Bustad HVAC Service Equipment Elements and Controls Upgrade

Washington State University
Pullman, WA

Project Manual

Project No. 1573-2021
Issued 10/11/2021
Washington State University
Facility Services, Capital

CONDITIONS OF THE CONTRACT

DIVISION 01 GENERAL REQUIREMENTS

END OF SECTION 00 01 10

Bustad HVAC Service Equipment Elements and Controls Upgrade

Agreement between Owner and Design-Builder

(Cost-Plus Fee with a Guaranteed Maximum Price)

This AGREEMENT is made by and between the following parties, for design and construction services, in connection with the Project identified below.

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

DESIGN-BUILDER: [To be determined]

PROJECT: Bustad HVAC Service Equipment Elements and Controls Upgrade
1845 E Grimes Way
Pullman, Wa 99164

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

Article 1
The Work of the Design-Build Contract

1.1 Design-Builder to fully execute the Work. Design-Builder shall fully execute the entire Work, including design and construction services, in strict accordance with the Contract Documents, and shall provide all material, equipment, tools, labor, and design services 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 Design-Builder to further Owner's interests. Design-Builder accepts the relationship of trust and confidence established by this Agreement and covenants with Owner to cooperate with Owner and others involved with the Project and to exercise Design-Builder's best skill and judgment; to furnish efficient, professional and competent design services and construction administration, management 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 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 Guaranteed Maximum Price (or "GMP").

Article 2
Contract Documents

2.1 The Contract Documents. The "Contract Documents" form the "Design-Build Contract" or "Contract." The Contract Documents consist of this Agreement (Agreement between Owner and Design-Builder or the "Agreement"); any attached Exhibits and other documents listed in the Contract Documents; the General Conditions; other documents listed in Article 13 of this Agreement; and written modifications, amendments and Change Orders to the Contract issued after execution of this Agreement. If authorized representatives of both parties execute the Agreement, the Contract is effective as of the date of first signature.

2.2. Contract is complete and integrated agreement. The Design-Build 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 Design-Builder. The Contract Documents shall not be construed to create a contractual relationship of any kind between any Persons other than Owner and Design-Builder.

2.4 General Conditions modified. The General Conditions and Division 01 define the term "A/E" and identify certain responsibilities of the A/E. In the Design-Build Contract, however, Design-Builder retains the A/E and is responsible for both design and construction of the Work. The following provisions of the General Conditions are hereby modified:

1.01B	A/E does not represent Owner.
1.01K	The Contract Time is defined in Section 4.2
1.02.1	Signed Agreement includes Design-Builder's final Proposal and presentation materials.
2.06A	The builder's risk insurance shall cover the interests of Design-Builder's A/E.
2.06B	A/E's services and expenses may not be covered. Refer to policy.
3.04B	Replace "A/E" with "Owner's consultants."
4.01C	Design-Builder to report discrepancies to Owner.
4.01F	Questions to be referred to Owner.
4.02C	Final Project Record to be submitted to Owner.
4.03	Submittals shall be submitted to and reviewed by Owner, not A/E. Replace "A/E" with "Owner" throughout.
4.03E	Design-Builder and Owner may agree on the number of copies of Submittals to be submitted to Owner. If no such agreement is reached, Design-Builder shall submit five (5) copies.
4.05	See Article 11 of this Agreement related to the instruments of service. Article 11 of this Agreement shall apply in the event of any inconsistency with Section 4.05 of the General Conditions.
5.07A	Replace "A/E" with "Owner's consultants."
5.07H	Replace "A/E" with "Owner's consultants."
5.13A	Owner must approve substitutions. Replace "A/E" with "Owner."

5.22	Design-Builder has no obligation under this Agreement to defend, indemnify, or hold harmless Design-Builder's A/E.
6.06A	Completion of the Contract Work for purposes of RCW Chapters 39.08 and 60.28 shall occur upon Final Acceptance.
Part 8	Part 8 shall apply to any disputes that arise during the Post-Completion Performance Period.
10.04	Strike "or A/E."
10.08	Strike "A/E 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 and design industry standards. In the event of any inconsistency in such definitions, the definitions in this Agreement shall control.

3.2 Construction Documents. "Construction Documents" are prepared by Design-Builder and accepted by Owner to convey Design-Builder's final design for the Work, consistent with the Contract Documents, including the Project Criteria. 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 Design-Builder. "Design-Builder" is the Person identified as such in the Agreement and identified as "Contractor" in the General Conditions. The terms "Design-Builder" and "Contractor" are used interchangeably to identify the Person that is a party to this Agreement. Design-Builder must be licensed, bonded, and insured as a contractor, and legally permitted to do business, in the State of Washington. Design-Builder's authorized representative, including its Designated Representative, shall be authorized to act on Design-Builder's behalf with respect to the Project.

3.4 Design-Builder's A/E. "Design-Builder's A/E" or "A/E" is a Person lawfully licensed to practice architecture or engineering in the State of Washington who has a direct contract or employment relationship with Design-Builder to perform design, architecture and/or engineering services for all or a portion of the Work. Although Design-Builder's A/E is referred throughout the Contract Documents as if singular in number, Design-Builder's A/E may be multiple Persons. The "Design-Builder's A/E" means Design-Builder's A/E or Design-Builder's A/E's authorized representative, and includes any architect or engineer contracted or employed by Design-Builder to perform design Work for the Project.

