of Washington, that all of the foregoing information as recited is true and correct to the best of his/her knowledge.

Bidder's Firm Name: _____

Signed By: _____ Official Title: _____

Print Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ Fax: _____

State of Washington Contractor's License Number: _____

Federal Tax Identification Number: _____

Email Address: _____

The firm represented by the above signature is a:

Sole Proprietorship _____
Partnership _____
Corporation _____ State of Incorporation _____
Other _____

END OF SECTION 00 42 13

Wilke Pole Building

Agreement between Owner and Contractor
(Fixed Contract Sum)

This AGREEMENT is effective as of the date of the first signature on the Agreement so long as all other parties' authorized signatories have also executed the Agreement. This Agreement is made by and between the following parties in connection with the Project identified below.

OWNER: Washington State University
c/o Facilities Services, Capital
P.O. Box 641150
Pullman, WA 99164-1150

CONTRACTOR: [To be determined]

ARCHITECT (A/E): Architects West
210 E Lakeside Ave
Couer d'Alene, ID 83814

PROJECT: Wilke Pole Building
39440 State Highway 2 E
Davenport, WA 99122

In consideration of the mutual covenants and obligations contained herein, Owner and Contractor agree as set forth herein.

Article 1
The Work of the Contract

1.1 Contractor to fully execute the Work. Contractor shall fully execute the entire Work in strict accordance with the Contract Documents, and shall provide all material, equipment, tools, and labor necessary to timely complete the Work described in and reasonably inferable from the Contract Documents, except to the extent specifically indicated to be the responsibility of others.

1.2 Contractor to further Owner's interests. Contractor accepts the relationship of trust and confidence established by this Agreement and covenants with Owner to cooperate and collaborate with Owner and others involved with the Project and to exercise Contractor's best skill and judgment; to furnish efficient, professional construction administration, management services and supervision with sufficient quantities of fully qualified, competent and experienced personnel; and to perform the Work in an expeditious and economical manner consistent with Owner's interests. The parties will endeavor to promote harmony, cooperation and mutual respect among the Project participants to the fullest extent possible in order to further the success of the Project and to effect prompt and successful completion of the Project within the requirements of the Contract Documents, the Contract Time and the Contract Sum.

Article 2
Contract Documents

2.1 The Contract Documents. The "Contract Documents" form the "Contract." The Contract Documents consist of this Agreement (Agreement between Owner and Contractor or the "Agreement"); any attached Exhibits and other documents listed in the Contract Documents; the General Conditions; other documents listed in Article 8 of this Agreement; and written modifications, amendments and Change Orders to the Contract issued after execution of this Agreement.

2.2. Contract is complete and integrated agreement. The Contract represents the entire, complete, and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. No oral representations or other agreements have been made by the parties except as specifically established in the Contract.

2.3 Contract is between only Owner and Contractor. The Contract Documents shall not be construed to create a contractual relationship of any kind between any Persons other than Owner and Contractor.

Article 3
Definitions

3.1 Terms, words and phrases to have ordinary meanings. Terms, words and phrases used in the Contract Documents shall have the meanings given them in this Agreement and in the General Conditions or, if not defined, in a manner consistent with construction industry standards. In the event of any inconsistency in such definitions, the definitions in this Agreement shall control.

3.2 Construction Documents. The Construction Documents are identified in the General Conditions and other Contract Documents as Drawings and Specifications. The Construction Documents do not include shop drawings or other Submittals.

3.3 Contractor. "Contractor" is the Person identified as such in the Agreement and General Conditions. Contractor must be licensed, bonded, and insured as a contractor in the State of Washington, and must legally be permitted to do business. Contractor's authorized representative, including its Designated Representative, shall be authorized to act on Contractor's behalf with respect to the Project.

3.4 General Conditions modified. Section 4.03E of the General Conditions is hereby modified to clarify that Contractor and Owner may agree on the number of copies of Submittals to be provided to Owner. If no such agreement is reached, Contractor shall submit five copies.

Article 4
Notice to Proceed and Substantial Completion

4.1 Notice to Proceed. The date of Notice to Proceed will be specified in a written Notice issued by Owner. Owner may issue separate written authorizations to proceed for different portions of the Work.

4.2 Contract Time measured from date of commencement. The Contract Time shall be measured from the Notice to Proceed date to the contractual date of Substantial Completion established in Section 4.3, subject to adjustments as provided in the Contract Documents. Time is of the essence in completion of the Work.

4.3 Substantial Completion and Final Completion. Contractor shall achieve Substantial Completion of the Work by 90 Days following Notice to Proceed, subject to adjustments as provided in the Contract Documents, and shall achieve Final Completion not later than 30 Days thereafter. Contractor represents to Owner that the Contract Time is adequate for full performance of the Work. Contractor shall also achieve any interim milestones and phasing requirements set forth in the Contract Documents.

4.4 Liquidated damages. Owner will assess, and Contractor will be responsible for, liquidated damages in the amount of one-thousand seven-hundred fifty-five dollars and fifty-six cents ($1,755.56) per Day for each Day beyond the contractual date for Substantial Completion that Substantial Completion is not timely achieved, and subsequently one-thousand seven-hundred fifty-five dollars and fifty-six cents ($1,755.56) per Day for each Day beyond the time period established in Section 4.3 that Final Completion of the entire Work is not achieved. Contractor and Owner agree that the liquidated damages amounts are not penalties and are a reasonable estimation of actual damages to Owner, as of this date of Agreement, based on the inherent uncertainty and difficulty in calculating and quantifying damages caused by delays in the construction of university facilities.

Article 5
Contract Sum

5.1 Contract Sum. For Contractor's performance of the Contract, Owner shall pay to Contractor the Contract Sum of _____ _____ dollars ($_____), subject to additions and deductions for changes in the Work as provided in the Contract Documents. The Contract Sum includes by way of example and not limitation all costs of construction; general conditions; all taxes except Washington State sales tax due on the Contract Sum; Contractor's contingency; any approved Allowances; all insurance; overhead; and Contractor's fee.

5.2 Alternates. The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by Owner:

Alternate Number	Description	Price ($0.00)
Alternate No. 1	Widen the pole barn addition from 16-feet to 20-feet.	
Alternate No. 2	Expand the existing concrete floor inside the main structure (Approximately 75-feet by 50-feet).	
Alternate No. 3	Provide a 20-foot by 66-foot exterior concrete slab in the east of the existing structure.	

5.3 Unit Prices. Any Unit Prices are as follows:

Description	Units	Price ($0.00)
None		

Unit Prices as set forth in the Contract Documents are "all in." They include all material, equipment, labor, delivery, installation, and Subcontractor costs, any overhead and profit not included in the fee, and any other costs or expenses in connection with, or incidental to, the performance of that portion of the Work to which such Unit Prices apply.

5.4 Allowances. Allowances included in the Contract Sum are as follows:

Allowance	Amount	Included Items
None		

Allowances may be included in the Contract Sum due to uncertainty in scope, price and/or quantity at the time this Agreement is executed. Whenever actual costs are more or less than an allowance, the Contract Sum will be appropriately adjusted. Contractor must provide Owner with written notice of its intent to expend an allowance amount (providing Owner with the opportunity to approve or reject the cost) before expending an allowance amount.

5.5 Changes in the Work.

5.5.1 Owner may, without invalidating the Contract, order changes in the Work consisting of additions, deletions or other revisions. Owner shall issue such changes in writing.

5.5.2 Adjustments of the Contract Sum and/or Contract Time on account of changes in the Work may be determined by any of the methods listed in the General Conditions.

Article 6
Payments

6.1 Applications for Payment.

6.1.1 The Contract Documents detail the requirements for Applications for Payment. Based upon Applications for Payment that Contractor submits to Owner, Owner shall make progress payments to Contractor on account of the Contract Sum.

6.2 Progress Payments.

6.2.1 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows and in accordance with Section 01 29 00, Applications for Payment:

.1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Contract Sum allocated to that portion in the Schedule of Values. Pending final determination of the cost to Owner of changes in the

Work, amounts not in dispute may be included as provided in the General Conditions unless Owner requires that actual cost records be provided;

.2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by Owner, suitably stored and insured off the site at a location agreed upon in writing);

.3 Subtract the aggregate sum of previous payments made by Owner;

.4 Subtract amounts, if any, for which Owner has withheld payment; and

.5 Subtract the statutory retainage of five percent (5%) of the above amount as a fund for the protection and payment of the claims of any Person arising out of the Work and the State of Washington with respect to taxes.

6.3 Subcontractor Payment Reporting.

6.3.1 All contract payments are subject to compliance tracking using the Washington State Office of Minority & Women's Business Enterprise's business diversity management system, Access Equity (B2Gnow). Contractor and all subcontractors (regardless of certification) will register and report all progress payments made utilizing the system. The Owner reserves the right to withhold payments from the Contractor for non-compliance with this requirement.

6.4 Final Payment.

6.4.1 Final payment, constituting the entire unpaid balance of the Contract Sum, less retainage, shall be made by Owner to Contractor no later than 30 Days after Contractor has fully performed the Contract and Final Completion has occurred (except for Contractor's responsibility to correct non-conforming Work discovered after final payment or to satisfy other requirements, if any, that extend beyond final payment), and Contractor has submitted a final Application for Payment.

6.4.2 Owner shall release retainage to Contractor in accordance with Chapter 60.28 RCW and the Contract Documents.

Article 7
Miscellaneous Provisions

7.1 Designated Representatives.

7.1.1 Owner's Designated Representative, designated below, shall be authorized to act on Owner's behalf with respect to the Project:

Eric Smith
Project Manager
Facilities Services

7.1.2 Contractor's Designated Representative, identified below, shall be authorized to act on Contractor's behalf with respect to the Project:

_____
_____
_____

7.1.3 Neither Owner's nor Contractor's Designated Representatives shall be changed without 10 Days' written notice to the other party.

7.2 Interest. Payments due and unpaid under the Contract Documents shall bear interest as specified by RCW 39.76, not to exceed the Bank of America prime plus two percent (2%) per annum.

7.3 Quality control and assurance and Owner's right to inspect the Work: Contractor shall develop and submit an overall Quality Control and Assurance Plan to ensure that the Work is inspected by qualified members of Contractor's staff or third parties. The Quality Control and Assurance Plan must be acceptable to Owner. Owner expressly reserves the right to inspect any and all portions of the Work at any time during the Project. Contractor shall provide access to the Work as needed by Owner or its representatives, including the use of scaffolding, platforms, or lifts. All corrections or observations noted by Owner shall be logged by Contractor for correction, tracking and documentation to the satisfaction of Owner.

7.4 Contractor to actively manage and supervise Work. Contractor shall review and inspect the Work of Subcontractors on a regular basis for defects and deficiencies in their Work and for conformance with the Construction Documents and other Contract Documents, and shall stop the Work of Subcontractors, if necessary. Contractor shall provide notification at regularly scheduled progress meetings of any major defects or deficiencies and recommend remedial action.

7.5 Use of Third Party Neutral. Owner and Contractor intend to utilize a Third Party Neutral to assist in addressing and resolving disputes that may arise during the Project. The Third Party Neutral will be jointly engaged and will have the roles and responsibilities set forth in a Third Party Neutral Agreement, which shall be established in accordance with Section 00 80 10, Third Party Neutral.

Article 8
Enumeration of the Contract Documents

8.1 The Contract Documents. The Contract Documents, except for modifications issued after execution of this Agreement, are enumerated as follows:

8.1.1 This executed Agreement, any attached Exhibits and other documents listed in this Agreement.

8.1.2 The General Conditions for Washington State Facility Construction with Washington State University Amendments, and any Supplementary Conditions of the Contract.

8.1.3 The Addenda, if any, are as follows:

Number	Date	Pages

8.1.4 Other documents, if any, forming part of the Contract Documents are as follows:

See Contract Documents.
Department of Labor and Industries Prevailing Wage Rates.

OWNER: **WASHINGTON STATE UNIVERSITY**	**CONTRACTOR:** **FIRM NAME** **WA CONTRACTOR LICENSE NUMBER**
(Signature) (Date)	(Signature) (Date)
(Printed Name) Vice President and Chief Financial Officer Finance and Administration	(Printed Name) (Title)

END OF SECTION 00 50 00

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WSU amendments to the Washington State Facility Construction
General Conditions are identified by a bar on the right hand side of modified paragraphs

PART 1 - GENERAL PROVISIONS

1.01 DEFINITIONS

A. "Application for Payment" means a written request submitted by Contractor to Owner for payment of Work completed in accordance with the Contract Documents and approved Schedule of Values, supported by such substantiating data as Owner 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. An "Allowance" is an amount included in the Contract Sum for a stated part of the Work that is not fully defined and/or quantified at the time the Contract Sum is established. When that part of the Work is adequately defined and/or quantified, the Contract Sum will be adjusted to account for the difference between the Allowance and the actual cost of the item. Following the adjustment, that part of the Work will no longer be an Allowance item. Although not capitalized in Section 5.02B, "allowance" shall mean "Allowance."

D. "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.

E. "Claim" means Contractor's exclusive remedy for resolving disputes with Owner arising out of or relating to the Contract Documents or the breach thereof or requesting an adjustment in the Contract Sum or Contract Time, as more fully set forth in Part 8. As used in the Contract Documents, the exclusive meaning of "equitable adjustment" is the ability of Contractor to follow the contractual dispute resolution process in Part 8, including the requirement for submitting a timely Notice, substantiation, and Claim.

F. The "Contract" is the agreement between Owner and Contractor and is formed by the Contract Documents. The Contract represents the entire and integrated agreement between Owner and Contractor and supersedes prior negotiations, representations or agreements, either written or oral.

G. "Contract Award Amount" is the sum of the Base Bid and any accepted Alternates, if any, for Design-Bid-Build projects and is the accepted initial Guaranteed Maximum Price for Design-Build and GC/CM projects.

H. "Contract Documents" means the General Conditions, modifications to the General Conditions, Supplemental Conditions, Agreement, Drawings and Specifications, and all addenda and modifications thereof.

I. "Contract Sum" is the total amount payable by Owner to Contractor for performance of the Work in accordance with the Contract Documents, including all taxes imposed by law and properly chargeable to the Work, except Washington State sales tax.

J. "Contract Time" is the number of Days or other time period allotted in the Contract Documents from the Notice to Proceed for achieving Substantial Completion of the Work.

K. "Contractor" means the person or entity who has agreed with Owner to perform the Work in accordance with the Contract Documents.

L. "Day(s)" means calendar day(s) unless otherwise specified.

M. "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.

N. "Final Acceptance" means the written acceptance of the Work by Owner, as more fully set forth in Section 6.08B.

O. "Final Completion" means that the Work is fully and finally complete in accordance with the Contract Documents and Contractor has submitted its final Application for Payment, as more fully set forth in Section 6.09A.

P. "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.

Q. "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. Although not capitalized in the following provisions, "notice" shall mean "Notice" in Sections 3.03B, 3.03C, 3.06A, 5.01D, 5.02C, 5.03, 5.09A, 5.10A, 5.15A, 5.16F, 5.17, 9.01A, 9.02A, and 9.02B.

R. "Notice to Proceed" means a written Notice from Owner to Contractor that permits pre-construction and construction activities to commence upon specified terms and defines the date on which the Contract Time begins to run.

S. "Owner" means the Washington State University Board of Regents, which has the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents. Owner shall designate in writing a Representative who shall have authority to bind Owner with respect to all matters requiring Owner's approval or authorization. A/E does not have such authority.

T. "Person" means a corporation, partnership, business association of any kind, trust, company, or individual.

U. "Prior Occupancy" means Owner's use of all or parts of the Project before Substantial Completion, as more fully set forth in Section 6.08A.

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

W. "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.

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

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

Z. "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.

AA. "Subcontract" means a contract between Contractor and a Subcontractor for the purpose of obtaining supplies, materials, equipment, work or services of any kind for or in connection with the Work. Although not capitalized in the following provisions, "subcontract" shall mean "Subcontract" in Sections 5.10A, 5.20E, 9.01B, and 9.02B.

BB. "Subcontractor" means any Person of any tier, other than Contractor, who agrees to furnish or furnishes by contract with, or through Contractor, any supplies, materials, equipment, or services of any kind in connection with the Work. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor. Although not capitalized in the following provisions, "subcontractor" shall mean "Subcontractor" in Sections 5.04B, 5.04C, 5.04G, 5.20A, and 5.21B.

CC. "Substantial Completion" means that stage in the progress of the Work (or portion of the Work designated and approved by Owner) when the construction is sufficiently complete, in accordance with the Contract Documents, so that Owner can fully occupy or utilize the Work (or portion designated by Owner) for its intended use, as more fully set forth in Section 6.07. There may be separate dates of Substantial Completion specified in the Contract Documents for various phases or portions of the Work.

DD. "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. Although not capitalized in the following provisions, "work" shall mean "Work" in Sections 3.02D, 5.04B, 5.04C, 5.07D, 5.12A, 6.02 and 7.02A.

EE. A "Work Directive" ("WD") is a binding written order prepared by Owner that directs Work prior to total agreement on adjustment, if any, in the Contract Sum or Contract Time, or both.

FF. "Work Site" means the space identified and circumscribed on construction documents. The work site is controlled by the Contractor and the Contractor is responsible for compliance to regulatory requirements within the circumscribed area. Changes to the work site shall be submitted by Contractor and approved by Owner.

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, with a revision to a Contract Document having precedence over the original document and a later document having precedence over an earlier document:

1. Signed Agreement, with any Change Orders having precedence.

2. Supplemental Conditions.

3. Modifications to the General Conditions.

4. General Conditions.

5. Specifications and Drawings. The Specifications and Drawings are complementary and shall have equal precedence. Thus, anything mentioned in the Specifications but not shown on the Drawings, or shown on the Drawings but not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both. If there is any inconsistency between the Specifications and Drawings, Contractor will make an inquiry to Owner to determine how to proceed. Unless otherwise directed, Contractor will provide the better quality or greater quantity of any Work or materials, as reasonably interpreted by Owner, at no change in the Contract Sum or Contract

Time. In case of conflict within the Specifications, provisions in Division 1 shall take precedence over provisions of any other Division. In case of conflict within the Drawings, large scale Drawings shall take precedence over small scale Drawings.

1.03 EXECUTION AND INTENT

Contractor Representations: Contractor makes the following representations to Owner:

1. Contract Sum and Contract Time reasonable: 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 familiar with project: 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;

3. Contractor financially capable: 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 can complete Work: 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.

PART 2 - INSURANCE AND BONDS

2.01 CONTRACTOR'S LIABILITY INSURANCE

General insurance requirements: 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, including but not limited to (1) Certificates of Insurance on ACORD Form 25, and/or ACORD Form 27 or their equivalents, and which shall list any applicable self-insured retentions, (2) the actual costs (expressed as a percentage) of Contractor's liability insurance under Section 2.01A.1 below, (3) applicable endorsements evidencing proof of compliance with the requirements listed below, (4) evidence of State Workers' Compensation coverage, and (5) a copy of any builder's risk policy required by the Contract Documents. All policies, endorsements and certificates must be signed copies and shall contain a provision that policies will not be cancelled without first giving thirty (30) days (or in the event of non-payment of premium, ten (10) days) prior written Notice to Owner. Contractor shall furnish to Owner copies of any subsequently issued endorsements amending, modifying, altering or restricting coverage terms or limits. Review of Contractor's insurance by Owner shall not relieve or decrease the liability of Contractor. Companies writing the insurance to be obtained by Part 2 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 the Contract Sum the cost of all insurance and bond costs required for the Work. Insurance carriers providing insurance shall be acceptable to Owner, and its A. M. Best rating shall be indicated on the insurance certificates.

A. Term of insurance coverage: Contractor shall maintain the following insurance coverage during the Work and for one year after Substantial Completion. Contractor shall also maintain the following insurance coverage during the performance of any corrective Work required by Section 5.16.

1. General Liability Insurance: Commercial General Liability (CGL) on an occurrence-based ISO Form CG 00 01 or broader, including products and completed operations, personal and advertising injury, bodily injury and property damage liability arising from Contractor's operations or Work, including operations or Work Contractor may subcontract or sublet to others.

   The policy shall be purchased from a company or companies lawfully authorized to do business in the State of Washington possessing an A.M. Best's policyholder's rating of A or better and a financial rating of no less than XI.

   Contractor's policy shall be designated primary and non-contributory to Owner's policies, and shall include a waiver of subrogation against Owner. Any self-insured retentions or deductibles must be disclosed and approved by Owner, and Contractor agrees to be responsible for payment of any and all self-insured retentions or deductibles.

2. Automobile Liability Insurance: Automobile liability on ISO Form CA 00 01 covering Code 1 (any auto).

3. Stop Gap Liability Insurance for damages because of bodily injuries to Contractor's employees.

B. Industrial Insurance compliance: 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. Insurance to protect for the following: 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. Owner as Additional Insured: All insurance coverages shall be endorsed to include Owner, its officers, and employees, and any required governmental agencies as additional named insureds with coverage at least as broad as ISO Forms CG 20 10, CG 20 37, and CA 20 48, with no self-insured retentions applicable to the additional insureds.

E. Subcontractor Coverage: Contractor shall ensure and require that Subcontractors have insurance coverage to cover bodily injury and property damage on all operations and all vehicles owned or operated by Subcontractors. Subcontractors shall name Contractor and Owner, any required governmental agencies, and others designated in the Contract Documents as well as their officers and employees, as additional insureds and give at least thirty (30) Days' Notice of cancellation.

2.02 COVERAGE LIMITS

Insurance amounts: The coverage limits shall be not less than the amounts specified in the Agreement; if limits are not specified in the Agreement, coverage limits shall be not less than as follows:

A. $1,000,000 per occurrence for bodily injury, property damage, personal and advertising injury.

B. $2,000,000 general aggregate to apply separately to each project or location.

C. $2,000,000 annual aggregate for products and completed operations.

D. $1,000,000 combined single limit each automobile accident or loss.

E. $1,000,000 per accident for bodily injury or occupational disease of Contractor's employees

Coverages and Minimums: Owner's review, specification or approval of the insurance in this Contract or of its coverage or amount shall not relieve or decrease the liability of Contractor under the Contract Documents or otherwise. Coverages are the minimum to be provided and are not limitations of liability under the Contract, indemnification, or applicable law provisions. Contractor may, at its expense, purchase larger coverage amounts.

2.03 PROOF OF INSURANCE COVERAGE

A. Certificate & endorsements required: Prior to commencement of the Work, Contractor shall furnish to Owner completed certificates of insurance coverage and endorsements evidencing compliance with the additional insured, cancellation, and waiver of subrogation requirements..

B. List Project info: All insurance certificates shall name Owner's Project number and Project title.

C. Policy: In the event of a claim or loss, Contractor shall promptly provide Owner with a complete copy of all applicable policies.

2.04 PAYMENT AND PERFORMANCE BONDS

Conditions for bonds: Payment and performance bonds for 100% of the Contract Award Amount, plus Washington State sales tax, shall be furnished for the Work, using the current version of the Payment Bond and Performance Bond form published by and available from the American Institute of Architects (AIA) – form A312. No payment or performance bond is required if the Contract Sum is $150,000 or less and Contractor requests and the Owner agrees that Owner may, in lieu of the bond, retain 10% of the Contract Sum for the period specified in RCW 39.08.010.

2.05 ALTERNATIVE SURETY

When alternative surety required: Contractor shall promptly furnish payment and performance bonds from an alternative surety if:

A. Owner has a reasonable objection to the surety; or

B. Any surety fails to furnish reports on its financial condition if required by Owner.

2.06 BUILDER'S RISK

A. Owner to buy builder's risk insurance: Owner shall purchase and maintain builder's risk insurance in the amount of the Contract Sum, including all Change Orders, for the Work on a replacement cost basis until Substantial Completion. For projects not involving new building construction, an "Installation Floater" is an acceptable substitute for the builder's risk insurance. The insurance shall cover the interests of Owner, Contractor, and any Subcontractors, as their interests may appear.

B. Losses covered: Builder's risk insurance shall be placed on an "all risk" basis or equivalent policy form 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, wind, and at Owner's option may include flood and/or earthquake. The policy shall cover reasonable compensation for A/E's services and expenses required as a result of an insured loss. Losses up to the deductible amount shall be the responsibility of Contractor.

C. Waiver of subrogation rights: Owner and Contractor waive all subrogation rights against each other, any Subcontractors, A/E, A/E's subconsultants, separate contractors described in Section 5.19, 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 2.06 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by Owner as fiduciary. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective to a Person or entity even though that Person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the Person or entity had an insurable interest in the property damaged.

PART 3 - TIME AND SCHEDULE

3.01 PROGRESS AND COMPLETION

Contractor to meet schedule: Contractor shall diligently prosecute the Work, with adequate forces, achieve Substantial Completion within the Contract Time, and achieve Final Completion within the time period specified in the Contract Documents. If Contractor fails to perform in a timely manner in accordance with the Contract Documents and, through the fault of Contractor or Subcontractor(s), fails to meet the Progress Schedule, Contractor shall be in default and shall take such steps as may be necessary to immediately improve its progress without change in the Contract Sum or Contract Time.

3.02 CONSTRUCTION SCHEDULE

A. Preliminary Progress Schedule: Unless otherwise provided in Division 1, Contractor shall, within 14 Days after issuance of the Notice to Proceed, submit a preliminary Progress Schedule consistent with the requirements of the Contract Documents. The Progress Schedule shall not exceed time limits specified by the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work, and 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 submission of Submittals per Section 4.03, which shall be coordinated with the Progress Schedule and identify dates for Owner review, and for acquiring materials and equipment.

B. Form of Progress Schedule: 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 comments on Progress Schedule: 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, logic 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 that meets the requirements of this Section 3.02.

D. Monthly updates and compliance with Progress Schedule: 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, and if directed by Owner, Contractor shall submit a

corrective action plan or revise the Progress Schedule to reconcile with the actual progress of the Work.

E. Contractor to notify Owner of delays: Contractor shall perform the Work in accordance with the most recent Progress Schedule submitted to Owner. Contractor shall promptly notify Owner in writing of any actual or anticipated event that is delaying or could delay achievement of any milestone or performance of any critical path activity of the Work. Contractor shall indicate the expected duration of the delay, the anticipated effect of the delay on the 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 suspend Work: 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. Compliance with suspension; Owner's options: 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. Resumption of Work: 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. Equitable Adjustment for suspensions: Contractor shall be entitled to an equitable adjustment in the Contract Time, or Contract Sum, or both, for increases in the time or cost of performance directly attributable to such suspension, provided Contractor complies with all requirements set forth in Part 7.

3.04 OWNER'S RIGHT TO STOP AND/OR CARRY OUT THE WORK FOR CAUSE

A. Owner may stop Work for Contractor's failure to perform: 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 Owner has accepted satisfactory corrective action.

B. Owner may carry out the Work after Contractor's failure to perform: If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a 14-Day period after receipt of written Notice from Owner to commence and continue to make reasonable progress toward the correction of such default or neglect with diligence and promptness, Owner may, without prejudice to other remedies Owner may have, correct such deficiencies, and an appropriate Change Order shall be issued deducting from payments then or thereafter due Contractor the reasonable cost of correcting the deficiencies, including Owner's expenses and compensation for A/E's additional services made necessary by the default, neglect or failure. If payments then or thereafter due Contractor are not sufficient to cover such amounts, Contractor shall pay the difference to Owner.

C. No equitable adjustment for Contractor's failure to perform: 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. Force Majeure actions not a default; Force Majeure defined: Any delay in or failure of performance by Owner or Contractor shall not constitute a default if and to the extent the cause for such delay or failure of performance was unforeseeable and beyond the control of the party. 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 not the fault of Owner or Contractor;

3. Fire or other casualty for which Contractor is not responsible;

4. Quarantine or epidemic;

5. Industry-wide 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.

    a. "Unusually severe weather" shall mean weather conditions that are abnormal for the period of time for which Force Majeure is claimed, that could not reasonably have been anticipated or avoided, and that had an adverse effect on the Progress Schedule. Neither the Contract Time nor the Contract Sum will be adjusted for normal inclement weather or if the Work was behind schedule (unless behind schedule for a reason not the responsibility of the Contractor) at the time the unusually severe weather occurred. The Contractor shall be entitled to a change in the Contract Time only (but not a change in the Contract Sum) if the Contractor can substantiate to the reasonable satisfaction of the Owner that there was unusually severe weather as compared to normal using a ten (10) year average of accumulated record mean values from climatological data compiled by the U.S. Department of Commerce National Oceanic and Atmospheric Administration for the locale closest to the Project, and that the abnormal inclement weather actually impacted and extended the critical path of the Work. Unusual is defined as a 10-year weather event of either or both precipitation or temperature extremes that fall outside the upper and lower ranges within a 10-year periodicity

B. Contract Time adjustment for Force Majeure: 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. Contractor shall not be entitled to an adjustment in the Contract Sum resulting from an act of Force Majeure.

C. Contract Time or Contract Sum adjustment if Owner at fault: 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 for equitable adjustment.

D. No Contract Time or Contract Sum adjustment if Contractor at fault: 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. Contract Time adjustment only for concurrent fault: 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, but shall not be entitled to an adjustment in Contract Sum.

F. Contractor to mitigate delay impacts: 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. Contractor shall not recover damages, an equitable adjustment or an increase in the Contract Sum or Contract Time from Owner where Contractor could have reasonably avoided the delay by the exercise of due diligence.

G. Types of damages permitted: If Contractor and its Subcontractors are entitled to a change in the Contract Sum, the amount of the change shall be the actual costs incurred by the Contractor and Subcontractors directly related to the change calculated in accordance with Section 7.02. Contractor and its Subcontractors shall not otherwise (not reflected by the actual costs incurred as calculated in accordance with Section 7.02) be entitled to damages arising out of actual or alleged loss of efficiency; morale, fatigue, attitude, or labor rhythm; constructive acceleration; home office overhead; expectant underrun; trade stacking; reassignment of workers; rescheduling of Work, concurrent operations; dilution of supervision; learning curve; beneficial or joint occupancy; logistics; ripple; season change; extended overhead; profit upon damages for delay; impact damages including cumulative impacts; or similar damages. Any effect that such alleged events may have on Contractor or its Subcontractors, to the extent not otherwise paid, is subsumed in and fully compensated through the percentage Fee on Change Orders paid through Section 7.02A.3.e and any liquidated damages paid hereunder.

3.06 NOTICE TO OWNER OF LABOR DISPUTES

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

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

3.07 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION

A. Liquidated Damages:

1. Reason for Liquidated Damages: 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. Calculation of Liquidated Damages amount: 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. Contractor responsible even if Liquidated Damages assessed: Assessment of liquidated damages shall not release Contractor from any obligations or liabilities pursuant to the Contract Documents. If Contractor substantially fails to perform in a timely manner in accordance with the Contract Documents and, through the fault of Contractor or Subcontractor(s), fails to achieve Substantial Completion within the Contract Time, Contractor shall be in default.

B. Actual Damages: If no liquidated damages are established, actual damages may be assessed for failure to achieve both Substantial Completion and 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 Substantial and/or Final Completion should have been achieved, as applicable. Owner may offset these costs against any payment due Contractor.

PART 4 - SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS

4.01 DISCREPANCIES AND CONTRACT DOCUMENT REVIEW

A. Specifications and Drawings are basis of the Work: 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. Parts of the Contract Documents are complementary: 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 to report discrepancies in Contract Documents: 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 knowledge of discrepancy in documents – responsibility: Contractor shall do no Work without applicable Drawings, Specifications, and, where required, accepted shop drawings and other Submittals, 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 to perform Work implied by Contract Documents: 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.

F. Interpretation questions referred to A/E: Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the A/E.

4.02 PROJECT RECORD

A. Contractor to maintain Project Record Drawings and Specifications: 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, changes made to the building enclosure, and Change Order Proposals. This separate set of Drawings and Specifications shall be the "Project Record." The Project Record shall include all Architectural, Mechanical, Electrical, Structural and Civil as-built drawings, whether or not any changes occur and shall also include Addenda, Change Orders, WDs and other modifications to the Contract, in good order and marked currently to indicate field changes and selections made during construction, as well as one copy of accepted shop drawings, product data, samples and other required Submittals.

B. Update Project Record weekly and keep on site: 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 available to A/E and Owner at all times. The Project Record shall be updated at least weekly noting all changes and shall be available to Owner at all times.

C. Final Project Record to A/E before Final Acceptance: Contractor shall submit the completed and finalized Project Record to A/E prior to Final Acceptance.

4.03 SUBMITTALS

A. Definition of Submittals: "Submittals" 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. Submittals can 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 Submittals provided in accordance with the Contract Documents.

B. Approval of Submittals by Contractor and A/E: Contractor shall coordinate all Submittals with the Progress Schedule per Section 3.02A, shall 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, Submittals shall be stamped by an appropriate professional licensed by the state of Washington. Submittals submitted to A/E without evidence of Contractor's approval shall be returned for resubmission. Contractor shall

review, approve, and submit Submittals 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 Submittals. Contractor shall perform no portion of the Work requiring submittal and review of Submittals 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 Submittal with reasonable promptness. Any Work by Contractor shall be in accordance with reviewed Submittals. Submittals made by Contractor which are not required by the Contract Documents may be returned without action.

C. Contractor not relieved of responsibility when Submittals approved: Approval, or other appropriate action with regard to Submittals, by Owner or A/E shall not relieve Contractor of responsibility for any errors or omissions in such Submittals, 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. Variations between Submittals and Contract Documents: Submittals, including product data, samples and similar submissions, are not Contract Documents. If Submittals vary from the requirements of the Contract Documents, Contractor shall describe such variations in writing, separate from the Submittals, at the time it submits the Submittals containing such variations. If Owner 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 approved by Owner in writing and recorded upon the Project Record. Approval for substitutions shall not be sought and shall not be approved through the submission of Submittals.

E. Contractor to submit 5 copies of Submittals: Unless otherwise provided in Division 1, Contractor shall submit to A/E for approval 5 copies of all Submittals. Unless otherwise indicated, 3 sets of all Submittals shall be retained by A/E and 2 sets shall be returned to Contractor.

4.04 ORGANIZATION OF SPECIFICATIONS

Specification organization by trade: 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. A/E, not Contractor, owns Copyright of Drawings and Specifications: 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. Drawings and Specifications to be used only for this Project: 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 documents prepared by A/E appropriate to and for use in the execution of their Work.

C. License granted to Owner: 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 Submittals, together with the information and diagrams contained therein, prepared by Contractor or any Subcontractor. In providing Submittals, Contractor and all Subcontractors warrant that they have authority to grant to Owner a license to use the Submittals, 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 5.03 and 5.22 from any violations of copyright or other intellectual property rights arising out of Owner's use of the Submittals hereunder, or to secure for Owner, at Contractor's own cost, licenses in conformity with this section.

D. Submittals to be used only for this Project: 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 Submittals appropriate to and for use in the execution of their Work under the Contract Documents.

E. Electronic Files: If the parties intend to transmit the instruments of service or any other information or documentation in digital form (other than PDF), they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Contract Documents.

PART 5 - PERFORMANCE

5.01 CONTRACTOR CONTROL AND SUPERVISION

A. Contractor responsible for Means and Methods of construction: 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. Competent superintendent required: Contractor, as soon as practicable after award of the Contract, shall furnish in writing to Owner the name and qualifications of its proposed superintendent. Owner may reply within 14 Days to Contractor in writing stating (1) whether Owner has reasonable objection to the proposed superintendent or (2) that Owner requires additional time to review. Failure of Owner to reply within the 14-Day period shall constitute Notice of no reasonable objection. The superintendent shall not be employed on any other project during the course of the Work. Unless approved by the Owner's representative and only when overseeing projects on the same campus or location where oversite and supervision will not be degraded. Performance of the Work shall be directly supervised by a competent superintendent who shall be in attendance at the Project site during performance of the Work and who has authority to act on behalf of Contractor. Communications given to the superintendent shall be as binding as if given to Contractor. The superintendent must be satisfactory to Owner and shall not be changed without the prior written consent of Owner. Owner may require

Contractor to remove the superintendent from the Work or Project site, if Owner reasonably deems the superintendent incompetent, careless, or otherwise objectionable, provided Owner has first notified Contractor in writing and allowed a reasonable period for transition.

C. Contractor responsible for acts and omissions of self and agents: Contractor shall be responsible to Owner for acts and omissions of Contractor, Subcontractors, and their employees and agents.

D. Contractor to employ competent and disciplined workforce: Contractor shall enforce strict discipline and good order among all of the 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 to keep project documents on site: Contractor shall keep on the Project site a copy of the Drawings, Specifications, addenda, reviewed Submittals, and permits and permit drawings.

F. Contractor to comply with ethical standards: 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. Contractor to obtain and pay for permits: Unless otherwise provided in the Contract Documents, Contractor shall secure and pay for the building, any land use permits and all other 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. Allowances for permit fees: 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 to comply with all applicable laws: Contractor shall comply with and give notices required by all federal, state, and local laws, ordinances, rules, regulations, and lawful orders of public authorities applicable to performance of the Work.

D. Taxes: Contractor shall pay sales, consumer, use, business and occupation, income and similar taxes for the Work that are legally enacted when the initial Contract Sum is agreed.

5.03 PATENTS AND ROYALTIES

Payment, indemnification, and notice: 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 to pay Prevailing Wages: 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 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. Statement of Intent to Pay Prevailing Wages: Before payment is made by the Owner to the Contractor for any work performed by the Contractor and subcontractors whose work is included in the application for payment, the Contractor shall submit, or shall have previously submitted to the Owner for the Project, a Statement of Intent to Pay Prevailing Wages, approved by the Department 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. Affidavit of Wages Paid: Prior to release of retainage, the Contractor shall submit to the Owner an Affidavit of Wages Paid, approved by the Department of Labor and Industries, for the Contractor and every subcontractor that performed work on the Project.

D. Disputes: 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.

E. Statement with pay application; Post Statements of Intent at job site: 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.

F. Contractor to pay for Statements of Intent and Affidavits: 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.

G. Certified Payrolls: Consistent with WAC 296-127-320, the Contractor and any subcontractor shall submit a certified copy of payroll records if requested.

5.05 HOURS OF LABOR

A. Overtime: Contractor shall comply with all applicable provisions of RCW 49.28 and they are incorporated herein by reference.

5.06 NONDISCRIMINATION

A. Discrimination prohibited by applicable laws: 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. Protected Classes: Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, citizenship or immigration status, sex, sexual orientation, gender identity, age, marital status, or the presence of any physical, sensory, or mental disability, Vietnam era veteran status, or disabled veteran status, honorably discharged veteran or military status, or the use of a trained dog guide or service animal by a person with a disability, nor commit any other unfair practices as defined in RCW 49.60.

2. Advertisements to state nondiscrimination: 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, citizenship or immigration status, sex, sexual orientation, gender identity, age, marital status, or the presence of any physical, sensory, or mental disability, honorably discharged veteran or military status, or the use of a trained dog guide or service animal by a person with a disability.

3. Contractor to notify unions and others of nondiscrimination: 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. Owner and State access to Contractor records: 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. Pass through provisions to Subcontractors: Contractor shall include the provisions of this section in every Subcontract.

5.07 SAFETY PRECAUTIONS

A. Contractor responsible for safety: Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work. Contractor shall be solely and completely responsible for conditions of the Project site, including safety of all persons and property, during performance of the Work. Contractor shall maintain the Project site and perform the Work in a manner that meets statutory and common-law requirements for the provision of a safe place to work. This requirement shall apply continuously and not be limited to working hours. Any review by Owner or A/E of Contractor's performance shall not be construed to include a review of the adequacy of Contractor's safety measures in, on or near the site of the Work.

B. Contractor safety responsibilities: 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.

C. Contractor to maintain safety records: 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 to provide HazMat training: 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. WAC: The requirements of chapter 296-62 WAC, General Occupational Health Standards;

b. Presence of hazardous chemicals: Any operations in their work area where hazardous chemicals are present; and

c. Hazard communications program: 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. Detecting hazardous chemicals: 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. Hazards of chemicals: The physical and health hazards of the chemicals in the work area;

c. Protection from hazards: The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and

d. Hazard communications program: 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. Hazardous, toxic or harmful substances: Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:

1. Illegal use of dangerous substances: 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 notifications of spills, failures, inspections, and fines: 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. Public safety and traffic: 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. Contractor to act in an emergency: 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. No duty of safety by Owner or A/E: Nothing provided in this Section 5.07 shall relieve Contractor of sole and complete responsibility for safety at the Project site, for sole and complete responsibility for any violation of safety or property protection requirements or the correction thereof, or impose any duty upon Owner or A/E with regard to, or as constituting any express or implied assumption of control or responsibility over, any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public. Any Notice Owner or A/E gives to Contractor of a safety or property protection violation will not: (1) relieve Contractor of sole and complete responsibility for the violation and the correction thereof, or for sole liability for the consequences of said violation; (2) impose any obligation upon Owner or A/E to inspect or review Contractor's safety program or precautions or to enforce Contractor's compliance with the requirements of this Section 5.07; or (3) impose any continuing obligation upon Owner or A/E to provide such Notice to Contractor or any other persons or entity.

5.08 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS

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

B. Temporary buildings and utilities at Contractor expense: 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 be removed by Contractor at its expense upon completion of the Work.

C. Roads and vehicle loads: 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 reporting by Contractor of demolished materials: 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 responsible for care of materials and equipment on-site: Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project site. Materials and equipment may be stored on the premises subject to approval of Owner. When Contractor uses any portion of the Project site as a shop, Contractor shall be responsible for any repairs, patching, or cleaning arising from such use.

F. Contractor responsible for loss of materials and equipment: 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 defined; Use of locator services: "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. Notice requirement for concealed or unknown conditions: 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. Adjustment in Contract Time and Contract Sum: 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 therefore as provided in Part 7.

5.11 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, VEGETATION, UTILITIES AND IMPROVEMENTS

A. Contractor to protect and repair property: At all times until Owner's occupancy of the Work or a designated portion of the Work, Contractor shall protect the Work from damage, weather, deterioration, theft, vandalism and malicious mischief and shall bear the risk of any uninsured loss or destruction of, or injury or damage to, all materials, equipment, tools, and other items incorporated or to be incorporated in the Work or designated portion, or consumed or used in the performance of the Work or designated portion, including all Work in process and completed

Work. Contractor shall protect from damage all existing structures, equipment, improvements, utilities, streets, curbs, walks and vegetation at or near the Project site or 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. If a governmental authority having jurisdiction requires that the repairing and patching be done with its own labor and/or materials, Contractor shall abide by such regulations, and it shall pay for this work at no additional cost to Owner.

B. Tree and vegetation protection: Contractor shall only remove trees when specifically authorized to do so, and shall protect vegetation that will remain in place.

C. Special site conditions: If, in the course of the Work, Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, Contractor shall immediately suspend any operations that would affect them and shall notify Owner and A/E. Upon receipt of such Notice, Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. Contractor shall continue to suspend these operations until otherwise instructed by Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Part 8.

5.12 LAYOUT OF WORK

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

B. Layout responsibilities: 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.

5.13 MATERIAL AND EQUIPMENT

A. Contractor to provide new and equivalent equipment and materials: 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 and after submittal and approval of a substitute request, is equal to that named in the Specifications, unless otherwise specifically provided in the Contract Documents.

B. Contractor responsible for fitting parts together: Contractor shall do all cutting, fitting, or patching that may be required to complete the Work or 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 damage or endanger any work of Owner or separate contractors 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. Contractor shall restore all areas requiring cutting, fitting and patching to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

C. Owner may reject defective Work: 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. However, neither this authority of Owner nor a decision made either to exercise or not to exercise such authority shall give rise to a duty or responsibility of Owner or its representatives to Contractor, Subcontractors, their agents or employees, or other persons or entities performing portions of the Work.

5.14 AVAILABILITY AND USE OF UTILITY SERVICES

A. Owner to provide and charge for utilities: 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 to install temporary connections and meters: 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 to provide for all testing and inspection of Work: 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 conduct tests and inspections: 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.

C. Inspections or inspectors do not modify Contract Documents: 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 responsibilities on inspections: 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. Work covered by Contractor without inspection: If a portion of the Work is covered contrary to the request of Owner or the requirements in the Contract Documents or a governmental authority having jurisdiction, it must, if required in writing by Owner, be uncovered for Owner's observation and be replaced at Contractor's expense and without change in the Contract Sum or Contract Time.

B. Payment provisions for uncovering covered Work: 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 such a request 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 to correct and pay for non-conforming Work: Contractor shall promptly correct Work found by Owner not to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. Contractor shall bear all costs of correcting such nonconforming Work, including additional testing and inspections.

D. Contractor's compliance with correction and warranty provisions: 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 Section 5.16D shall survive Final Acceptance and are in addition to other warranties provided by contract or law.

E. Contractor to remove non-conforming Work: 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. Owner may charge Contractor for non-conforming Work: 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 to pay for damaged Work during correction: 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. No Period of limitation on other requirements: 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 Section 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 the Contract Documents may be sought to be enforced, including the time within which such proceedings may be commenced.

I. Owner may accept non-conforming Work and charge Contractor: 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 to keep site clean and leave it clean: 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

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

5.19 OTHER CONTRACTS

Owner may award other contracts; Contractor to cooperate: Owner may undertake or award other contracts for additional work at or near the Project site. Owner shall help coordinate the activities of Owner's own forces and of each separate contractor engaged by Owner with the Work of Contractor, who 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. Subcontractor Responsibility: The Contractor shall include the language of this paragraph in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this paragraph apply to all subcontractors regardless of tier. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;

2. Have a current Washington Unified Business Identifier (UBI) number;

3. If applicable, have:

   a. Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RCW;

   b. A Washington Employment Security Department number, as required in Title 50 RCW;

   c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;

   d. An electrical contractor license, if required by Chapter 19.28 RCW;

   e. An elevator contractor license, if required by Chapter 70.87 RCW.

4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).

5. On a 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 Owner's first advertisement of the project.

6. Meet all supplemental responsibility criteria set forth in the Contract Documents.

B. Provide names of Subcontractors and use qualified firms: 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 meet the requirements of the Contract Documents, if any. Contractor shall not utilize any Subcontractor or supplier to whom Owner has a "reasonable objection," and shall obtain Owner's written consent before making any substitutions or additions. A "reasonable objection" shall include without limitation:

.1 a proposed Subcontractor differing from the entity listed with a proposal or bid,

.2 lack of "responsibility" of the proposed Subcontractor, as defined in RCW 39.04.350 or otherwise in the Contract Documents, or

.3 lack of qualification, including technical qualification, as required by the Specifications.

C. Subcontracts in writing and pass through provision: 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.

D. Coordination of Subcontractors; Contractor responsible for Work: 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.

E. Automatic assignment of subcontracts: Each subcontract agreement for a portion of the Work is hereby assigned by Contractor to Owner provided that:

1. Effective only after termination and Owner approval: 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. Owner assumes Contractor's responsibilities: After the assignment is effective, Owner will assume all future duties and obligations toward the Subcontractor which Contractor assumed in the Subcontract.

3. Impact of bond: The assignment is subject to the prior rights of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

5.21 WARRANTY OF CONSTRUCTION

A. Contractor warranty of Work: 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. Contractor responsibilities: With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract Documents, Contractor shall:

1. Obtain warranties: Obtain, assign if requested, and furnish directly to Owner, all warranties that would be given in normal commercial practice or that are required by the Contract Documents, first executed by the applicable Subcontractor and those suppliers and manufacturers furnishing materials for the Work, and subsequently countersigned by Contractor, which shall extend to Owner all rights, claims, benefits and interests that Contractor may have under express or implied warranties or guarantees against the Subcontractor, supplier or manufacturer for defective or non-conforming Work;

2. Warranties for benefit of Owner: Require all warranties to be executed, in writing, for the benefit of Owner;

3. Enforcement of warranties: Enforce all warranties for the benefit of Owner, if directed by Owner; and

4. Contractor responsibility for subcontractor warranties: Be responsible to enforce any subcontractor's, manufacturer's, or supplier's warranties should they extend beyond the period specified in the Contract Documents.

C. Warranties beyond Final Acceptance: The obligations under this section shall survive Final Acceptance.

5.22 INDEMNIFICATION

A. Contractor to indemnify Owner: To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold Owner and A/E, their consultants, and agents and employees, directors, officers, lenders, successors and assigns of any of them (collectively, the "Indemnified Parties"), harmless from and against all third-party 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, direct and indirect, or consequential (including but not limited to costs and attorneys' fees incurred on such claims or in proving the right to indemnification), arising out of, caused by or resulting from:

1. Sole negligence of Contractor: The sole negligence or willful misconduct of Contractor or any of its Subcontractors, their agents and anyone directly or indirectly employed by them or anyone for whose acts they may be liable ("Indemnitor");

2. Concurrent negligence: The concurrent negligence of Indemnitor, but only to the extent of the negligence of Indemnitor; and

3. Patent infringement: The use of any design, process, or equipment that constitutes an infringement of any United States patent presently issued, or violates any other proprietary interest, including copyright, trademark, and trade secret, unless specifically directed to use such design, process, or equipment by Owner.

The obligations of Contractor under this Section 5.22 shall not be construed to negate, abridge, or otherwise reduce any other right or obligations of indemnity that would otherwise exist as to any party or person described in this Section. To the extent the wording of this Section 5.22 would reduce or eliminate the insurance coverage of Owner or Contractor, this Section 5.22 shall be considered modified to the extent that such insurance coverage is not affected. To the extent that any portion of this Section 5.22 is stricken by a court or arbitrator for any reason, all remaining provisions shall retain their vitality and effect. The provisions of this Section 5.22 shall survive completion, acceptance, final payment and termination of the Contract.

B. Employee action and RCW Title 51: 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.

PART 6 - PAYMENTS AND COMPLETION

6.01 CONTRACT SUM

Owner shall pay Contract Sum: Owner shall pay Contractor the Contract Sum plus Washington State sales tax for performance of the Work, in accordance with the Contract Documents.

6.02 SCHEDULE OF VALUES

Contractor to submit 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 principal category of work, in such detail as requested by Owner ("Schedule of Values"). The approved Schedule of Values shall allocate at least the percentage of the original Contract Sum so designated in the Contract Documents to that portion of the Work between Substantial Completion and Final Completion to recognize not-yet-earned costs for demobilization, Project Record, O&M manuals, and any other requirements for Project closeout and in advancing the Work from Substantial Completion to Final Completion. The approved Schedule of Values shall be used by Owner as a basis for reviewing 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. Monthly Application for Payment with substantiation: At monthly intervals, unless determined otherwise by Owner, Contractor shall submit to Owner an itemized Application for Payment for Work (using Owner's form) 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. Contractor certifies Subcontractors paid: By submitting an Application for Payment, Contractor is certifying that all Subcontractors have been paid, less earned retainage in accordance with RCW 60.28.011, as their interests appeared in the last preceding Application for 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. Owner has the right to request written evidence from Contractor that Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by Owner to Contractor for subcontracted Work. Owner shall have the right to contact Subcontractors to ascertain whether they have been properly paid. Owner shall not have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law.

C. Reconciliation of Work with Progress Schedule: 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. The submission of an Application for Payment constitutes a certification that the Work is current on the Progress Schedule.

D. Payment for material delivered to site or stored off-site: 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. Suitable facility or location: The material will be placed in a facility or location that is structurally sound, dry, lighted and suitable for the materials to be stored or otherwise approved by Owner;

2. Facility or location within 10 miles of Project: The facility or location is located within a 10-mile radius of the Project. Other locations may be utilized, if approved in writing, by Owner;

3. Facility or location exclusive to Project's materials: Only materials for the Project are stored within the facility or location (or a secure portion of a facility or location set aside for the Project);

4. Insurance provided on materials in facility or location: 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. Facility or location locked and secure: The facility or location (or secure portion thereof) is continuously under lock and key, and only Contractor's authorized personnel shall have access;

6. Owner right of access to facility or location: Owner shall at all times have the right of access in company of Contractor;

7. Contractor assumes total responsibility for stored materials: Contractor and its surety assume total responsibility for the stored materials; and

8. Contractor provides documentation and Notice when materials moved to site: 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 to pay within 30 Days: 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 chapter 39.76 RCW if the Application for Payment does not comply with the requirements of the Contract Documents.

B. Withholding retainage; Options for retainage: 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 chapter 60.28 RCW, 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 passes to Owner upon payment: 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. A progress payment, or partial or entire use or occupancy of the Project by Owner, shall not constitute acceptance of Work.

D. Interest on unpaid balances: Payments due and unpaid in accordance with the Contract Documents shall bear interest as specified in chapter 39.76 RCW.

6.05 PAYMENTS WITHHELD

A. Owner's right to withhold payment: 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. Non-compliant Work: Work not in accordance with the Contract Documents;

2. Remaining Work to cost more than unpaid balance: Reasonable evidence that the Work required by the Contract Documents cannot be completed for the unpaid balance of the Contract Sum;

3. Owner correction or completion of Work: Work by Owner to correct defective Work or complete the Work in accordance with Section 5.16;

4. Third party claims for which Contractor may be responsible: Claims (except where an insurer has unconditionally accepted coverage without prior payment of any deductibles or self-insured retentions) filed or reasonable evidence indicating probable filing of such claims unless Contractor provides security acceptable to Owner;

5. Failure to pay Subcontractor: The failure of Contractor to make payments to Subcontractors for labor, materials or equipment;

6. Damages: Damage to Owner or a separate contractor (except where an insurer has unconditionally accepted coverage);

7. Affidavits of Wages Paid: Failure to submit affidavits pertaining to wages paid as requested or otherwise required by statute;

8. Progress Schedule: Failure to submit a properly updated Progress Schedule;

9. Maintenance of Project Record: Failure to properly maintain as the Project Record;

10. Other construction records: Failure to properly submit any other required construction reports or records;

11. Certified payrolls: Failure to properly submit certified payrolls when requested;

12. Contractor's failure to perform: Contractor's failure otherwise to perform in accordance with the Contract Documents; or

13. Contractor's negligent acts or omissions: Cost or liability that may occur to Owner as the result of Contractor's fault or negligent acts or omissions.

B. Owner to notify Contractor of withholding for unsatisfactory performance: 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 chapter 39.76 RCW.

6.06 RETAINAGE, BOND CLAIM RIGHTS, AND LIENS

A. Chapters 39.08 RCW and 60.28 RCW incorporated by reference: Chapters 39.08 RCW and 60.28 RCW, 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.

B. Liens: Contractor shall promptly pay (and secure the discharge of any liens asserted by) all persons properly furnishing labor, equipment, materials or other items in connection with the performance of the Work (including, but not limited to, any Subcontractors) to the extent that Owner has paid Contractor for this Work. Owner may, at its option, withhold payment, in whole or in part, to Contractor until lien and claim releases are furnished. Contractor may provide other security acceptable to Owner, such as a bond, in lieu of paying disputed liens or claims. Contractor shall defend, indemnify, and hold harmless Owner from any liens, including all expenses and attorneys' fees, except to the extent a lien has been recorded because of a failure of payment by Owner for the Work implicated in any such lien.

6.07 SUBSTANTIAL COMPLETION

A. Substantial Completion defined: 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 has full and unrestricted use and benefit of the facilities (or portion thereof designated and approved by Owner) for the use for which it is intended, the Project has been constructed in substantial accordance with the Contract Documents, and at a minimum the following elements have been accomplished (see also, Section 01 70 00 Project Completion):

1. A written punch list has been prepared;

2. The Authority Having Jurisdiction has granted a certificate of occupancy; and

3. The first final draft of the Operation and Maintenance manuals has been submitted to Owner.

All Work other than incidental corrective or punch list work shall be completed. Substantial Completion shall not have been achieved if the Work cannot achieve Final Completion within the time specified in the Agreement. 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.

B. Contractor to provide weekly reports before Substantial Completion: Beginning at least 30 Days before the scheduled date of Substantial Completion, Contractor shall prepare reports weekly, identifying items to be completed in order to obtain necessary occupancy certificates and permits, and make recommendations to Owner for effectuating the earliest possible completion. When Contractor considers that the Work, or a portion thereof that Owner agrees to accept separately, has achieved Substantial Completion, Contractor shall prepare and submit to Owner a comprehensive list of items to be completed or corrected prior to final payment. Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on the list does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents.

C. Owner to determine if Work is complete: Upon receipt of Contractor's list, Owner will make an inspection to determine whether the Work or designated portion thereof has achieved Substantial Completion. If Owner's inspection discloses any item, whether or not included on Contractor's list, that is not sufficiently complete in accordance with the Contract Documents so that Owner can occupy or utilize the Work or designated portion thereof for its intended use, Contractor shall, before the occurrence of Substantial Completion, complete or correct the item upon notification by Owner, and Contractor shall then submit a request for another inspection by Owner to determine Substantial Completion. If Owner determines that the Work or designated portion has not achieved Substantial Completion, Contractor shall expeditiously complete the Work or

designated portion, again request an inspection, and pay the costs associated with the re-inspection.

D. Owner may take over punch list: If, at 30 Days after the date of Substantial Completion, Owner considers that the remaining items on its list ("punch list") are unlikely to be completed within the time period specified in the Contract Documents for Final Completion, Owner may, upon seven Days' written Notice to Contractor, take over and perform some or all of the punch list items. If Contractor fails to correct the deficiencies within the time period specified, Owner may deduct the actual cost of performing this punch list work, including any design costs, plus ten 10% to account for Owner's transaction costs, from the Contract Sum.

E. Owner to establish date of Substantial Completion: When the Work or designated portion thereof has achieved Substantial Completion, Owner shall establish the date of Substantial Completion in writing, establish responsibilities of Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and fix the time within which Contractor shall finish all items on the list accompanying the document. The writing establishing Substantial Completion shall be submitted to Contractor for its written acceptance of the responsibilities assigned to it. Any items not included in the document but required or necessary for Final Completion of the Work shall be supplied and installed by Contractor as a part of the Contract Sum, notwithstanding their not being included in the punch list. Upon written acceptance of the writing establishing Substantial Completion by Contractor and Owner, and upon Contractor's Application for Payment, Owner shall make payment as provided in the Contract Documents. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents. No further payment will be due or owing until the payment following Final Completion.

F. Contractor to complete punch list in timely manner: Contractor shall prepare, continue to monitor, and cause to be completed, all punch lists with respect to the activity of each Subcontractor and report weekly to Owner on outstanding punch list items.

6.08 PRIOR OCCUPANCY

A. Prior Occupancy defined; Restrictions: Owner may, when legally permissible to do so and upon written Notice 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, and Contractor shall cooperate with such occupancy and use and the establishment of a punch list. Unless otherwise agreed in writing, Prior Occupancy shall not: be deemed an acceptance of any portion of the Work; accelerate the time for any payment to Contractor; prejudice any rights of Owner provided by any insurance, bond, guaranty, or the Contract Documents; relieve Contractor of the risk of loss or any of the obligations established by the Contract Documents; establish a date of Substantial or Final Completion; establish a date for termination or partial termination of the assessment of liquidated damages; or constitute a waiver of claims.

B. Damage; Duty to repair and warranties: 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 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 defined: 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, but in no case shall it constitute Final Acceptance, which is a subsequent, separate, and distinct action (see also, Section 01 70 00 Project Completion).

B. Final Acceptance defined: Unless otherwise determined by Owner, Final Acceptance shall be achieved after Contractor has completed all the requirements of the Contract Documents. The date Final Acceptance is achieved shall be established by Owner in writing. Pursuant to RCW 60.28, "Lien for Labor, Materials, Taxes on Public Works," completion of the Contract Work shall occur upon Final Acceptance. Neither Final Acceptance nor final payment shall release Contractor or its sureties from any obligations of these Contract Documents or the payment and performance bonds, or constitute a waiver of any claims by Owner arising from Contractor's failure to perform the Work in accordance with the Contract Documents (see also, Section 01 70 00 Project Completion).

C. Final payment waives Claim rights: 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.

PART 7 - CHANGES

7.01 CHANGE IN THE WORK

A. Changes in the Work: Changes in the Work may be accomplished after execution of the Contract without invalidating the Contract. Changes in the Work that adjust the Contract Sum and/or Contract Time are incorporated into the Contract solely by Change Order and are subject to the limitations stated in this Part 7 and elsewhere in the Contract Documents. A Change Order may be bilateral or unilateral, as described below. Change Orders may be initiated by mutual agreement or through a Contract Change Proposal ("CCP") or Work Directive ("WD").

B. Change Orders:

1. A Bilateral Change Order is signed by Owner and Contractor to record their agreement on the terms of a change in the Work. A Bilateral Change Order may reflect the agreement of Owner and Contractor on a standalone issue, or it may incorporate one or more mutually agreed upon CCPs or WDs. A Bilateral Change Order shall constitute full payment and final settlement of all claims for time and cost, including direct, indirect, impact and consequential costs, related to the Change Order and Work covered by, affected by and related to the events giving rise to the Change Order.

2. A Unilateral Change Order is initially signed only by Owner to set forth, subject to the Contract, the terms of a change in the Work based upon one or more CCPs and/or WDs to which the parties have not yet fully agreed. Within 7 Days of its receipt of a Unilateral Change Order, Contractor shall notify Owner in writing either (a) of its acceptance of its terms, in which case the Unilateral Change Order will automatically become a Bilateral Change Order, or (b) of Contractor's rejection, in which case Contractor must submit a written rejection within 14 Days after Contractor delivered written Notice of rejection to Owner as noted above. The written rejection must fully explain the reasons for rejecting the Unilateral Change Order and include all necessary supporting documentation. The rejection will then be considered in accordance with Section 8.02 (Informal Resolution of Disputes). Failure to submit a written Notice of rejection within 7 Days of Contractor's receipt of a Unilateral Change Order or a written rejection with 14 Days shall constitute Contractor's acceptance of the terms of the Unilateral Change Order.

C. Change Orders via Contract Change Proposal:

1. Contractor shall be responsible for maintaining an Issues Log. If Contractor at any time believes that a change in the Work has or may have occurred, Contractor shall add such item to the Issues Log. At a minimum, the Issues Log shall identify:

   a. Detailed scope of the change in the Work;

   b. Contract Time impact noting specifically how it impacted the critical path of the project, if any;

   c. The amount of any anticipated, proposed, or approved change in the Contract Sum;

   d. Date first included on the Issues Log;

   e. Owner-initiated or Contractor-initiated; and

   f. Action status.

2. If the Contractor believes an item on the Issues Log warrants a CCP, Contractor shall provide written Notice to Owner in accordance with Section 8.02, and shall submit a written CCP in accordance with this Section. All CCPs shall be substantiated and submitted within 7 Days of being added to the Issues Log along with a revised progress schedule identifying the time impact affecting the critical path, if any. The CCP shall identify the proposed full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time. Upon receipt of the CCP, Owner may accept the proposal and incorporate it into a Bilateral Change Order, reject the proposal and either issue a WD or elect not to proceed with the proposal, request further documentation, or negotiate acceptable terms with Contractor.

D. Work Directives:

1. A WD is a written order prepared by Owner that directs Contractor to perform Work prior to total agreement on an adjustment, if any, in the Contract Sum and/or Contract Time. Owner may direct Contractor, at any time and without invalidating the Contract, through a WD to proceed with a change in the Work or to perform Work that Contractor contends to be a change in the Work, with or without the agreement of Contractor and prior to agreement of the basis for adjustment, if any, to the Contract. Owner's use of a WD does not constitute agreement that the directive constitutes a change in the Work, the Contract Sum or the Contract Time.

2. A WD normally includes:

   a. The scope of the directed Work,

   b. Any proposed adjustment to the Contract Sum or not-to-exceed amount,

   c. Any proposed change to the Contract Time,

   d. The proposed method of determining any change in the Contract Sum and/or Contract Time, and

e. The supporting data that Contractor must submit in accordance with the requirements of Part 7 of the General Conditions.

3. Upon receipt of a WD, Contractor shall promptly commence and proceed diligently with performance of the directed Work. Within 7 Days of its receipt of a WD, Contractor shall notify Owner in writing either (a) of its acceptance of its terms, in which case the terms will become effective, and the WD will be incorporated into a Bilateral Change Order, or (b) of Contractor's rejection of the terms, in which case Contractor must submit a written rejection within 14 Days after Contractor delivered written Notice to Owner as noted above. The written rejection must fully explain the reasons for rejecting the WD and include all necessary supporting documentation. The rejection will then be considered in accordance with Section 8.02. Contractor's rejection of a WD shall not relieve Contractor of its obligation to comply promptly with the WD.

E. Contractor fault or negligence alleged as basis for change in Contract Sum: 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; or to the extent Contractor is responsible for change concurrently caused by Contractor and Owner; or to the extent the change is caused by an act of Force Majeure as defined in Section 3.05.

7.02 CHANGE IN THE CONTRACT SUM

A. General Application

1. Contract Sum changes only by Change Order: The Contract Sum shall only be changed by a Change Order.

2. Allowances: Any Allowances stated in the Contract Documents shall be included in the Contract Sum. Items covered by Allowances shall be supplied for such amounts and by such persons or entities as Owner may direct, but Contractor shall not be required to employ persons or entities to whom Contractor has made reasonable and timely objection. Owner shall select materials and equipment under an Allowance with reasonable promptness. Allowances shall cover the net cost to Contractor of materials and equipment delivered and/or installed at the site, as identified in the Allowance, and all required taxes, less applicable trade discounts. Whenever actual costs are more than or less than Allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect the difference between actual, reasonable costs and the Allowances.

3. Pricing Components: Contractor shall maintain and submit a complete itemization of the costs incurred as a result of any change in the Work, including labor, material, Subcontractor costs, and fee. The total cost of any change in the Work or of any other increase or decrease in the Contract Sum, including a Claim, shall be limited to the actual, reasonable amounts for the following components, itemized in the manner set forth below and submitted on breakdown sheets in a form approved by Owner. If the total cost of the change in the Work does not exceed $5,000.00, Contractor shall not be required to submit a breakdown if the description of the change in the Work is sufficiently definitive for Owner to determine fair value.

   a. Labor costs: The labor cost component is determined by multiplying the estimated or actual additional number of hours needed to perform the change in the Work by the fully burdened hourly labor costs. The fully burdened hourly costs shall include 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" shall be applicable unless a high, documented amount is actually paid by a contractor for the laborers, apprentices, journeymen, foremen, and other staff performing and/or directly supervising the change in the Work at the site. Any amount in excess of approved "Statement of Intent to Pay Prevailing Wages" shall be substantiated and subject to audit.

(2) Worker's insurance: Direct contributions to the State of Washington for industrial insurance; medical aid; and supplemental pension, by the class and rates established by 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) Supervision: The labor cost component may include the actual, demonstrated additional supervision hours (not already compensated by Owner) directly related to a change in the Work.

(5) Travel and Per Diem allowance: Travel allowance and/or subsistence, if applicable, required by regional labor union agreements, which are itemized and identified separately.

b. Material costs: The material cost component must be itemized and include material invoices or reasonable lump-sum estimates of the quantity and cost of additional materials needed to perform the change in the Work. Material costs shall be developed first from actual known costs; second from supplier quotations; and, if neither of these is available, then from standard industry pricing guides acceptable to Owner. Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges shall be itemized.

c. Equipment costs: The equipment cost component must be itemized by the type of equipment and include 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 on site. Costs will be allowed for construction equipment only to the extent used solely for the changed Work, or for additional rental costs actually incurred by Contractor solely for the changed Work. Equipment charges shall be computed on the basis of actual invoice costs or, if owned, from the current edition of the Associated General Contractors Washington State Department of Transportation (AGC WSDOT) Equipment Rental Agreement current edition as of the Contract execution date. The EquipmentWatch Rental Rate Blue Book shall be used as a basis for establishing rental rates of equipment not listed in the above source. The maximum rate for standby equipment shall not exceed that shown in the AGC WSDOT Equipment Rental Agreement. The rate for Contractor-owned equipment necessarily standing by for future use on the changed Work shall be no more than 50% of the rate established above unless otherwise approved by Owner. The total rental cost shall not exceed the cost of purchasing the equipment outright.

d. Subcontractor costs: The Subcontractor cost component consists of payments Contractor makes to Subcontractors for the cost of changed Work performed by

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

e. Fee: The Fee component is compensation for all items and costs not listed in subparagraphs a through d above, and is added to the total cost to Owner of the sum of these items. The Fee shall compensate Contractor, Subcontractor and suppliers for, among other things, combined overhead, profit and other costs, including all office, home office and site overhead, employee per diem, subsistence and travel costs not separately reimbursable under subparagraph a above, warranty, safety costs, printing and copying, quality control/assurance, purchasing, small or hand tool (a tool that costs $250 or less and is normally furnished by the performing contractor) or expendable charges, temporary construction facilities, field engineering, schedule updating, Project Record, home office cost, taxes (including all taxes except B&O tax and Washington State sales tax payable based on the amount of the approved Application for Payment), office engineering, estimating costs, additional overhead because of extended time, Claim and change preparation, direct and indirect delay, acceleration or impact, and any other cost incidental to the change in the Work. The Fee shall be strictly limited in all cases to the rates below.

(1). Contractor markup on Contractor Work: Contractor is allowed a Fee for any Work actually performed by Contractor's own forces of 16% of the first $50,000 of the cost of such Work and 4% of the remaining cost, if any.

(2). Subcontractor markup for Subcontractor Work: Each Subcontractor (including lower-tier Subcontractors) is allowed a Fee for any Work actually performed by its own forces of 16% of the first $50,000 of the cost of such Work and 4% of the remaining cost, if any.

(3). Contractor markup for Subcontractor Work: Contractor is allowed a Fee for any Work performed by its Subcontractor(s) of 6% of the first $50,000 of the amount due each Subcontractor for such Work and 4% of the remaining amount, if any.

(4). Subcontractor markup for lower-tier Subcontractor Work: Each Subcontractor is allowed a Fee for any Work performed by its Subcontractor(s) of any lower-tier of 4% of the first $50,000 of the amount due the lower-tier Subcontractor for such Work and 2% of the remaining amount, if any.

(5). Basis of cost applicable for markup: The cost of the Work to which the Fee is to be applied shall be based on the cost components in subparagraphs 7.02.A 3.a – d.

(6). Application of Fee: The Fee shall not be included on deductive changes in the Work. Where a change in the Work involves additive and deductive work by Contractor or the same Subcontractor, the Fee as well as bond and insurance markups will apply to the net difference.

f. Insurance and bond premiums: The cost of any change in insurance or bond premium is added to the sum of the cost components in subparagraphs 7.02.A 3.a – e and is limited to the following:

(1) Contractor's liability insurance: The cost of any changes in Contractor's contractually required liability insurance arising directly from the Change Order; and

(2) Payment and Performance Bond: The cost of any additional premium for Contractor's contractually required bond arising directly from the Change Order.

g Tax: Washington State sales tax and B&O tax arising directly from the Change Order shall be added to the cost of the Change Order.

h. Unit Prices: If Unit Prices, including pre-agreed rates for material quantities, are applicable to a change in the Work, the Unit Prices shall be applied to the quantities of the items involved as determined in Section 7.02A. Quantities must be supported by field measurement statements signed by Owner. Owner shall be afforded access and be permitted to measure quantities. Contractor shall not exceed any cost limit(s) without Owner's prior written approval. Unit Prices shall include reimbursement for all direct and indirect costs of the Work, but exclude Fee (7.02 A.e), bond, and insurance costs (7.02 A.f.).s.

7.03 CHANGE IN THE CONTRACT TIME

A. Changes in Contract Time: The Contract Time shall only be changed by a Change Order.

B. Time extension permitted only if delay is not Contractor's fault: If Contractor is delayed at any time in the commencement or progress of the Work (1) by an act or neglect of Owner or anyone for whose acts Owner is responsible; or (2) by changes ordered by Owner in the Work; or (3) by Force Majeure; or (4) by delay authorized by Owner pending dispute resolution; or (5) by other causes that Owner determines may justify delay, then Contractor shall reasonably attempt to mitigate the delay, and the Contract Time shall be extended by Change Order for such reasonable time as Owner may reasonably determine consistent with the provisions of the Contract Documents. 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.

C. Contractor must demonstrate impact on critical path of schedule: Any change in the Contract Time covered by a Change Order or Claim shall be limited to the change in the critical path of the Work attributable to the change or event(s) giving rise to the Change Order or Claim. 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 in accordance with Section 01 32 13 Project Schedule.

D. Cost arising from change in Contract Time: Contractor is entitled to compensation for the cost of a change in Contract Time only if all the following conditions are met:

1. Must be solely fault of Owner: The change in Contract Time must solely be caused by the fault or negligence of Owner or others for whom Owner is responsible;

2. Procedures: Contractor must follow the procedure set forth in Section 7.03B and Section 8.02;

3. Demonstrate impact on critical path: Contractor must establish the extent of the change in Contract Time in accordance with Section 7.03C and Section 01 32 13 Project

Schedule. Owner is not obligated directly or indirectly for damages or an increase in the Contract Sum for any delay suffered by a Subcontractor that does not increase the Contract Time; and

4. Cost measured exclusively by the pricing components of Section 7.02A.3: If Contractor or a Subcontractor of any tier is entitled to compensation arising from or related to a change in Contract Time, the pricing components of Section 7.02A.3 shall exclusively be used to measure the actual costs incurred as a result of the change in Contract Time. Neither Contractor nor a Subcontractor of any tier is entitled to payment for costs arising out of actual or alleged loss of efficiency; morale, fatigue, attitude, or labor rhythm; home office overhead; expectant underrun; trade stacking; reassignment of workers; rescheduling of work; concurrent operations; dilution of supervision; learning curve; beneficial or joint occupancy; logistics; ripple; season change; extended overhead; profit upon damages for delay; impact damages, including cumulative impact; or similar damages.

PART 8 - CLAIMS AND DISPUTE RESOLUTION

8.01 CLAIMS

A. Definition: A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of the Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract Documents. The term “Claim” also includes other disputes and matters in question between Owner and Contractor arising out of or relating to the Contract Documents. Claims must be initiated in writing and be made in accordance with the Contract Documents. Neither a CCP, a Request for Information, a Bilateral or Unilateral Change Order, a reservation of rights, minutes of a meeting, a daily report, or a log entry shall constitute a Claim or Notice of a Claim. However, Owner and Contractor may agree in a signed writing to supplement how Contractor can provide a Notice of Claim as specified in this Part 8.

B. Continuing Contract performance: Pending final resolution of a Claim, including the dispute resolution process in Part 8, and except as otherwise agreed in writing or in the Contract Documents, Contractor shall proceed diligently with performance of the Work and maintain the Progress Schedule, and Owner shall continue to make payments of undisputed amounts in accordance with the Contract Documents.

C. Claims for additional cost: If Contractor wishes to make a Claim for an increase in the Contract Sum, written Notice as provided herein shall be given before proceeding to execute the Work, and written Notice and a written Claim must be made in accordance with this Part 8, or it will be waived.

D. Claims for additional time: If Contractor wishes to make a Claim for an increase in the Contract Time, written Notice as provided herein shall be given, and a written Claim must be made in accordance with this Part 8, or it will be waived.