3.5 Transition to Sustainable Occupancy Program Payment (TSO Program Payment). Not used

3.6 Transition to Sustainable Occupancy Reviews (TSO Reviews). Not Used

3.7 Post-Completion Performance Period. Not used

3.8 Initial Design Period. The TBD Day period beginning immediately following selection of Design-Builder during which Design-Builder will perform services as described in

the Initial Design Period Exhibit described in the Request for Proposal. Any payments made for services rendered during Initial Design Period are included in the Initial Design Period Payment and therefore also the GMP. Prior to submitting any Application for Payment for services rendered, Design-Builder shall deliver the proof of insurance and bonds required by the Contract Documents to Owner. The Initial Design Period ends upon the earlier of (1) Owner's written acceptance of the Initial Design Period Submittal and the execution of a Contract Continuation Amendment or (2) termination of this Agreement. Owner is obligated to pay no more than the Initial Design Period Payment for services during the Initial Design Period and has no obligation to authorize Design-Builder to proceed further with design or construction under the Agreement if it does not accept Design-Builder's Initial Design Period Submittal and execute the Contract Continuation Amendment.

3.9 Initial Design Period Payment. The maximum amount established in Section 8.3.1 that Design-Builder and other Persons engaged by Design-Builder can earn during the Initial Design Period.

3.14 Initial Design Period Submittal. The submittal package described in the accepted Initial Design Period Exhibit, and other information required by the Contract Documents.

3.15 Contract Continuation Amendment. The Contract amendment executed by Owner and Design-Builder following Owner's acceptance of the Initial Design Period Submittal to confirm both parties' intent to proceed with the Work, to memorialize design decisions agreed upon during Initial Design Period, and otherwise to incorporate any changes to the Contract, including the GMP, Contract Time, or scope of Work.

3.16 The Project Criteria. The Project Criteria may consist of preliminary engineering and architectural drawings and other information intended to convey Owner's initial concepts for the facility, the expected programmatic, functional and operational elements of the facility, and the expected net and gross areas of the buildings. Any drawings and other information included with the Project Criteria are not for construction, but will be considered and used by Design-Builder to prepare the final design and Construction Documents for the Project. Design-Builder or its A/E will be the designer of record for the Project, will take full responsibility for the design, and will produce Construction Documents for permit submission, Owner acceptance, Subcontractor procurement, and construction.

3.17 Design Review Packages. Design-Builder will submit design review packages at agreed upon intervals; to convey Design-Builder's design for the Work, consistent with the Contract Documents, including the Project Criteria. When accepted by Owner, these design review packages shall establish baseline Construction Documents to be provided by Design-Builder and from which future submissions will be evaluated. A final 100% Construction Document set will be submitted to Owner for retention.

Article 4
Notice to Proceed and Substantial Completion

4.1 Notice to Proceed. Notices to Proceed will be issued by Owner. Owner may issue separate Notices to Proceed for the Initial Design Period , Contract Continuation

Amendment, for Design-Builder's other design phase services and for construction.

4.2 Contract Time. The Contract Time shall be measured from the effective date of the Agreement 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. Design-Builder shall achieve Substantial Completion of the Work by June 30, 2022, subject to adjustments as provided in the Contract Documents, and shall achieve Final Completion not later than 60 Days thereafter. Design-Builder represents to Owner that the Contract Time is adequate for full performance of the Work. Design-Builder shall also achieve any interim milestones and phasing requirements set forth in the Contract Documents.

4.4 Post-Completion Performance Period. Not Used

4.5 Liquidated damages. Owner will assess, and Design-Builder will be responsible for, liquidated damages in the amount of One thousand, one hundred seventy-four dollars and no cents ($1,174.00) per Day for each Day beyond the contractual date for Substantial Completion that Substantial Completion is not timely achieved, and an additional Seven hundred sixty-nine dollars and no cents ($ 769.00) per Day for each Day beyond the time period established in Section 4.3 that Final Completion of the entire Work is not achieved. Design-Builder and Owner agree that any liquidated damages established by this Agreement 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
Design-Builder's Design and Preconstruction Services

During the Initial Design Period and final design and preconstruction phase, Design-Builder shall perform services as provided in this Agreement and the Contract Documents.

5.1 Initial Design Period Obligations.

5.1.1 Design-Builder is not authorized to proceed with, and Owner is not required to pay for, design or construction beyond the Initial Design Period Payment until Owner accepts Design-Builder's Initial Design Period Submittal and confirms Project funding, and the parties execute the Contract Continuation Amendment.

5.1.2 If Owner and Design-Builder are unable to finalize and execute the Contract Continuation Amendment, Owner may terminate the Contract as provided in the Contract Documents. If Owner elects to terminate the Agreement prior to executing the Initial Design Period Amendment, Owner shall have no liability to Design-Builder beyond the Initial Design Period Payment. If Design-Builder does not provide a Initial Design Period Submittal acceptable to Owner or otherwise declines or is unable to execute the Contract Continuation Amendment, Design-Builder shall receive no Initial Design Period Payment (and shall reimburse to Owner any portion of the Initial Design Period Payment previously paid) and shall receive no other compensation from Owner of any kind. In addition, Owner shall have the right to seek reimbursement from Design-Builder for the costs incurred by Owner during the

Initial Design Period in accordance with the dispute resolution procedures set forth in the Contract Documents.