E. Claims for consequential damages: Contractor and Owner waive certain Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes damages incurred by Owner for profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and damages incurred by Contractor for principal and home office overhead and expenses including but not limited to the compensation of personnel stationed there, for loss of financing, business and/or reputation, for losses on other projects, for loss of profit, and for interest or financing costs. This mutual waiver is applicable, without limitation, to all consequential damages due to either party’s termination. Nothing contained in this subparagraph E, however, shall be deemed to preclude an

award of liquidated or other delay damages, when applicable, in accordance with the Contract Documents, or to preclude or limit Contractor's obligation to procure and maintain the insurance policies required by this Contract or indemnify Owner for damages, including direct, indirect or consequential damages, alleged by a third party.

8.02 INFORMAL RESOLUTION OF DISPUTES

A. Procedure to reduce disputes: In an effort to reduce the incidence and cost to all parties of extended disputes, all disputes, direct or indirect, arising out of or relating to the Contract Documents or the breach thereof, except those that have been waived under the terms of the Contract Documents, shall be decided exclusively by the dispute resolution procedure of Part 8 unless the parties mutually agree in writing otherwise. To the extent that Owner and Contractor agree to a partnering or dispute review process to help address disputes, these processes shall be in addition to, and not in place of, the mandatory contractual dispute resolution procedures.

B. Notice: Except for disputes requiring Notice before proceeding with the affected Work as otherwise described in the Contract Documents, Contractor shall submit a written Notice of any Claim to Owner's Project Manager, consistent with the requirements of the Contract Documents, within 7 Days of the occurrence of the event giving rise to a dispute. If Contractor did not have actual knowledge of such an event, the written Notice shall be submitted within 7 Days of the date that Contractor reasonably should have been aware of the event. The Notice shall set forth, at a minimum, a description of the event(s) leading to or causing the dispute, the nature of the impacts to Contractor and its Subcontractors, if any, and an estimate of any claimed adjustments in the Contract Sum and/or Contract Time. Without waiving any rights, Owner and Contractor may discuss and attempt to resolve a dispute identified in a Notice of Claim directly with each other or with a third-party neutral or dispute review board if utilized on a Project.

C. Substantiation: If an issue remains unresolved, Contractor shall submit timely written substantiation to support Contractor's position relating to the Notice of Claim. Such substantiation, which shall include an explanation of Contractor's position and any supporting documentation, shall be provided within 30 Days of submitting a Notice. Contractor may delay submitting data by an additional 14 Days if it notifies Owner that substantial data must be assembled.

D. Owner's Project Manager to make initial decision on all disputes: After Contractor has submitted written substantiation to Owner that complies with all applicable provisions of Parts 7 and 8, as well as Section 01 32 13, Project Schedule, Owner's Project Manager will endeavor to respond, in writing, to Contractor within 7 Days of the date substantiation is received, or with Notice to Contractor of the date by which Owner's Project Manager expects to render a decision. If necessary to fully and fairly evaluate an issue, the Project Manager may request additional information or extend the time in which to respond. If the issue is not resolved, or if Project Manager does not respond within the later of 7 Days of the date written substantiation is received or the date specified for rendering a decision, the dispute may be escalated by Contractor to Owner's Assistant Vice President, Facilities Services, Capital as set forth in Section 8.02E below.

E. Contractor may respond to initial decision: The initial decision of the Project Manager will be final and conclusive unless, within 7 Days of the date Contractor receives the initial decision or the date specified for rendering a decision, Contractor notifies Owner's Project Manager in writing of Contractor's disagreement with the initial decision, in which case Contractor must then submit a written rejection to Owner's Assistant Vice President, Facilities Services, Capital within 14 Days. The written rejection must attach the submitted Notice and substantiation and fully explain the reasons for Contractor's disagreement with the initial decision. It must also include all applicable supporting documentation. Failure to submit a written rejection to Owner's Assistant Vice

President, Facilities Services, Capital within 14 Days shall constitute Contractor's acceptance of the initial decision.

F. Assistant Vice President, Facilities Services, Capital decision: Following Contractor's full compliance with the procedure above, Owner's Assistant Vice President, Facilities Services, Capital will endeavor to respond in writing to Contractor with a decision within 7 Days of delivery of the Contractor's rejection or with Notice to Contractor of the date by which Owner's Assistant Vice President, Facilities Services, Capital expects to render a decision. If Owner's Assistant Vice President, Facilities Services, Capital does not respond within the later of 7 Days after delivery of the rejection or the date specified to render a decision, the dispute will be deemed denied and Contractor may further escalate the dispute as set forth in Section 8.02G below.

G. Claim: If Contractor disagrees with the decision of the Assistant Vice President, Facilities Services, Capital, or if no decision is timely received, Contractor shall timely submit a Claim if it wishes to pursue formal dispute resolution or seek additional relief against Owner of any kind. A Claim must be consistent with the Notice, substantiation and rejection previously provided, be submitted to Owner in writing within 14 Days of the date the decision of the Assistant Vice President, Facilities Services, Capital is received by Contractor or due, and comply with Section 8.04. Any claim of a Subcontractor of any tier may be brought only through, and after review by, Contractor. Contractor acknowledges and agrees that no additional documentation from what was submitted to Owner's Assistant Vice President, Facilities Services, Capital (per part 'F' of this section) may be submitted and considered in any subsequent dispute resolution proceeding. Contractor's failure to provide timely information for Owner's consideration during the dispute resolution procedure of Part 8 has a substantial impact upon and prejudices Owner, including but not limited to its inability to fully investigate or verify a Claim, mitigate damages, choose alternative options, adjust the budget, delete or modify the impacted Work, and/or monitor time, cost and quantities.

8.03 FORMAL RESOLUTION OF CLAIMS

A. Option for direct discussions: At any time following Contractor's initiation of formal dispute resolution, Owner may require that an officer of Contractor and Owner's Assistant Vice President, Facilities Services, Capital (all with authority to settle) meet, confer, and attempt to resolve the Claim. If the Claim is not resolved during such meeting, or if no such meeting is requested, Contractor may bring no litigation against Owner unless Contractor complies with the procedures described in Sections 8.03B and C. This requirement cannot be waived except by an explicit written waiver signed by Owner and Contractor.

B. Mediation:

1. Mediation required: Claims, disputes, or other matters in controversy arising out of or related to the Contract shall be subject to mediation as a condition precedent to the initiation of binding dispute resolution. This requirement cannot be waived except by an explicit written waiver signed by both Owner and Contractor. Unless Owner and Contractor mutually agree in writing otherwise, all unresolved Claims shall be considered at a single mediation session that shall occur after Substantial Completion and prior to Final Acceptance by Owner.

2. Mediation procedure: The parties shall endeavor to resolve Claims by mediation. A request for mediation shall be delivered in writing to the other party to the Contract, and the parties shall promptly attempt to mutually agree on a mediator. If the parties do not agree on a mediator within 30 Days of a party's demand, the mediation, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect

on the date of the Agreement. Mediation shall proceed in advance of binding dispute resolution proceedings.

3. Mediation fee to be shared: The parties to the mediation shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction.

4. Representatives with authority must attend mediation: Representatives of Contractor and Owner must attend the mediation session in person with authority to settle the Claim. To the extent there are other parties in interest, such as A/E, insurers or Subcontractors, their representatives, also with authority to settle the Claim, shall also attend the mediation session in person.

C. Litigation: Contractor may bring no litigation on a Claim unless the Claim has been raised and considered in accordance with the procedures of this Part 8, including mandatory mediation. Contractor shall have the burden to demonstrate in any litigation that it has complied with all requirements of this Part 8. All unresolved Claims of Contractor shall be waived and released unless Contractor has complied with the time limits of the Contract Documents, and litigation is served and filed within 180 Days after the Date of Substantial Completion approved in writing by Owner. This requirement cannot be waived except by an explicit, written waiver signed by Owner and Contractor. The pendency of a mediation, which shall mean the time period between a party's receipt of a written mediation demand and the date of the initial mediation session, shall stay this deadline for serving and filing a lawsuit. The deadline may also be stayed for an additional period by agreement of the parties or court order. Neither Contractor nor a Subcontractor, whether claiming under a bond or lien statute or otherwise, shall be entitled to attorneys' fees directly or indirectly from Owner (but may recover attorneys' fees from the bond or statutory retainage fund itself to the extent allowable under law).

8.04 CLAIMS PROCESS

A. Notice and Claims: Any Notice and any Claim of Contractor, whether under the Contract or otherwise, must be made pursuant to and in strict accordance with the applicable provisions of the Contract Documents. No act, omission, or knowledge, actual or constructive, of Owner or anyone for whose acts Owner is responsible shall in any way be deemed to be a waiver of the requirement for timely written Notice and a timely written Claim unless Owner and Contractor sign an explicit, unequivocal written waiver. The fact that Owner and Contractor may consider, discuss, or negotiate a Claim that has or may have been procedurally or substantively defective or untimely under the Contract shall not constitute a waiver of the provisions of the Contract Documents unless Owner and Contractor sign an explicit, unequivocal written waiver. Contractor acknowledges and agrees that Contractor's failure to timely submit required Notices and/or timely submit Claims has a substantial impact upon and prejudices Owner, including but not limited to its inability to fully investigate or verify the Claim, mitigate damages, choose alternative options, adjust the budget, delete or modify the impacted Work, and/or monitor time, cost and quantities.

B. Claim must cover all costs and be documented: A Claim shall be deemed to cover all changes in cost and time (including direct, indirect, impact, and consequential) to which Contractor (and Subcontractors) may be entitled and may not contain reservations of rights without Owner's written approval; any such unapproved reservations of rights shall be without effect. Any requests by Contractor for an adjustment in both the Contract Sum and Contract Time that arise out of the same event(s) shall be submitted together. A Claim must be fully substantiated and documented. At a minimum, a Claim shall contain the following information:

1. Factual statement of Claim: A detailed factual statement of the Claim for additional compensation and/or time, if any, providing all necessary dates, locations, and items of Work affected by the Claim, 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;

2. Dates: The date on which event(s) arose which gave rise to the Claim;

3. Owner and A/E employee's knowledgeable about Claim: The name of each employee of Owner and/or A/E believed to be knowledgeable about the Claim;

4. Support from Contract Documents: The specific provisions of the Contract Documents that support the Claim;

5. Identification of other supporting information: The identification of any documents and the substance of any oral communications that support the Claim;

6. Copies of supporting documentation: Data and copies of any identified documents, other than the Contract Documents, that support the Claim, including without limitation a complete explanation as to why the relief sought is not within the scope of the Contract Documents;

7. Details on Claim for Contract Time: 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 showing cause and analysis of the resultant delay to the critical path and other information required by the Contract Documents and Section 01 32 13, Project Schedule;

8. Details on Claim for adjustment of Contract Sum: If an adjustment in the Contract Sum is sought, the exact amount sought and a breakdown of that amount into the categories and with the detail required by Section 7.02; and

9. Statement certifying Claim: 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 responsible.

C. False Claims: Contractor shall not make any negligent or fraudulent misrepresentations, concealments, errors, omissions, or inducements to Owner in the formation or performance of this Contract. If Contractor or a Subcontractor submits false or frivolous substantiation or a Claim to Owner, which for purposes of this Section 8.01C is defined as substantiation or a Claim based in whole or in part upon a materially incorrect fact, statement, representation, assertion, or record, Owner shall be entitled to collect from Contractor by offset or otherwise (without prejudice to any right or remedy of Owner) any and all costs and expenses, including investigation and consultant costs, incurred by Owner in investigating, responding to, and defending against such false or frivolous substantiation or Claim.

D. Notification of surety: Owner may, but is not obligated to, notify Contractor's surety, if any, of the nature and amount of any claim it may assert against Contractor. If the claim relates to a possibility of Contractor's default, Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

E. Liens: If a Claim relates to or is the subject of a lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice and filing deadlines.

F. All Claims must be submitted for final resolution within the time period specified by applicable law: Owner and Contractor shall commence all Claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of this Part 8 and within the time period specified by applicable law.

G. Waiver of rights: Any Claim of Contractor against Owner shall be conclusively deemed to have been waived by Contractor unless made in accordance with the requirements of Part 8.

H. Owner may investigate: To assist in the review of a Claim, Owner may at any time visit the Project site, communicate directly with Subcontractors, or request additional information (including requesting an audit as authorized below) in order to fully evaluate the issues raised by the Claim.

I. Owner may audit Claims: 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 permit Owner access to the books and records of Contractor or Subcontractors of any tier, or to maintain and retain sufficient records to allow Owner to verify all or a portion of the Claim, shall constitute a waiver of the Claim and shall bar any recovery.

J. Contractor to make documents promptly available: In support of Owner's audit of any Claim, Contractor and any Subcontractor shall, upon request, promptly make available to Owner within seven Days of Owner's request, at the office of Contractor or any requested Subcontractor during normal business hours, at least the following documents and other documents requested by Owner; failure to fully comply with this requirement shall constitute a material breach of contract and waiver of any Claim:

1. Daily time sheets and supervisor's daily reports;
2. Collective bargaining agreements;
3. Insurance, welfare, and benefits records;
4. Payroll registers;
5. Earnings records;
6. Payroll tax forms;
7. Material invoices, requisitions, and delivery confirmations;
8. Material cost distribution worksheet;
9. Equipment records (list of company equipment, rates, etc.);
10. Vendors', rental agencies', Subcontractors', and agents' invoices;
11. Contracts between Contractor and each of its Subcontractors, and all lower-tier Subcontractor contracts and supplier contracts;
12. Subcontractors' and agents' payment certificates;

13. Cancelled checks (payroll and vendors);

14. Job cost reports, including job cost summary and job cost detail reports, related labor and equipment reports, and 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 during performance of the Work. In addition, Owner may require, if it deems it appropriate, additional financial statements for 3 years preceding execution of the Work;

20. Depreciation records on all company equipment whether these records are maintained by the company involved, its accountant, or others;

21. If a source other than depreciation records is used to develop costs for Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents;

22. All non-privileged documents which relate to each and every Claim together with all documents which support the amount of any adjustment in the Contract Sum or Contract Time sought by each Claim;

23. Work sheets or software used to prepare and establish the cost components for items of the Claim, including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors, all documents that establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals;

24. Work sheets, software, and all other documents used by Contractor to prepare its bid;

25. The above items for its Subcontractors; and

26. Any other information in any form or media not expressly protected from discovery by applicable law.

K. Contractor to cooperate and provide facilities for audit: The audit may be performed by employees or representatives of Owner. Contractor and its Subcontractors shall provide adequate facilities acceptable to Owner for the audit during normal business hours. Contractor and all Subcontractors shall make a good faith effort to cooperate with Owner's auditors.

L. Reciprocal RCW 42.56 rights: Contractor agrees, on behalf of itself and Subcontractors, that any invocation of RCW 42.56 at any time by Contractor or a Subcontractor, or their respective representatives, shall initiate an equivalent right to disclosures from Contractor and Subcontractors for the benefit of Owner. Failure to fully comply with these requirements shall constitute a material breach of the Contract and shall constitute a waiver of all Claims by Contractor and any Subcontractor that does not fully comply.

PART 9 - TERMINATION OF THE WORK

9.01 TERMINATION BY OWNER FOR CAUSE

A. 7 Day Notice to Terminate for Cause: 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 Work: 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 bankrupt: 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 to correct Work: Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents;

4. Contractor fails to supply workers or materials: Contractor repeatedly fails to supply skilled workers or proper materials or equipment;

5. Contractor failure to pay Subcontractors or labor: Contractor repeatedly fails to make prompt payment due to Subcontractors or for labor;

6. Contractor violates laws: Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or

7. Contractor in material breach of Contract: Contractor is otherwise in material breach of any provision of the Contract Documents.

B. Owner's actions upon termination: Upon termination, Owner may at its option:

1. Take possession of Project site: 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: Accept assignment of subcontracts pursuant to Section 5.20; and

3. Finish the Work: Finish the Work by whatever other reasonable method it deems expedient.

C. Surety's role: 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. Contractor's required actions: 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. Contractor to pay for unfinished Work: Contractor shall not be entitled to receive further payment until the Work is finished. 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. Contractor and Surety still responsible for Work performed: Termination of the Work in accordance with this section shall not relieve Contractor or its surety of any responsibilities for Work performed.

G. Conversion of "Termination for Cause" to "Termination for Convenience": 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 Notice of Termination for Convenience: 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. Contractor response to termination Notice: Unless Owner directs otherwise, after receipt of a written notice of termination for either cause or convenience, Contractor shall promptly:

1. Cease Work: Stop performing Work on the date and as specified in the notice of termination;

2. No further orders or Subcontracts: Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not terminated;

3. Cancel orders and Subcontracts: Cancel all orders and subcontracts, upon terms acceptable to Owner, to the extent that they relate to the performance of Work terminated;

4. Assign orders and Subcontracts to Owner: Assign to Owner all of the right, title, and interest of Contractor in all orders and subcontracts;

5. Take action to protect the Work: 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 not terminated: Continue performance only to the extent not terminated.

C. Terms of adjustment in Contract Sum if Contract terminated: 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 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. Owner to determine whether to adjust Contract Time: If Owner terminates the Work or any portion thereof for convenience, the Contract Time shall be adjusted as determined by Owner.

9.03 TERMINATION BY CONTRACTOR FOR CAUSE

A. Contractor termination: Except as provided by RCW 60.28.080, Contractor may terminate the Contract for any of the following reasons:

1. Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped permanently;

2. An act of government, such as a declaration of national emergency, that requires all Work to be stopped permanently;

3. Because Owner has improperly not made payment of undisputed amounts within the time stated in the Contract Documents; or

4. The Work is stopped for a period of 60 consecutive Days through no act or fault of Contractor, a Subcontractor, or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with Contractor,

B. Contractor termination procedure: If one of these reasons exists, Contractor may, upon seven Days' written Notice to Owner (during which period Owner has the opportunity to cure), terminate the Contract and recover from Owner payment for Work executed in accordance with the Contract Documents, including reasonable overhead and profit on Work executed and costs incurred by reason of such termination. The total recovery of Contractor shall not exceed the unpaid balance of the Contract Sum.

PART 10 - MISCELLANEOUS PROVISIONS

10.01 GOVERNING LAW

Applicable law and venue: The Contract Documents and the rights of the parties herein shall be governed by the internal laws of the state of Washington, without regard to its choice-of-law provisions. Venue shall be in the county in which the Project is located, unless otherwise specified.

10.02 SUCCESSORS AND ASSIGNS

Bound to successors; Assignment of Contract: Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to the 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 Contract 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 an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations set forth in the Contract Documents. If a majority of the ownership or the control of Contractor is acquired by a third party, and such acquisition reasonably imperils performance or creates a conflict of interest that Owner, in its sole discretion, cannot reasonably reconcile, then Owner may terminate this Contract at any time for cause under Section 9.01.

10.03 MEANING OF WORDS

Meaning of words used in Contract Documents: Unless otherwise stated in the Contract Documents, words that 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 is 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 the 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 items as are shown on the Drawings, or required to complete the installation.

10.04 RIGHTS AND REMEDIES

A. No waiver of rights: Waiver of any provisions of the Contract Documents must be in writing and authorized by Owner. No other waiver is valid on behalf of Owner. No action, delay in acting, or failure to act by Owner or A/E shall constitute a waiver of a right or duty afforded under the Contract Documents, nor shall action, delay in acting, or failure to act constitute approval or an acquiescence in a breach therein, or otherwise prejudice the right of Owner to enforce a right or remedy at any subsequent time, except as may be specifically agreed in writing.

B. Rights under Contract do not limit other rights: Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

C. If portion of Contract is void, remainder is enforceable: If any portion of this Contract is held to be void or unenforceable, the remainder of the Contract shall be enforceable without such portion.

10.05 CONTRACTOR REGISTRATION AND COMPLIANCE

A. Contractor must be registered and licensed: Pursuant to RCW 39.06, Contractor shall be registered and licensed as required by the laws of the State of Washington, including but not limited to RCW 18.27. Contractor shall also have a current state unified business identifier number; have industrial insurance coverage for Contractor's employees working in Washington as required in Title 51 RCW; have an employment security department number as required in Title 50 RCW; have a state excise tax registration number as required in Title 82 RCW; and not be disqualified from bidding on any public works contract under RCW 39.06.010 (unregistered or unlicensed contractors) or RCW 39.12.065(3) (prevailing wage violations).

B. Employer contributions: Pursuant to RCW 50.24, "Contributions by Employers," in general and RCW 50.24.130 in particular, Contractor shall pay contributions for wages for personal services performed under this Contract or arrange for a bond acceptable to the Commissioner.

C. Apprenticeship requirements: If the Contract Sum for the Project exceeds one million dollars, Contractor shall comply with all applicable apprenticeship requirements.

10.06 TIME COMPUTATIONS

Computing time: 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

Six year records retention period: 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

No third party relationships created: 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

Contractor assigns overcharge amounts to Owner: 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.

10.10 HEADINGS AND CAPTIONS

Headings for convenience only: All headings and captions used in these General Conditions are only for convenience of reference, and shall not be used in any way in connection with the meaning, effect, interpretation, construction, or enforcement of the General Conditions, and do not define the limit or describe the scope or intent of any provision of these General Conditions.

10.11 INDEPENDENT CONTRACTOR

Contractor is independent contractor: Contractor shall be and operate as an independent contractor in the performance of the Work and shall have complete control over and responsibility for all personnel performing the Work. Contractor is not authorized to enter into any agreements or undertakings for or on behalf of Owner or to act as or be an agent or employee of Owner.

10.12 OWNER'S ROLE

Owner's role is limited. Owner will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely Contractor's responsibility under the Contract Documents. The presence of Owner at the Project site shall not in any manner be construed as assurance that the Work is being completed in compliance with the Contract Documents, nor as evidence that any requirement of the Contract Documents of any kind, including Notice, has been met or waived. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. Owner will not have control over or charge of and will not be responsible for acts or omissions of Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

END OF SECTION 00 72 00

Washington State University • Asbestos Management Program

Reasonable Certainty of Non-Disturbance of Asbestos

Purpose - For WSU public works projects that are not anticipated to disturb asbestos, this form may be completed and placed in the Contract Documents in-lieu of a good faith asbestos survey.

Instructions - For any WSU public works project, the WSU Project Manager, WSU Project Engineer, Architect, or Project Engineer must complete and sign this form to certify that asbestos disturbance is not expected to occur. Alternatively, an AHERA Asbestos Building Inspector from Environmental Health and Safety (EH&S) can be contacted to certify that asbestos disturbance is not expected to occur if a finalized scope of work is provided to review. If the statements below cannot be certified, an asbestos good faith survey must be completed for the project.

A copy of this form or good faith inspection report must made available to all bidders on the project and available for inspection on-site during work.

Certification - Check all that apply

☐ 1. The project is not anticipated to disturb any building materials.
Note: If the disturbance of building materials is determined to be required during the construction phase, a good faith inspection must be arranged or this form must be revisited prior to disturbance.

☑ 2. The project only involves the disturbance of metal, glass, wood, structural concrete (e.g. concrete slabs, columns, foundations) which are not suspected to contain asbestos.

☐ 3. The project involves earthwork that is not anticipated to disturb asbestos.
Limitation - buried utilities or waste that contain asbestos may be present in soils on campus. If suspect asbestos materials are encountered in the soil during earthwork activities, stop work and contact the WSU Construction Manager.

I have reviewed the project scope-of-work and certify that to the best of my knowledge, the above conditions are true.

Signature: Eric Smith Digitally signed by Eric Smith Date: 2024.04.10 21:09:20 -07'00'

Name: Eric Smith

Position: Director of Capital Projects

Phone/email 509-358-7629

Project: Wilke Pole Barn

Building: 5100

PART 1 GENERAL

1.01 SUMMARY

A. Contractor shall perform the entire Work in accordance with the Contract Documents.

B. Without limiting the requirements of the Contract Documents, the Work of the Contract can be summarized as follows:

1. The Wilke Pole Barn project includes the development of a 16-foot by 100-ft (16,000 square feet) addition to the existing pole barn. Work also includes the installation of several man doors, a roll up door and concrete flat work.

C. Expected Owner-supplied Contractor-installed Work: Not Used

D. Expected Work by Owner: Not Used

1.02 SCHEDULE OF ALTERNATES

A. Without limiting the requirements of the Contract Documents, the Work of the Alternates can be summarized as follows:

1. Alternate 1 - Widen the pole barn addition from 16-feet to 20-feet.
2. Alternate 2 - Expand the existing concrete floor inside the main structure (Approximately 75-feet by 50-feet).
3. Alternate 3 - Provide a 20-foot by 66-foot exterior concrete slab in the east end of the existing structure.

1.03 SCHEDULE OF ALLOWANCES – NOT USED

1.04 SCHEDULE OF UNIT PRICES – NOT USED

1.05 GENERAL INFORMATION

A. Owner and Owner’s Designated Representative:

1. Owner: Board of Regents
   Washington State University
   Pullman, WA 99164-1045
2. Owner’s Designated Representative:
   a. All Owner capital projects are administered by the Department of Facilities Services, Capital. Project specific designated representatives are listed within the Agreement.

3. Consulting Services: Owner has retained an Architect/Engineer to design the entire Project. The Architect is identified below.

   a. Architect/Engineer: Architects West, Couer d'Alene, ID

1.06 SPECIAL CONDITIONS

A. Site Access: Direct Access off of Highway 2

B. Owner Occupancy: Owner will continue to operate within and adjacent to the main structure.

END OF SECTION 01 11 00

PART 1 GENERAL

1.01 SUMMARY

A. This Section includes the administrative and procedural requirements for executing changes in the Work. This Section is subject to and governed by the Agreement and General Conditions. In the event of any conflict, the Agreement and General Conditions will have a higher precedence as established in the General Conditions.

1.02 SUBMITTALS

A. Contractor shall submit a breakdown of its actual wage rates prior to commencement of construction activities. The breakdown must show:

1. Basic wage rate (Based on L&I Intent to Pay Prevailing Wages);
2. Fringe Package (Based on L&I Intent to Pay Prevailing Wages);
3. FUI (Federal Unemployment Insurance);
4. FICA (Federal Insurance Compensation Act);
5. SUI (State Unemployment Compensation Act);
6. Medicare; and
7. WC (Workers Compensation).

B. Contractor shall submit detailed supporting documentation to verify the above rates, if requested by Owner. All such rates shall be subject to audit.

C. Contractor shall submit prior to commencement of construction activities a list of all equipment that it anticipates will be used on the Project and the actual operating cost of each piece of equipment. The General Conditions describe allowable equipment charges. All costs shall be subject to audit.

1.03 CONTRACT CHANGE PROPOSAL PROCEDURES

A. Contractor shall maintain an Issues Log/ CCP Log as described in the General Conditions:

1. The action status shall indicate which party is currently responsible and when it is appropriate to submit a CCP to Owner. Contractor shall submit a Contract Change Proposal (CCP) with Substantiating Documentation, as described in subsection C below, to Owner within 7 Days of this action status change.
2. Upon final agreement and authorization by Owner a CCP may be incorporated into the Contract via Change Order and shall be reflected on the Issues Log.

B. Direction to perform Work:

1. Owner may directly order Work by a written Work Directive (WD). WDs may be unilateral or bilateral as described in the General Conditions and may be issued on a fixed price or on a "cost-not-to-exceed" basis. The WD may include the following:

   a. A detailed description of the proposed change, products, and location of modification to the Work;

   b. Supplementary or revised Drawings and/or Specifications; and

   c. Projected time for making the change and a statement as to whether overtime work is, or is not, acceptable.

C. Substantiating Documentation required with all CCPs:

1. Contractor shall provide back-up documentation required to substantiate any proposed change in the following format:

   a. CCP narrative, including:

      1) Description of proposed change. In order to allow for efficient review of a change proposal Contractor shall provide enough narrative to the line item breakdown to allow Owner to properly assess that the change is fair and reasonable;

      2) Cause of or reason for making change with a statement of why proposed change is not covered by Contract Documents

      3) Both credited and additive elements relating to a change in Contract Sum and/or Contract Time;

      4) A specific period of time during which Contractor's pricing will be considered valid;

      5) Any schedule considerations that may trigger further impact to the Contract Time if acceptance of the proposed change if delayed beyond a specific date; and

      6) Date change Work is to be completed.

   b. Owner supplied Change Proposal Submittal Form.

   c. CCP Cost Estimate Detail Sheet(s), or other form acceptable to Owner, including:

      1) Line-item estimate detailing material, labor, equipment, Subcontractor, and supplier costs and quantities; and

      2) Subcontractor and supplier proposals with supporting line-item estimates.

   d. CCP Progress Schedule with Contemporaneous Period Analysis detailing if any impact to the planned progress of the Work and

critical path.

e. Other supporting documentation, as appropriate.

D. Correlation with Contractor's Submittals:

1. Application for Payment forms shall record each Unilateral and Bilateral Change Order as a separate item of Work.
2. The Progress Schedule shall be revised to reflect changes in the Contract Time.
3. Project Record shall incorporate all changed Work.

END OF SECTION 01 26 00

PART 1 GENERAL

1.01 SUMMARY

A. This Section includes procedures for preparation and submittal of Applications for Payment.

1.02 SUBMITTALS

A. Prior to submitting its first Application for Payment, Contractor shall:

1. Submit a preliminary Progress Schedule per Section 01 32 13 – Progress Schedule.
2. If requested, submit a projected monthly cash-flow analysis for the duration of the Project.
3. Submit an approved Intent to Pay Prevailing Wages form prior to commencing the Work. An approved Intent to Pay Prevailing Wages form must be on file with Owner for each classification of laborers, workers, or mechanics employed by Contractor or Subcontractors whose Work is included in an Application for Payment.
4. "Washington State Prevailing Wage Rates for Public Works Contracts/Lincoln" are made a part of the Contract Documents and are included at the end of this Section. It is Contractor's responsibility to verify with the Washington State Department of Labor and Industries the most current and applicable prevailing wage rates for this Project.
5. Submit and receive approval of the Schedule of Values per Section 01 29 73 – Schedule of Values, and the General Conditions. All Applications for Payment shall be in the same format.
6. Submit a list of all Subcontractors with points of contact and other contact information, including phone number, email address, and mailing address.
7. Submit a list of all major material suppliers with points of contact and other contact information, including phone number, email address, and mailing address.
8. Submit Retainage Option Form to Owner for the disposition of retainage funds.
    a. In accordance with Chapter 60.28 of the Revised Code of Washington (RCW), Owner shall reserve retainage not to exceed 5% of the monies earned by Contractor as a trust fund for the protection and payment of:
        1) The claims of any person and/or Owner arising out of or relating to Work performed on the Project; and
        2) The State with respect to taxes, fees, or penalties that may be imposed and due from Contractor (see General

Conditions).

b. Retainage will be released per Section 01 70 00 - Project Close-Out.

c. At the option of Contractor, the moneys reserved by Owner shall be:

1) Retained in a fund by Owner;

2) Bonded for all of the retainage using a bond form acceptable to Owner;

3) Placed in escrow with a bank or trust company by Owner.

a) Escrow: If the retained funds are to be placed in escrow, Contractor will select the escrow agent, subject to approval by Owner. The selected agent must be a bank or trust company in the State of Washington.

b) Escrow Agent: If Contractor elects the escrow option, an escrow agreement shall be executed by Contractor, Owner, and bank or trust company. Three copies of the agreement should be completed and executed by Contractor and returned to Owner for execution; Owner will forward copies to the bank or trust company for receipt, acceptance, and execution. The bank or trust company will retain one copy and return one copy each to Contractor and Owner. A completed and signed escrow agreement must be on file with Owner before Contractor's first Application for Payment is processed.

c) Escrow Investments: The bank or trust company may invest the retained funds in bonds and other securities selected by Contractor, except stocks, subject to the written approval of Owner.

d) The investments selected must mature on or prior to the date 45 Days following Final Acceptance of the Work. Interest on such investments may be paid to Contractor as it accrues.

e) Escrow Costs and Fees: All escrow costs and fees shall be paid by Contractor.

f) Release of Escrow Investments to Contractor: Retainage will be released per Section 01 70 00 - Project Close-Out. Once Contractor has fully complied with the Contract Documents and statute, Owner shall issue written instructions to the bank or trust company to release to Contractor the investment held in escrow.

B. Draft Application for Payment:

1. Contractor shall submit a draft, itemized Application for Payment within the last 7 Days of the month.

2. The draft application does not constitute a payment request and shall not be signed.

3. Contractor shall carefully check all extensions, totals, and required information for accuracy before submittal.

4. Contractor and Owner may meet to confer regarding the current progress of the Work and the amount of payment to which Contractor is entitled. Owner may request that Contractor provide supporting documentation substantiating its right to payment. Contractor is not entitled to make a final payment request, nor is any payment due Contractor, until such data is furnished. Contractor may include in its Application for Payment projected costs to the end of the month.

    a. Fill in the following information within Owner's Application for Payment form:

        1) Percentage of Work completed based upon the approved schedule of values.

        2) List Change Orders approved by Owner prior to submission date. Use Owner's designations. Do not bill for changed Work until a fully executed Change Order has been received.

        3) Certification of Participation WBE and MBEs, all certification types acceptable, supply this regardless of having firms to report upon.

        4) List all Subcontractors that have performed Work at the site during the pay period.

        5) If applicable, Apprentice/Journeyman Participation.

5. Contractor shall submit or make available for review the following prior to the draft Application for Payment:

    a. Project Record; (see Section 01 78 39 – Project Record)

    b. Updated Progress Schedule in native format (see section 01 32 13 – Progress Schedule);

    c. Contractor Quality Control Reports (see Section 01 45 00 - Quality Control); and

    d. Stored Materials: Requests for payment of stored materials may only be made for materials properly stored on or off-site and in full compliance with the General Conditions.

C. Application for Payment:

1. Contractor may not submit the approved Application for Payment (or

payment will be withheld) until all requirements of the draft application for payment are met.

2. Upon approval of the Draft Application for Payment, contractor will be authorized to submit the agreed upon Application for Payment for processing and payment. This application for payment shall be signed by hand by a responsible officer of the Contractor and may be submitted in scanned format electronically.

3. Formal submittal must include all parts of the Application for Payment form.

4. Owner shall make progress payments in such amounts as it determines are properly due within 30 Days of receipt of a properly executed Application for Payment.

5. Owner shall notify Contractor in accordance with Chapter 39.76 RCW if the Application for Payment does not comply with the requirements of the Contract Documents.

D. Disputed Amounts: If Contractor believes it is entitled to payment for Work performed during the prior calendar month in addition to the agreed-upon amount, Contractor may, also within the same period, submit to Owner along with the approved Application for Payment a separate, written payment request specifying the exact additional amount claimed due, the category in the Schedule of Values in which the payment is claimed due, the specific Work for which the additional amount is due, and why the additional payment is due. Furthermore, for the submittal to be considered, Contractor and all Subcontractors shall file with Owner by the same date certified copies of all payroll records relating to the additional amount due, pursuant to WAC 296-127-320.

E. Payments to Subcontractors: Contractor shall pay each Subcontractor no later than 10 Days after receipt of payment from Owner the amount to which the Subcontractor is entitled. Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to lower-tier Subcontractors in a similar manner.

1. Applications for Payment shall not request payment for portions of the Work that Contractor does not intend to pay a Subcontractor, unless such Work has been performed by others whom Contractor intends to pay.

2. If, after making an Application for Payment but before paying a Subcontractor for its performance covered by the Application, Contractor discovers that part or all of the payment otherwise due to the Subcontractor is subject to withholding from the Subcontractor under the Subcontract (such as for unsatisfactory performance or non-payment of lower-tier Subcontractors), Contractor may withhold the amount as allowed under the Subcontract, but it shall:

   a. Give the Subcontractor and Owner written notice of the withholding as soon as practicable once Contractor determines the cause for the withholding but before the due date of the Subcontractor payment;

b. Include the reasons for the withholding and the actions the Subcontractor must take to release the payment; and

c. Once Subcontractor has taken the required remedial actions, pay Subcontractor within 8 Days.

3. Owner may, at its sole option, issue joint checks to Contractor and to any Subcontractor. If Owner makes payments by joint check, such value shall be reflected on the next Application for Payment.

F. Subcontractor Payment Reporting: Contractor and all tiers of subcontractors will utilize Access Equity accessed at the Office of Minority and Women's Business Enterprises (OMWBE) at https://omwbe.diversitycompliance.com/ to report subcontractor payment information. The Contractor shall:

1. Complete the OMWBE user training.

2. Register and enter all required Subcontractor information into Access Equity upon Owner creation of the contract record.

3. Monitor and report amount and date of all payments:

a. Received from Owner;

4. Made to Subcontractor(s);Resolve any discrepancies between reported and received payments.

5. Require each Subcontractor to:

a. Register in Access Equity and complete the user training.

b. Verify amounts and date of receipt of payments from Prime Contractor or higher tier Subcontractor.

c. Report any payments made to a lower tier Subcontractor.

d. Resolve any discrepancies between reported and received payments.

G. Application for Final Payment:

1. Application for Final Payment will be accepted for processing only after Contractor has completed the requirements of Final Completion as described in Section 01 70 00 – Project Close-Out.

H. Release of Retainage:

1. Retainage will be released per Section 01 70 00 - Project Close-Out.

END OF SECTION 01 29 00

State of Washington
Department of Labor & Industries
Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 05/09/2024

County	Trade	Job Classification	Wage	Holiday	Overtime	Note	*Risk Class
Lincoln	Asbestos Abatement Workers	Journey Level	$49.52	7B	1M	8Z	View
Lincoln	Boilermakers	Journey Level	$74.29	5N	1C		View
Lincoln	Brick Mason	Journey Level	$57.54	5A	1M		View
Lincoln	Building Service Employees	Janitor	$16.28		1		View
Lincoln	Building Service Employees	Shampooer	$16.28		1		View
Lincoln	Building Service Employees	Waxer	$16.28		1		View
Lincoln	Building Service Employees	Window Cleaner	$16.28		1		View
Lincoln	Cabinet Makers (In Shop)	Journey Level	$16.28		1		View
Lincoln	Carpenters	Acoustical Worker	$55.87	7E	4X	8N	View
Lincoln	Carpenters	Bridge, Dock & Wharf Carpenter	$61.94	7E	4X	8N	View
Lincoln	Carpenters	Floor Layer & Floor Finisher	$55.87	7E	4X	8N	View
Lincoln	Carpenters	Form Builder	$55.87	7E	4X	8N	View
Lincoln	Carpenters	General Carpenter	$55.87	7E	4X	8N	View
Lincoln	Carpenters	Heavy Construction Carpenter	$59.87	7E	4X	9E	View
Lincoln	Carpenters	Scaffold/Shoring Erecting & Dismantling	$59.87	7E	4X	8N	View
Lincoln	Cement Masons	Journey Level	$54.94	7B	1N		View
Lincoln	Divers & Tenders	Assistant Tender	$62.89	7E	4X	8J	View
Lincoln	Divers & Tenders	Bell/Vehicle or Submersible Operator Not Under Pressure	$66.15	7E	4X	8J	View
Lincoln	Divers & Tenders	Dive Supervisors	$119.70	7E	4X		View
Lincoln	Divers & Tenders	Diver	$118.20	7E	4X	8I	View
Lincoln	Divers & Tenders	Diver on Standby	$67.15	7E	4X	8J	View
Lincoln	Divers & Tenders	Diver Tender	$66.15	7E	4X	8J	View
Lincoln	Divers & Tenders	Diving Master	$78.86	7E	4X	8J	View
Lincoln	Divers & Tenders	Manifold Operator	$66.15	7E	4X	8J	View
Lincoln	Divers & Tenders	Manifold Operator Mixed Gas	$70.15	7E	4X	8J	View
Lincoln	Divers & Tenders	Remote Operated Vehicle Operator	$66.15	7E	4X	8J	View

Lincoln	Divers & Tenders	Remote Operated Vehicle Tender/Technician	$62.94	7E	4X	8J	View
Lincoln	Dredge Workers	Assistant Engineer	$79.62	5D	3F		View
Lincoln	Dredge Workers	Assistant Mate (Deckhand)	$79.01	5D	3F		View
Lincoln	Dredge Workers	Boatmen	$79.62	5D	3F		View
Lincoln	Dredge Workers	Engineer Welder	$81.15	5D	3F		View
Lincoln	Dredge Workers	Leverman, Hydraulic	$82.77	5D	3F		View
Lincoln	Dredge Workers	Mates	$79.62	5D	3F		View
Lincoln	Dredge Workers	Oiler	$79.01	5D	3F		View
Lincoln	Drywall Applicator	Journey Level	$56.68	15O	11S		View
Lincoln	Drywall Tapers	Journey Level	$56.68	15O	11S		View
Lincoln	Electrical Fixture Maintenance Workers	Journey Level	$16.28		1		View
Lincoln	Electricians - Inside	Journeyman	$64.10	7G	1E		View
Lincoln	Electricians - Motor Shop	Craftsman	$16.28		1		View
Lincoln	Electricians - Motor Shop	Journey Level	$16.28		1		View
Lincoln	Electricians - Powerline Construction	Cable Splicer	$93.00	5A	4D		View
Lincoln	Electricians - Powerline Construction	Certified Line Welder	$85.42	5A	4D		View
Lincoln	Electricians - Powerline Construction	Groundperson	$55.27	5A	4D		View
Lincoln	Electricians - Powerline Construction	Heavy Line Equipment Operator	$85.42	5A	4D		View
Lincoln	Electricians - Powerline Construction	Journey Level Lineperson	$85.42	5A	4D		View
Lincoln	Electricians - Powerline Construction	Line Equipment Operator	$73.35	5A	4D		View
Lincoln	Electricians - Powerline Construction	Meter Installer	$55.27	5A	4D	8W	View
Lincoln	Electricians - Powerline Construction	Pole Sprayer	$85.42	5A	4D		View
Lincoln	Electricians - Powerline Construction	Powderperson	$63.50	5A	4D		View
Lincoln	Electronic Technicians	Journey Level	$53.20	5I	1B		View
Lincoln	Elevator Constructors	Mechanic	$111.26	7D	4A		View
Lincoln	Elevator Constructors	Mechanic In Charge	$120.27	7D	4A		View
Lincoln	Fabricated Precast Concrete Products	Journey Level	$16.28		1		View
Lincoln	Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	$16.28		1		View
Lincoln	Fence Erectors	Fence Erector	$49.52	7B	1M	8Z	View
Lincoln	Flaggers	Journey Level	$46.68	7B	1M	8Z	View
Lincoln	Glaziers	Journey Level	$43.70	7L	4L		View
Lincoln	Heat & Frost Insulators And Asbestos Workers	Journey Level	$62.55	5K	1U		View
Lincoln	Heating Equipment Mechanics	Journey Level	$69.36	6Z	1B		View
Lincoln	Hod Carriers & Mason Tenders	Journey Level	$51.11	7B	1M	8Z	View
Lincoln	Industrial Power Vacuum Cleaner	Journey Level	$16.28		1		View

Lincoln	Inland Boatmen	Journey Level	$16.28		1		View
Lincoln	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	$16.28		1		View
Lincoln	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	$16.28		1		View
Lincoln	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	$16.28		1		View
Lincoln	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	$16.28		1		View
Lincoln	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	$16.28		1		View
Lincoln	Insulation Applicators	Journey Level	$55.87	7E	4X	8N	View
Lincoln	Ironworkers	Journeyman	$71.42	15K	11N		View
Lincoln	Laborers	Air And Hydraulic Track Drill	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Asphalt Raker	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Asphalt Roller, Walking	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Brick Pavers	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Brush Hog Feeder	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Brush Machine	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Caisson Worker, Free AIr	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Carpenter Tender	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Cement Finisher Tender	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Cement Handler	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Chain Saw Operator & Faller	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Clean-up Laborer	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Compaction Equipment	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Concrete Crewman	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Concrete Saw, Walking	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Concrete Signalman	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Concrete Stack	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Confined Space Attendant	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Construction Specialist	$50.33	7B	1M	8Z	View
Lincoln	Laborers	Crusher Feeder	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Demolition	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Demolition Torch	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Dope Pot Fireman, Non-mechanical	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Driller Helper (when Required To Move & Position Machine)	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Drills With Dual Masts	$50.44	7B	1M	8Z	View
Lincoln	Laborers	Dry Stack Walls	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Dumpman	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Erosion Control Laborer	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Firewatch	$49.52	7B	1M	8Z	View

Lincoln	Laborers	Form Cleaning Machine Feeder, Stacker	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Form Setter, Paving	$49.83	7B	1M	8Z	View
Lincoln	Laborers	General Laborer	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Grade Checker	$52.34	7B	1M	8Z	View
Lincoln	Laborers	Grout Machine Header Tender	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Guard Rail	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Gunite	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Hazardous Waste Worker (level A)	$50.44	7B	1M	8Z	View
Lincoln	Laborers	Hazardous Waste Worker (level B)	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Hazardous Waste Worker (level C)	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Hazardous Waste Worker (level D)	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Hdpe Or Similar Liner Installer	$49.52	7B	1M	8Z	View
Lincoln	Laborers	High Scaler	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Industrial Technician	$67.55	7B	1M	8Z	View
Lincoln	Laborers	Jackhammer Operator Miner, Class "b"	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Laser Beam Operator	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Miner, Class "a"	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Miner, Class "c"	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Miner, Class "d"	$50.44	7B	1M	8Z	View
Lincoln	Laborers	Monitor Operator, Air Track Or Similar Mounting	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Mortar Mixer	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Nipper	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Nozzleman	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Nozzleman, Water (to Include Fire Hose), Air Or Steam	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Pavement Breaker, 90 Lbs. & Over	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Pavement Breaker, Under 90 Lbs.	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Pilot Car	$46.68	7B	1M	8Z	View
Lincoln	Laborers	Pipelayer	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Pipelayer, Corrugated Metal Culvert And Multi-Plate	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Pipewrapper	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Plasterer Tenders	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Pot Tender	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Powderman	$51.97	7B	1M	8Z	View
Lincoln	Laborers	Powederman Helper	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Power Buggy Operator	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Power Tool Operator, Gas, Electric, Pneumatic	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Rad-Con Technician	$67.55	7B	1M	8Z	View

Lincoln	Laborers	Railroad Equipment, Power Driven, Except Dual Mobile	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Railroad Power Spiker Or Puller, Dual Mobile	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Remote Equipment Operator	$50.44	7B	1M	8Z	View
Lincoln	Laborers	Remote Equipment Operator (i.e Compaction And Demolition)	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Rigger/signal Person	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Riprap Person	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Rodder & Spreader	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Sand Hogs Under Compressed Air Conditions	$282.20	7B	1M	8Z	View
Lincoln	Laborers	Sandblast Tailhoseman	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Scaffold Erector, Wood Or Steel	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Scaleman	$46.68	7B	1M	8Z	View
Lincoln	Laborers	Stake Jumper	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Structural Mover	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Tailhoseman (water Nozzle)	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Timber Bucker & Faller (by Hand)	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Track Laborer (rr)	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Traffic Control Laborer	$46.68	7B	1M	8Z	View
Lincoln	Laborers	Traffic Control Supervisor	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Trencher, Shawnee	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Trenchless Technology Technician	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Truck Loader	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Truck Mounted Attenuator	$46.68	7B	1M	8Z	View
Lincoln	Laborers	Tugger Operator	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Vibrators, All	$50.13	7B	1M	8Z	View
Lincoln	Laborers	Wagon Drills	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Water Pipe Liner	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Welder, Electrical, Manual Or Automatic (hdpe Or Similar Pipe And Liner)	$50.44	7B	1M	8Z	View
Lincoln	Laborers	Well-point Person	$49.52	7B	1M	8Z	View
Lincoln	Laborers	Wheelbarrow, Power Driven	$49.83	7B	1M	8Z	View
Lincoln	Laborers	Window Washer, Cleaner	$46.68	7B	1M	8Z	View
Lincoln	Laborers - Underground Sewer & Water	General Laborer & Topman	$50.13	7B	1M	8Z	View
Lincoln	Laborers - Underground Sewer & Water	Pipe Layer	$50.13	7B	1M	8Z	View
Lincoln	Landscape Construction	Landscape Laborer	$46.68	7B	1M	8Z	View
Lincoln	Landscape Construction	Landscape Operator	$57.61	7Z	4S	9A	View
Lincoln	Landscape Maintenance	Groundskeeper	$16.28		1		View
Lincoln	Lathers	Journey Level	$56.68	15O	11S		View
Lincoln	Marble Setters	Journey Level	$57.54	5A	1M		View

Lincoln	Metal Fabrication (In Shop)	Fitter	$16.28		1		View
Lincoln	Metal Fabrication (In Shop)	Laborer	$16.28		1		View
Lincoln	Metal Fabrication (In Shop)	Machine Operator	$16.28		1		View
Lincoln	Metal Fabrication (In Shop)	Painter	$16.28		1		View
Lincoln	Metal Fabrication (In Shop)	Welder	$16.28		1		View
Lincoln	Millwright	Journey Level	$76.28	5A	1B		View
Lincoln	Modular Buildings	Journey Level	$16.28		1		View
Lincoln	Painters	Commercial Painter	$45.51	6Z	1W		View
Lincoln	Painters	Industrial Painter	$52.42	6Z	1W	9D	View
Lincoln	Pile Driver	Journey Level	$61.94	7E	4X	8N	View
Lincoln	Plasterers	Journey Level	$54.62	7K	1N		View
Lincoln	Playground & Park Equipment Installers	Journey Level	$16.28		1		View
Lincoln	Plumbers & Pipefitters	Journey Level	$92.81	6Z	1Q		View
Lincoln	Power Equipment Operators	A-frame Truck (2 Or More Drums)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	A-frame Truck (single Drum)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	All Tower Cranes	$61.92	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Asphalt Plant Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Assistant Plant Operator, Fireman Or Pugmixer (asphalt)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Assistant Refrigeration Plant & Chiller Operator (over 1000 Ton)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Assistant Refrigeration Plant (under 1000 Ton)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Automatic Subgrader (ditches & Trimmers)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Backfillers (cleveland & Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Backhoe & Hoe Ram (under 3/4 Yd.)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Backhoe (45,000 Gw & Under)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Backhoe (45,000 Gw To 110,000 Gw)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Backhoe (over 110,000 Gw)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Backhoes & Hoe Ram (3 Yds & Over)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Backhoes & Hoe Ram (3/4 Yd. To 3 Yd.)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Bagley Or Stationary Scraper	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Batch & Wet Mix Operator (multiple Units, 2 & Incl. 4)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Batch Plant & Wet Mix Operator, Single Unit (concrete)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Batch Plant (over 4 Units)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Belt Finishing Machine	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Belt Loader (kocal Or Similar)	$57.43	7Z	4S	9A	View

Lincoln	Power Equipment Operators	Belt-crete Conveyors With Power Pack Or Similar	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Bending Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Bit Grinders	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Blade (finish & Bluetop), Automatic, Cmi, Abc, Finish Athey & Huber & Similar When Used As Automatic	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Blade Operator (motor Patrol & Attachments)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Blower Operator (cement)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Boat Operator	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Bob Cat (skid Steer)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Bolt Threading Machine	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Boom Cats (side)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Boring Machine (earth)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Boring Machine (Rock Under 8 inch Bit - Quarry Master, Joy Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Bump Cutter (wayne, Saginau Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cableway Controller (dispatcher)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cableway Operators	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Canal Lining Machine (concrete)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Carrydeck & Boom Truck (under 25 Tons)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cement Hog	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Chipper (Without Crane)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Clamshell, Dragline	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cleaning & Doping Machine (Pipeline)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Compactor (self-propelled With Blade)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Compressor (2000 Cfm Or Over, 2 Or More, Gas Diesel Or Electric Power)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Compressors (under 2000 Cfm, Gas, Diesel Or Electric Power)	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Concrete Cleaning / Decontamination Machine Operator	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Concrete Pump Boom Truck	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Concrete Pumps (squeeze-crete, Flow-crete, Whitman & Similar)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Concrete Saw (multiple Cut)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Concrete Slip Form Paver	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Conveyor Aggregate Delivery Systems (c.a.d.)	$58.11	7Z	4S	9A	View

Lincoln	Power Equipment Operators	Crane Oiler & Cable Tender, Mucking Machine	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Crane Oiler - Driver (cdl Required)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cranes (100 to 299 Tons) All Attachments	$61.12	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cranes (25 Tons & Under), All Attachments Incl. Clamshell, Dragline	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cranes (25 Tons To And Including 44 Tons), All Attachments Incl. Clamshell, Dragline	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cranes (300 Tons and Over) All Attachments	$61.92	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cranes (45 Tons To 55 Tons), All Attachments Incl. Clamshell And Dragline	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Cranes (56 to 99 tons) and overhead, rail and Quick Tower. All attachment incl. Clamshell, Dragline	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Crusher Feeder	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Crusher, Grizzle & Screening Plant Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Curb Extruder (asphalt Or Concrete)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Deck Engineer	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Deck Hand	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Derricks & Stifflegs (65 Tons & Over)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Derricks & Stifflegs (under 65 Tons)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Distributor Leverman	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Ditch Witch Or Similar	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Dope Pots (power Agitated	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Dozer / Tractor (up To D-5 Or Equivalent) And Traxcavator	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Dozer / Tractors (d-6 & Equivalent & Over)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Dozer, 834 R/t & Similar	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Drill Doctor	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Driller Licensed	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Drillers Helper	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Drilling Equipment (8 inch Bit & Over - Robbins, Reverse Circulation & Similar)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Drills (churn, Core, Calyx Or Diamond)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Elevating Belt (holland Type)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Elevating Belt-type Loader (euclid, Barber Green &	$57.43	7Z	4S	9A	View

		Similar)					
Lincoln	Power Equipment Operators	Elevating Grader-type Loader (dumor, Adams Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Elevator Hoisting Materials	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Equipment Serviceman, Greaser & Oiler	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Fireman & Heater Tender	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Fork Lift Or Lumber Stacker, Hydra-life & Similar	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Generator Plant Engineers (diesel Or Electric)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Gin Trucks (pipeline)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Grade Checker	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Gunite Combination Mixer & Compressor	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	H.d. Mechanic	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	H.d. Welder	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Heavy Equipment Robotics Operator	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Helicopter Pilot	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Helper, Mechanic Or Welder, H.D	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Hoe Ram	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Hoist (2 Or More Drums Or Tower Hoist)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Hoist, Single Drum	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Hydraulic Platform Trailers (goldhofer, Shaurerly And Similar)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Hydro-seeder, Mulcher, Nozzleman	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Lime Batch Tank Operator (recycle Train)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Lime Brain Operator (recycle Train)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Loader (360 Degrees Revolving Koehring Scooper Or Similar)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Loader Operator (front-end & Overhead, 4 Yds. Incl. 8 Yds.)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Loaders (bucket Elevators And Conveyors)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Loaders (overhead & Front-end, Over 8 Yds.)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Loaders (overhead & Front-end, Under 4 Yds.. R/t)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Loaders (overhead And Front-end, 10 Yds. & Over)	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Locomotive Engineer	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Longitudinal Float	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Master Environmental Maintenance Technician	$58.42	7Z	4S	9A	View

Lincoln	Power Equipment Operators	Mixer (portable - Concrete)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Mixermobile	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Mobile Crusher Operator (recycle Train)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Mucking Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Multiple Dozer Units With Single Blade	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Pavement Breaker, Hydra-hammer & Similar	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Paving (dual Drum)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Paving Machine (asphalt And Concrete)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Piledriving Engineers	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Plant Oiler	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Posthole Auger Or Punch	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Power Broom	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Pump (grout Or Jet)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Pumpman	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Quad-track Or Similar Equipment	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Railroad Ballast Regulation Operator (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Railroad Power Tamper Operator (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Railroad Tamper Jack Operator (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Railroad Track Liner Operator (self-propelled)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Refrigeration Plant Engineer (1000 Tons & Over)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Refrigeration Plant Engineer (under 1000 Ton)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Rollerman (finishing Asphalt Pavement)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Rollers, All Types On Subgrade, Including Seal And Chip Coating (farm Type, Case, John Deere And Similar,or Compacting Vibrator), Except When Pulled B	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Roto Mill (pavement Grinder)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Rotomill Groundsman	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Rubber-tired Scrapers (multiple Engine With Three Or More Scrapers)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Rubber-tired Skidders (r/t With Or Without Attachments)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Scrapers, All, Rubber-tired	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Screed Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Shovels (3 Yds. & Over)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Shovels (under 3 Yds.)	$58.11	7Z	4S	9A	View

Lincoln	Power Equipment Operators	Signalman (whirleys, Highline, Hammerheads Or Similar)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Soil Stabilizer (p & H Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Spray Curing Machine (concrete)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Spreader Box (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Spreader Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Steam Cleaner	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Straddle Buggy (ross & Similar On Construction Job Only)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Surface Heater & Planer Machine	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Tractor (farm Type R/t With Attachments, Except Backhoe)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Traverse Finish Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Trenching Machines (7 Ft. Depth & Over)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Trenching Machines (under 7 Ft. Depth Capacity)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Tug Boat Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Tugger Operator	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Turnhead (with Re-screening)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Turnhead Operator	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Ultra High Pressure Wateriet Cutting Tool System Operator, (30,000 Psi)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Vactor Guzzler, Super Sucker	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Vacuum Blasting Machine Operator	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Vacuum Drill (reverse Circulation Drill Under 8 Inch Bit)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Welding Machine	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators	Whirleys & Hammerheads, All	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	A-frame Truck (2 Or More Drums)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	A-frame Truck (single Drum)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	All Tower Cranes	$61.92	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Asphalt Plant Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Assistant Plant Operator, Fireman Or Pugmixer (asphalt)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Assistant Refrigeration Plant & Chiller Operator (over 1000 Ton)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Assistant Refrigeration Plant (under 1000 Ton)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-	Automatic Subgrader (ditches	$58.11	7Z	4S	9A	View

	Underground Sewer & Water	& Trimmers)					
Lincoln	Power Equipment Operators-Underground Sewer & Water	Backfillers (cleveland & Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Backhoe & Hoe Ram (under 3/4 Yd.)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Backhoe (45,000 Gw & Under)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Backhoe (45,000 Gw To 110,000 Gw)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Backhoe (over 110,000 Gw)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Backhoes & Hoe Ram (3 Yds & Over)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Backhoes & Hoe Ram (3/4 Yd. To 3 Yd.)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Bagley Or Stationary Scraper	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Batch & Wet Mix Operator (multiple Units, 2 & Incl. 4)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Batch Plant & Wet Mix Operator, Single Unit (concrete)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Batch Plant (over 4 Units)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Belt Finishing Machine	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Belt Loader (kocal Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Belt-crete Conveyors With Power Pack Or Similar	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Bending Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Bit Grinders	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Blade (finish & Bluetop), Automatic, Cmi, Abc, Finish Athey & Huber & Similar When Used As Automatic	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Blade Operator (motor Patrol & Attachments)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Blower Operator (cement)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Boat Operator	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Bob Cat (skid Steer)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Bolt Threading Machine	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Boom Cats (side)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Boring Machine (earth)	$57.43	7Z	4S	9A	View

Lincoln	Power Equipment Operators-Underground Sewer & Water	Boring Machine (Rock Under 8 inch Bit - Quarry Master, Joy Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Bump Cutter (wayne, Saginau Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cableway Controller (dispatcher)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cableway Operators	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Canal Lining Machine (concrete)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Carrydeck & Boom Truck (under 25 Tons)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cement Hog	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Chipper (Without Crane)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Clamshell, Dragline	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cleaning & Doping Machine (Pipeline)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Compactor (self-propelled With Blade)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Compressor (2000 Cfm Or Over, 2 Or More, Gas Diesel Or Electric Power)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Compressors (under 2000 Cfm, Gas, Diesel Or Electric Power)	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Concrete Cleaning / Decontamination Machine Operator	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Concrete Pump Boom Truck	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Concrete Pumps (squeeze-crete, Flow-crete, Whitman & Similar)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Concrete Saw (multiple Cut)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Concrete Slip Form Paver	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Conveyor Aggregate Delivery Systems (c.a.d.)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Crane Oiler & Cable Tender, Mucking Machine	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Crane Oiler - Driver (cdl Required)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cranes (100 to 299 Tons) All Attachments	$61.12	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cranes (25 Tons & Under), All Attachments Incl. Clamshell, Dragline	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cranes (25 Tons To And Including 44 Tons), All	$58.11	7Z	4S	9A	View

		Attachments Incl. Clamshell, Dragline					
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cranes (300 Tons and Over) All Attachments	$61.92	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cranes (45 Tons To 55 Tons), All Attachments Incl. Clamshell And Dragline	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Cranes (56 to 99 tons) and overhead, rail and Quick Tower. All attachment incl. Clamshell, Dragline	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Crusher Feeder	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Crusher, Grizzle & Screening Plant Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Curb Extruder (asphalt Or Concrete)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Deck Engineer	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Deck Hand	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Derricks & Stifflegs (65 Tons & Over)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Derricks & Stifflegs (under 65 Tons)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Distributor Leverman	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Ditch Witch Or Similar	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Dope Pots (power Agitated	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Dozer / Tractor (up To D-5 Or Equivalent) And Traxcavator	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Dozer / Tractors (d-6 & Equivalent & Over)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Dozer, 834 R/t & Similar	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Drill Doctor	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Driller Licensed	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Drillers Helper	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Drilling Equipment (8 inch Bit & Over - Robbins, Reverse Circulation & Similar)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Drills (churn, Core, Calyx Or Diamond)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Elevating Belt (holland Type)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Elevating Belt-type Loader (euclid, Barber Green & Similar)	$57.43	7Z	4S	9A	View

Lincoln	Power Equipment Operators-Underground Sewer & Water	Elevating Grader-type Loader (dumor, Adams Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Elevator Hoisting Materials	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Equipment Serviceman, Greaser & Oiler	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Fireman & Heater Tender	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Fork Lift Or Lumber Stacker, Hydra-life & Similar	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Generator Plant Engineers (diesel Or Electric)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Gin Trucks (pipeline)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Grade Checker	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Gunite Combination Mixer & Compressor	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	H.d. Mechanic	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	H.d. Welder	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Heavy Equipment Robotics Operator	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Helicopter Pilot	$60.22	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Helper, Mechanic Or Welder, H.D	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Hoe Ram	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Hoist (2 Or More Drums Or Tower Hoist)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Hoist, Single Drum	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Hydraulic Platform Trailers (goldhofer, Shaurerly And Similar)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Hydro-seeder, Mulcher, Nozzleman	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Lime Batch Tank Operator (recycle Train)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Lime Brain Operator (recycle Train)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Loader (360 Degrees Revolving Koehring Scooper Or Similar)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Loader Operator (front-end & Overhead, 4 Yds. Incl. 8 Yds.)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Loaders (bucket Elevators And Conveyors)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Loaders (overhead & Front-end, Over 8 Yds.)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Loaders (overhead & Front-end, Under 4 Yds.. R/t)	$57.61	7Z	4S	9A	View

Lincoln	Power Equipment Operators-Underground Sewer & Water	Locomotive Engineer	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Longitudinal Float	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Master Environmental Maintenance Technician	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Mixer (portable - Concrete)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Mixermobile	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Mobile Crusher Operator (recycle Train)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Mucking Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Multiple Dozer Units With Single Blade	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Pavement Breaker, Hydra-hammer & Similar	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Paving (dual Drum)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Paving Machine (asphalt And Concrete)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Piledriving Engineers	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Plant Oiler	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Posthole Auger Or Punch	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Power Broom	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Pump (grout Or Jet)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Pumpman	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Quad-track Or Similar Equipment	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Railroad Ballast Regulation Operator (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Railroad Power Tamper Operator (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Railroad Tamper Jack Operator (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Railroad Track Liner Operator (self-propelled)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Refrigeration Plant Engineer (1000 Tons & Over)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Refrigeration Plant Engineer (under 1000 Ton)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Rollerman (finishing Asphalt Pavement)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Rollers, All Types On Subgrade, Including Seal And Chip Coating (farm Type, Case,	$56.39	7Z	4S	9A	View

		John Deere And Similar,or Compacting Vibrator), Except When Pulled B					
Lincoln	Power Equipment Operators-Underground Sewer & Water	Roto Mill (pavement Grinder)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Rotomill Groundsman	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Rubber-tired Scrapers (multiple Engine With Three Or More Scrapers)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Rubber-tired Skidders (r/t With Or Without Attachments)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Scrapers, All, Rubber-tired	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Screed Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Shovels (3 Yds. & Over)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Shovels (under 3 Yds.)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Signalman (whirleys, Highline, Hammerheads Or Similar)	$57.80	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Soil Stabilizer (p & H Or Similar)	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Spray Curing Machine (concrete)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Spreader Box (self-propelled)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Spreader Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Steam Cleaner	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Straddle Buggy (ross & Similar On Construction Job Only)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Surface Heater & Planer Machine	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Tractor (farm Type R/t With Attachments, Except Backhoe)	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Traverse Finish Machine	$57.43	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Trenching Machines (7 Ft. Depth & Over)	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Trenching Machines (under 7 Ft. Depth Capacity)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Tug Boat Operator	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Tugger Operator	$56.74	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Turnhead (with Re-screening)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Turnhead Operator	$57.43	7Z	4S	9A	View

Lincoln	Power Equipment Operators-Underground Sewer & Water	Ultra High Pressure Wateriet Cutting Tool System Operator, (30,000 Psi)	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Vactor Guzzler, Super Sucker	$58.11	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Vacuum Blasting Machine Operator	$58.42	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Vacuum Drill (reverse Circulation Drill Under 8 Inch Bit)	$57.61	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Welding Machine	$56.39	7Z	4S	9A	View
Lincoln	Power Equipment Operators-Underground Sewer & Water	Whirleys & Hammerheads, All	$58.42	7Z	4S	9A	View
Lincoln	Power Line Clearance Tree Trimmers	Journey Level In Charge	$57.22	5A	4A		View
Lincoln	Power Line Clearance Tree Trimmers	Spray Person	$54.32	5A	4A		View
Lincoln	Power Line Clearance Tree Trimmers	Tree Equipment Operator	$57.22	5A	4A		View
Lincoln	Power Line Clearance Tree Trimmers	Tree Trimmer	$51.18	5A	4A		View
Lincoln	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	$38.99	5A	4A		View
Lincoln	Refrigeration & Air Conditioning Mechanics	Journey Level	$92.81	6Z	1Q		View
Lincoln	Residential Brick Mason	Journey Level	$57.54	5A	1M		View
Lincoln	Residential Carpenters	Journey Level	$30.69		1		View
Lincoln	Residential Cement Masons	Journey Level	$23.25		1		View
Lincoln	Residential Drywall Applicators	Journey Level	$16.92		1		View
Lincoln	Residential Drywall Tapers	Journey Level	$16.28		1		View
Lincoln	Residential Electricians	Journey Level	$37.71		1		View
Lincoln	Residential Glaziers	Journey Level	$16.50		1		View
Lincoln	Residential Insulation Applicators	Journey Level	$16.28		1		View
Lincoln	Residential Laborers	Journey Level	$16.28		1		View
Lincoln	Residential Marble Setters	Journey Level	$57.54	5A	1M		View
Lincoln	Residential Painters	Journey Level	$16.28		1		View
Lincoln	Residential Plumbers & Pipefitters	Journey Level	$30.02		1		View
Lincoln	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	$18.40		1		View
Lincoln	Residential Sheet Metal Workers	Journey Level (Field or Shop)	$69.36	5I	1B		View
Lincoln	Residential Soft Floor Layers	Journey Level	$20.40		1		View
Lincoln	Residential Sprinkler Fitters (Fire Protection)	Journey Level	$18.40		1		View
Lincoln	Residential Stone Masons	Journey Level	$57.54	5A	1M		View
Lincoln	Residential Terrazzo Workers	Journey Level	$20.61		1		View
Lincoln	Residential Terrazzo/Tile Finishers	Journey Level	$17.92		1		View
Lincoln	Residential Tile Setters	Journey Level	$20.61		1		View

Lincoln	Roofers	Journey Level	$46.79	5I	1R		View
Lincoln	Roofers	Using Irritable Bituminous Materials	$48.79	5I	1R		View
Lincoln	Sheet Metal Workers	Journey Level (Field or Shop)	$69.36	6Z	1B		View
Lincoln	Sign Makers & Installers (Electrical)	Journey Level	$16.28		1		View
Lincoln	Sign Makers & Installers (Non-Electrical)	Journey Level	$16.28		1		View
Lincoln	Soft Floor Layers	Journey Level	$57.11	5A	3J		View
Lincoln	Solar Controls For Windows	Journey Level	$16.28		1		View
Lincoln	Sprinkler Fitters (Fire Protection)	Journey Level	$67.41	7J	1R		View
Lincoln	Stage Rigging Mechanics (Non Structural)	Journey Level	$16.28		1		View
Lincoln	Stone Masons	Journey Level	$57.54	5A	1M		View
Lincoln	Street And Parking Lot Sweeper Workers	Journey Level	$16.28		1		View
Lincoln	Surveyors	Chain Person	$16.28	0	1	9H	View
Lincoln	Surveyors	Instrument Person	$16.28	0	1	9H	View
Lincoln	Surveyors	Party Chief	$16.28	0	1	9H	View
Lincoln	Telecommunication Technicians	Journey Level	$53.20	5I	1B		View
Lincoln	Telephone Line Construction - Outside	Cable Splicer	$40.36	5A	2B		View
Lincoln	Telephone Line Construction - Outside	Hole Digger/Ground Person	$26.92	5A	2B		View
Lincoln	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	$33.74	5A	2B		View
Lincoln	Telephone Line Construction - Outside	Telephone Lineperson	$38.15	5A	2B		View
Lincoln	Terrazzo Workers	Journey Level	$43.81	5A	1M		View
Lincoln	Tile Setters	Journey Level	$43.81	5A	1M		View
Lincoln	Tile, Marble & Terrazzo Finishers	Journey Level	$35.93	5A	1M		View
Lincoln	Traffic Control Stripers	Journey Level	$89.54	15L	1K		View
Lincoln	Truck Drivers	Asphalt Mix Over 20 Yards	$56.35	5D	1V	8M	View
Lincoln	Truck Drivers	Asphalt Mix To 20 Yards	$56.15	5D	1V	8M	View
Lincoln	Truck Drivers	Dump Truck	$56.15	5D	1V	8M	View
Lincoln	Truck Drivers	Dump Truck & Trailer	$56.35	5D	1V	8M	View
Lincoln	Truck Drivers	Other Trucks	$56.04	5D	1V	8M	View
Lincoln	Truck Drivers - Ready Mix	Transit Mixers 20 yards and under	$56.35	5D	1V	8M	View
Lincoln	Truck Drivers - Ready Mix	Transit Mixers over 20 yards	$56.69	5D	1V	8M	View
Lincoln	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	$16.28		1		View
Lincoln	Well Drillers & Irrigation Pump Installers	Oiler	$16.28		1		View
Lincoln	Well Drillers & Irrigation Pump Installers	Well Driller	$21.30		1		View

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Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.

J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.

K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

1. N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.

W. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer)) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.

Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.

Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

Overtime Codes Continued

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

   F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

   M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

   R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

   U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

   H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.

   J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Overtime Codes Continued

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage

C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:
On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.

S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus $2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).

U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

   The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

   When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

   When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

11. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

   C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

   D. All hours worked on Saturdays and holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

   E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.

   After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

Overtime Codes Continued

11. F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.

H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.

All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.

J. All hours worked on holidays shall be paid at double the hourly rate of wage.

K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.

L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar ($2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

Overtime Codes Continued

11. M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.

On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.

Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars ($2.00) per hour.

N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.

Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.

O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Overtime Codes Continued

11. P. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Q. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 35% over the hourly rate of wage. Work performed on Sundays shall be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.

R On Monday through Saturday hours worked outside 6:00 am and 7:00 pm, and all hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

When a holiday falls on a Saturday, the Friday before shall be the observed holiday. When a holiday falls on a Sunday, the following Monday shall be the observed holiday.

S. The first ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions, or other conditions beyond the control of the Employer, then Saturday may be worked at the straight time rate, for the first eight (8) hours, or the first ten (10) hours when a four day ten hour workweek has been established.

All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).

C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).

H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).

I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).

L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).

N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.

Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).

S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

Holiday Codes Continued

6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).

H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).

T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

Holiday Codes Continued

7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

7. G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.

P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.

Holiday Codes Continued

7. X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.

Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.

Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

Holiday Codes Continued

15. N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

O. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, the day before Christmas day, and Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Note Codes

8. D. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: $1.00, Levels C & D: $0.50.

N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: $2.00, Class B Suit: $1.50, And Class C Suit: $1.00. Workers performing underground work receive an additional $0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional $0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do "pioneer" work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional $0.50 per hour.

Note Codes Continued

8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

   Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - $2.00 per foot for each foot over 50 feet. Over 101' to 150' - $3.00 per foot for each foot over 101 feet. Over 151' to 220' - $4.00 per foot for each foot over 220 feet. Over 221' - $5.00 per foot for each foot over 221 feet.

   Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25’ to 300’ - $1.00 per foot from entrance. 300’ to 600’ - $1.50 per foot beginning at 300’. Over 600’ - $2.00 per foot beginning at 600’.

   W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.

   X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, and Class D Suit: $0.50. Special Shift Premium: Basic hourly rate plus $2.00 per hour.

   When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

   Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

   Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

   Z. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

   Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Note Codes Continued

9. A. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

Special Shift Premium: Basic hourly rate plus $2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid $0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130’ to 199’ – $0.50 per hour over their classification rate.
(B) – 200’ to 299’ – $0.80 per hour over their classification rate.
(C) – 300’ and over – $1.00 per hour over their classification rate.

B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents ($0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

Note Codes Continued

9. F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Procedures for preparation and submittal of the Schedule of Values.

1.02 SUBMITTALS

A. Contractor shall submit an initial Schedule of Values per the Pre-Construction Submittal Requirements of Section 01 33 00.

B. Contractor shall submit supporting documentation justifying the amounts in the Schedule of Values if requested by Owner.

1.03 SCHEDULE OF VALUES

A. Contractor shall submit a typed schedule on Owner's form. Once approved, Contractor shall not revise the Schedule of Values without prior approval by Owner.

B. Format:

1. Separate each category of Work into a separate line item.
2. List all major Work activities indicated on the Progress Schedule.
3. Separate floors, phases, and other easily recognized building divisions when appropriate.
4. Separate labor, materials and equipment for each item.
5. Identify site mobilization, demobilization, bonds, and insurance as individual line items.
6. Include a line item for close-out Work between Substantial Completion and Final Completion.
7. If applicable, include a line item for allowances. For unit cost allowances, give quantities measured from the Contract Documents multiplied by the unit cost.
8. When required by Owner, include separate line items for "separately funded Work."

END OF SECTION 01 29 73

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Preconstruction Meeting;
2. Progress Meetings; and
3. Other meetings, as requested by Owner.

1.02 PRECONSTRUCTION MEETING

A. Meeting Location: Owner will schedule a meeting prior to the start of construction. The purpose of this meeting is to review Contract administration requirements and mobilization procedures. Attendance is required for the following:

1. Architect/Engineer and design Subconsultants;
2. Contractor's Superintendent and Project Manager;
3. Representative of major Subcontractors, as appropriate;
4. Others, as appropriate.

B. Owner's Designated Representative shall:

1. Preside over and conduct meeting.
2. Record, reproduce, and distribute copies of minutes within 7 Days of the meeting to all meeting participants.