5.2 Design Obligations.

5.2.1 During the design and preconstruction phase, Design-Builder shall advise and work with Owner and its representatives to make recommendations for alternate or substitute technologies, construction techniques, methods and practices based on maintainability and durability as well as cost savings, time saving and/or other related efficiencies.

5.2.2 The agreements between Design-Builder and Design-Builder's A/E, other design professionals retained by Design-Builder, and Subcontractors shall be in writing. These agreements, including services with respect to this Project, shall be promptly and fully disclosed to Owner upon Owner's written request after the effective date of the Contract.

5.2.3 Design-Builder shall be responsible for ensuring that the Construction Documents are in accordance with applicable laws, statutes, ordinances, building codes, rules and regulations, and lawful orders of public authorities, including, but not limited to, the latest adopted versions of:

.1 International Building Code with State of Washington Administrative Code Amendments
.2 International Mechanical Code with State of Washington Administrative Code Amendments
.3 Uniform Plumbing Code with State of Washington Administrative Code Amendments
.4 International Energy Conservation Code-Commercial with State of Washington Administrative Code Amendments
.5 International Fire Code with State of Washington Administrative Code Amendments
.6 National Electric Code with Washington State Administrative Code Amendments – Regulated by State of Washington Department of Labor and Industries
.7 ADA Title II for Public Buildings in conjunction with the IBC and ICC A-117.1
.8 ASME A17.1 with State of Washington Administrative Code Amendments for elevators – Regulated by State of Washington Department of Labor and Industries
.9 State of Washington Safety Codes for workers per Washington Administrative Code
.10 Asbestos regulations per Washington Administrative Code

5.2.4 Owner and Design-Builder shall mutually agree on a schedule for Design-Builder's delivery of in-progress Design Review Packages for Owner review and comment. Owner shall have at least fourteen (14) Days to review in-progress design documents unless otherwise agreed. Design-Builder shall meet with Owner monthly, unless agreed otherwise, to review progress of the design documents. Design-Builder shall submit or share the design progress documents, including draft drawings and other design documents, for Owner's written review and preliminary authorization to proceed. The initial documents shall set forth in detail the requirements for construction of the Project, shall include draft drawings and other details that establish the quality levels of materials and systems proposed, and shall

identify any deviations from the Project Criteria, Proposal, or previously approved design documents. Following acceptance of the Design Review Packages and after incorporating any changes required by Owner, Design-Builder shall provide Construction Documents at 100% completion for retention. The Construction Documents shall include drawings and other documents and electronic data setting forth in detail the requirements for the Work, and shall provide information for the use of those in the building trades and include documents required for regulatory agency approvals. Design-Builder shall resolve all design review comments to the satisfaction of Owner.

5.2.5 Not used.

5.2.6 Upon Owner's written authorization, Design-Builder, with the assistance of Owner, shall prepare and file design documents, including Construction Documents, required to obtain necessary approvals of governmental authorities having jurisdiction over the Project (i.e. all required building permits).

5.2.7 Design-Builder shall obtain from each of its design professionals, including Design-Builder's A/E, and shall provide Owner with certifications with respect to the documents and services provided by these professionals (a) that, to the best of their knowledge, information and belief, the documents or services to which such certifications relate (i) are consistent with the Project Criteria and Proposal (as the Proposal may be modified in writing by Owner and Design-Builder), (ii) comply with applicable professional practice standards, and (iii) comply with applicable laws, ordinances, codes, rules and regulations governing the design of the Project; and (b) that Owner and its consultants shall be entitled to rely upon the accuracy of the representations and statements contained in such certifications.

5.2.8 Design-Builder's design services will result in a Project design in accordance with the Contract Documents, including the Project Criteria, and suitable for its intended purpose. At the time of performance, Design-Builder's design professionals shall be properly licensed in the State of Washington, equipped, organized and financed to perform the services. Each Person who performs the services shall be experienced and qualified to perform the services he or she performs, and Owner shall be entitled to rely upon any assistance, guidance, direction, advice or other services provided by any such Person.

5.2.9 Design-Builder shall, at no cost to Owner, promptly and satisfactorily correct any of Design-Builder's design services that are defective or not in conformity with the requirements of the Design-Build Contract. The obligations of Design-Builder to correct defective or non-conforming design services shall not in any way limit any other obligations of Design-Builder or other rights and remedies available to Owner under the Design-Build Contract or otherwise by law.

5.2.10 When the Contract Documents require or Design-Builder causes a Subcontractor of any tier to provide professional design services or certifications related to systems, materials or equipment, Design-Builder shall cause design services or certifications to be provided by properly licensed design professionals and shall ensure that all documents bear such design professional's written approval. Owner shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals.

5.3 Supplemental Preconstruction Obligations.

5.3.1 Design-Builder shall schedule and conduct meetings with Owner on a weekly basis, or as otherwise agreed upon, to discuss such matters as design, procedures, progress, coordination, and scheduling of the Work. Design-Builder shall actively and cooperatively advise Owner on proposed site use and improvements, selection of materials, and building systems and equipment. Design-Builder shall also actively and collaboratively provide recommendations consistent with the Project requirements to Owner regarding constructability; availability of materials and labor; time requirements for procurement, installation and construction; phasing and site work planning; sequencing and scheduling for procurement, installation and construction; traffic planning; factors related to construction quality, maintainability and durability; and factors related to construction cost including, but not limited to, costs of alternative designs and materials, preliminary budgets, life-cycle data, and possible cost reductions.

5.3.2 Design-Builder shall work with Owner to prepare a constructability plan for the Project to reduce cost, save time, improve quality, reduce risk and improve the overall process of Project delivery. Key objectives of the constructability program will include creation and maintenance of a well-planned, safe, effective, cooperative and mutually beneficial work environment for all participants. A primary objective of these efforts will be to ensure that the final Cost of the Work does not exceed the GMP and the Project is completed on time. Design-Builder shall minimize adverse effects of labor or material shortages or delays; time requirements for procurement, installation and construction; and construction cost.

5.3.3 Design-Builder shall perform site investigations, including but not limited to utility locates, to assist in development of the design and construction planning. Any investigations of hidden or subsurface conditions have been made only for purposes of developing the Project Criteria. The results of these investigations are available for the convenience of Design-Builder but they are not Contract Documents. There is no guarantee, express or implied, that the conditions indicated are representative of those existing throughout the site or that unforeseen developments may not occur. Design-Builder is solely responsible for interpreting the information and extrapolating beyond the testing location, including each individual boring, test pit or other location. Design-Builder shall undertake any further investigation that Design-Builder believes necessary for design or construction.

5.3.4 Design-Builder shall provide recommendations with regard to accelerated or fast-track scheduling, procurement, or phased construction. Design-Builder shall take into consideration occupancy needs, cost reductions, cost information, constructability, provisions for temporary facilities and procurement and construction scheduling issues.

5.3.5 Design-Builder shall prepare, for Owner's review and acceptance, and update at least monthly, a procurement schedule for long lead items. Design-Builder shall expedite and coordinate the ordering and delivery of long lead materials. If Owner agrees to procure any items prior to the establishment of the GMP, such items will be identified in the Contract Documents and Owner will assign contracts for these items to Design-Builder. Thereafter, Design-Builder shall accept responsibility for them.

5.3.6 Design-Builder shall prepare a preliminary estimate of the Cost of the Work or the

cost of program requirements using area, volume or similar conceptual estimating techniques for Owner's review and approval. Thereafter, Design-Builder will collaborate with Owner on cost estimates throughout the preconstruction phase, which may occur in phases as the design is completed, and will prepare detailed cost estimates following completion of each of the Design Review Packages, and following completion of Construction Documents. Estimates will include increasing detail and refinement and allow for the further development of the design. Design-Builder will inform Owner when estimates of the Cost of the Work exceed the latest approved Project budget and make recommendations for corrective action. Design-Builder will also prepare other necessary cost studies, comparative estimates, and comparative schedules to evaluate alternatives and options.

5.3.7 Owner, Design-Builder, and their consultants participating in value engineering during design may propose changes to the Construction Documents as a result of this process. Design-Builder shall make changes requested by Owner after consultation with Design-Builder's A/E. At the completion of its review(s), Design-Builder will provide Owner with a formal record of its findings and recommendations. Value engineering will include selecting building systems, with final selection of systems to occur prior to completion of Construction Documents.

5.3.8 Design-Builder shall prepare promptly following execution of this Agreement (and prior to submitting any Application for Payment) and periodically update an overall Project schedule consistent with the requirements of the Contract Documents. This schedule shall identify all major Project milestones and coordinate and integrate Design-Builder's services with Owner's responsibilities. The Progress Schedule shall include all major components of the Work; expected commencement and completion dates for the Work and for each Subcontractor; major milestones; dates for ordering and the delivery of major products, including those that are long lead; expected Submittal submission dates; occupancy requirements of Owner; and all other information required by the General Conditions and other Contract Documents. Design-Builder will be responsible for updating the Progress Schedule during construction as set forth in the General Conditions and other Contract Documents.

5.3.9 Design-Builder shall prepare and submit a subcontracting plan to Owner that identifies Design-Builder's intended scopes of work, the timing of solicitation of Subcontractor bids and proposals, major coordination issues, and means to enhance the opportunity for local and disadvantaged businesses to participate in performing the Work. Design-Builder shall use its best efforts to develop Subcontractor interest in the Project and competition for each scope of work. Unless otherwise approved by Owner, Design-Builder shall solicit at least three (3) bids or proposals for each component of the Work. Design-Builder shall only self-perform Work when such Work is competitively bid by Design-Builder and Design-Builder can perform the Work at the lowest net cost to Owner.

Article 6
Design-Builder's Obligations During Construction

During the construction phase, Design-Builder shall perform services as provided in this Agreement and the other Contract Documents, including Section 01 11 00, Summary of Work, and the General Conditions.

6.1 Owner to review and accept Construction Documents. Design-Builder shall perform

no construction Work prior to Owner's review and acceptance of Design-Builder's Construction Documents. Review and acceptance of Construction Documents by Owner is subject to the limitations of the Contract Documents and shall not constitute an approval of Design-Builder's means and methods or a waiver or modification of any requirement of the Contract Documents.