C. Agenda for the meeting will include at a minimum:

1. The Work;
2. Progress Schedule, including Work sequence, phasing, and occupancy requirements;
3. Communications chain and persons authorized to direct changes;
4. Use of the Project site;
5. Special Project procedures;
6. Procedures and processing:
    a. Application for Payments and Schedule of Values;
    b. Contract Change Proposals (CCP), Work Directive (WD);
    c. Change Orders (CO);

d. Requests for Information (RFI);

e. Submittals; and

f. Others as appropriate.

7. Project Record;
8. Construction facilities, controls, and construction aids;
9. Temporary utilities;
10. Security procedures;
11. Safety and first-aid procedures;
12. Environmental Health and Safety;
13. Housekeeping procedures;
14. AHJ representative(s) and inspection procedures;
15. Utility shutdowns;
16. Parking;
17. Existing conditions;
18. Subcontractor list;
19. Emergency phone and keys to site;
20. Progress meeting scheduling;
21. Shipment and deliveries; and
22. Other(s) as appropriate.

1.03 PROGRESS MEETINGS

A. Progress meetings will occur monthly.

B. Meeting Location: Contractor's Project field office, unless otherwise agreed.

C. Attendance: Representatives attending meetings must be qualified and authorized to act on behalf of their firms. Attendance shall include:

1. Architect/Engineer and Subconsultants, as appropriate;
2. Owner’s Designated Representatives;
3. Contractor's Superintendent and Project Manager;
4. Subcontractors, as appropriate;
5. Suppliers, as appropriate; and
6. Others, as appropriate.

D. Owner’s Designated Representative shall:

1. Administer progress and other specially scheduled meetings;

2. Record, reproduce, and distribute copies of minutes within 6 Days of meeting to all meeting participants; and

E. Contractor shall, at each meeting, provide each meeting attendant with:

1. Short-interval (look-ahead) schedule coordinated with the Progress Schedule;
2. Updated Progress Schedule, if appropriate;
3. Updated submittal log and schedules;
4. Updated RFI log;
5. Issues Log;
6. Quality Control Log; and
7. Any applicable tracking mechanisms.

F. Agenda for these meetings will include at a minimum:

1. Project safety;
2. Review and approval of minutes from previous meeting;
3. Review Work progress since previous meeting;
4. Review plans for progress for subsequent Work period and short-interval (look-ahead) schedule;
5. Review Progress Schedule;
6. Present corrective measures and procedures to regain Progress Schedule, as applicable;
7. Present field observations, problems, and conflicts;
8. Discuss RFIs;
9. Review quality control;
10. Review submittal log and schedules and present methods to expedite as required;
11. Review off-site fabrication;
12. Review delivery schedules;
13. Review coordination issues;
14. Review proposed changes for:
    a. Effect on Progress Schedule and on completion date.
    b. Effect on any other contracts of the Project.
15. Review Issues Log;

16. Review draft Application for Payment (at end of month);
17. Review Project Record; and
18. Review any other issues.

1.04 OTHER MEETINGS

A. Owner may call additional Project meetings as appropriate.

B. Meetings as required by other sections.

C. Format and agenda of these meetings will follow that of Progress Meetings unless Owner determines otherwise.

END OF SECTION 01 31 19

PART 1 GENERAL

1.01 GENERAL COMMUNICATION

A. Subcontractors: Informal communication between Owner, Owner's consultants, and other Subcontractors is permitted. If written clarification or direction is required to resolve questions, transmit questions in writing using a Request for Information (RFI) through the Contractor to Owner.

B. In case of an EMERGENCY, dial 9-1-1 if appropriate; otherwise, contact Owner's Designated Representative. If he or she is not available contact Facilities Services, Capital at 509-335-9000.

1.02 CORRESPONDENCE

A. Address all correspondence to Owner's Designated Representative.

B. Contractor shall copy Architect/Engineer on all correspondence to and from Owner.

C. Include Project title and Owner Project number on all correspondence.

1.03 REQUEST FOR INFORMATION

A. When field conditions or Contract Document require clarification, a written Request for Information (RFI) must be submitted per the following:

1. Identify the nature and location of each clarification/verification using a RFI form and provide at least the following information:
    a. Project name and number;
    b. Date;
    c. Date response requested;
    d. RFI number;
    e. Subject;
    f. Initiator of the question;
    g. Indication of costs;
    h. Indication of schedule impact;
    i. Location on site;
    j. Contract Drawing reference;
    k. Contract Specification section and paragraph reference;
    l. Descriptive text;
    m. Recommended solution(s); and

n. Space for reply on same page as questions.

B. Each RFI must be limited to a single issue, but shall reference other related RFI's.

C. Route and copy RFIs in same manner as correspondence.

D. Allow a minimum of 14 Days for Owner response to RFI.

1.04 NONCONFORMANCE REPORT

A. Reference Document: Owner Nonconformance Report (NCR).

B. Procedure: If Contractor proceeds to install deficient Work or fails to correct Work that in the opinion of Owner fails to conform to the Contract Documents, an NCR may be issued. Upon receipt of a NCR, Contractor shall take immediate action to correct nonconforming Work. Correction of nonconforming Work will be reviewed at progress meetings.

1.05 COORDINATION

A. Special Coordination: Contractor shall:

1. Maintain Owner's access into existing structure, unless working within the structure.

B. General Coordination: Contractor shall:

1. Coordinate with Work of other sections to ensure that all fixtures, devices, switches, outlets, ducts, pipes, and similar items can be installed as shown without modifications to framing. Provide all blockouts, raceways and similar framing, as required;

2. Coordinate the Work and not delegate responsibility for coordination to any Subcontractor. Contractor must make available to each Subcontractor, prior to the execution of each Subcontract, copies of the Contract Documents to which the Subcontractor will be bound. Subcontractor will similarly make copies of the Contract Documents available to their respective lower-tier Subcontractors. Contractor must provide Owner copies of the written agreements between Contractor and any Subcontractor upon request;

3. Anticipate interrelationship of all Subcontractors and their relationship with the total Work;

4. Resolve differences or disputes between Subcontractors and materials suppliers concerning coordination, interference, or extent of Work between sections;

5. Be in charge of and responsible for the Work and the Project site, including directing and scheduling all Work; and

6. Cooperate with Separate Contractors. Work by others may be occurring

within the building or at locations adjacent or near to the Project site. Contractor must cooperate with all such work.

C. Mechanical and Electrical Coordination: Contractor shall:

1. Resolve all “tight”, restricted, or inaccessible areas involving Work of various disciplines in advance of installation.
2. If necessary, and before Work proceeds in these areas, prepare coordination drawings for review showing all Work in “tight”, restricted, or inaccessible areas.
3. Provide coordination drawings necessary to resolve “tight”, restricted, or inaccessible areas, at no increase in Contract Sum.

D. Job Site Field Measurements and Templates: Contractor shall:

1. Obtain field measurements required for accurate fabrication and installation of Work. Exact measurements are Contractor’s responsibility.
2. Furnish or obtain templates, patterns, and setting instructions as required for installation of all Work. Contractor shall verify in field, as needed.

END OF SECTION 01 31 23

PART 1 GENERAL

1.01 SUMMARY

A. This Section specifies the administrative and procedural requirements to comply with the requirements of the General Conditions regarding preparation of Contractor's Progress Schedules, monthly update to the Progress Schedules, and other schedules as specified herein. The purposes of these schedules and reports are to:

1. Ensure adequate planning and execution of the Work by Contractor;
2. Establish a standard against which progress of the Work can be tracked;
3. Assist in monitoring progress;
4. Evaluate the impact of any changes to the Contract; and
5. Support the basis for progress payments.

B. All schedule submittals including updated Progress Schedules will be reviewed by Owner for compliance with Contract terms and the needs of the University. Review of any schedule does not constitute approval or acceptance of Contractor's construction means, methods, or sequencing, or an assessment by Owner of Contractor's ability to complete the Work within the Contract Time.

1.02 WORK INCLUDED

A. Contractor shall submit a preliminary Progress Schedule, as required by the Pre-Construction Submittal Requirements of Section 01 33 00.

B. Contractor shall prepare and submit Progress Schedules and reports as required by this Section. NOTE: Processing and payment of the second Application for Payment is contingent upon receipt, review, and subsequent acceptance of the updated Progress Schedule.

C. Contractor shall participate in monthly scheduling meetings and provide updated Progress Schedules as require by this Section.

D. Contractor shall perform Contemporaneous Period Analysis (CPA) of any delays associated with the critical path schedule as required by this Section.

E. Contractor shall provide weekly Short-Interval (look-ahead) schedules as required by this Section.

F. Contractor shall submit a Submittal Schedule as required by this Section.

1.03 PRELIMINARY PROGRESS SCHEDULE

A. Contractor shall submit a preliminary Progress Schedule as part of the Pre-

Construction Submittal Requirements in Section 01 33 00 - Submittals. The schedule shall include activity description, activity start and end dates. The schedule shall emphasize milestone dates and date of Substantial Completion. Schedule shall clearly identify the critical path schedule elements.

B. Progress Schedule shall be in Bar Chart format.

C. Schedule activities longer than 14 days shall be sufficiently detailed.

D. Participate in schedule update meetings and provide updated Progress Schedules.

1.04 CONTRACTOR'S PROGRESS SCHEDULE

A. Within three calendar days of receiving WSU comments on the preliminary Progress (Bar Chart) Schedule, the Contractor shall prepare and submit a detailed Progress (Bar Chart) Schedule. This schedule shall be the Contractor's as-planned schedule and shall be used to plan, organize, and execute the Work, record and report actual performance and progress through updates, as well as show how the Contractor plans to complete all remaining Work. The accepted Contractor's Progress (Bar Chart) Schedule and subsequent updates shall be the basis for consideration and analysis of requests for time extensions.

B. Updates:

1. The Contractor is required to prepare and submit an updated Progress (Bar Chart) Schedule as agreed upon at the Pre-construction Meeting.

2. The Contractor and Owner’s Designated Representative will review the updated schedule and will discuss any differences or issues raised. Decisions made and agreed to by all parties are binding. However, no contracted completion dates will be modified except by an approved Contract Change Proposal and subsequent Change Order.

3. Timely submission of updates is of significant and crucial importance to the management of this Project. Lack of or late receipt of updates diminishes their value to the Project. Therefore, at the Owner’s Designated Representative discretion, partial payment may be withheld for a late update as may be determined by the Owner’s Designated Representative in consideration of the value of the update at the time of receipt, the circumstances of the late submittal, and the level of progress achieved on the Project.

C. The Contractor shall submit the Progress Schedule, consisting of the reports and diagrams as specified by this subsection, in the following formats quantities:

1. Electronic PDF file of all reports, schedules, etc.

2. Native electronic copy of the CPM Progress Schedule.

D. Float: Contractor is not entitled to any adjustment in the Contract Time or the Contract Sum, or to any additional payment or equitable adjustment of any sort,

by reason of the loss or the use of any float time, including time between Contractor's anticipated completion date and the end of the Contract Time, whether or not the float time is described as such on the Progress Schedule.

E. Qualifications: Contractor shall submit the resume(s) of the person(s) designated as responsible for schedules and reports (the Contractor's scheduler) Prior to commencing construction activities. Contractor's scheduler shall have demonstrable capability to plan, coordinate, execute, and monitor a CPM schedule as required for this Project. Owner's Designated Representative will approve or disapprove the Contractor's proposed scheduler. In the event of disapproval, a new scheduler shall be proposed within 7 Days and be subject to the same consideration criteria as noted above.

1.05 MONTHLY UPDATES

A. Contractor shall prepare and submit updated Progress Schedules and participate in schedule update meetings with the Owner each month. Participation in the meeting and submission of the monthly update is a condition precedent for payment of the line item value for scheduling Work.

1. Updated monthly schedule submittals:
   a. A PDF electronic version of complete Project schedule showing the critical path accompanied by a narrative of any deviations from the previous month.
   b. Electronic schedule file in native format.
   c. Short-interval schedules or look-ahead schedules shall not be an acceptable submittal.

B. Contractor shall prepare an update of the current Progress Schedule each month to reflect Work progress achieved since the previous update. Progress updating shall be performed without changes to the schedule logic or the original duration of activities.

C. The Progress Schedule must clearly identify the current Substantial and Final Completion dates.

D. Contractor shall account for all adverse weather days and similar excusable noncompensable delays. By whatever method Contractor chooses to account for such delays and events, a narrative description and shall be included.

E. Monthly schedule update meetings:

1. Monthly schedule update meetings shall be held at Contractor's Project field office one week prior to the due date of Contractor's monthly Application for Payment, unless otherwise agreed.
2. The Contractor shall provide updated Project schedule submittals.
3. The Contractor shall also provide a narrative report including:
   a. A description of the Work accomplished during the preceding

period;

b. A discussion of the Work that had been scheduled to be performed during the previous period but was not, and explain why it was not performed; and

c. A discussion of the Work scheduled for the upcoming period noting any issues or events that could impact this Work. If Contractor intends to make logic or original activity duration changes, the report must specifically identify such changes.

4. Contractor, Owner, and Architect/Engineer will review these reports and will discuss any differences or issues raised. No contractual completion dates will be modified except by approved Change Order.

F. Timely submission of updates is of significant and crucial importance to the Project. Owner may withhold payment as per Section 01 29 00 Applications for Payment.

1.06 THE CONTEMPORANEOUS PERIOD ANALYSIS – NOT USED

1.07 SHORT-INTERVAL SCHEDULE

A. Prepare a weekly Short-Interval (look-ahead) Schedule based upon the Contractor's Work plan and the updated Progress Schedule.

B. Format for the Short-Interval (look-ahead) Schedule shall be acceptable to Owner. The format shall include comment annotation as necessary.

C. Content of the Short-Interval (look-ahead) Schedule shall include the Work planned for the next 3-week period and the Work that was performed in the previous week.

D. Copies of the Short-Interval (look-ahead) Schedule shall be provided at the weekly progress meetings to be used as a basis for discussion of progress and of planned Work.

1.08 SUBMITTAL SCHEDULE

A. Provide a Submittal Schedule within 10 Days of Owner’s Acceptance of the Project Schedule per Section 01 33 00 - Submittals.

PART 2 PRODUCTS

2.01 SCHEDULING SOFTWARE

A. Contractor shall utilize Microsoft Project unless otherwise agreed to by Owner.

B. Contractor shall provide a licensed and royalty pre-paid copy of the mutually agreed upon scheduling software. The selected software must be capable of performing target-to-current schedule comparisons, cost and resource loading

functions and have the option of executing calculations in retained logic. Activities must be able to process lead and lag time relationships, start-to-finish or finish-to-finish relationships, and be capable of being hammocked, if required. The software must be registered with Owner and be provided in a format compatible with Owner's systems.

END OF SECTION 01 32 13

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Preconstruction photography.

B. Construction photography of Work-in-progress.

1.02 GENERAL

A. Contractor shall provide photographs taken from locations coordinated with Owner.

B. Photographer: Experienced in taking construction photography.

C. Equipment: All photos shall be in digital format.

D. Video images may be acceptable for certain operations. Confirm with Owner.

PART 2 PRODUCTS

2.01 PRECONSTRUCTION PHOTOGRAPHS

A. Contractor shall provide electronic files containing photographs of the existing conditions at the site, surroundings, and haul routes per the Pre-Construction Submittal Requirements of Section 01 33 00. Coordinate with Owner the extent of the preconstruction photographic record that is required.

2.02 CONSTRUCTION PHOTOGRAPHS

A. Contractor shall provide electronic files containing photographs of construction progress on a monthly basis.

2.03 PHOTOGRAPHIC SUBMITTALS

A. Photographs shall be submitted each month during the Contract Time, or as otherwise agreed upon by Owner. The number of photographs shall be sufficient to document the site to the satisfaction of the Owner and Contractor.

B. Photographs shall be representative of Project progress, showing all major Work and any critical concealed conditions.

C. The files in each monthly photograph submittal must each be labeled with the Project name, Project number, and submittal date. Additionally, each photograph shall be dated, labeled, and accompanied by a brief description identifying the location and direction the photo was taken. Date stamp using month/date/year format.

PART 3 EXECUTION

3.01 PRECONSTRUCTION PHOTOGRAPHS

A. Coordinate the scope of preconstruction photographic record survey with Owner.

B. Take preconstruction photographs to identify and establish a baseline record of existing conditions.

C. A preconstruction photographic record survey shall include, but not be limited to, all areas that may be impacted or damaged by construction phase activities.

D. The extent or nature of the existing site and adjacent surroundings shall be thoroughly documented.

3.02 CONSTRUCTION PHOTOGRAPHS

A. Contractor shall take construction photographs each month during construction of the Project.

B. Contractor shall document concealed conditions (once exposed) that differ from expectations.

1. It is critical that Contractor photographically document concealed conditions that may benefit Owner's future maintenance and operations activities. Take photographs (with a reference point) prior to cover or concealment. For example:
    a. Underground pipe arrangements/valves/structures.
    b. Under-slab utility rough-in.
    c. Wall cavity utility routing.
    d. Above-ceiling installation after ceiling support system installed, but prior to cover.
2. The photograph record described above shall be considered minimum and shall not be deemed to limit the quantity or quality of the photographic record.

END OF SECTION 01 32 33

PART 1 GENERAL

1.01 SUMMARY

A. This section includes administrative and procedural requirements for submittals required for performance of the Work, including:

1. Pre-Construction Submittal Requirements;
2. Shop Drawings;
3. Product data;
4. Samples; and

1.02 SUBMITTAL PROCEDURES

A. Provide submittal schedule as required by Section 01 32 13 – Progress Schedule. The Submittal Schedule shall meet all of the requirements below.

B. Coordination: Review of the submittals by Owner is not for the purpose of determining their accuracy and/or completeness, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of Contractor as required by the Contract Documents.

1. Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are provided.
2. Allow at least 14 Days for review of each submittal by Owner. Complex or interrelated submittals, or the submission of multiple submittals at or near the same time, will require additional time. Provide a "priority list" when submitting multiple submittals at or near the same time. Submittal sequencing should coincide with the submittal schedule (see Section 01 32 13 – Progress Schedule).

C. Submittal Preparation: Place a permanent label or title block on each submittal for identification.

1. Include the following information on the label or title block:
    a. Project name, Project number, and date;
    b. Name and address of Owner;
    c. Name and address of Contractor and submitting Subcontractor, if applicable;
    d. Name and address of supplier and manufacturer, if applicable;
    e. Number and title of appropriate Specification section; and
    f. Drawing number and detail references, as appropriate.
2. Provide adequate space for action stamps to record review.

D. Submittal Transmittal: Package submittals in manageable quantities and transmit to Owner and Architect/Engineer, if applicable, simultaneously. Submittals received from sources other than Contractor will be returned without action. By submitting submittals, Contractor represents to Owner that Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements, and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within each submittal with the requirements of the Work and of the Contract Documents.

1. Address one topic or related set of topics in each transmittal based upon Specification sections (i.e., mechanical items should not be submitted under same transmittal with electrical items).
2. Clearly call out relevant information, deviations, and requests for data, including minor variations from the Contract Documents on both the transmittal and all copies of a submittal.
3. Shop drawings, product data, samples, and mock-ups shall be submitted to Owner's Designated Representative for review/approval. The minimum number of submittals to be provided are:
    a. Pre-Construction, Shop Drawings, Product Data: Electronic copies.
    b. Samples: As required by the technical Specification section.
    c. Demonstrations: As required to facilitate installation and inspection.
    d. Reference technical Specifications for additional submittal requirements.
4. Owner may modify the required submittal quantities.

E. Material and Color Submittal: Submit samples of actual colors and/or materials.

F. Number submittals by Specification section number and revision letter.

G. In the event of the need to "revise and resubmit" a submittal, resubmit same in acceptable form/content, clearly identifying deviations from the previous rejected submittal. Contractor shall also keep accurate records of the receipt, review, and delivery of all submittals and shall submit to Owner, as requested, status reports.

H. Provide a final electronic copy of all approved submittals.

1.03 PRE-CONSTRUCTION SUBMITTAL REQUIREMENTS

A. All Pre-Construction Submittals are required before onsite construction activities may commence. Contractor shall submit the following Pre-Construction Submittals within 20 days of Notice to Proceed. Submittal review for these items only shall be supplied within 5 days of receipt by Owner.

1. Site Safety and Health Plan (for information only)
2. Quality Control / Quality Assurance Plan
3. Waste Management Plan
4. Progress Schedule
5. Schedule of Values
6. Pre-Construction Photographs
7. Emergency Points of Contact
8. List of Subs and Suppliers

1.04 SHOP DRAWINGS

A. Submit Shop Drawings drawn to accurate scale. Do not reproduce Contract Documents or copy standard information for use as Shop Drawings. Standard information prepared without specific references to the Project will not be accepted as a Shop Drawing.

B. Shop Drawings Include: fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:

1. Dimensions;
2. Products and materials;
3. Compliance with specified standards;
4. Coordination requirements;
5. Notation of dimensions established by field measurements;
6. Any deviation from Drawings or Specifications; and
7. Date when review is requested to maintain Progress Schedule.

1.05 PRODUCT DATA

A. Product data includes: Manufacturer's printed installation instructions, catalog cuts, standard color charts, rough-in diagrams and templates, standard wiring diagrams, and performance curves.

1. Where product data must be specially prepared because standard printed data is not suitable, the submittal must be provided as a Shop Drawing.

B. Requirements: Mark each copy to show applicable options. Include the following information:

1. Manufacturer's printed recommendations;
2. Compliance with recognized trade-association standards;
3. Compliance with recognized testing-agency standards;

4. Application of testing-agency labels and seals;
5. Notation of dimensions verified by field measurement;
6. Notation of coordination requirements;
7. Any deviation from Drawings or Specifications; and
8. Date when review requested to maintain Progress Schedule.

1.06 SAMPLES AND MOCK-UPS

A. Submit samples and mock-ups that are identical to the material or product proposed. Samples include partial sections of components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.

1. Package samples to facilitate review. Include the following:
   a. Generic description of the sample;
   b. Source;
   c. Product name or name of manufacturer;
   d. Compliance with recognized standards;
   e. Availability and delivery time; and
   f. Specification section.

B. Requirements: Submit samples and mock-ups for review of kind, color, pattern, and texture for a comparison of these characteristics before actual installation.

1. Where variation in color, pattern, texture or other characteristics are inherent in the material, submit not less than four units to show limits of variation.

C. Submittals: Where samples are for selection of appearance from a range of standard choices, submit a full set of choices for the material or products.

D. Maintain sets of approved samples and mock-ups at the Project site for quality comparisons throughout the course of construction.

E. Demolish and remove all samples and mock-ups prior to Substantial Completion but not sooner than directed by Owner.

1.07 OWNER's ACTION

A. Review: Except for submittals for information or a similar purpose, Owner will review each submittal, mark to indicate action taken, and return promptly.

B. Owner approval of submittals does not supersede or alter Contract Document requirements.

END OF SECTION 01 33 00

PART 1 GENERAL

1.01 SUMMARY

A. This Section includes the administrative and procedural requirements for any general alterations to be performed during the Project, including but not limited to products, transition and adjustments, cutting, patching, and repair and cleaning.

1.02 SUBMITTALS

A. Contractor shall submit a written request in advance of cutting or alteration that impacts:

1. Structural integrity of any element of Project.
2. Integrity of weather-exposed or moisture-resistant elements.
3. Efficiency, maintenance, or safety of any operational elements.
4. Visual qualities of sight exposed elements.
5. Work of Owner or a separate contractor.

B. Contractor must include in its written request, when required:

1. Identification of Project.
2. Location and description of affected Work.
3. Necessity for cutting or alteration.
4. Description of proposed Work and products to be used.
5. Alternatives to cutting and patching.
6. Effect on Work of Owner or separate contractor.
7. Written permission of affected separate contractor.
8. Date and time Work will be executed.

1.03 QUALITY ASSURANCE

A. Limits of Work:

1. Contractor shall maintain existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, excluding window assemblies and nonstructural roofing material) not indicated to be removed; do not cut such existing conditions beyond indicated limits.
2. Contractor shall maintain existing interior nonstructural elements (interior walls, doors, floor coverings, and ceiling systems) not indicated to be removed; do not cut such existing conditions beyond indicated limits.
3. Contractor shall maintain existing nonshell, nonstructural components (walls, flooring, and ceilings) not indicated to be removed; do not cut such existing conditions beyond indicated limits.

B. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

C. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operating elements include the following:

1. Primary operational systems and equipment.
2. Communication systems.
3. Electrical wiring systems.
4. All low voltage systems.

D. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended that result in increased maintenance or decreased operational life or void of warranty, or could adversely affect safety. Miscellaneous elements include the following:

1. Water, moisture, or vapor barriers.
2. Firestopping or fire barriers.
3. Membranes and flashings.
4. Exterior curtain-wall construction.
5. Equipment supports.
6. Other miscellaneous systems as appropriate.

E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exterior conditions or in occupied spaces in a manner that would, in Owner's opinion, reduce the building's aesthetic qualities. Contractor shall remove and replace conditions that have been cut and patched in a visually unsatisfactory manner.

PART 2 PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK

A. New Materials: Match existing products and Work when patching and extending Work.

B. Type and Quality of Existing Products: Determine by inspection and testing products where necessary; refer to existing Work as a standard.

PART 3 EXECUTION

3.01 EXAMINATION

A. Contractor shall, before starting each portion of the Work, carefully study and

compare the various Contract Documents related to that portion of the Work, as well as other information available to Contractor, take field measurements, and inspect any existing conditions, including elements subject to damage or movement during cutting and patching.

B. After uncovering existing Work, inspect conditions affecting performance of Work.

C. By beginning any cutting or patching, Contractor represents and warrants its acceptance of existing conditions.

D. Contractor shall verify that demolition is complete and areas are ready for installation of new Work.

3.02 PREPARATION

A. Contractor shall cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.

B. Contractor shall remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, deteriorated masonry, concrete, and disturbed subgrade material. Replace materials as specified for finished Work.

C. Contractor shall remove debris and abandoned items from area and from concealed spaces.

D. Contractor shall prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.

E. Contractor shall close openings in exterior surfaces to protect existing Work. Contractor shall insulate ductwork and piping to prevent moisture and condensation in exposed areas.

F. Contractor shall provide temporary supports to ensure structural integrity of the Work. Provide devices and methods to protect Work from damage.

3.03 PERFORMANCE

A. Contractor shall coordinate alterations and renovations to expedite completion of the Work.

B. Remove, cut, and patch Work in a manner to minimize damage. Provide a means of restoring products and finishes to their original or specified condition.

C. Refinish remaining existing surfaces in renovated rooms and spaces, to specified condition for each material, with a neat and clean transition to adjacent finishes.

D. In addition to specified replacement of equipment and fixtures, restore existing plumbing, heating, ventilation, air conditioning, and electrical systems to full original operational condition.

E. Install products as specified in individual sections.

F. Remove samples of installed Work for testing when requested.

G. Provide openings in the Work for penetration of mechanical and electrical Work.

H. Cut rigid materials using the appropriate equipment and tool. Pneumatic tools not allowed without prior approval.

1. Concrete Walls: Saw-cut walls using accurately located straight lines, unless directed otherwise. Minimize overcuts.
2. Masonry Walls: Saw-cut along mortar joints, cutting block uniformly in accurately located straight lines, unless otherwise directed. Remove all mortar adhering to edges. Overcuts not allowed.
3. Wood Framed Walls: Demolish plaster or gypsum wallboard, removing wall framing only as required. Cut wall finish materials in straight uniform lines.
4. Concrete Floors: Saw-cut floors and remove. Core drill as required.

I. Restore Work with new products in accordance with requirements of Contract Documents.

J. Fit Work to existing pipes, sleeves, ducts, conduit, and other penetrations through surfaces, while maintaining assemblies.

K. At penetrations of fire rated walls, partitions, ceilings, or floors, completely seal voids with firestopping material to full thickness of the penetrated element, while maintaining assemblies.

L. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 35 16

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Requirements pertaining to regulatory requirements.

B. List of regulatory requirements.

1.02 CONTRACTOR RESPONSIBILITY

A. Contractor is solely responsible for compliance with all codes, laws, or regulatory requirements.

B. Inspections performed or not performed by Lincoln County, Labor and Industries, Owner, Owner Designated Representative, or others who are under contract to Owner do not waive or change Contractor's obligations, nor do such inspections constitute approval or acceptance of portions of the Work.

1.03 CONTRACTOR REQUIREMENTS

A. Contractor shall perform the Work in accordance with the requirements of governing agencies and applicable regulatory requirements, including those included in this Section and elsewhere in the Contract Documents. Contractor must comply with all applicable laws, building codes, regulations, and rules, including, when applicable, the Washington State University campus code.

B. Contractor shall schedule and coordinate inspections and gain approvals required by Lincoln County and other governing agencies in a timely manner and as required for Owner occupancy of the Project within the Contract Time.

C. Contractor shall inform Lincoln County Building and Fire Departments, Labor and Industries, and other governing agencies of changes in the Work affecting regulatory requirements in a timely manner.

D. Contractor shall promptly forward to Owner all inspection reports, orders, permits, and other directives and correspondence received from the Lincoln County inspectors or other governing agencies having jurisdiction over the Work.

E. Contractor shall promptly notify Owner when the Contract Documents appear to be in conflict with Regulatory Requirements.

F. Contractor shall, at all times, use its best efforts and exercise its judgment as an experienced contractor to adopt and implement policies and practices designed to avoid work stoppages, slowdowns, disputes, or strikes where reasonably possible and practical under the circumstances, and shall, at all times, maintain Project-wide labor harmony.

G. Contractor shall be responsible for having a licensed engineer complete structural plans for the building addition in accordance with building permit requirements.

1.04 REGULATORY REQUIREMENTS

A. Authority Having Jurisdiction (AHJ) shall be the organization, office, or individual responsible for enforcing the requirements of the applicable code(s) or standard(s), and or for approving equipment, materials, installation(s), or procedure(s).

B. Regulatory authorities establish minimum requirement levels. Where provisions of the Contract Documents and regulatory requirements differ or conflict, the more stringent requirement governs.

C. Regulatory requirements added by other sections of the Contract Documents or otherwise applicable are binding upon the Work in accordance with the provisions of this Section. The regulatory-requirements list provided below is intended to assist Contractor in determining the regulatory requirements for the Project, but neither the inclusion nor omission of any item from the list shall be construed to relieve Contractor of obligations that otherwise exist under the law or the Contract.

1.05 LIST OF REGULATORY REQUIREMENTS

A. International Building Code (IBC), current adopted edition.

B. International Fire Code (IFC), current adopted edition.

C. National Fire Protection Association (NFPA) Codes.

D. State of Washington, WAC-51-50-1101, Accessibility, as adopted by the State of Washington.

E. International Code Council (ICC)/American National Standards Institute (ANSI) A117.1 Accessible and Usable Buildings and Facilities, current adopted edition.

F. State of Washington, WAC Chapters 173, 246, and 296, as applicable.

G. U.S. Environmental Protection Agency 40 CFR, as applicable.

H. Washington State Ventilation and Indoor Air Quality Code, WAC 51-13.

1.06 PERMITS REQUIRED

A. Contractor shall obtain and pay for all required building permits, including any renewals. Contractor shall identify costs for permits on the Schedule of Values for permits obtained.

B. All trade permits (e.g. electrical, pressure vessel, elevator, etc.) must be included in each Subcontractor bid.

1.07 APPRENTICESHIP REQUIREMENTS – NOT USED

END OF SECTION 01 41 00

PART 1 GENERAL

1.01 SUMMARY

A. Conduct portions of the Work requiring special procedures due to hazardous materials and conditions in accordance with regulatory standards and guidance provided in this Section.

1.02 SUBMITTALS

A. Contractor shall deliver a current copy of its site specific Health and Safety Plan to the Owner per the Pre-Construction Submittal Requirements of Section 01 33 00. The submittal must include each Subcontractor's site specific Health and Safety Plan. Submittal to Owner is for information only, not for review, acceptance, or approval of the Health and Safety Plan, nor for analysis of content or completeness.

1.03 QUALIFICATIONS OF HEALTH AND SAFETY PERSONNEL

A. Contractor shall employ a competent person for each hazardous construction task in accordance with the requirements of WAC 296-155.

B. Contractor shall submit to Owner the names of its employees performing duties as competent persons, as well as the names of Subcontractor employees performing duties as competent persons.

1.04 HAZARDOUS MATERIALS MANAGEMENT

A. Dangerous Waste Management: Not Used

B. Hazardous Materials Spills and Releases:

1. Contractor and Subcontractor(s) shall immediately report all hazardous materials spills at the Project site to Owner. If a hazardous material spill occurs at a Project site in Whitman County, and if any individual may be affected by the spill, Contractor and/or Subcontractor(s) must immediately report the spill to Whitcom (emergency dispatch). In other counties, Contractor and Subcontractor(s) must report spills to the appropriate emergency response agency in that area.

2. Contractor shall be responsible for spill containment, cleanup, decontamination, post-cleanup monitoring, disposal of any wastes generated from cleanup activities, and generation of any reports required by regulatory agencies and/or regulations including, but not limited to, WAC 173-303 and WAC 173-340.

C. Spill Prevention Control and Countermeasures:

1. Owner's EH&S department is responsible for Owner's SPCC Plan. Any of Contractor's on-site activities involving the handling and/or storage of

materials meeting the definition of oil per 40 CFR 112 in containers and/or equipment with a capacity greater than 42 gallons must be included in the Owner's SPCC Plan. Contractor shall provide Owner's EH&S department with an inventory of this equipment or containers at least 14 Days prior to the equipment or containers being brought to the Project site.

2. Contractor shall provide and utilize secondary containment for containers and tanks of oil with a capacity greater than 42 gallons. Owner may waive this requirement in its sole discretion upon Contractor's request after Owner reviews Contractor's written explanation as to why secondary containment is unnecessary for a particular container or tank.

D. Asbestos:

1. All Contractor employees involved in excavation or demolition shall be asbestos awareness trained. Contractor shall submit to Owner the name of Contractor's competent trainer, the names of each of Contractor's trained personnel, and the date of each training. Contractor's submittal must also state that the training was conducted for asbestos awareness for the Work.

2. All asbestos abatement Work shall be performed by persons trained in Washington State-approved courses and certified by the State of Washington.

3. All asbestos abatement Work performed shall be overseen by a consultant hired by the Owner to ensure the Work meets regulatory standards and Owner requirements.

4. All asbestos cement pipe Work shall be performed by persons trained in an asbestos cement pipe procedures course whose content is reviewed and approved by the Washington State Department of Labor and Industries, per WAC 296-62-07722(3)(ii)(C).

5. If suspected asbestos-containing material is discovered during Contractor's execution of the Work, and abatement of the material is not a requirement of the Contract, Contractor shall suspend any Work that affects the material and immediately notify Owner. Contractor shall safeguard the area to prevent entry until certified personnel determine whether the material is non-asbestos containing or the material is abated, at which time the Work in that area may resume.

E. Lead:

1. Owner shall inform Contractor of lead-containing coatings and materials that the Contractor may encounter while performing the Work. These materials or coatings may release lead into the air, soil, or water, or may be a source of contamination due to skin contact. Owner shall provide general data about the percentage of lead content of each suspected lead-containing material or coating and/or provide Contractor with data showing the amount of lead per surface area.

2. Contractor is responsible for protecting its employees from lead exposure, as required by Washington law.

3. Contractor shall manage all paint chips, building components, soil, and/or other material considered by Owner to be dangerous waste according to the Dangerous Waste Management paragraph.

F. Polychlorinated Biphenyls:

1. Owner may survey oil-filled equipment prior to commencement of construction. This equipment includes, but is not limited to, transformers, electrical switches, hydraulic elevators, emergency generators, capacitors and light ballasts. Owner's survey shall usually determine if the equipment is filled with oil containing polychlorinated biphenyl (PCB). Owner shall remove, or arrange for the removal of, any equipment that contains oil in concentrations qualifying the equipment as dangerous waste per WAC 173-303.

2. If oil-filled equipment is discovered during Contractor's execution of the Work, Contractor shall suspend any Work that may affect the equipment and immediately notify Owner. Owner shall test the equipment and determine the appropriate management method for the equipment and the oil it contains.

G. Mercury:

1. Owner may survey all equipment suspected of containing mercury prior to commencement of construction. This equipment includes, but is not limited to, switches and thermostats. Owner's survey shall determine if the equipment contains mercury. Owner shall remove, or arrange for the removal of, any such equipment.

2. If mercury-containing equipment is discovered during Contractor's execution of the Work, Contractor shall suspend any Work that may affect the equipment and immediately notify Owner. Owner shall test the equipment and determine the appropriate management method for the equipment and the mercury it contains.

H. Hazardous Materials or Equipment:

1. Fixed equipment such as fume hoods, safety cabinets, and vacuum systems, and related ductwork, fans, and appurtenances, may contain or be contaminated with hazardous materials. Owner may test this equipment to determine what, if any, hazards are present. If equipment contains a hazard, or if the equipment itself is a dangerous waste, Owner shall inform Contractor of the nature of the hazard including any information necessary for Contractor to protect its workers. If the equipment is a dangerous waste, Contractor shall dispose of, or make arrangements for the disposal of, the equipment per the above Dangerous Waste Management paragraph.

I. Underground Storage Tanks (USTs):

1. Removal of USTs shall be performed in accordance with DOE regulations. Removal of existing USTs shall be performed by a DOE-certified UST removal company following the submittal of required forms. Copies of forms must be provided to Owner's EH&S department at the same time they are submitted to DOE.
2. Installation of any UST must be done by DOE-certified UST installers. The installation shall be permitted by DOE following the submittal of completed UST installation forms. Copies of forms must be provided to Owner at the same time they are submitted to DOE.
3. Retrofits and upgrades of existing USTs must be completed by DOE certified companies. Records of the retrofit or upgrade must be submitted to DOE following the retrofit or upgrade. Copies of such records must be provided to Owner at the same time they are submitted to DOE.
4. If a UST is discovered during Contractor's execution of the Work, Contractor shall suspend any Work that may affect the UST and immediately notify Owner. Owner will determine if UST must be sampled and/or removed. If necessary, Owner shall engage a certified company to remove UST.