6.2 Design-Builder to provide Submittals. Owner and Design-Builder shall mutually agree on a schedule for Design-Builder to deliver Submittals for Owner review and comment. Owner shall have at least fourteen (14) Days to review Submittals unless otherwise agreed. Design-Builder shall perform no portion of the construction Work for which the Contract Documents require Submittals until Owner has accepted and taken action on each required Submittal in accordance with the procedure set forth in the Contract Documents. However, Submittals are not Contract Documents. Their purpose is to demonstrate for those portions of the Work for which Submittals are required the way that Design-Builder proposes to conform to the Contract Documents. Review and acceptance of Submittals by Owner is subject to the limitations of the Contract Documents and shall not constitute an approval of Design-Builder's means and methods or a waiver or modification of any requirement of the Contract Documents. Design-Builder shall resolve all Owner Submittal review comments prior to commencement of the Work.

6.3 Design-Builder to provide Project staff. Design-Builder shall provide experienced staff through Final Completion consistent with or in excess of that specified in the Proposal. Design-Builder's Project staff shall not be changed without the written permission of Owner. The staff shall include necessary and appropriate design, construction management personnel and administrative staff, including, at a minimum, a qualified Project Manager, a full-time Superintendent, a full-time Project Engineer, a Contractor Quality Control ("CQC") Manager, a scheduler, and an estimator. Design-Builder's staff shall be sufficient to ensure that:

.1 Responses to all correspondence are provided within seven (7) Days of receipt;

.2 Submittals are reviewed for completeness and forwarded to Owner within three (3) Days of receipt;

.3 Design-Builder's Project staff remains dedicated to the Project through Final Completion at no additional cost to Owner; and

.4 Responses, Notices, substantiation, Rejections, and Claims as required by Parts 7 and 8 of the General Conditions are provided to Owner within the time periods required by the Contract Documents.

6.4 Design-Builder to conduct meetings. Unless otherwise determined by Owner, Design-Builder shall schedule and conduct weekly Project review meetings to discuss such matters as procedures, progress, coordination, scheduling, and status of the Work, and shall prepare and promptly distribute written minutes from the meetings.

6.5 Design-Builder to actively manage and supervise Subcontractors. Design-Builder shall coordinate and review and inspect the Work of Subcontractors. Design-Builder shall provide notification at regularly scheduled meetings of any major defects or deficiencies and recommend remedial action. Design-Builder shall take the lead role in negotiating and resolving any disputes with Subcontractors and obtain Owner's concurrence or approval of all settlements before executing change orders with Subcontractors.

6.6 Progress reports. Design-Builder shall record the progress of the Project. On a monthly basis, or otherwise as agreed by Owner, Design-Builder shall submit with its Application for Payment written progress reports to Owner, showing percentages of completion and other information required by Owner. The reports shall:

.1 Include information about Subcontractor buyout, as applicable.
.2 Identify variances between scheduled and probable completion dates for major components of the Work. Recommend action required to meet scheduled completion dates.
.3 Provide summary reports of each Progress Schedule update to document all significant changes and the reasons for them.
.4 Record in writing and by photographs the progress of the Project.
.5 Maintain and report a QC log.
.6 Document any outstanding questions and risks associated with delayed responses.
.7 List outstanding Submittals and risks associated with delayed responses.
.8 Describe the status of outstanding Contract Change Proposals and Change Proposal Requests, and any risks associated with delayed responses.
.9 List all unresolved issues and Claims.
.10 Identify the status of permits that Design-Builder is required to obtain or assist in obtaining.

Design-Builder shall also keep, and make available to Owner with its monthly Application for Payment or more often as requested by Owner, a daily log containing a record for each Day of weather, Subcontractors working on the site, deliveries, Work accomplished, portions of the Work in progress, number of workers on site, identification of equipment on site, problems that might affect progress of the Work, accidents, injuries, and other information required by Owner. The information on the log does not constitute Notice of a potential or actual Claim to Owner.

Design-Builder shall maintain, in good order and on a current basis, a record copy of all subcontracts, purchase orders, Addenda, Unilateral and Bilateral Change Orders, Submittals, inspection reports, maintenance and operating manuals and instructions, and Project Record. These records shall be available to Owner, and, at completion of the Project, delivered to Owner.

6.7 Financial reporting and forecasting: Design-Builder shall develop and maintain a system of cost control and accurate financial reporting capabilities during the Project, keep full and detailed records and accounts, and exercise such controls as necessary for proper financial management under this Agreement and to substantiate all costs incurred. At least monthly and as otherwise requested, Design-Builder shall report to Owner any variances between actual and estimated costs. Design-Builder's financial reporting shall include but not necessarily be limited to:

.1 Subcontractor and supplier buyout status;
.2 Expenditures to date and forecasted costs to complete the Work (including projected savings or overruns) allocated by Schedule of Values line item with variances explained;
.3 Projected cash flow;
.4 Contingency use log;
.5 Change Order log (pending and/or approved Unilateral and Bilateral Change Orders); and

.6 Risk and issues log identifying estimated costs for each identified risk and issue.

6.8 Quality control and assurance and Owner's right to inspect the Work: Design-Builder shall develop and submit an overall Quality Control and Assurance Plan administered by Design-Builder's CQC Manager to ensure that the Work is inspected by qualified members of Design-Builder'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. Design-Builder 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 Design-Builder on a QC log for correction, tracking and documentation to the satisfaction of Owner. Neither Design-Builder nor its Subcontractors shall intentionally install Work that does not meet applicable requirements.

6.9 Survey and layout obligations. Owner may provide survey benchmarks within or near the construction limits for the Project. Once benchmarks are established by Owner, it will be Design-Builder's responsibility to re-establish them if they are disturbed. Design-Builder shall be responsible to Owner for general building layout from established benchmarks, for the detailed layout of individual Work, and for the coordination of Work between Subcontractors to ensure that no conflicts exist.

6.10 Special inspection and testing. Certain special inspection and testing may be provided by Owner per Section 01 45 23, Testing Laboratory Services. Design-Builder shall provide inspectors and testers furnished by Owner adequate advance notice and timely and appropriate access to the Work.

Article 7
Design-Builder Obligations During Post-Completion Performance Period

Article Not Used.

Article 8
Contract Sum and Guaranteed Maximum Price

8.1 Contract Sum. Following execution of the Post-Programmatic Period Amendment and the Post-Design-Development Period Amendment, Owner shall pay the Contract Sum to Design-Builder for Design-Builder's performance of the Design-Build Contract. The Contract Sum is the sum of the Cost of the Work and Design-Builder's Fee, and shall not exceed the GMP. The Contract Sum does not include Washington State sales tax due on progress payments on account of the Contract Sum.

8.2 Design-Builder's Fee. Design-Builder's Fee shall be calculated and fixed based upon the established GMP by multiplying TBD percent (TBD%) times the estimated sum of the Cost of the Work. Design-Builder's Fee covers all of Design-Builder's profit and home office overhead as well as all other costs not reimbursable under this Agreement, including but not limited to costs of principal participation, home office administrative support, taxes including B&O tax, financing costs, and profit. The insurance rates and bond premium used to calculate the GMP will not increase during the term of this Agreement. The fee for changed Work for Design-Builder and

Subcontractors shall be as specified in the General Conditions. Design-Builder shall not separately mark-up such fee by the Design-Builder's Fee above.

8.3 Guaranteed Maximum Price. The sum of the Cost of the Work and Design-Builder's Fee for the Project, for all design and construction services required by the Contract Documents including the Initial Design Period services, is guaranteed by Design-Builder not to exceed the estimated GMP of One million dollars and no cents ($1,000,000.00), subject to additions and deductions for changes in the Work as provided in the Contract Documents. The GMP includes by way of example and not limitation all design and construction Costs of the Work; all taxes except Washington State sales tax due on the Contract Sum; Design-Builder's contingency; any approved Allowances; all insurance, including liability and E&O coverage; overhead; and Design-Builder's Fee. Costs that would cause the GMP to be exceeded shall be paid by Design-Builder without reimbursement by Owner.

8.3.1 Initial Design Period Payment. During the Initial Design Period, Design-Builder can earn up to TBD dollars ($TBD) (the "Initial Design Period Period Payment."). The Initial Design Period Payment amount is included within the GMP.

8.3.3 TSO Program Payment. Not used.

8.3.4 Apprenticeship Utilization Requirements. Design-Build shall meet mandatory apprentice utilization of at least fifteen percent (15%) of the total labor hours worked on the contract, unless Owner provides written determination otherwise per the contract documents. The Design-Builder acknowledges that apprenticeship utilization goals should be met, and that the Owner has determined monetary incentives for meeting the goals, and monetary penalties for not meeting the goals. Therefore, Owner may retain the sum of Two hundred fifty dollars and no cents ($250.00) as a monetary penalty for not meeting the apprenticeship utilization goals. Or, Owner will pay, by issuance of a Change Order upon Substantial Completion, the sum of Two hundred fifty dollars and no cents ($250.00) as an incentive for meeting the apprenticeship utilization goals.

8.4 Contingency. The GMP includes Design-Builder's contingency of TBD percent (TBD%) of the estimated Cost of the Work. The contingency is a sum established for Design-Builder's use to cover costs that are properly reimbursable as Cost of the Work but not the basis for a Change Order, such as, for example, design omissions, buyout error, scope gaps, failure of a Subcontractor of any tier, or expediting costs for critical materials. Design-Builder shall use the contingency only with Owner's consent. Unused contingency will revert to Owner at Final Completion of the Project. Since Design-Builder's Fee is calculated based upon the GMP, which includes Design-Builder's contingency, Design-Builder shall apply no additional fee for use of contingency.

8.5 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 Design-Builder's 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.

8.6 Allowances. Allowances included in the GMP are as follows:

Allowance	Amount	Included Items
None		

A limited number of Allowances may be included in the GMP 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 GMP will be appropriately adjusted. Design-Builder 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.

8.7 Assumptions. Assumptions or qualifications, if any, on which the GMP is based, are:

Completion Deliverables Exhibit dated 10/9/2021
Initial Design Period Exhibit dated _____

8.8 Changes in the Work.

8.8.1 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.

8.8.2 Adjustments of the GMP on account of changes in the Work shall be determined by the methods specified in the General Conditions.

8.8.3 In the event a Change Order is issued for a Change in the Work, Design-Builder and Subcontractors of any tier may only apply fee for changed Work, including overhead and profit, as specified in Section 7.02 of the General Conditions.