J. Department of Homeland Security (DHS) Chemicals of Interest (COI)

1. Contractor and Subcontractors shall report any COI to Owner as required by the DHS. Contractor may contact Owner's Representative in conjunction with the University's EH&S Department for the specific means of reporting.

1.05 WATER AND STORMWATER POLLUTION PREVENTION:

A. Water Pollution:

1. Discharge of any pollutants (including sewage and chlorinated water from water line disinfection) into surface or ground waters of the Sate (including storm drains, ditches and any other water conveyances) is prohibited.
2. Contractor removal of snow, ice, soil, and mud from roadways and sidewalks shall be accomplished without polluting storm drains or surface waters. Mud and soil removal shall be undertaken on a full-time basis, not just once or twice a day. Soil or mud that is dropped onto streets and sidewalks by vehicles at the Project site shall immediately be cleaned by Contractor. Contractor may not use water to clean streets and sidewalks. Under no circumstances may dust mitigation cause soil erosion or pollution of surface waters.
3. If a discharge to surface or ground waters does occur, Contractor shall immediately notify Owner.

B. Stormwater Pollution Prevention Plan (SWPPP):

1. For projects that disturb a soil surface area of one acre or greater:

a. Contractor shall prepare a written SWPPP that meets DOE regulations and the requirements of Owner's Municipal Stormwater Permit.

b. Owner shall apply for a DOE NPDES Construction Stormwater General Permit for stormwater discharge, and then transfer the permit to Contractor. Contractor shall comply with all provisions of the permit.

c. Contractor shall maintain a copy of the NPDES permit and the SWPPP on-site at all times.

d. Contractor shall maintain on-site or on call, at all times, a Certified Erosion and Sediment Control Lead (CESCL).

e. Contractor's SWPPP shall identify all management practices used to prevent stormwater pollution and the location(s) at which each practice will be utilized on the Project site.

f. Contractor shall obtain approval from Owner of the SWPPP prior to groundbreaking. Contractor shall construct approved BMP's and the site inspected and approved, per permit requirements, prior to groundbreaking.

g. Contractor shall use best management practices (BMPs) and shall inspect BMPs at least once a week. In addition, Contractor shall inspect BMPs immediately following each rainfall event of 0.1 inches or greater.

h. Contractor shall maintain a written log detailing the results of inspections beginning with the first day of construction. Contractor's written log shall describe all erosion control activities resulting from inspections. In addition, the following dates and events shall be included in the written log:

1) The beginning and completion of major grading activities.

2) Rainfall events of 0.1 inches or greater.

3) When construction activities temporarily or permanently cease on-site, or on a portion of the site.

4) When stabilization measures are initiated for portions of the site.

5) Stormwater sampling results.

i. Contractor shall maintain and/or repair all BMPs as necessary to ensure continued performance of their intended function. Contractor's maintenance and repair activities shall include, but are not limited to:

1) Removal of sediment from silt fences before it reaches approximately one third the height of the fence, especially if heavy rains are expected; and

2) Cleaning or removal and replacement of drain inlet protection devices at least once every 7 Days, and once daily during storm events or before 6 inches of sediment can accumulate.

j. Contractor shall remove all temporary erosion and sedimentation control measure from the Project site within 30 Days after final site stabilization is achieved, or after the temporary BMPs are no longer necessary. Contractor shall remove any trapped sediment from the Project site. Contractor shall permanently stabilize any areas of soil disturbed by sediment removal.

k. In addition to sediment control, Contractor shall prevent other pollutant discharges from contaminating stormwater, groundwater, or soils.

1) Any maintenance or repair of heavy equipment and vehicles involving oil changes, hydraulic system draining and removal, solvent and degreasing cleaning operations, fuel tank draining and removal, and other activities that may result in discharge or spillage of pollutants to the ground or into stormwater runoff must be conducted using spill prevention measures, such as drip pans. Contractor shall immediately clean any contaminated surfaces following any discharge or spill incident. Emergency repairs may be performed on-site using temporary plastic placed beneath and, if raining, over the vehicle.

2) Wheel wash or tire bath wastewater shall be discharged to a separate on-site treatment system.

3) Application of agricultural chemicals including fertilizers and pesticides shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Manufacturers' recommendations for application rates and procedures shall be followed.

4) Use of lime, flyash, or other soil amendments that could alter the pH of discharge waters is prohibited.

5) Highly turbid or contaminated dewatering water from construction equipment operation shall be handled separately from stormwater. Management options include infiltration, transportation off-site for legal disposal, or use of a sedimentation bag with outfall to a ditch or swale for small volumes of localized dewatering.

l. Contractor shall provide to Owner all notifications/reports required by permit to DOE.

1) If stormwater sampling results show turbidity greater than or equal to 250 NTU, Contractor shall immediately report to DOE and shall notify Owner of the report.

2) Contractor shall file monthly Discharge Monitoring Reports (DMR's) with DOE as required. Contractor shall provide copies of all DMR's to Owner.

2. For projects that disturb a soil surface area of 5,000 square feet or greater, but less than one acre, provisions shall be made to meet applicable local regulations, as necessary.

a. Contractor shall make provisions for inspection and approval by the local authority prior to groundbreaking.

3. For projects that create additional impervious surfaces, provisions shall be made to meet stormwater flow control and treatment requirements, as applicable.

C. Wetlands:

1. Contractor must follow all Federal, State and local regulations including but not limited to WAC 173-201 regarding protection of wetlands.

1.06 AIR POLLUTION – NOT USED

1.07 PUBLIC HEALTH

A. Solid Waste Disposal:

1. Contractor shall legally dispose of or recycle all solid waste at an off-site location. Contractor shall not burn, dump, or bury waste materials, debris, or rubbish on Owner property. Contractor shall clean the Project site at the end of each work shift. Contractor is liable for any and all damage resulting from improper waste handling and disposal (see Section 07 74 19 - Construction Waste Management).

B. Environmental Noise:

1. Per WAC 173-60, and applicable local requirements, Contractor shall not exceed maximum permissible environmental noise levels for the duration of the Work.

C. General Sanitation:

1. Per WAC 246-203, Contractor shall supply adequate water for drinking and hand washing purposes. The use of common drinking cups or towels is prohibited. For hand washing purposes, Contractor shall supply hot running water, soap, disposable towels, and a waste receptacle.

D. Drinking Water Protection:

1. Per WAC 246-290 and 246-291, Contractor shall protect all public water supplies. No portion of a public water system containing potable water shall be put into service nor shall service be resumed until the facility has been effectively disinfected and a satisfactory bacteriological sample has been obtained from a DOE-certified laboratory. Results of sampling shall be sent to Owner. The procedure used for disinfection shall conform to current standards of the American Water Works Association.

2. A minimum sanitary control area around all wells shall be maintained at all times. The sanitary control area shall extend at least 100 feet from any well. No source of contamination may be constructed, stored, disposed or applied within the sanitary control area.

3. If wells are being constructed or abandoned, Owner shall procure the appropriate water rights and construction permits per WAC 173-160. Owner shall provide copies of these documents to Contractor. Wells shall be constructed/abandoned properly by a licensed well driller. Contractor shall submit a plan to Owner detailing how all disinfection shall be accomplished.

4. Backflow Prevention:

   a. Any connection made by Contractor to Owner's drinking water system, including connection to a fire hydrant, must be made through a backflow prevention assembly approved by a Washington State certified cross connection control specialist (CCS) engaged by Owner and inspected and tested by a Washington State certified backflow assembly tester (BAT).

   b. Contractor shall label all non-potable water outlets, in a manner acceptable to the Owner, "Non-potable Water / Do Not Drink".

E. Vector Control:

1. Buildings shall be constructed so as to minimize the attraction and/or harborage of pests and vectors such as birds and rodents. Minimize bird roosting areas by not constructing exposed pipes, beams, or flat ledges on openings, especially underneath covered areas directly accessible to the outside. Openings 1/4-inch or larger shall be sealed. Leave a minimum of a 3-foot swath around the building that is bare. Do not plant trees, shrubs and grass immediately adjacent to building.

2. The presence of standing water shall be minimized or eliminated to prevent mosquito breeding.

F. On-Site Sewage Disposal: Not Used

G. Water Recreation Facilities: Not Used

H. Food Service Facilities: Not Used

1.08 OCCUPATIONAL HAZARD MANAGEMENT

A. Chemical Hazard Communication:

1. If any hazardous chemicals will be used in the Work or present at the Project site, copies of applicable Material Safety Data Sheets (MSDS) shall be made immediately available to Owner prior to use by Contractor and during any use of the hazardous chemicals in the Work.

2. If the use or presence of hazardous chemicals at the Project site may affect the health of individuals outside the Project site, Contractor shall submit a written plan to Owner at least 30 Days prior to such use or presence detailing how Owner can avoid exposure to the products. Contractor shall submit MSDS / SDS to Owner for any hazardous chemical to which persons outside the project site may be exposed. The exposure avoidance plan shall also specify actions that should be taken if inadvertent exposure occurs. Owner shall provide Contractor with a written plan detailing how Contractor employees can avoid exposure to hazardous chemicals used by Owner that may impact the Project site, and shall specify actions which should be taken if inadvertent exposure occurs. Owner shall submit MSDS / SDS to Contractor for any hazardous chemical to which persons inside the project site may be exposed.

B. Lock-Out/Tag-Out:

1. When Owner and Contractor are to be engaged in coordinated activities requiring the control of hazardous energy, Owner and Contractor shall inform each other of their respective lock-out or tag-out procedures.

C. Confined Space:

1. When Contractor employees are to enter permit-required confined spaces, Owner shall:

a. Inform Contractor that the Project site contains permit required spaces and that permit-space entry is allowed only through compliance with a confined-space program meeting WAC 296-809.

b. Inform Contractor of hazards that have been identified.

c. Coordinate entry operations with Contractor when both Owner and Contractor personnel will be working in or near permit spaces.

d. Debrief Contractor at the conclusion of the entry operations regarding any hazards confronted or created in permit spaces during entry operations.

END OF SECTION 01 41 19

PART 1 GENERAL

1.01 SUMMARY

A. Contractor shall perform all Work in a skillful and workmanlike manner. Materials and equipment furnished by Contract and any Subcontractor(s) must be of good quality and new unless the Contract Documents require or permit otherwise. Materials shall conform to the manufacturer's standards in effect at the date of execution of the Contractor and shall be installed in accordance with the manufacturer's instructions, specifications, and directions. Contractor shall, if requested by Owner, furnish satisfactory evidence regarding the kind and quality of any materials identifying thereon the source, and warranting their quality and compliance with the Contract Documents.

B. Section includes:

1. Contractor's Quality Control Program;
2. Field samples;
3. Mock-ups;
4. Manufacturer's instructions;
5. Manufacturer's field services;
6. Testing laboratory services; and
7. Contractor tests and inspections.

1.02 QUALITY CONTROL PROGRAM SUBMITTALS

A. Contractor shall submit a written Quality Control Program for the Project per the Pre-Construction Submittal Requirements of Section 01 33 00. This submittal shall include but not be limited to the following:

1. An overview of Contractor's Quality Control Program.
2. Identification and resume of Contractor's on-site Quality Control Manager (QCM) .
3. A description of the activities, record keeping, and correspondence that the QCM will perform and be accountable for throughout the duration of the Project.
4. A description of the quality control meetings to be conducted, sample inspection check lists (i.e., samples of actual inspection check list forms that will be submitted to Owner when scheduling inspections), and Subcontractors' quality control representatives. All forms that Contractor intends to use in its Quality Control Program shall be part of the submittal.
5. A description of the QCM activities when inspections fail to verify compliance with the Contract Documents.
    a. These activities are to include, as a minimum, follow-up with

applicable Subcontractors, correction and/or completion of Work required for re-inspection, and the re-inspection.

b. Contractor shall submit its weekly Non-Compliance Logs at least 2 Days prior to each Progress Meeting.

6. A description of the QCM activities to provide the required notifications for inspections.

7. A description of record keeping and information turn-over to Owner as a component of the Operating and Maintenance data (i.e. factory representative's start-up reports and permission to energize, verification of correct voltage and phasing to motors, etc.).

8. Contractor will submit a daily report within 3-business days for any day work is performed. The daily report should include the following information; the list may be adjusted or relaxed with Owners Representative approval depending on size and scope of the project requirements:
   a. progress photo's,
   b. list of contractor's and work-force #'s for each contractor,
   c. RFI's or questions,
   d. equipment quantities in use or idle,
   e. weather (if work is being performed outside),
   f. construction delays or likely delays,
   g. 3rd part inspections or county visits,
   h. safety issues,
   i. meetings conducted,
   j. substantive material deliveries, and
   k. any other relevant facts occurring on the site.

1.03 CONTRACTOR'S QUALITY CONTROL PROGRAM

A. Contractor shall establish and maintain a written Quality Control Program which shall be issued by Contractor to Subcontractors performing Work on the Project and utilized to verify that the execution of the Work is consistent with the requirements of the Contract Documents.

B. The Quality Control Program shall include, but not be limited to the following:

1. Preparatory Phase:

   a. Prior to beginning Work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. Contractor shall:

   b. Review of each paragraph of applicable specifications, reference codes, and standards. Make a copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field at the preparatory inspection. Maintain these copies in the field, available for use by Owner's Designated Representative until final acceptance of the work.

c. Review the Drawings.

d. Check to assure that all materials and/or equipment have been tested, submitted, and approved.

e. Review provisions that have been made to provide required control inspection and testing.

f. Examine the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

g. Perform a physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

h. Review appropriate accident safety procedures.

i. Discuss procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

j. Check to ensure that the portion of the plan for the work to be performed has been accepted by the Owner's Designated Representative.

k. Schedule, manage and record the minutes of each preparatory meeting.

l. Review all RFIs associated with the Work.

2. Initial Phase:

a. At the beginning of the Work, Contractor shall:

b. Check work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.

c. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing. Resolve all differences and deficiencies.

d. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

e. Check safety to include compliance with and upgrading of the Safety Plan. Review with each worker. Particular attention should be given to high hazard work.

f. Prepare and attach to the daily CQC report separate minutes of this phase.

g. Repeat the initial phase any time acceptable specified quality standards are not being met.

3. Follow Up Phase:

a. Perform daily checks to assure control activities, including control testing, are providing continued compliance with contract

requirements, until completion of the Work. The checks shall be made a matter of record in the QC documentation. Conduct final follow-up checks and correct deficiencies prior to the start of additional features of work which may be affected by the deficient work. Do not build upon nor conceal non-conforming work.

C. Contractor's Quality Control Program shall be independent of any inspections and testing performed by Owner or by any independent testing and inspection agencies hired by Owner.

D. Within the Quality Control Program, Contractor shall have available on the jobsite at all times a written report of quality control activities. At a minimum, the report shall note Project site quality control inspections, performance of scheduled tests and follow-up testing, other required inspections, deficiency log, and examinations of workmanship and quality.

E. Test results shall identify applicable Contract (including Specification) requirements, the test or analysis procedures used, and the actual test results. A statement shall be included that the item tested or analyzed conforms or fails to conform to the Contract Documents. Each report shall be conspicuously stamped on the cover sheet "CONFORMS" or "DOES NOT CONFORM" as the case may be. All test reports shall be signed by a testing laboratory representative authorized to sign certified test reports. Copies of all test reports shall be available on the jobsite at all times.

F. If the Quality Control Program is found to be defective and Contractor does not promptly correct the deficiency, Owner may:

1. Withhold payment until satisfactory corrective action has been taken, or
2. Issue a stop work order until satisfactory corrective action has been taken.

G. Pre-Inspections: Contractor shall pre-inspect Work that requires normal, special, and additional inspections as indicated in the Contract Documents.

1.04 FIELD SAMPLES

A. Field samples are defined as the partial installation of selected materials at the Project site for Owner's review and acceptance of visual features and workmanship. Generally, accepted field samples are incorporated into the Work.

B. Contractor shall provide field samples as required by the Contract Documents at location acceptable to Owner.

C. Perform Work in accordance with the Contract Documents.

D. Approved samples will serve as an acceptable standard of quality and workmanship.

E. Maintain samples until completion of relevant Work.

F. Upon completion of relevant Work or when directed by Owner, demolish and remove samples from Project site unless sample is accepted as part of completed Work.

1.05 MOCK-UPS – NOT USED

1.06 MANUFACTURERS' INSTRUCTIONS – NOT USED

1.07 MANUFACTURERS' FIELD SERVICES – NOT USED

1.08 TESTING LABORATORY SERVICES

A. Owner will arrange for services of an independent Testing Laboratory to inspect and test the Work to verify compliance with Contract Documents.

B. Contractor's Responsibilities:

1. Cooperate with Testing Laboratory personnel, and furnish access, tools, samples, certifications, test reports, design mixes, equipment, storage, and assistance as requested by the Testing Laboratory.
2. Notify Owner and Testing Laboratory a minimum of 7 Days in advance of all required tests and 48 hours in advance of all required inspections. When tests or inspections cannot be performed, through fault of Contractor, Contractor shall reimburse Owner for costs incurred by Owner.
3. Contractor shall remove and replace Work found to not comply with Contract Documents.
4. If initial tests and inspections indicate deficient work, Contractor shall reimburse Owner for costs of all subsequent tests and inspections related to such deficiency.
5. All damage to Work as a result of normal testing operations shall be repaired by Contractor to match surrounding surfaces.
6. Schedule testing and inspection so that work of testing and inspection personnel will be as continuous and brief as possible.
7. Contractor shall reimburse Owner for travel and lodging expenses incurred for testing and inspection services performed outside a radius of 100 miles of the Project site.

1.09 CONTRACTOR TESTS AND INSPECTIONS

A. Inspection and testing performed exclusively for Contractor's convenience shall be the Contractor's sole responsibility.

B. Earthwork Compaction Testing Requirements:

1. Owner will engage the services of a Testing Laboratory to perform all soil and structural fill compaction testing. Compactions of any fill material

shall be equal to or exceed the specified percentage of maximum dry density as defined by ASTM test procedure D1557 (modified proctor). Obtaining such specified compaction performance is the sole responsibility of Contractor.

2. During any of Contractor's operations, Owner reserves the right to perform compaction tests for its own information only. At Owner's discretion, copies of such tests may be made available to Contractor. The taking of any such tests by Owner in no way relieves Contractor from testing to assure itself of compliance with the Contract Documents.

C. Approved Structural Steel Fabricators:

1. Contractor shall pay for any required structural steel fabrication special inspections.

D. Cast-in-Place Concrete Strength Testing Requirements:

1. Concrete test cylinders will be made by Owner or Owner's Testing Laboratory. Contractor shall be responsible for proper care of cast cylinders while on the Project site (with respect to temperature, humidity and protection).
2. Contractor is also responsible for timely transportation to the laboratory in Spokane (or closer) on a schedule that will permit adequate laboratory curing before testing.
3. Contractor shall notify the Owner at least 48 hours before any concrete pour to allow time for observation.
4. Frequency and location of tests are to be determined. As a minimum, four test cylinders will be made for each day's pour or for every hundred cubic yards, whichever is greater.
5. The results of Owner's tests will be made available to Contractor.
6. The quality of all concrete is to be the sole responsibility of Contractor. If Contractor feels that additional testing is required to assure continued quality control, the frequency, testing, and payment therefore is Contractor's responsibility.

E. All Other Work Inspection and Testing Requirements:

1. Contractor shall, at no additional cost to Owner, provide all inspections and tests required to assure full compliance with the Contract Documents. Unless specifically required, Contractor is not required to submit copies of such test results to Owner. Contractor, however, shall maintain copies of all testing and inspection reports at the Project site for inspection and copying by Owner.
2. The performance of testing or inspection by Owner or Owner's Testing Laboratory does not relieve Contractor from responsibility for meeting all requirements of the Contract Documents.

END OF SECTION 01 45 00

PART 1 GENERAL

1.01 SUMMARY

A. General: Owner will select and employ an independent testing agency, engineering service, or a special inspector to conduct the tests and inspections to be provided by Owner. Inspections that are normally associated with obtaining State approval (e.g., electrical work as specified in Division 26, etc.) shall be provided and paid for by Contractor. Contractor shall comply with all applicable building codes and provide all testing services required by the Contract Documents unless specifically identified as Owner's responsibility.

B. Owner's testing agency shall prepare test reports, logs and certificates applicable to the Work for which Owner will provide testing and shall deliver the specified number of copies to the designated parties. If any inspection or testing reveals failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for Owner's services and expenses, shall be at Contractor's expense.

1.02 DESCRIPTION

A. Definition: For the purpose of this Section, all references made herein to testing laboratory, testing agency, or special inspector shall refer to as the tests or inspections conducted by a special inspector provided by Owner.

1.03 QUALITY ASSURANCE

A. Qualifications: Contractor's inspection personnel must be approved by Owner and possess certain qualifications as stated in this Section. The testing agency shall comply with all requirements of ASTM E329.

1. The inspector for waterproofing and roofing shall have specialized technical knowledge and experience specific to waterproofing and roofing.
2. The testing agency for concrete testing and inspection services should be an agency other than the agency employed by Contractor for the purpose of establishing concrete mix designs, etc.

1.04 DUTIES OF OWNER'S TESTING AGENCY

A. General: Testing agencies shall conduct testing and inspection services, interpret them, evaluate the results for compliance with the Contract Documents, and report the findings to the Owner, Contractor, and local building authority, as applicable. Testing and inspection services shall be performed in accordance with applicable ASTM standard methods or other specified procedures.

B. Testing: Materials to be tested are those so specified and others as Owner or authorities having jurisdiction over the Project may direct.

C. Inspection: Inspections, continuous and special, shall be performed by the inspectors as required by the Contract Documents and authorities having jurisdiction.

D. Rejected Work: Inspectors shall have the right to recommend rejection of materials and workmanship that is defective. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the Project site without charge to Owner. If Contractor does not correct rejected work within a reasonable time, Owner may elect to correct the work and charge the expense to Contractor.

E. Inspectors are not authorized to do the following:

1. Release, revoke, waive, alter, or enlarge on requirements of the Contract Documents;
2. Approve or accept any portion of the Work, except as specified for soil conditions (i.e. bearing capacities, etc.);
3. Perform any duties of Contractor; or
4. Stop Work.

F. Should the Owner elect at any time before Final Acceptance to make an examination of Work already completed by removing or tearing out the same, Contractor shall on request promptly furnish all necessary facilities, labor, and material. If such Work is found to be defective in any respect, Contractor shall be responsible for the cost of such examinations and of satisfactory reconstruction. If such Work is found to meet the requirements of the Contract, however, Owner shall be responsible for the cost of such examinations and of satisfactory reconstruction.

1.05 PAYMENTS

A. Owner shall pay for the cost of initial testing and inspection, except as otherwise specified in the Contract Documents. Initial tests and inspections are defined as the first tests and inspections as hereinafter specified.

B. In the event any test or inspection reveals Work not in compliance with the Contract Documents, Contractor shall pay for or be backcharged for all costs of re-testing and/or re-inspection.

C. Additional tests and inspections not herein specified but requested by Owner shall be paid for by Owner, unless the results of such tests or inspections reveal Work not in compliance with the Contract Documents, in which case Contractor shall pay for or be backcharged for all costs of testing, re-testing, re-inspection, and any related Owner costs.

D. Costs for additional tests or inspections required because of any change in materials or change in the source of supply from that specified shall be paid by or

backcharged to Contractor.

E. Contractor is responsible for all work required to correct any deficiencies.

F. Contractor is responsible for the cost of any testing required for the convenience of Contractor in the scheduling and performance of the Work.

G. Contractor is responsible for the cost to verify testing done without prior notice, with improper supervision, or contrary to construction practice, and for testing of materials for which mill reports are required but not furnished.

H. Contractor is responsible for the cost of any testing that is required to be performed by Contractor by the Contract Documents.

1.06 TESTS AND INSPECTION REPORTS

A. Copies of Test and Inspection Reports: Copies of test and inspection reports will be distributed at weekly intervals. Such reports shall include all tests performed, regardless of whether such tests indicate that material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations shall also be reported. Test and inspection reports shall be distributed electronically as requested by Owner.

B. Test and inspection reports shall be distributed as follows:

1. Architect/Engineer;
2. Owner; and
3. Contractor.

1.07 CONTRACTOR'S RESPONSIBILITIES

A. Coordination: Contractor shall initiate and coordinate all required tests and inspections, including conforming with requirements of applicable public agencies and authorities. Inspection of the Work does not relieve Contractor of any obligation under the Contract. The Owner's Designated Representative shall have authority to reject Work that is not in compliance with the Contract Documents.

B. Access: Inspectors shall at all times have free access to the Work, wherever the Work is in preparation. Contractor shall at all times provide and maintain proper facilities and safe access for such inspection. Contractor shall also cooperate with testing personnel and furnish access, tools, samples, certifications, test reports, design mixes, equipment, storage, and requested assistance.

C. Storage Facilities: Contractor shall furnish adequate storage facilities for the sole use of the testing laboratory for safe storage of specimens that must remain on the site.

D. Data: Furnish records, drawings, certificates and similar data, including Shop

Drawings and Change Orders, as may be required by the testing and inspection personnel to confirm compliance with the Contract Documents.

E. Notice: Contractor shall furnish notice to Owner and inspector at least 48 hours in advance of all required tests and inspections, unless otherwise specified.

F. Defective Work: Contractor shall remove and replace any Work found defective by Owner or not complying with the Contract Documents at no additional cost or Contract Time. Where testing personnel take cores or cut-outs to verify compliance, repair prior to acceptance. Where defective Work requires redesign, any redesign costs shall be paid for by Contractor.

G. Cancellations: Contractor shall give sufficient advance notice to the inspector to allow in the event of any cancellation or rescheduling of a previously scheduled test or inspection. Any charges due to insufficient advance notice of cancellations or delay shall be paid by or backcharged to Contractor.

1.08 TEST FAILURES

A. Where a sample fails to pass a required test, Owner may permit re-testing of the sampled material. In such cases, two samples shall be tested and the material shall be rejected if either of the two subsequent samples fail.

1.09 REPORTING TEST FAILURES

A. Immediately upon inspector’s determination of a test failure, inspector shall notify Owner. On the same day, inspector shall send written test results to those named on the distribution list above.

1.10 REMOVAL OF MATERIALS

A. Unless otherwise directed, materials not conforming to the requirements of the Contract Documents shall be promptly removed from the Project site and properly disposed of without additional expense to Owner.

END OF SECTION 01 45 23

PART 1 GENERAL

1.01 SUMMARY

A. Contractor shall be evaluated on performance throughout the course of the contract to provide past performance documentation for future projects.

B. Section includes:

1. Program Objectives;
2. Performance Categories and Assessment;
3. Evaluation Reports;
4. Notice, Review and Appeal.

1.02 PROGRAM OBJECTIVES

A. The Contract Performance Evaluation Program is intended to improve contractor selection given the following primary objectives:

1. Assist the Owner in evaluating the contractor's qualifications and proven ability to successfully perform future contracts when past performance has been previously documented;
2. Provide the University objective data relating to Contractor responsibility;
3. Provide contractors with a means of enhancing their qualifications and reputation by receiving recognition for exceptional performance;
4. Encourage better working relationships between the University and the Contractor and to provide feedback to the contractor during and after the contract period;

1.03 PERFORMANCE CATEGORIES AND ASSESSMENT

A. Contractor shall be evaluated based upon the following categories:

1. Schedule and Time Management;
2. Quality Management;
3. Communication Effectiveness;
4. Management Approach;
5. Code and Compliance; and
6. Cost.

B. Each of the above categories will be assessed by multiple key project stakeholders and provided one of the following performance levels based upon objective and cumulative data:

1. Outstanding (5): Contractor has exceeded the majority of all of the significant contract criteria and has met or exceeded the Schedule, Quality, Communications, Management, Code Compliance and Cost requirements of the contract. The contractor was extremely or completely knowledgeable of the contract requirements and applicable laws and regulations. A very consistent high level of cooperation, project management, and job site control appreciably contributed to an unusually good result.
2. Very Good (4): Contractor has exceeded many of the significant contract criteria and has met or exceeded some of the Schedule, Quality, Communications, Management, Code Compliance, and Cost requirements of the contract. The contractor was knowledgeable of the contract requirements and applicable laws and regulations. Was generally cooperative and performed their work with minimal prompting. Their performance results were very good.
3. Satisfactory (3): Contractor has satisfactorily met the overall contract criteria and has met the overall Schedule, Quality, Communications, Code Compliance and Cost requirement of the contract. The contractor occasionally had to be prompted or reminded of the contract requirements, but overall the project was acceptable, producing an acceptable result.
4. Marginal (2): Contractor may have met many, but not all, of the contract criteria and failed to meet one or more of the Schedule, Quality, Communications, Code Compliance or Cost performance requirements of the contract. Even though the project may have been accepted, the contractor's performance, as evaluated, was marginal overall. The contractor frequently had to be prompted or reminded of the contract requirements; overall the project was less than satisfactory.
5. Unsatisfactory (1): Contractor failed to meet many or most of the contract criteria and failed to meet the overall Schedule, Quality, Communications, Code Compliance and Cost performance requirements of the contract. While the project may have been accepted by the owner, the effort expended in prompting the contractor to perform was excessive. The contractor's poor or uncooperative performance created serious unnecessary and avoidable difficulties in achieving contract completion.

1.04 EVALUATION REPORTS

A. At the midpoint of project completion, Owner shall provide contractor with a draft Contract Evaluation Report based upon the current performance during the contract. This shall provide the Contractor an opportunity improve performance levels during the contract, and provide an opportunity for Contractor-Owner communication and working relationship.

B. A final Contract Performance Evaluation Report will be completed upon contract completion and shall become the official report of record.

1. A Summary Contract Performance Evaluation will be provided to the Contractor within 30 calendar days after Final Completion.
2. Final Contract Performance Evaluation Reports will remain on record for a minimum of 5 years from date issued.

C. Upon receipt of the Summary Contract Performance Evaluation, Contractor shall review the report and may request a debrief conference within 21 calendar days of receipt.

D. If after the debrief, Contractor would like to dispute the evaluation findings the Contractor shall submit in writing, the specific reasons for disagreement and include the basis for their appeal within 14 calendar days following the debrief.

1. Upon receipt of appeal, Owner shall convene a review with the Assistant Vice President, Facilities Services, Capital to consider the objectivity, accuracy, completeness and fairness of the Contract Performance Evaluation.
2. The Contractor shall be notified and issued a final determination within 30 calendar days of receipt of the appeal.

END OF SECTION 01 45 34

PART 1 GENERAL

1.01 TEMPORARY UTILITIES

A. Owner may furnish to Contractor temporary Owner-owned utilities when available and upon Owner written approval. Owner reserves the right to restrict the use of its utilities if, in its opinion, Contractor fails to adequately conserve utilities or to use utilities appropriately.

B. If Owner-owned utilities are not available at the Project site, or if Owner restricts use of Owner-owned utilities, Contractor shall obtain required services from commercial sources or public utilities, and Contractor is responsible to pay for all utility costs.

C. Contractor shall field verify the availability of utility services provided by Owner and coordinate the Work accordingly.

D. In remodeling projects where portions of the building are to remain in service, Contractor shall be responsible for coordinating the Work to maintain utility services to the occupied portions of the building.

1.02 TEMPORARY ELECTRICAL SERVICE

A. Contractor shall provide all services required for construction operations and may connect to existing services when available upon Owner approval. .

B. Contractor shall provide lighting for construction operations.

C. Contractor may use existing lighting when available and adequate.

D. Contractor shall maintain site lighting throughout the duration of the Work.

1.03 HEAT AND VENTILATION – NOT USED

1.04 TEMPORARY WATER SERVICE – NOT USED

1.05 SANITARY FACILITIES

A. Contractor shall provide temporary restroom facilities. Facilities shall not directly or indirectly drain or discharge onto Owner property or any waters of the State. Place where directed at the time Work begins; maintain in sanitary condition. Remove upon completion of the Work and disinfect the premises.

B. Use of permanent and/or existing Owner’s facilities is not allowed.

1.06 BARRIERS

A. Contractor shall provide barriers as required to prevent public entry to

construction areas and to protect existing facilities and adjacent properties from damage from construction operations.

B. When temporary fencing is indicated by the Drawings, or if fencing is provided at Contractor's option, enclosures shall be constructed of 6 feet high commercial grade chain link with vehicular and personnel gates, as required.

1.07 ENCLOSURES

A. Contractor shall provide temporary weather-tight closures of openings to provide acceptable working conditions, protect materials, facilitate temporary heating, and prevent entry of unauthorized persons. Provide doors with self-closing hardware and locks.

B. Contractor shall provide temporary roofing when so indicated by the Drawings or when made necessary by the Project requirements.

C. Contractor shall provide temporary dust-proof partitions when required to confine dust and moisture to the immediate Work area.

D. Contractor shall provide temporary noise-proof partitions when required to confine noise to the immediate Work area.

1.08 PROTECTION OF EXISTING FACILITIES

A. Low Overhead Clearance: Contractor shall be fully responsible for addressing all vehicular limitations caused by low overhead restrictions throughout campus. Route all traffic to avoid damage to overhead structures. Review proposed routing with Owner prior to commencement of construction.

B. Tree and Plant Protection: Contractor shall protect trees and other plants not scheduled for removal; maintain protection until Project completion.

1. In the event that a tree or plant is damaged as a result of the Work that, in the opinion of Owner, requires replacement, Contractor shall be responsible for such replacement.
2. If at any time Contractor judges that the protection of plant materials designated to be saved is incompatible with Work required, or if operations necessarily threaten the health of any plant material, Contractor shall immediately notify Owner and cease Work affecting the area until a written agreement is reached concerning acceptable procedure.

1.09 SECURITY

A. Contractor shall provide security to protect the Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, and theft. Coordinate with Owner's security program.

B. During construction, all openings to Owner's utility tunnel system must be protected against unauthorized entry. Contractor shall provide closures, approved by Owner, including locked doors or hatches at any openings created by the Work.

1.10 PROTECTION OF INSTALLED WORK

A. Contractor shall provide temporary protection for installed products. Control traffic in immediate area to minimize damage.

B. Contractor shall provide protective coverings for walls, projections elevator cabs, jambs, sills, and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects, and storage.

C. Contractor shall prohibit traffic and storage on waterproofed and roofed surfaces and on lawns and landscaped areas.

1.11 CLEANING DURING CONSTRUCTION

A. Contractor shall clean the site each day during construction and shall prevent the accumulation of waste materials and rubbish.

B. Contractor shall clean interior areas prior to the start of finish Work and maintain areas free of dust and other contaminants during finishing operations.

1.12 OFF-SITE CLEAN UP

A. Contractor shall continuously keep sidewalks, lawns, parking areas, and streets clear of construction materials, debris, gravel, rock, and dirt related to the Project.

1.13 LIFTING DEVICES AND HOISTING FACILITIES

A. Contractor shall provide cranes, hoists, towers, and other lifting devices necessary for the proper and efficient movement of materials.

1.14 MECHANICAL AND ELECTRICAL SYSTEM SHUT-DOWNS

A. Any shut-down of mechanical or electrical systems affecting Owner's operations shall be scheduled by Contractor during off-hours. Contractor shall submit a written shut-down request providing at least 14 Days advance notice. Any shut-down must be coordinated with and approved by Owner.

1.15 CONSTRUCTION PARKING – NOT USED

1.16 NOISE CONTROL

A. Any construction related noise that interferes or is likely to interfere with normal use of adjacent space(s) shall be scheduled and approved by Owner.

B. Contractor shall restrict any construction related noise to the hours approved by Owner and in accordance with the state and local noise ordinance.

C. Owner may approve Contractor working extended hours. Request any extended hours of operation with Owner.

1.17 TRAFFIC OBSTRUCTIONS

A. Contractor shall submit a written traffic control plan for all traffic obstructions, either pedestrian or vehicular, for approval by Owner, per the Pre-Construction Submittal Requirements of Section 01 33 00.

B. In some cases, it may be necessary to develop special routes for large or unwieldy deliveries that could interfere with pedestrian movement, especially at peak times.

C. Contractor shall avoid deliveries or equipment operations that block street traffic during peak times.

D. Pedestrian Obstructions: Any equipment on sidewalks or other pedestrian ways shall be barricaded. Barricades shall include a horizontal member at a maximum of two feet above the walking surface.

1.18 REMOVAL OF TEMPORARY FACILITIES

A. Contractor shall remove temporary materials, equipment, services, and construction facilities prior to Substantial Completion inspection.

B. Contractor shall clean and repair damage caused by installation or use of temporary facilities.

C. Contractor shall restore existing facilities used during construction to specified or original condition.

END OF SECTION 01 50 00

PART 1 GENERAL

1.01 PRODUCTS

A. Products include material, equipment, and systems.

B. Comply with Specifications and referenced standards as minimum requirements.

C. Components required to be supplied in quantity within a specification section shall be the same, and shall be interchangeable.

D. All materials shall be new unless specifically noted otherwise.

1.02 TRANSPORTATION AND HANDLING

A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.

B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.

C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

1.03 STORAGE AND PROTECTION

A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.

B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.

D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

1.04 VARIATION FROM SPECIFIED PRODUCTS

A. Subsequent to Bid Opening/Proposal - Approved Equivalents:

1. Requests for approved equivalents will only be considered when approved equivalent statements, used in reference to product

specifications, are specifically provided for within individual Specification sections.

2. The terms "or an approved equivalent", "approved equivalent", or similar statements, when used herein in connection with manufacturers' products, shall be understood to mean products that are equally effective and suitable for their intended use; based on the judgment of the Owner, whose decision shall be final.