8.8.4 It is the intent of the parties that when the GMP is set, the GMP will include all elements necessary to design, construct, and complete the Project in accordance with the Contract Documents, and that Change Orders adjusting the GMP will therefore not be necessary except in limited circumstances. Accordingly, the GMP shall be adjusted only for the following events:

.1 Scope changes.
.2 Concealed or unknown conditions.
.3 Regulatory agency changes.
.4 Changes required by an inspector beyond those contained in regulations.
.5 Allowance adjustments.

8.8.5 Events for which the GMP shall not be adjusted include but are not limited to:

.1 Gaps in coverage between Subcontractors, including self-performed Work by Design-Builder, that occur after the GMP is negotiated.
.2 An item indicated in the Contract Documents that was not picked up in the GMP.
.3 Errors, omissions, or ambiguities in the design documents, including Construction Documents, prepared by Design-Builder.

.4 Coordination inconsistencies between design disciplines that Design-Builder knew of, caused, or reasonably should have known of.
.5 Failure or bankruptcy of a Subcontractor.
.6 Escalation of materials, equipment or labor prices.
.7 Estimating errors.
.8 Expediting costs for critical materials.
.9 Costs related to Subcontractor charges that result from mistakes or omissions in Subcontractor buyout, or coordination issues between Subcontractors, or interference between Subcontractor and Design-Builder or among Subcontractors.

Article 9
Cost of the Work

9.1 Costs to be Reimbursed.

9.1.1 Definition. The term Cost of the Work shall mean the actual costs reasonably and necessarily incurred by Design-Builder in the proper performance of the Work, without overhead, profit, mark-up or fee, and at rates not higher than the standard paid at the place of the Project except with prior consent of Owner. The Cost of the Work shall include only items reimbursable as set forth in this Article 9. If any cost is subject to Owner's prior approval, Design-Builder shall obtain this approval in writing prior to incurring the cost. Whenever the Contract Documents state that Design-Builder shall perform any Work or incur any expense, it shall be understood to mean, in the absence of language to the contrary, that the cost shall be a Cost of the Work payable by Owner, not to exceed the GMP.

The following Sections identify the categories of costs to be reimbursed as Costs of the Work.

9.1.2 Construction and Supervision Labor Costs.

9.1.2.1 Wages of construction workers, including working foremen, directly employed by Design-Builder to perform the construction of the Work at the site or, with Owner's approval, at off-site locations in the performance of the Work. Wages of construction workers shall not be less than the prevailing rate of wage required by RCW Chapter 39.12, "Prevailing Wages on Public Works."

9.1.2.2 Wages or salaries of Design-Builder's supervisory and administrative personnel pre-approved in writing by Owner when stationed at or away from the site, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of time required for the Work and directly involving the Project. The project superintendent, project manager, and estimator are included under this Section, regardless of whether they are or are not working from the field office, for that portion of their time spent working on the Project. Design-Builder shall not bill Owner for wages or salaries of these supervisory and administrative personnel in excess of eight (8) hours per day and forty (40) hours per week.

9.1.2.3 Costs paid or incurred by Design-Builder for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary annualized benefits such as sick leave, medical and health benefits, vacation, holidays and pensions, provided

such costs are based on wages and salaries included in the Cost of the Work under Sections 9.1.2.1 through 9.1.2.3. Costs paid or incurred by Design-Builder for bonuses, stock options, deferred compensation, or discretionary payments to employees are not reimbursable Costs of the Work unless included in agreed burden rates. Owner and Design-Builder reserve the right to establish potential performance bonuses that can benefit Owner by reducing the overall cost of the Project.

9.1.2.4 The parties may establish fully burdened wage rates when establishing the GMP. Any agreed wage and burden rates are subject to Owner's audit and may be adjusted to reflect actual charges.

9.1.3 Subcontract Costs.

9.1.3.1 Payments made by Design-Builder to Subcontractors shall be in accordance with the requirements of their subcontracts. The costs in any cost-plus subcontracts must conform to the requirements of this Article 9. Design-Builder shall maintain a procedure for the review, processing and payment of Subcontractor payment applications. Design-Builder shall verify the completeness of all Subcontractor payment applications and assemble and check all supporting documentation required by the Contract Documents or by the subcontracts, including receipt of all lien waivers and releases.

9.1.3.2 Payments made to subsidiaries or affiliates of Design-Builder must be approved by Owner. Owner expressly reserves the right to require Design-Builder to utilize independent Subcontractors rather than Design-Builder's subsidiaries or affiliates. Any Work subcontracted to a Design-Builder subsidiary or affiliate shall be executed on a lump sum or cost-reimbursable basis as pre-approved by Owner.

9.1.4 Costs of Materials and Equipment Incorporated in the Completed Construction.

9.1.4.1 Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

9.1.4.2 Costs of materials described in Section 9.1.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become Owner's property at the completion of the Work or, at Owner's option, shall be sold or returned to the supplier by Design-Builder. Any amounts realized from such sales or returns shall be credited to Owner as a deduction from the Cost of the Work.

9.1.5 Costs of Other Materials and Equipment, Temporary Facilities and Related Items.

9.1.5.1 Costs of consumables, including transportation, storage, installation, maintenance, dismantling and removal, of materials, supplies, temporary facilities, machinery, and equipment, that are provided by Design-Builder at the site and fully consumed in the performance of the Work.