3. Written requests for consideration by the Owner of approved equivalents may be submitted throughout the Project.

4. Time extensions and additional costs resulting from use of approved equivalent products will not be considered.

B. No Substitutions:

1. The terms "No Substitutions", "Alternative Products not Acceptable", or similar statements used in reference to product specifications, shall mean that only the specified product will meet the needs of the University and that no other products will be considered at any time before or during the Project.

C. Requirements and Procedures for Product Variations:

1. The Contract is based on the standards of quality established in the Contract Documents.

2. Substitution or approved equivalent revisions shall be made only with the prior written acceptance of the Owner.

3. All requests for substitutions or approved equivalents must be on the proposer's letterhead and shall be accompanied by complete specifications, samples, records of performance, certified copies of tests by impartial and recognized laboratories, and such other information as the Owner may request to prove the merit of the proposed revisions.

4. The Contractor assumes the responsibility for capacity, dimensions, clearance, etc., of the named manufacturer's particular item to assure that the revision meets the requirements.

5. The Contractor shall assume the cost of any redesign, in the form of changes to the Drawings, or for the Work of any other trades, or any other costs required to properly incorporate any revision associated with substitutions or use of approved equivalent products.

6. Final decisions as to the quality and suitability of proposed revisions will rest solely with the Owner and will be based on proof submitted.

7. When the Owner approves a substitution or approved equivalent proposed by the Contractor, it is with the understanding that the Contractor certifies that the article or material is equivalent to or better than that specified.

END OF SECTION 01 60 00

PART 1 GENERAL

1.01 PURPOSE

A. Provide for an orderly, timely, and efficient completion of the Work for Owner.

1.02 SUBSTANTIAL COMPLETION

A. Requirements for Substantial Completion: Contractor shall comply with all requirements for Substantial Completion identified in the General Conditions and other Contract Documents. Prior to Substantial Completion, Contractor must have constructed the Work in substantial accordance with the Contract Documents, and:

1. Certificate of Occupancy received from the AHJ.
2. All elements of the Work must be operational and in good working order and condition, except for incidental punchlist Work;
3. The fire and life safety systems, if any, must be tested and accepted;
4. Any elevators must be operational, functioning, and in good working order and condition, and be fully approved for use;
5. All mechanical, electrical, plumbing, telecommunications, security, and access control systems must operate and function in good working order and condition, including commissioning;
6. The finish portion of the Work must be complete including but not limited to paint, trim, doors, partitions, cabinetry, floor coverings, ceilings, wall finish, and other finish surfaces, except for incidental punchlist Work;
7. All roadway improvements, paving, sidewalks, parking areas, other street improvements, lighting, landscaping and irrigation must be complete;
8. Utilities must be complete, connected, and operating normally;
9. Contractor must have removed all construction facilities, temporary controls, and construction debris;
10. Contractor must have completed training Owner’s personnel on all operating instructions and submitted training DVDs; and
11. Final cleaning.

B. Prior to Substantial Completion Contractor shall request in writing that Owner grant Substantial Completion. Accompanying the request Contractor submit the following:

1. A list of all items remaining to be completed or corrected;
2. Signed originals from authorities having jurisdiction of all certificates of compliance and final approval, as applicable;
3. All system software files required by the Contract Documents, including

but not limited to lighting and environmental controls;

4. Revised Draft Operation & Maintenance manuals; and

5. Draft Project Record.

C. Upon satisfactory completion of the requirements for Substantial Completion, Owner shall prepare and forward to Contractor a letter of Substantial Completion. The letter will identify the date of Substantial Completion and include a punch list identifying all remaining incomplete Work. Contract warranties shall begin as of the date of Substantial Completion.

1.03 FINAL COMPLETION

A. Requirements for Final Completion: Upon receipt of Contractor's written Notice that Contractor has inspected and completed punch list items and that the Work is ready for final inspection and acceptance, Owner will promptly make such inspection accompanied by Contractor. If Owner determines that some or all of the punch list items are not complete, Contractor shall be responsible to Owner for all costs, including re-inspection fees, for any subsequent inspection to determine completion of the punch list. When Owner finds all punch list items complete and the Work and Contract fully performed, Owner shall establish the date of Final Completion. Owner is not required to establish Final Completion until the following are complete:

1. Complete all requirements listed in the Contract Documents for Substantial Completion of the Work;

2. Complete all remaining punch list items and remaining Work, and obtain approval by Owner that all Work is complete;

3. Obtain permanent occupancy permits (if only a temporary occupancy permit was issued at Substantial Completion);

4. Submit Project Record, any final property survey, and final Operation and Maintenance manuals (if not previously submitted) required by the Contract Documents;

5. Deliver any required tools, spare parts, extra stock of material and similar physical items to Owner as required by the Contract Documents;

6. Complete cleaning after completion of punch list;

7. Submit executed warranties;

8. Complete any required sustainability documentation for which Contractor is responsible;

9. Submit a final comprehensive list of all Subcontractors of all tiers and suppliers for the Project; and

10. Submit certification that materials used in the Work are "asbestos-free" and that all requirements of governing jurisdictions related to the Project have been addressed.

11. Final Project Record.

B. Upon satisfactory completion of the requirements for Final Completion, Contractor shall submit a final Application for Payment.

1.04 FINAL ACCEPTANCE

A. Requirements for Final Acceptance: Final Acceptance shall be established by Owner in writing. Owner shall not be obligated to accept the Project as complete before Final Completion has occurred and Contractor has submitted the following:

1. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which Owner or Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, except for any claims that are specifically identified on the affidavit (Affidavit of Payment of Debts and Claims, AIA form G706 or equivalent).
2. A certificate or written statement evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 Days' prior written Notice has been given to Owner.
3. Receipt of consent of surety, if any, to final payment (AIA form G707 or equivalent).
4. If required by Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by. If a Subcontractor refuses to furnish a release or waiver required by Owner, Contractor may furnish a bond satisfactory to Owner to indemnify Owner against such lien. If such lien remains unsatisfied after payments are made, Contractor shall refund to Owner all money that Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.
5. Provide copy to Owner of all "Affidavits of Wages Paid". Pursuant to RCW 39.12.040, an "Affidavit of Wages Paid" from Contractor and from each Subcontractor certified by the Industrial Statistician of the Washington State Department of Labor and Industries, with the fees paid by Contractor or Subcontractor.

B. Contingent upon completion of all Affidavits of Wages Paid, the "Notice of Completion of Public Works Contract" form may be completed by Owner.

1.05 RETAINAGE

A. Retainage must be held at least 45 Days following Final Acceptance. If there are either unpaid taxes or fees, or unsatisfied claims of lien against the retained percentage, disbursement of retainage funds will be made in accordance with Washington law.

B. The retainage will be held and applied by Owner as a trust fund in the manner required by RCW 60.28. Release of the retainage will be processed in the ordinary course of business following Final Acceptance of the Work by Owner, provided no notice of lien has been given as provided in RCW 60.28, no claims have been brought to the attention of Owner, Owner has no claims under the Contract, and the requirements below have been met.

C. Owner shall not release retainage until the following requirements have been satisfied.

1. "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 Owner.
2. "Certificate of Payment of Contributions, Penalties and Interest on Public work Contract": Upon receiving a copy of Owner's notice of completion and after determining that Contractor is in compliance with the provisions of the Employment Security Act, the Employment Security Department will issue this certificate to Owner.
3. "Certificate of Release": Upon receipt of Contractor's request for release and verification from its records that required premiums have been paid by Contractor and each Subcontractor, the Department of Labor and Industries will issue a statement to that effect.

END OF SECTION 01 70 00

PART 1 GENERAL

1.01 SUMMARY

A. This Section specifies administrative and procedural requirements for field engineering services, including but not limited to the following:

1. Establishment of coordinated reference points for general building layout and location.

1.02 SUBMITTALS

A. Project Record: Contractor shall submit a record of Work performed and record survey data as required by the Contract Documents.

1.03 QUALITY ASSURANCE – NOT USED

1.04 EXAMINATION

A. Existing utilities and equipment: The existence and location of underground and other utilities are not guaranteed. Before beginning the Work, Contractor shall investigate and verify the existence and location of underground and other utilities (including irrigation and snow melt systems).

1. Prior to construction, verify the locations and invert elevation at points of connection sanitary sewer, storm sewer, and water service piping.

1.05 PERFORMANCE

A. Contractor shall work from lines and levels established by the existing structure. Do not scale Drawings to determine dimensions.

1. Advise entities engaged in Work activities of marked lines and levels provided for their use.
2. As construction proceeds, check every major element for line, level, and plumb.

B. Site Improvements: Contractor shall locate and lay out site improvements, including pavement, stakes for grading, fill and topsoil placement, utility slopes, and invert elevations.

C. Existing Utilities: Contractor shall furnish information necessary to adjust, move, or relocate existing structures, utility poles, lines, services, or other appurtenances affected by construction. Contractor shall coordinate with local authorities having jurisdiction.

D. Contractor shall record accurately on the Project Record the principal metes, bounds, lines, and levels of the Project.

END OF SECTION 01 71 23

PART 1 GENERAL

1.01 SUMMARY

A. This Section describes the waste management and recycle management criteria for debris and solid waste generated as part of the Work.

B. Contractor shall be responsible for segregating and disposing all unacceptable and dangerous wastes as defined below.

C. Contractor shall be responsible for furnishing waste collection containers, servicing those containers, and disposing solid waste from the Project.

D. Waste that is disposed of by Contractor shall be in accordance with all applicable local, state, and federal regulations, including WAC 173-350, Solid Waste Handling Standards, and WAC 173-303, Dangerous Waste Regulations.

1.02 DEFINITIONS

A. Construction Waste: Waste resulting from the Work.

B. Dangerous Waste: Solid waste designated in WAC 173-303 and/or 40 CFR. As used in this Section, the words “dangerous waste” will refer to the full universe of wastes regulated by WAC 173-303 and 40 CFR.

C. Demolition Waste: Largely inert waste, resulting from the selective demolition of buildings, roads and other man-made structures such as cured concrete, asphaltic compounds, brick and masonry, ceramic, glass, steel, and aluminum, and non-inert materials such as clean wood, composition roofing and roofing paper, and minor amounts of metal. Plaster (i.e., sheetrock or plaster board) or any other material, other than clean wood, that is likely to produce gases or leachate during its decomposition process and asbestos waste are not considered to be demolition waste.

D. Land Clearing Waste: Natural vegetation and clean soils from clearing and grubbing land for development such as stumps, brush, weeds, tree branches, tree bark, mud, dirt, sod and rocks.

E. Recycle/Recycling: The process of separating waste materials for remanufacturing or reprocessing into usable or marketable materials. Examples of recycling include separating wood off-cuts for recycling by a wood processor into paper pulp, or separating cardboard, plastic, beverage containers, or miscellaneous metals for recycling.

F. Reuse: To use a construction waste material again in roughly its same form. Materials can be reused on-site or on other projects off-site. Examples of reuse include removing a hardwood floor and reinstalling it in a new project, or using soil from one site as fill on another site.

G. Salvage: To remove a construction waste material or equipment from an existing building for reuse on-site or reuse on other projects off-site. Items to be salvaged shall be designated by Owner for removal and delivery to Owner.

H. Unacceptable Waste: All waste not authorized for disposal by Owner. This includes any waste that is now or hereafter defined by federal law or by the governing jurisdiction as radioactive, dangerous, hazardous or extremely hazardous waste, unsanitary waste, and vehicle tires in excess or those permitted to be disposed of by the laws of the governing jurisdiction. It does not include any waste destined for salvage, recycling, or general demolition.

I. Waste: All solid waste generated within the limits of the Project, or extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable and recyclable materials, masonry, and concrete.

J. Waste Management Plan: A Project-specific plan for the salvage, collection, transportation, recycling, and disposal of the waste generated at the Project site. A waste management plan includes procedures for separating, storing, and transporting waste and includes methods to assure proper implementation of the plan.

1.03 WASTE MANAGEMENT PLAN

A. Draft Waste Management Plan: Per the Pre-Construction Submittal Requirements of Section 01 33 00, Contractor shall submit to Owner a Draft Waste Management Plan. The Draft Plan shall contain the following:

1. List of materials to be salvaged, materials to be recycled, and materials to be disposed of as solid waste, and dangerous waste.
2. General material handling methods, including segregation and sorting, and placing solid waste into designated containers, on-site storage, and any special procedures for removing and protecting materials.
3. Dangerous waste identification, accumulation, and disposal management procedures.

B. Dangerous Waste Management:

1. Contractor is responsible for all dangerous waste generated during the Project shall be identified, accumulated and disposed in accordance with WAC 173-303. Contractor generated dangerous waste must be shipped for disposal within 90 Days of generation.
2. Contractor may accumulate dangerous waste in accordance with WAC 173-303 and Washington Department of Ecology Technical Information Memorandum 94-120, Satellite Accumulation. If Contractor accumulates dangerous waste in volume greater than 55 gallons or acutely hazardous waste in a volume greater than one quart, Contractor shall establish and operate a “90-Day” accumulation area in accordance with WAC 173-303.
3. Contractor shall dispose dangerous waste only through vendor(s)

approved by Owner. Contractor shall arrange all dangerous waste shipments. Utilization of the vendor and facilities included in the State of Washington Hazardous Waste Disposal contract is authorized. Any other proposed vendor(s) and/or facilities are subject to audit by Owner, prior to utilization. Contractor shall pay for said audits. Contractor shall coordinate with Owner's Environmental Health & Safety (EH&S) Department for transportation and disposal of all Project generated dangerous waste. EH&S will sign all Uniform Hazardous Waste Manifests.

C. Final Waste Management Plan: Once Owner has reviewed the draft Waste Management Plan and responded with comments or corrections, Contractor shall submit a final plan within 14 Days.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 WASTE CONTAINMENT

A. Contractor will provide and service containers for all wastes.

B. Contractor shall provide separate waste containers for and properly dispose of all unacceptable waste, including dangerous waste, in accordance with applicable law.

3.02 CONTAMINATION OF WASTE

A. Contractor shall take extraordinary care to ensure construction wastes are properly sorted, segregated, and placed within the correct containers.

B. Should any waste containers designated for salvage, recycle, or general disposal be cross-contaminated with dangerous or unacceptable waste, Contractor shall pay all costs of legally disposing the contaminated waste.

C. Project progress meetings shall include review of construction waste management as an agenda item.

END OF SECTION 01 74 19

PART 1 GENERAL

1.01 PURPOSE

A. Contractor shall submit advance/draft electronic of Operation & Maintenance manuals (O&Ms) at or immediately following the 80% Application for Payment. Subsequent Applications for Payment will not be processed until an advance/draft copy of the O&Ms has been submitted for review.

B. Contractor shall submit a final draft of O&Ms on or before Substantial Completion and provide training of Owner's staff in the operation and maintenance of the facility.

1.02 PROCEDURES

A. Together with a request for Substantial Completion, Contractor shall provide one revised draft electronic version of O&Ms.

B. To achieve Final Completion, Contractor shall submit :

1. Two final copies of O&Ms;
2. A text-searchable PDF electronic file of the O&Ms;
3. Separate Test & Balance Reports and Telecommunications Test Reports in an independent three ring binder;
4. A text-searchable PDF electronic file of the Test & Balance Reports and Telecommunications Test Reports.

PART 2 PRODUCTS

2.01 O&M MANUAL MATERIALS

A. O&M Manuals shall be bound into 3-ring binders (three sets) with the cover and spine to be composed and laid out per the cover page template on the last page of this Section.

B. The maximum thickness for each manual shall be 3". Multiple manual sets shall be organized by:

1. General,
2. Vertical Transportation,
3. Mechanical,
4. Electrical, and
5. Other (Laboratory Equipment, Special Equipment, etc.).

C. Paper shall be 8 1/2" x 11", 20 lb. white paper. Divisions within volumes are to be accomplished and annotated with permanently imprinted tabs (insertable indexes are not permitted) which indicate Specification Section numbers only.

D. Copies must be legible. Facsimile transmission copies are not acceptable. Original equipment manufacturer (OEM) printed material is preferred.

PART 3 EXECUTION

3.01 PRODUCTION

A. O&Ms are to be as follows:

1. Table of Contents – a listing of the contents of all volumes. This table of contents shall be inserted at the beginning of each volume in the set.
    a. Identify Contractor, include name, address, phone and fax number, and provide a contact name.
2. Subcontractor List – a list or spreadsheet, organized by Specification Section, of all suppliers and Subcontractors of all tiers who performed Work on the Project. Include the name, address, phone and fax number of Subcontractor or supplier, the Specification Section, and the description of the Work. When Subcontractors perform Work of more than one Specification Section, provide a separate listing of each Specification Section. This listing shall be at the beginning of volume #1 only.
    a. Written certification from Contractor attesting that no asbestos containing products have been incorporated into the Work.
3. Warranty List – a list or spreadsheet containing Contractor's one-year correction period obligation and all extended (greater than one-year) warranties, organized by Specification Section that indicates:
    a. Item Description (include here special warranty numbers or codes),
    b. Length of warranty,
    c. Specification Section, and
    d. Contractor's contact information, followed by physical copies of the Contractor's one-year correction period obligation and all extended warranties. Note that 1-year warranties from Subcontractors are not to be bound into each volume of the O&Ms. This warranty list and attendant warranties shall be at the beginning of volume #1 only, immediately following the asbestos certification.
4. Provide data as outlined in each specification section.

B. Original equipment manufacturer (OEM) information is required to be a part of all equipment information within the O&Ms.

C. Shop Drawings and product data initially submitted for acceptance are generally not acceptable for O&M use (one notable exception is snow melting cable layout drawing – a manufacturer detailed item). Routine Project components such as asphalt, concrete, pipe, fittings, conduit, etc., are not to be included in O&Ms.

END OF SECTION 01 78 23
(O&M cover and spine data on next page)

Facility No. 5101, Roger's Shed-Wilke Farm

Wilke Pole Building

2024

General
O&M Manual

Vol. X of Y

(Spine and Cover)

PART 1 GENERAL

1.01 PURPOSE AND PROCEDURE

A. Contractor shall submit draft Project Record drawings on or before Substantial Completion. Requests for Substantial Completion will not be considered if submission of Project Record drawings has not occurred.

B. Contractor shall submit final Project Record drawings before Final Completion may be achieved.

PART 2 PRODUCTS

2.01 MATERIALS

A. Project Record drawings are to be red-line markings on original Drawings which clearly indicate the as-built dimensions (both horizontally and vertically) for all installed Work.

B. Identify on Project Record drawings all underground utilities encountered during the Work. Locate these utilities both horizontally and vertically and tie the dimension string(s) back to permanent and visible structures.

C. Clearly label each sheet with the words “PROJECT RECORD DRAWINGS.”

D. Do not affix requests for information (RFIs), change proposals (CCPs) or architectural supplemental instructions (ASIs) to the Project Record drawings. If all or part of a Drawing has been modified, it is acceptable to affix the revised layout over top of the original. However, all dimensions that have been modified are to be red-lined or yellow highlighted.

E. Copies must be legible.

PART 3 EXECUTION

3.01 PRODUCTION

A. During construction, Project Record information will be reviewed not less than monthly concurrent with the monthly review of the draft Application for Payment.

END OF SECTION 01 78 39

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SCOPE

A. Specific details of vehicular pavements, exterior slabs, sidewalks, and curbs constructed of Portland Cement Concrete (PCC) are also addressed in WSU Design Standards and spec section "321313 - Concrete Paving."

1.3 SUMMARY

A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes, for the following:
   1. Footings.
   2. Foundation walls.
   3. Slabs-on-grade.
   4. Slab on grade vapor barrier. Sealing of concrete.
   5. Exposed interior concrete floor slab treatments and coatings.
   6. Other miscellaneous concrete work as shown on the Drawings.

1.4 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, slag cement, and silica fume; subject to compliance with requirements.

1.5 DESIGN CRITERIA

A. Concrete Strength: The Engineer of Record shall specify the required concrete strength for all applications. Specify the following 28-day compressive strengths, at a minimum:
   1. Interior Concrete: 3000 psi minimum.
   2. Exterior Concrete Exposed to Freeze/Thaw: 4500 psi minimum.
      a. Water Cement Ratio < 0.45 for exterior concrete exposed to freeze/thaw.

B. Air Entrainment: Specify air entrainment 5 – 8% for all exterior concrete.
   1. For color-dyed concrete, the Engineer of Record shall specify the air entrainment required.

C. Joints:
   1. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
   2. Control Joints:
      a. Install control joints as close to square as possible. Score at least one- quarter the depth of the concrete pavement. Joints may be sawcut or tooled, but saw-cutting shall be done within 24 hours of concrete placement.
   3. Construction Joints: The Architect or Engineer of Record shall indicate or approve locations. Install so strength and appearance of concrete are not impaired.

a. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise specified by the Engineer of Record.
b. Horizontal Joints: Locate in walls and columns at the underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
c. Vertical Joints: Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.
d. Bonded Joints: Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces. The hardened concrete surface shall first be roughened in a manner that exposes sound aggregate uniformly without damaging the concrete.
e. Waterstops: Install in Construction Joints to form a continuous diaphragm. Install in longest lengths possible.

4. Expansion Joints: Engineer of Record shall indicate locations, distances, and depths.
   a. Place expansion joints, at a minimum:
      1) At intersections between different paving materials.
      2) Where concrete paving abuts structures (buildings, retaining walls, etc.).
   b. Discontinue reinforcement at Expansion Joints unless otherwise indicated by the Engineer of Record.
   c. Joint-Filler Strips: Install full width and depth of joint, terminating flush with the finished concrete surface. Install joint-filler strips in lengths as long as possible. Where more than one strip is required, lace or clip sections together.
5. Doweled Joints: Engineer of Record shall indicate locations.
   a. Lubricate or asphalt coat half the dowel length to prevent concrete bonding to one side of the joint.

D. Finishes:
1. The finish surface of all concrete shall be uniform in texture, smooth, and free of hollows, depressions, and surface cracks.
2. Finish Requirements for Exterior Walks/Pads: Provide with heavy broom finish, with the broom texture perpendicular to traffic flow. Top flat flange marks of scoring tools and edgers shall be obliterated with broom strokes, leaving only a rounded edge. Limit surface working to maintain air entrainment. Curbs shall not be broom finished.

E. Exposed aggregate concrete surfaces are not acceptable.

1.6 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
1. Indicate amounts of mixing water to be withheld for later addition at Project site.

C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement. Placement of wall reinforcing shall be presented in elevation view.

D. Product Data: For vapor retarder.

E. Floor surface flatness and levelness measurements to determine compliance with specified tolerances.

F. Field quality-control test and inspection reports.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

B. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from one source, and obtain admixtures through one source from a single manufacturer.

C. Manufacturer must be certified according to Water Vapor Reducing/Water Proofing Admixture (WVRA) supplier requirements.

D. Welding: Qualify procedures and personnel according to AWS D1.4, “Structural Welding Code--Reinforcing Steel.”

E. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
   1. ACI 301, “Specification for Structural Concrete,” Sections 1 through 5.
   2. ACI 117, “Specifications for Tolerances for Concrete Construction and Materials.”
   3. ACI 303.1, “Specification for Cast-in-Place Architectural Concrete.”
   4. ACI 318, “Standards for Tests and Materials.”
   5. ACI 318, “Construction Requirements.”

F. Testing Agency Qualifications: An independent agency, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
   1. Personnel conducting field tests shall be qualified as ACI Concrete Field-Testing Technician, Grade 1, according to ACI CP-01 or an equivalent certification program.
   2. Personnel performing laboratory tests shall be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician - Grade I. Testing Agency laboratory supervisor shall be an ACI-certified Concrete Laboratory Testing Technician - Grade II.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
   1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.
   2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
   3. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words “basis of design,” including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products.

2.2 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
   1. Portland Cement: ASTM C 150, Type I or Type II. Supplement with the following:
      a. Fly Ash: ASTM C 618, Class F.
      b. Type III may be used for cold-weather applications. Engineer of Record is responsible for specifying and approving the proper cement type and supplements.
         1) High-early strength cement may be used when it is necessary to open the area to traffic after 7 days of curing, but shall require the same strength as regular concrete at 28 days of curing.

B. Silica Fume: ASTM C 1240, amorphous silica.

C. Normal-Weight Aggregates: ASTM C33, Class 3M coarse aggregate or better, graded. Provide aggregates from a single source with documented service record data of at least 10 years' satisfactory service in similar applications and service conditions using similar aggregates and cementitious materials.
   1. Maximum Coarse-Aggregate Size for general concrete applications: 3/4inch nominal, 1-1/2 inch for footing construction.
   2. Maximum Coarse-Aggregate Size for exposed aggregate concrete floors: 3/4-inch Gradation: Uniformly graded.
   3. Maximum Coarse-Aggregate Size for exposed and polished concrete floors: 3/8 minus Gradation: Uniformly graded.
   4. Maximum Course-Aggregate Size for Topping Slab: 3/8-inch nominal.

D. Normal-Weight Fine Aggregate: ASTM C 33 or ASTM C 144, manufactured or natural sand, from same source for entire Project, free of materials with deleterious reactivity to alkali in cement.

E. Water: ASTM C1602 and potable.

2.3 ADMIXTURES

A. Air-Entraining Admixture: ASTM C 260.

B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
   1. Water-Reducing Admixture: ASTM C 494/ C 494M, Type A.
   2. Retarding Admixture: ASTM C 494/ C 494M, Type B.
   3. Water Vapor Reducing/Water Proofing Admixture (WVRA): ASTM C494/ C 494M, Type S. Refer to Division 03 Section “Concrete Waterproofing Admixture.”
      a. Use WVRA in concrete for interior slabs.

2.4 FORM-FACING MATERIALS

A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
   1. Plywood, metal, or other approved panel materials.

B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

C. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch, unless shown otherwise on the drawings.

D. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
   1. Formulate form-release agent with rust inhibitor for steel form-facing materials.

E. Sealer: Penetrating, clear, polyurethane wood form sealer formulated to reduce absorption of bleed water and prevent migration of set-retarding chemicals from wood.

F. Form Ties: Factory-fabricated, removable, or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
   1. Furnish units that will leave no corrodible metal closer than 1inch to the plane of exposed concrete surface.
   2. Furnish ties that, when removed, will leave holes no larger than 3/4inch in diameter in concrete surface.

2.5 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (grade 40 acceptable for #3 bars, deformed.

B. Plain-Steel Welded Wire Reinforcement for elevated slabs on steel deck: ASTM A 1064, plain, fabricated from as-drawn steel wire into flat sheets.

2.6 REINFORCEMENT ACCESSORIES

A. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60, plain-steel bars, cut bars true to length with ends square and free of burrs.

B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's “Manual of Standard Practice,” of greater compressive strength than concrete and as follows:
   1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

2.7 VAPOR RETARDERS

A. Plastic Vapor Retarder: ASTM E 1745, Class A, with actual tested perm rating of less than 0.100. Include manufacturer's recommended adhesive or pressure-sensitive tape and pipe boots.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide one of the products listed below or a comparable product as approved by the Architect or WSU project manager.
      a. Fortifiber Corporation; Moistop Ultra 15.
      b. Raven Industries; Vaporblock 15.
      c. Stego Industries, LLC; Stego Wrap 15.
      d. Barrier – BAC, VB-350 16 mil.
      e. Viper Vapor Check II, 15 mil., Class A, Vapor Barrier.
      f. Tex-Trude, LP/Xtreme Vapor Barrier 15 mil.
      g. W.R. Meadows, PRMINATOR 15 mil.

2.8 FLOOR AND SLAB TREATMENTS

A. Penetrating Liquid Floor Treatment: Clear, chemically reactive, waterborne solution of inorganic silicate or siliconate materials and proprietary components; odorless; colorless; that penetrates, hardens, and densifies concrete surfaces.
   1. Products:
      a. Burke by Edoco; Titan Hard.
      b. ChemMasters; Chemisil Plus.
      c. Dayton Superior Corporation; Day-Chem Sure Hard.
      d. Euclid Chemical Company (The); Euco Diamond Hard.
      e. L&M Construction Chemicals, Inc.; Seal Hard.
      f. Meadows, W. R., Inc.; Liqui-Hard.

B. When a Water Vapor Reducing/Water Proofing Admixture (WVRA) is added to the concrete, use a penetrating liquid floor treatment when and as recommended by the WVRA manufacturer. See Division 03 Section "Concrete Waterproofing Admixture."
   1. Basis-of-Design Product: Subject to compliance with requirements, provide VL 20/20 Imco SPG; 866.888.3424, info@imcospg.com or equivalent product as approved by the Architect.
   2. See Finish Schedule and Materials Legend for concrete flooring types if left exposed.

2.9 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.

B. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

C. Horizontal Expansion Joint Sealant:
   1. Pre-Approved Manufacturer: Sikaflex 1c SL.

D. PCC Rehabilitation Material:
   1. Pre-Approved Manufacturers: MasterEmaco T545; Kwik Bond PPC- 1121.

2.10 REPAIR MATERIALS

A. Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch and that can be feathered at edges to match adjacent floor elevations.
   1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
   2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
   3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by manufacturer.
   4. Compressive Strength: Not less than 4000 psi minimum at 28 days when tested according to ASTM C 109/C 109M.

2.11 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
   1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
   1. Fly Ash: 25 percent.
   2. Combined Fly Ash and Pozzolan: 25 percent.
   3. Ground Granulated Blast-Furnace Slag: 50 percent.
   4. Combined Fly Ash or Pozzolan and Ground Granulated Blast-Furnace Slag: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.
   5. Silica Fume: 10 percent.
   6. Combined Fly Ash, Pozzolans, and Silica Fume: 35 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.
   7. Combined Fly Ash or Pozzolans, Ground Granulated Blast-Furnace Slag, and Silica Fume: 50 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.

C. Limit water-soluble, chloride-ion content in hardened concrete to 0.30 percent by weight of cement.

D. Admixtures: Use admixtures according to manufacturer's written instructions.
   1. Use high-range water-reducing admixture in concrete, as required, for placement and workability.
   2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
   3. Use water-reducing admixture in pumped concrete and concrete with a water-cementitious materials ratio below 0.50.

2.12 CONCRETE MIXTURES FOR BUILDING ELEMENTS

A. Slabs-on-Grade: Comply with requirements indicated on the Structural Drawings and as specified in this section.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

C. Limit concrete surface irregularities, designated by ACI 347R as abrupt or gradual, as follows:
   1. Class A, 1/8 inch for smooth-formed finished surfaces.
   2. Class B, 1/4 inch for rough-formed finished surfaces.

D. Construct forms tight enough to prevent loss of concrete mortar.

E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
   1. Install keyways, reglets, recesses, and the like, for easy removal.
   2. Do not use rust-stained steel form-facing material.

F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.

G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

H. Chamfer exterior corners and edges of permanently exposed concrete.

I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.

J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
   1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's “Code of Standard Practice for Steel Buildings and Bridges.”
   2. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.
   3. Install dovetail anchor slots in concrete structures as indicated.

3.3 REMOVING AND REUSING FORMS

A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete if concrete is hard enough to not be damaged by form-removal operations and curing and protection operations are maintained.

B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by the Architect.

3.4 VAPOR RETARDERS

A. Sheet Vapor Retarders: Install sheet vapor retarder over subbase as shown on the drawings. Place protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.
   1. Lap joints 6 inches and seal with manufacturer's recommended tape and install manufactures preformed boots for all pipe penetrations in accordance with manufacturers written instructions.

3.5 STEEL REINFORCEMENT

A. General: Comply with CRSI's “Manual of Standard Practice” for placing reinforcement.
   1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that would reduce bond to concrete.

C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.

D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

3.6 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
   1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
   2. Form keyed joints where indicated. Embed keys at least 1-1/2 inches into concrete.
   3. Space vertical joints in walls as indicated.
   4. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
   1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
   2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
   1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

2. Terminate full-width joint-filler strips not less than 1/2 inch or more than 1 inch below finished concrete surface where joint sealants, specified in Division 07 Section "Joint Sealants," are indicated.
3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

E. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete bonding to one side of joint.

3.7 CONCRETE MIXING

A. Ready-Mix: Measure, batch, mix, and deliver concrete according to ASTM C-94 / C-94M.
1. When air temperature is between 85-90o F, limit mixing and delivery time to 75 minutes. When air temperature is above 90o F, limit mixing and delivery time to 60 minutes.

B. Project-Site Mixing: Measure, batch, mix, and deliver concrete according to ASTM C-94 / C-94M. Mix concrete materials in appropriate drum-type batch machine mixer.
1. For mixer capacity of 1 cu. yd. or smaller, continue mixing 1½ - 5 minutes after ingredients are in the mixer before any part of the mixture is released.
2. For mixer capacity larger than 1 cu. yd., increase mixing time by 15 seconds for each additional cu. yd.

3.8 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Owners Testing Agency, and is in accordance with the Water Vapor Reducing/Water Proofing Admixture (WVRA) manufacturer.
1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

C. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
1. Deposit concrete in horizontal layers of depth to not exceed formwork design pressures and in a manner to avoid inclined construction joints.
2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.

D. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
1. Consolidate concrete during placement operations so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
2. Maintain reinforcement in position on chairs during concrete placement.
3. Screed slab surfaces with a straightedge and strike off to correct elevations.
4. Slope surfaces uniformly to drains where required.

5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.

E. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

F. Hot-Weather Placement: Comply with ACI 305.1 and as follows:
1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

G. Inclement Weather:
1. A. Do not begin placing concrete while rain, sleet, or snow is falling unless adequate protection is provided. Do not allow rainwater to increase mixing water or to damage the concrete surface.

3.9 FINISHING FORMED SURFACES

A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
1. Apply to concrete surfaces not exposed to public view.

B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
1. Apply to concrete surfaces exposed to public view and indicated on Exterior Elevations. Surfaces to be painted see drawings.
2. See Exterior Elevations sheets for finish paint color.

C. Rubbed Finish: Apply the following to smooth-formed finished as-cast concrete where indicated:
1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.
2. Apply to concrete surfaces exposed to public view.

D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.10 FINISHING FLOORS AND SLABS

A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Scratch Finish: While still plastic, texture concrete surface that has been screeded and bull-floated or darbied. Use stiff brushes, brooms, or rakes to produce a profile amplitude of 1/4 inch in 1 direction.
   1. Apply scratch finish to surfaces to receive mortar setting beds for bonded cementitious floor finishes.

C. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.
   1. Apply float finish to surfaces to receive trowel finish.

D. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
   1. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic, or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
   2. Finish surfaces to the following tolerances, according to ASTM E 1155, for a randomly trafficked floor surface:
      a. Specified overall values of flatness, F(F) 35; and of levelness, F(L) 25; with minimum local values of flatness, F(F) 24; and of levelness, F(L) 17; for slabs-on-grade.

E. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces where ceramic or quarry tile is to be installed by either thickset or thin-set method. While concrete is still plastic, slightly scarify surface with a fine broom.
   1. Comply with flatness and levelness tolerances for trowel finished floor surfaces.

F. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.
   1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.11 MISCELLANEOUS CONCRETE ITEMS

A. Filling In: Fill in holes and openings left in concrete structures, unless otherwise indicated, after work of other trades is in place. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.

3.12 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb./sq. ft. x h before and during finishing operations.

Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.

D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.

E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
   1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
      a. Water.
      b. Continuous water-fog spray.
      c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
   2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
      a. Water Vapor Reducing/Water Proofing Admixture (WVRA) enhanced concrete: Cover with 2-mil polyethylene overnight (12-hours minimum) in case of rain under temperate conditions of between 45 to 80 degrees F. Follow ACI recommendations for hot and cold weather placements exclusive of curing compounds. Follow manufacturers recommendations.
      b. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer certifies will not interfere with bonding of floor covering used on Project.

F. Do not use curling compounds when Water Vapor Reducing/Water Proofing Admixture (WVRA) is used in concrete. Follow WVRA manufacturer’s recommendations.

3.13 LIQUID FLOOR TREATMENTS

A. Do not use liquid floor treatments when Water Vapor Reducing/Water Proofing Admixture (WVRA) is used in the concrete. Follow WVRA manufacturer’s recommendations.

3.14 JOINT FILLING

A. Prepare, clean, and install joint filler according to manufacturer's written instructions.
   1. Defer joint filling until concrete has aged at least one month(s). Do not fill joints until construction traffic has permanently ceased.
   2. When (WVRA) is not used, refer to ‘Floor and Slab Treatments’ paragraph in this section, and apply according to manufacturer’s instructions.

B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.

C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches deep in formed joints. Overfill joint and trim joint filler flush with top of joint after hardening.

3.15 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

B. Patching Mortar: Mix dry-pack patching mortar, consisting of one-part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling, and placing.

C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
   1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch in any dimension in solid concrete, but not less than 1 inch in depth. Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
   2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
   3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Architect.

D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
   1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
   2. After concrete has cured at least 14 days, correct high areas by grinding.
   3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
   4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
   5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
   6. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

7. Repair random cracks and single holes 1 inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.

E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.

F. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.16 FIELD QUALITY CONTROL

A. Testing and Inspecting: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.

B. Inspections:
1. Steel reinforcement placement.
2. Headed bolts and studs.
3. Verification of use of required design mixture.
4. Concrete placement, including conveying and depositing.
5. Curing procedures and maintenance of curing temperature.
6. Verification of concrete strength before removal of shores and forms from beams and slabs.

C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
5. Unit Density: ASTM C 567, unit density/weight of hardened concrete (in-lab); one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
6. Compression Test Specimens: ASTM C 31/C 31M.
   a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
   b. Cast and field cure two sets of two standard cylinder specimens for each composite sample only when ambient outdoor temperature is below 40 degrees Fahrenheit only when ambient outdoor temperature is below 40 degrees Fahrenheit.
7. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and two specimens at 28 days if using 6x12 inch units and three specimens if using 4x8 inch units.
   a. Test one set of two field-cured specimens at 7 days and three specimens at 28 days.
   b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
8. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.

9. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
10. Test results shall be reported in writing to Architect and WSU project manager, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
11. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
12. Water Vapor Reducing/Water Proofing Admixture (WVRA) enhanced concrete is required to be tested per WVRA manufacturers recommendations, including but not limited to performance of ASTM D5084, with a minimum level of permeability at 1x10-7 cm/s. The manufacturer will administer this test to samples obtained by the certified batchplant.
13. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect or WSU project manager. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect or WSU project manager.
14. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
15. Correct deficiencies in the Work that test reports and inspections indicate dos does not comply with the Contract Documents.

D. Measure floor and slab flatness and levelness according to ASTM E 1155 within 24 hours of finishing.

END OF SECTION 033000

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
1. Framing with dimension lumber.
2. Wood Fascia.
3. Shear wall panels (sheathing if/where required).
4. Wood blocking, cants, and nailers.
5. Plywood backing and wainscot, and finish panels.

1.3 DEFINITIONS

A. Boards or Strips: Lumber of less than 2 inches nominal size in least dimension.

B. Dimension Lumber: Lumber of 2 inches nominal size or greater but less than 5 inches nominal size in least dimension.

C. Exposed Framing: Framing not concealed by other construction.

D. OSB: Oriented strand board.

E. Lumber grading agencies, and the abbreviations used to reference them, include the following:
1. WWPA: Western Wood Products Association.

1.4 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
3. For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5664.
4. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

B. Evaluation Reports: For the following, from:
1. Preservative-treated wood products.
2. Expansion anchors.
3. Metal framing anchors.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect wood products from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

B. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
   1. Factory mark each piece of lumber with grade stamp of grading agency.
   2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
   3. Dress lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content of Lumber: 15 percent unless otherwise indicated.

C. Engineered Wood Products: Acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.
   1. Allowable design stresses, as published by manufacturer, shall meet, or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground. AWPA C9.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:
   1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
   2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
   3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
   4. Wood framing members that are less than 18 inches above the ground in crawlspaces or unexcavated areas.
   5. Wood floor plates that are installed over concrete slabs-on-grade.

2.3 FIRE-RETARDANT-TREATED MATERIALS/PLYWOOD

A. General: Where fire-retardant-treated materials are indicated, materials shall comply with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Comply with performance requirements in AWPA C27. Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.
   1. Use treatment that does not promote corrosion of metal fasteners.
   2. Use Exterior type for exterior locations and where indicated.
   3. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.

C. Kiln-dry lumber after treatment to maximum moisture content of 19 percent. Kiln-dry plywood after treatment to maximum moisture content of 15 percent.

D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.

E. For exposed items indicated to receive a stained or natural finish, chemical formulations shall not bleed through, contain colorants, or otherwise adversely affect finishes.

F. Application: Treat items indicated on Drawings, and the following:
   1. Concealed blocking.
   2. Plywood backing panels.

2.4 DIMENSION LUMBER FRAMING

A. Non-Load-Bearing Interior Partitions: Construction or No. 2 grade and the following species:
   1. Hem-fir (north); NLGA.
   2. Hem-fir; WCLIB, or WWPA.
   3. Western woods; WCLIB or WWPA.
   4. Douglas fir-larch, Douglas fir-larch (North), or Douglas fir-south; NLGA, WCLIB, or WWPA.
   5. Mixed southern pine; SPIB.
   6. Spruce-pine-fir or spruce-pine-fir (South); NeLMA, NLGA, WCLIB, or WWPA.

B. Load-Bearing Partitions: per Structural Drawings.

C. Joists, Rafters, and Other Framing Not Listed Above: Stud, or No. 2 grade, unless noted otherwise per Structural Drawings.

D. Maximum Moisture Content: 19 percent for 2-inch nominal (38-mm actual) thickness or less; no limit for more than 2-inch nominal (38-mm actual) thickness.

2.5 WOOD FASCIA

A. General: Provide 1x of cedar species for wood fascia No. 1 grade and as indicated/noted on the drawings:
   1. Wood Fascia to be painted – as indicated on the drawings.

2.6 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
   1. Blocking.
   2. Nailers.
   3. Cants.
   4. Furring.
   5. Grounds.

B. Dimension Lumber Items: Standard, Stud, or No. 2 grade lumber of any species.

C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

D. For blocking and nailers used for attachment of other construction, select, and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

E. For furring strips for installing plywood or hardboard paneling, select boards with no knots capable of producing bent-over nails and damage to paneling.

2.7 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: Plywood, DOC PS 1, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness.

2.8 FASTENERS

A. General: Fasteners shall be of size and type indicated and shall comply with requirements specified in this article for material and manufacture.
   1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

B. Nails, Brads, and Staples: ASTM F 1667.

C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

D. Wood Screws: ASME B18.6.1.

E. Lag Bolts: ASME B18.2.1.

F. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.

G. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
   1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.

2.9 METAL FRAMING ANCHORS

A. Basis-of-Design Products: Subject to compliance with requirements, provide products indicated on Drawings or comparable products by one of the following:
   1. Alpine Engineered Products, Inc.

2. Cleveland Steel Specialty Co.
3. Harlen Metal Products, Inc.
4. KC Metals Products, Inc.
5. Simpson Strong-Tie Co., Inc.
6. Southeastern Metals Manufacturing Co., Inc.
7. USP Structural Connectors.

B. Allowable design loads, as published by manufacturer, shall meet, or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency. Framing anchors shall be punched for fasteners adequate to withstand same loads as framing anchors.

C. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, G60 coating designation.
1. Use for interior locations unless otherwise indicated.

D. Type 304 is usually standard for stainless steel; Type 316 gives better corrosion resistance for exposed applications in coastal environments.

2.10 MISCELLANEOUS MATERIALS

A. Sill-Sealer Gaskets: Closed-cell neoprene foam, 1/4 inch thick, selected from manufacturer's standard widths to suit width of sill members indicated.

B. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch.

C. Adhesives for Gluing Furring and Sleepers to Concrete or Masonry: Formulation complying with ASTM D 3498 that is approved for use indicated by adhesive manufacturer.

D. Water-Repellent Preservative: NWWDA-tested and -accepted formulation containing 3-iodo-2-propynyl butyl carbamate, combined with an insecticide containing chloropyrifos as its active ingredient.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.

C. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels.

D. Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

E. Install sill sealer gasket to form continuous seal between sill plates and foundation walls.

F. Do not splice structural members between supports unless otherwise indicated.

G. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches o.c.

H. Sort and select lumber so that natural characteristics do not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

I. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

J. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

K. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

L. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

M. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.

3.2 WOOD BLOCKING, AND NAILER INSTALLATION

A. Install where indicated and where required for screeding or attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

C. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.

3.3 WOOD FURRING INSTALLATION

A. Install level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.

B. Furring to Receive Plywood or Hardboard Paneling: Install 1-by-3-inch nominal-size furring horizontally or vertically at 24 inches o.c.

C. Furring to Receive Gypsum Board: Install 1-by-2-inch nominal-size furring vertically at 16 inches o.c.

3.4 WALL AND PARTITION FRAMING INSTALLATION

A. General: Provide single bottom plate and double top plates using members of 2-inch nominal thickness whose widths equal that of studs, except single top plate may be used for non-load-bearing partitions and for load-bearing partitions where framing members bearing on partition are located directly over studs. Fasten plates to supporting construction unless otherwise indicated.

1. For exterior walls, provide 2-by-6-inch nominal-size wood studs spaced 24 inches o.c. unless otherwise indicated.

2. For interior partitions and walls, provide 2-by-4-inch nominal-size wood studs spaced 24 inches o.c. unless otherwise indicated.
3. Provide continuous horizontal blocking at midheight of partitions more than 96 inches high, using members of 2-inch nominal thickness and of same width as wall or partitions.

B. Construct corners and intersections with three or more studs.

C. Frame openings with multiple studs and headers. Provide nailed header members of thickness equal to width of studs. Support headers on jamb studs.

3.5 CEILING JOIST AND RAFTER FRAMING INSTALLATION

A. Ceiling Joists: Install with crown edge up and complying with requirements specified above for floor joists. Face nail to ends of parallel rafters.

3.6 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

SECTION 133419 – POLE BUILDING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Section Includes:
1. Pole building system.
2. Dimension lumber.
3. Wood roof trusses.
4. Metal roof panels.
5. Metal wall panels.
6. Wood truss bracing.
7. Metal truss accessories
8. Accessories.

1.03 SUBMITTALS

A. Product Data: For each type of building system component.

B. Shop Drawings: For complete Pole Building System stamped by a licensed engineer.
1. Also included for pole building system are components. Include plans, elevations, sections, details, and attachments to other work.

C. Samples: For each type of exposed finish required.

D. Delegated-Design Submittal: For pole building systems indicated to comply with performance requirements and design criteria, including analysis data and calculations signed and sealed by the qualified professional engineer responsible for their preparation.

E. Pole Building System Certificates: For each type of building system, from manufacturer.
1. Letter of Design Certification: Signed and sealed by a qualified professional engineer licensed to practice in the state of Washington. Include the following:
a. Name and location of Project.
b. Order number.
c. Name of manufacturer.
d. Name of Contractor.
e. Building dimensions including width, length, height, and roof slope.
f. Design Loads: Include dead load, roof live load, collateral loads, roof snow load, deflection, wind loads/speeds and exposure, seismic design category or effective peak velocity-related acceleration/peak acceleration, and auxiliary loads (cranes).
g. Load Combinations: Indicate that loads were applied acting simultaneously with concentrated loads, according to governing building code.

h. Building-Use Category: Indicate category of building use and its effect on load importance factors.
i. Indicate type, size, material, finish, design values, orientation, and location of metal connector plates.
j. Show splice details and bearing details.

F. Material test reports.

G. Source quality-control reports.

H. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:
1. Metal-plate connectors.
2. Metal truss accessories.

I. Field quality-control reports.

J. Maintenance data.

K. Warranties: Sample of special warranties.

1.04 QUALITY ASSURANCE

A. Metal Connector-Plate Manufacturer Qualifications: A manufacturer that is a member of TPI and that complies with quality-control procedures in TPI 1 for manufacture of connector plates.
1. Manufacturer's responsibilities include providing professional engineering services needed to assume engineering responsibility.
2. Engineering Responsibility: Preparation of Shop Drawings and comprehensive engineering analysis by a qualified professional engineer.

B. Fabricator Qualifications: Shop that participates in a recognized quality-assurance program that complies with quality-control procedures in TPI 1 and that involves third-party inspection by an independent testing and inspecting agency acceptable to Architect and authorities having jurisdiction.

C. Comply with applicable requirements and recommendations of the following publications:
1. TPI 1, "National Design Standard for Metal Plate Connected Wood Truss Construction."
2. TPI DSB, "Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses."
3. TPI HIB, "Commentary and Recommendations for Handling, Installing & Bracing Metal Plate Connected Wood Trusses."

D. Wood Structural Design Standard: Comply with applicable requirements in AF&PA's "National Design Specifications for Wood Construction" and its "Supplement."

E. Erector Qualifications: An experienced erector who specializes in erecting and installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.

1.05 WARRANTY

A. Special Warranty on Metal Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
   1. Finish Warranty Period: 10 years from date of Substantial Completion.

B. Special Weathertightness Warranty for Metal Roof Panels: Manufacturer's standard form in which manufacturer agrees to repair or replace metal roof panel assemblies that leak or otherwise fail to remain weathertight within specified warranty period.
   1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 PRODUCTS

2.01 DIMENSION LUMBER

A. Lumber: DOC PS 20. Provide lumber that complies with the applicable rules of any rules writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
   1. Provide dry lumber with 19 percent maximum moisture content at time of dressing.

B. Grade and Species: For truss chord and web members, provide dimension lumber of any species, graded visually or mechanically, and capable of supporting required loads without exceeding allowable design values according to AF&PA's "National Design Specifications for Wood Construction" and its "Supplement."

C. Permanent Bracing: Provide wood bracing that complies with requirements for miscellaneous lumber in Division 06 Section Rough Carpentry.

2.02 METAL PRODUCTS

A. Connector Plates: Fabricate connector plates to comply with TPI 1 from hot-dip galvanized steel sheet complying with ASTM A 653/A 653M; Structural Steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G60 (Z180) coating designation; and not less than 0.036 inch (0.9 mm) thick.
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Alpine Engineered Products, Inc.
      b. Cherokee Metal Products, Inc.; Masengill Machinery Company.
      c. CompuTrus, Inc.
      d. Eagle Metal Products.
      e. Jager Building Systems, Inc.
      f. MiTek Industries, Inc.; a subsidiary of Berkshire Hathaway Inc.
      g. Robbins Engineering, Inc.
      h. TEE-LOK Corporation; a subsidiary of Berkshire Hathaway Inc.
      i. Truswal Systems Corporation.

B. Fasteners: Where trusses are exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
   1. Nails, Brads, and Staples: ASTM F 1667.
   2. Power-Driven Fasteners: NES NER-272.
   3. Wood Screws: ASME B18.6.1.
   4. Lag Bolts: ASME B18.2.1 (ASME B18.2.3.8M).
   5. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

C. Metal Truss Accessories: Provide truss accessories made from hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, G60 (Z180) coating designation.
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Cleveland Steel Specialty Co.
      b. Harlen Metal Products, Inc.
      c. KC Metals Products, Inc.
      d. Simpson Strong-Tie Co., Inc.
      e. Southeastern Metals Manufacturing Co., Inc.
      f. USP Structural Connectors.
   2. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those of products of manufacturers listed. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.03 BUILDING SYSTEM PERFORMANCE

A. Delegated Design: Design pole building system, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. Seismic Performance: Building systems shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

C. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for Class 90.

2.04 METAL ROOF PANELS

A. Tapered-Rib-Profile, Lap-Seam Metal Roof Panels to match adjacent buildings profile and color: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced between major ribs; designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.
   1. Material: Zinc-coated (galvanized) or Aluminum-zinc alloy-coated steel sheet, nominal thickness required to meet performance requirements.
      a. Color: Match existing metal roofing.

2. Major-Rib Spacing: To match adjacent buildings.
3. Panel Coverage: to match adjacent buildings.
4. Panel Height: to match adjacent buildings.
5. Fasteners: Self-tapping with sealing washer.

2.05 METAL WALL PANELS

A. Tapered-Rib-Profile to match adjacent buildings, Exposed-Fastener Metal Wall Panels: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced between major ribs; designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.
   1. Material: Zinc-coated (galvanized) or Aluminum-zinc alloy-coated steel sheet, nominal thickness required to meet performance requirements.
      a. Color: Match existing.
   2. Major-Rib Spacing: To match adjacent buildings.
   3. Panel Coverage: to match adjacent buildings.
   4. Panel Height: to match adjacent buildings.
   5. Fasteners: Self-tapping with sealing washer.

2.06 ACCESSORIES

A. General: Provide accessories as standard with pole building system manufacturer and as specified. Fabricate and finish accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes. Comply with indicated profiles and with dimensional and structural requirements.
   1. Form exposed sheet metal accessories that are without excessive oil-canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.

B. Roof Panel Accessories: Provide components required for a complete metal roof panel assembly including copings, fasciae, corner units, ridge closures, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.

C. Wall Panel Accessories: Provide components required for a complete metal wall panel assembly including copings, fasciae, mullions, sills, corner units, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal wall panels unless otherwise indicated.

D. Flashing and Trim: Formed from 0.022-inch (0.56-mm) nominal-thickness, metallic-coated steel sheet or aluminum-zinc alloy-coated steel sheet prepainted with coil coating; finished to match adjacent metal panels.

E. Pipe Flashing: Premolded, EPDM pipe collar with flexible aluminum ring bonded to base.

2.07 FABRICATION

A. General: Design components and field connections required for erection to permit easy assembly.
   1. Mark each piece and part of the assembly to correspond with previously prepared erection drawings, diagrams, and instruction manuals.

2. Fabricate structural framing to produce clean, smooth cuts and bends. Punch holes of proper size, shape, and location. Members shall be free of cracks, tears, and ruptures.

B. Assemble truss members in design configuration indicated; use jigs or other means to ensure uniformity and accuracy of assembly with joints closely fitted to comply with tolerances in TPI 1. Position members to produce design camber indicated.
1. Fabricate wood trusses within manufacturing tolerances in TPI 1.

C. Connect truss members by metal connector plates located and securely embedded simultaneously in both sides of wood members by air or hydraulic press.

D. Primary Framing: Shop fabricate framing components to size and section, with bearing plates, stiffeners, and other items required for erection into place. Cut, form, drill, and fasten framing for bolted field assembly.

E. Metal Panels: Fabricate and finish metal panels at the factory to greatest extent possible, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.

PART 3 EXECUTION

3.01 ERECTION OF STRUCTURAL FRAMING

A. Erect building system according to the written erection instructions and erection drawings.

B. Install wood trusses only after supporting construction is in place and is braced and secured.

C. If trusses are delivered to Project site in more than one piece, assemble trusses before installing.

D. Hoist trusses in place by lifting equipment suited to sizes and types of trusses required, exercising care not to damage truss members or joints by out-of-plane bending or other causes.

E. Install and brace trusses according to TPI recommendations and as indicated.

F. Anchor trusses securely at bearing points; use metal truss tie-downs or floor truss hangers as applicable. Install fasteners through each fastener hole in truss accessories according to manufacturer's fastening schedules and written instructions.

G. Securely connect each truss ply required for forming built-up girder trusses.

H. Install and fasten permanent bracing during truss erection and before construction loads are applied. Anchor ends of permanent bracing where terminating at walls or beams.
1. Install bracing to comply with Division 06 Section Rough Carpentry.
2. Install and fasten strongback bracing vertically against vertical web of parallel-chord floor trusses at centers indicated.

I. Install wood trusses within installation tolerances in TPI 1.

J. Do not cut or remove truss members.

K. Replace wood trusses that are damaged or do not meet requirements.

L. Do not field cut, drill, or alter structural members without written approval from manufacturer's professional engineer.

M. Set structural posts accurately in locations and to elevations indicated, according to specifications referenced in this Section. Maintain structural stability of frame during erection.

N. Framing for Openings: Provide shapes of proper design and size to reinforce openings and to carry loads and vibrations imposed, including equipment furnished under mechanical and electrical work. Securely attach to structural framing.

O. Erection Tolerances: Maintain erection tolerances of structural framing within requirements for miscellaneous lumber in division 06 section Rough Carpentry.

3.02 METAL PANEL INSTALLATION, GENERAL

A. General: Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Field cut metal panels as required for doors, windows, and other openings. Cut openings as small as possible, neatly to size required, and without damage to adjacent metal panel finishes.
      a. Field cutting of metal panels by torch is not permitted unless approved in writing by manufacturer.
   2. Install metal panels perpendicular to structural supports unless otherwise indicated.
   3. Flash and seal metal panels with weather closures at perimeter of openings and similar elements. Fasten with self-tapping screws.
   4. Locate and space fastenings in uniform vertical and horizontal alignment.
   5. Locate metal panel splices over, but not attached to, structural supports with end laps in alignment.
   6. Lap metal flashing over metal panels to allow moisture to run over and off the material.

B. Lap-Seam Metal Panels: Install screw fasteners using power tools with controlled torque adjusted to compress EPDM washers tightly without damage to washers, screw threads, or metal panels. Install screws in predrilled holes.
   1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Lap ribbed or fluted sheets one full rib corrugation. Apply metal panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.

D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal panel assemblies. Provide types of gaskets, fillers, and sealants recommended by metal panel manufacturer.
   1. Seal metal panel end laps with double beads of tape or sealant the full width of panel. Seal side joints where recommended by metal panel manufacturer.

3.03 METAL ROOF PANEL INSTALLATION

A. General: Provide metal roof panels of full length from eave to ridge unless otherwise indicated or restricted by shipping limitations.
   1. Install ridge and hip caps as metal roof panel work proceeds.
   2. Flash and seal metal roof panels with weather closures at eaves and rakes. Fasten with self-tapping screws.

B. Lap-Seam Metal Roof Panels: Fasten metal roof panels to supports with exposed fasteners at each lapped joint, at location and spacing recommended by manufacturer.
   1. Provide metal-backed sealing washers under heads of exposed fasteners bearing on weather side of metal roof panels.
   2. Provide sealant tape at lapped joints of metal roof panels and between panels and protruding equipment, vents, and accessories.
   3. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on end laps and on side laps of nesting-type metal panels, on side laps of ribbed or fluted metal panels, and elsewhere as needed to make metal panels weatherproof to driving rains.
   4. At metal panel splices, nest panels with minimum 6-inch (152-mm) end lap, sealed with butyl-rubber sealant and fastened together by interlocking clamping plates.

C. Metal Fascia Panels: Align bottom of metal panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws. Flash and seal metal panels with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

3.04 METAL WALL PANEL INSTALLATION

A. General: Install metal wall panels in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to girts, extending full height of building, unless otherwise indicated. Anchor metal wall panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Unless otherwise indicated, begin metal panel installation at corners with center of rib lined up with line of framing.
   2. Shim or otherwise plumb substrates receiving metal wall panels.
   3. When two rows of metal panels are required, lap panels 4 inches (102 mm) minimum.
   4. When building height requires two rows of metal panels at gable ends, align lap of gable panels over metal wall panels at eave height.
   5. Rigidly fasten base end of metal wall panels and allow eave end free movement due to thermal expansion and contraction. Predrill panels.
   6. Flash and seal metal wall panels with weather closures at eaves, rakes, and at perimeter of all openings. Fasten with self-tapping screws.
   7. Install screw fasteners in predrilled holes.
   8. Install flashing and trim as metal wall panel work proceeds.

9. Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as indicated; or, if not indicated, as necessary for waterproofing.
10. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws.
11. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.

B. Metal Wall Panels: Install metal wall panels on exterior side of girts. Attach metal wall panels to supports with fasteners as recommended by manufacturer.

3.05 ACCESSORY INSTALLATION

A. General: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.
1. Install components required for a complete metal roof panel assembly, including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
2. Install components for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
3. Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturer.

B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
1. Install exposed flashing and trim that is without excessive oil-canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.

2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (600 mm) of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).

C. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to panel as recommended by manufacturer.

END OF SECTION 133419

SECTION 321313 - CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes Concrete Paving. Including the Following:
   1. Standard Concrete Paving

B. Related Requirements:
   1. Division 03 Section “Cast-in-Place Concrete" for general building applications of concrete.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash, slag cement, and other pozzolans.

B. W/C Ratio: The ratio by weight of water to cementitious materials.

1.4 REFERENCES

A. WSDOT Specifications: All paving design and construction on the WSU campuses shall conform to the current adopted edition of the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge and Municipal Construction.

B. All cast-in-place Portland Cement Concrete (PCC) addressed in this section shall comply with WSU Design Standard and spec section “033000 - Cast-in-Place Concrete.”

C. Coordinate work schedule with parking, emergency vehicle, and truck travel areas. Work shall be scheduled to limit the impact of heavy equipment near the building.

1.5 INFORMATIONAL SUBMITTALS

A. Product Data: For each type of product.

B. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

C. Qualification Data: For qualified ready-mix concrete manufacturer.

D. Material Certificates: For the following, from manufacturer:
   1. Steel reinforcement and reinforcement accessories.
   2. Admixtures.
   3. Curing compounds.
   4. Applied finish materials.
   5. Bonding agent or epoxy adhesive.

6. Joint fillers.

E. Material Test Reports: For each of the following:
   1. Aggregates: Include service-record data indicating absence of deleterious expansion of concrete due to alkali-aggregate reactivity.

F. Field quality-control reports.

1.6 QUALITY ASSURANCE

A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
   1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual - Section 3, "Plant Certification Checklist").

B. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of Washington Department of Transportation (WSDOT) Standard Specifications Municipal Construction – 2018 Edition for concrete work.

C. Testing Agency Qualifications: Qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
   1. Personnel conducting field tests shall be qualified as ACI Concrete Field-Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

1.7 DESIGN CRITERIA

A. Subgrade: The Engineer of Record shall specify the required depth and degree of compaction. Compact at least the top 6 inches of subgrade to 95% of maximum theoretical density using ASTM D1557 (Modified Proctor method).

B. Base Course and Top Course: The Engineer of Record shall specify the required structural fill, depths, and degree of compaction. Compact at least to 95% of maximum theoretical density using ASTM D1557 (Modified Proctor method). Minimum depths of base course and top course are identified in the paragraphs below.

C. Drainage Slope: Design exterior sidewalks, and slabs to slope 1% minimum 2% maximum. Slope away from adjacent structures (building face, retaining walls, etc.).

D. Concrete Pads within the zone of influence of tree roots (i.e., within the dripline of existing trees, or within the anticipated dripline at maturity for new trees): Consult with WSU Grounds staff to confirm the zone of influence of existing trees.
   1. Minimum 6-inch concrete thickness – see drawings.
   2. Install longitudinal and transverse #4 rebar at a maximum 24-inch spacing. Longitudinal rebar shall extend 5-feet beyond the zone of influence. Transverse rebar shall be installed within 2-inches of the sidewalk outer edge.
   3. Rebar shall be connected with two tie wires at every joint and lap splice. Discontinuous rebar shall have a lap splice or development length according to the requirements of ACI 318.
   4. Install control joints as close to square as possible; construct expansion joints at maximum 28-foot intervals.
   5. Subgrade and Base Course Compaction Requirements: Compaction depth and testing for vaults and manholes shall be the same as that required for Streets, Service Areas, and Service Access Roads above:

a. Subgrade: Compact at least the top 6-inches to 95% max theoretical density per ASTM D1557 (Modified Proctor method).
b. Base Course: Minimum 6-inch crushed surfacing base course compacted to 95% max theoretical density per ASTM D1557 (Modified Proctor method).
   1) Controlled Density Fill (CDF) is an acceptable alternative for base course beneath vaults and manholes. See WSU Design Standard 31 00 00 “Earthwork” not included in this spec book.

1.8 FIELD CONDITIONS

A. Hot-Weather Concrete Placement: Comply with ACI 301 and as follows when hot-weather conditions exist:
   1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
   2. Cover steel reinforcement with water-soaked burlap, so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
   3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with ACI 301 unless otherwise indicated.

2.2 FORMS

A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, and smooth exposed surfaces.
   1. Use flexible or uniformly curved forms for curves with a radius of 100 feet or less. Do not use notched and bent forms.

B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.

2.3 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed.

B. Steel Bar Mats: ASTM A 184/A 184M; with ASTM A 615/A 615M, Grade 60 deformed bars; assembled with clips.

C. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of burrs.

D. Tie Bars: ASTM A 615/A 615M, Grade 60; deformed.

E. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded-wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified, and as follows:

1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.

2.4 CONCRETE MATERIALS

A. Cementitious Materials: Use the following cementitious materials, of same type, brand, and source throughout Project:
   1. Portland Cement: ASTM C 150/C 150M, gray Portland cement Type I.
   2. Fly Ash: ASTM C 618, Class C.
   3. Slag Cement: ASTM C 989/C 989M, Grade 100 or 120.
   4. Blended Hydraulic Cement: ASTM C 595/C 595M, Type IS, Portland blast-furnace slag cement.

B. Normal-Weight Aggregates: ASTM C 33/C 33M, Class 4S, uniformly graded. Provide aggregates from a single source.
   1. Maximum Coarse-Aggregate Size: 1-inch nominal.

A. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement. Exposed Aggregate: Selected, hard, and durable; washed; free of materials with deleterious reactivity to cement or that cause staining; from a single source, with gap-graded coarse aggregate as follows:
   1. Aggregate Sizes: 3/8-to-5/8-inch nominal.
   2. Aggregate Source, Shape, and Color: Native local aggregate.

B. Air-Entraining Admixture: ASTM C 260/C 260M.

C. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.
   1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
   2. Retarding Admixture: ASTM C 494/C 494M, Type B.
   3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
   4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
   5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
   6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

D. Water: Potable and complying with ASTM C 94/C 94M.

2.5 CURING MATERIALS

A. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.

B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

C. Water: Potable.

D. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.
   1. Available Products:
      a. Axim Concrete Technologies; Cimfilm.
      b. Burke by Edeco; BurkeFilm.
      c. ChemMasters; Spray-Film.
      d. Conspec Marketing & Manufacturing Co., Inc.; Aquafilm.
      e. Dayton Superior Corporation; Sure Film.
      f. Euclid Chemical Company (The); Eucobar.

g. Kaufman Products, Inc.; Vapor Aid.
h. Lambert Corporation; Lambco Skin.
i. L&M Construction Chemicals, Inc.; E-Con.
j. MBT Protection and Repair, ChemRex Inc.; Confilm.
k. Meadows, W. R., Inc.; Sealtight Evapre.
l. Metalcrete Industries; Waterhold.
m. Nox-Crete Products Group, Kinsman Corporation; Monofilm.
n. Sika Corporation, Inc.; SikaFilm.
o. Symons Corporation; Finishing Aid.
p. Vexcon Chemicals, Inc.; Certi-Vex EnvioAssist.

E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
1. Available Products:
a. Anti-Hydro International, Inc.; AH Curing Compound #2 DR WB.
b. Burke by Edoko; Aqua Resin Cure.
c. ChemMasters; Safe-Cure Clear.
d. Conspec Marketing & Manufacturing Co., Inc.; W.B. Resin Cure.
e. Dayton Superior Corporation; Day Chem Rez Cure (J-11-W).
f. Euclid Chemical Company (The); Kurez DR VOX.
g. Kaufman Products, Inc.; Thinfilm 420.
h. Lambert Corporation; Aqua Kure-Clear.
i. L&M Construction Chemicals, Inc.; L&M Cure R.
j. Meadows, W. R., Inc.; 1100 Clear.
k. Nox-Crete Products Group, Kinsman Corporation; Resin Cure E.
l. Symons Corporation; Resi-Chem Clear.
m. Tamms Industries Inc.; Horncure WB 30.
n. Unitex; Hydro Cure 309.
o. Vexcon Chemicals, Inc.; Certi-Vex Enviocure 100.

F. Clear Acrylic Sealer: Manufacturer's standard, waterborne, nonyellowing and UV-resistant, membrane-forming, medium-gloss, acrylic copolymer emulsion solution, manufactured for colored concrete, containing not less than 15 percent solids by volume.
1. Products: Subject to compliance with requirements, provide one of the following:
a. Advanced Surfaces Inc.; Clear Water Base Sealer.
b. Duckback Products; DB6510 Series Mason's Select Clear Concrete Sealer-Satin Finish.
c. H&C Concrete Care Products; Shield-Crete Clear Glaze.
d. Scofield, L. M. Company; CEMENTONE Clear Sealer.
e. Symons by Dayton Superior; Decorative Sealer WB.
f. Silencure by ChemMasters.
g. Pencure OTC by W.R. Meadows SealTight.

2.6 RELATED MATERIALS

A. Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber in preformed strips.

B. Bonding Agent: ASTM C 1059/C 1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

C. Epoxy-Bonding Adhesive: ASTM C 881/C 881M, two-component epoxy resin capable of humid curing and bonding to damp surfaces; of class suitable for application temperature, of grade complying with requirements, and of the following types:
1. Types I and II, nonload bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

D. Chemical Surface Retarder: Water-soluble, liquid, set retarder with color dye, for horizontal concrete surface application, capable of temporarily delaying final hardening of concrete to a depth of 1/8 to 1/4 inch.
   1. Available Products:
      a. Burke by Edeco; True Etch Surface Retarder.
      b. ChemMasters; Exposee.
      c. Conspec Marketing & Manufacturing Co., Inc.; Delay S.
      d. Euclid Chemical Company (The); Surface Retarder S.
      e. Kaufman Products, Inc.; Expose.
      f. Metalcrete Industries; Surftard.
      g. Nox-Crete Products Group, Kinsman Corporation; Crete-Nox TA.
      h. Scofield, L. M. Company; Lithotex.
      i. Sika Corporation, Inc.; Rugasol-S.
      j. Vexcon Chemicals, Inc.; Certi-Vex Envioset.
      k. Insert manufacturer's name, product name or designation.

2.7 CONCRETE MIXTURES

A. Prepare design mixtures, proportioned according to ACI 301, for each type and strength of normal-weight concrete, and as determined by either laboratory trial mixtures or field experience.
   1. Use a qualified independent testing agency for preparing and reporting proposed concrete design mixtures for the trial batch method.
   2. When automatic machine placement is used, determine design mixtures, and obtain laboratory test results that comply with or exceed requirements.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
   1. Fly Ash or Pozzolan: 25 percent.
   2. Slag Cement: 50 percent.
   3. Combined Fly Ash or Pozzolan, and Slag Cement: 50 percent, with fly ash or pozzolan not exceeding 25 percent.

C. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:
   1. Air Content: 6 percent plus or minus 1-1/2 percent for 1-inch nominal maximum aggregate size.

D. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.

E. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
   1. Use water-reducing admixture, plasticizing and retarding admixture in concrete as required for placement and workability.
   2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

F. Concrete Mixtures: Normal-weight concrete.
   1. Compressive Strength (28 Days): 4500 psi.
   2. Maximum W/C Ratio at Point of Placement: 0.45.
   3. Slump Limit: 4 inches, plus or minus 1 inch.

2.8 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M and ASTM C 1116/C 1116M. Furnish batch certificates for each batch discharged and used in the Work.
   1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix concrete materials in appropriate drum-type batch machine mixer.
   1. For concrete batches of 1 cu. yd. or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
   2. For concrete batches larger than 1 cu. yd., increase mixing time by 15 seconds for each additional 1 cu. yd.
   3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixing time, quantity, and amount of water added.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine exposed subgrades and base surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.

B. Proof-roll prepared subgrade surface below concrete paving to identify soft pockets and areas of excess yielding where physically possible.
   1. Completely proof-roll subgrade in one direction and repeat in perpendicular direction. Limit vehicle speed to 3 mph.
   2. Proof-roll with a pneumatic-tired and loaded vehicle.
   3. Where access is limited for proof-rolling, alternate methods will be approved.
   4. Correct base with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch according to requirements in WSU Standards Division 31 Section "Earth Moving."

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove loose material from compacted base course surface immediately before placing concrete.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.

B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.4 STEEL REINFORCEMENT INSTALLATION

A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.

C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.

D. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch overlap of adjacent mats.

3.5 JOINTS

A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.
   1. When joining existing paving, place transverse joints to align with previously placed joints unless otherwise indicated.

B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.
   1. Continue steel reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of paving strips unless otherwise indicated.
   2. Provide tie bars at sides of paving strips where indicated.
   3. Butt Joints: Use epoxy-bonding adhesive at joint locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
   4. Keyed Joints: Provide preformed keyway-section forms or bulkhead forms with keys unless otherwise indicated. Embed keys at least 1-1/2 inches into concrete.
   5. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.

C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.
   1. Locate expansion joints at intervals of 40 feet unless otherwise indicated.
   2. Extend joint fillers full width and depth of joint.
   3. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
   4. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
   5. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:
   1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 3/8-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.
   2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.

3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.

E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 3/8-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

3.6 CONCRETE PLACEMENT

A. Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast in.

B. Moisten base to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.

C. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.

D. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing.

E. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.

F. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement dowels and joint devices.

G. Screed paving surface with a straightedge and strike off.

H. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleedwater appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.

I. Curbs: Use design mixture for placement. Produce curbs to required cross section, lines, grades, finish, and jointing.

3.7 FLOAT FINISHING

A. General: Do not add water to concrete surfaces during finishing operations.

B. Float Finish: Begin the second floating operation when bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.

3.8 FINISH
1. Fine to Medium Textured Broom Finish: Provide fine to medium texture.

3.9 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb./sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.

C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

D. Curing Methods: Cure concrete by moisture curing moisture-retaining-cover curing compound or a combination of these as follows:
   1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
      a. Water.
      b. Continuous water-fog spray.
      c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
   2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears occurring during installation or curing period, using cover material and waterproof tape.
   3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.

3.10 PAVING TOLERANCES

A. Comply with tolerances in ACI 117 and as follows:
   1. Elevation: 1/4 inch.
   2. Thickness: Plus 3/8-inch, minus 1/4 inch.
   3. Surface: Gap below 10-feet-long; unleveled straightedge not to exceed 1/4 inch.
   4. Alignment of Tie-Bar End Relative to Line Perpendicular to Paving Edge: 1/4 inch per 12 inches of tie bar.
   5. Lateral Alignment and Spacing of Dowels: 1 inch.
   6. Vertical Alignment of Dowels: 1/4 inch.
   7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Paving Edge: 1/4 inch per 12 inches of dowel.
   8. Joint Spacing: 3 inches.
   9. Contraction Joint Depth: Plus 1/4 inch, no minus.
   10. Joint Width: Plus 1/8 inch, no minus.

3.11 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.

B. Testing Services: Testing and inspecting of composite samples of fresh concrete obtained according to ASTM C 172/C 172M shall be performed according to the following requirements:
   1. Testing Frequency: Obtain at least one composite sample for each 40-cu. yd. or fraction thereof of each concrete mixture placed each day.

a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231/C 231M, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when it is 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
6. Compressive-Strength Tests: ASTM C 39/C 39M; test one specimen at seven days and two specimens at 28 days.
   a. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at 28 days.

C. See general requirements for all concrete in WSU Design Standard 03 30 00 “Cast-in-Place Concrete.”

D. Strength of each concrete mixture will be satisfactory if average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

E. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.

F. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.

G. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.

H. Concrete paving will be considered defective if it does not pass tests and inspections.

I. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

J. Prepare test and inspection reports.

3.12 REPAIR AND PROTECTION

A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.

B. Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with Portland cement concrete bonded to paving with epoxy adhesive.

C. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.

D. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321313