9.1.5.2 Rental charges (not to exceed the local fair market rental costs) actually paid to unrelated third parties for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by Design-Builder at the site, and the costs of transportation, installation, minor repairs and replacements, dismantling and removal.

.1 Rates and quantities of equipment rented shall be an itemization of the actual length of time that construction equipment necessary and appropriate for the Work is used at the site times the applicable rental cost. Rentals from Design-Builder or any entity in which Design-Builder or one or more of its owners has a direct or indirect ownership interest ("CM Equipment") shall be pre-approved by Owner and separately accounted for. The rental cost for CM Equipment, as well as all other rental charges, shall not exceed rates listed in the Rental Rate Blue Book by Data Quest, San Jose, California, or fair market rental costs, whichever are lower. If more than one rate is applicable, the best available rate will be utilized. The rates in effect at the time of the performance of the Work are the maximum rates allowable for equipment of modern design and in good working condition and include full compensation for furnishing all fuel, oil, lubrication, repairs, maintenance, and insurance. No gas surcharges shall be charged. Equipment not of modern design and/or not in good working condition will have lower rates. Hourly, weekly, and/or monthly rates, as appropriate, will be applied to yield the lowest total cost. The total cost of rental allowed shall not exceed the cost of purchasing the equipment outright. Owner, at its option, may direct Design-Builder to purchase tools and equipment specifically for the Project, which shall become Owner's possession upon completion of the Work. If equipment is required for which a rental rate is not established by the Rental Rate Blue Book, an agreed rental rate shall be established for the equipment, which rate and use must be approved by Owner prior to performing the Work. Design-Builder shall separately account for rentals from itself or any Person in which Design-Builder or one or more of its owners has a direct or indirect ownership interest.

9.1.5.3 Costs of street cleaning, if any, and for removal and disposal of debris and rubbish from the site.

9.1.5.4 Cost of document reproductions, telephone service including long-distance telephone calls, Internet service, postage and parcel delivery charges, and other technology-related costs incurred by Design-Builder at the site and approved by Owner, including the cost of computers, other hardware, and software, as well as reasonable petty cash expenses of the site office.

9.1.5.5 The reasonable travel expenses, based upon most current Washington State travel per diem guideline rates, of Design-Builder's personnel incurred while traveling more than fifty (50) miles in connection with the Work with Owner's prior written approval and vehicle expenses which are not related to travel expenses but are assignable to the worksite for Design-Builder's personnel (Superintendent, Project Manager, Project Engineer and Quality Control Staff).

9.1.5.6 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, if approved in advance by Owner and meeting the other requirements for payment of off-site materials and equipment.

9.1.6 Design and Other Consulting Services.

9.1.6.1 Compensation, including fees and reimbursable expenses, paid by Design-Builder for design and design-related consulting services required by the Contract Documents, including but not limited to services to produce Construction Documents

and Submittals needed for permitting, final Owner approval, Subcontractor bidding purposes, and construction.

9.1.7 Miscellaneous Costs.

9.1.7.1 That portion of insurance and bond premiums that are directly attributed to the Design-Build Contract. Costs for self-insurance are not reimbursable without Owner's prior written approval.

9.1.7.2 Useor similar taxes (but not income or B&O taxes) imposed by a governmental authority that are related to the Work and for which Design-Builder is liable. Sales tax due on the Contract Sum will be paid by Owner with each progress payment.

9.1.7.3 Project-specific fees and assessments for permits, license fees, inspections that Design-Builder is required by the Contract Documents to pay, but not for the cost of any re-inspection fees or penalties.

9.1.7.4 Fees of laboratories for tests required of Design-Builder by the Contract Documents and not paid for by Owner, except those related to defective or non-conforming Work for which reimbursement is excluded by the Contract Documents.

9.1.7.5 Royalties and license fees paid for the use of a particular design, process or product explicitly required by the Contract Documents. The Cost of the Work shall not include, and Design-Builder shall be responsible for, any costs of defending suits or claims for infringement of patent rights, or payments made resulting from such suits or claims, resulting from any design or other Work provided by Design-Builder or its A/E, consultants, or Subcontractors of any tier.

9.1.7.6 The cost of warehousing pre-approved in writing by Owner for stored materials or equipment subsequently incorporated into the Work.

9.1.7.7 Costs incurred by Design-Builder in preparing and maintaining the Progress Schedule, scheduling plots, correspondence, and reports, so long as such costs are specific to this Project and were not incurred to prepare for, submit or prove a Claim.

9.1.7.8 The cost of a Third Party Neutral, if applicable, to the extent not separately paid by Owner.

9.1.8 Other Costs and Emergencies.

9.1.8.1 Other costs reasonably incurred in the performance of the Work if and to the extent approved in advance and in writing by Owner.

9.1.8.2 Costs incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property, as provided in the Contract Documents.

9.1.8.3 Cost of repairing or correcting, prior to Final Completion, damaged Work executed by Design-Builder, Subcontractors or suppliers, provided that such damaged Work was not caused by Design-Builder's negligence or failure to fulfill a specific responsibility of the Design-Build Contract, and only to the extent that the cost of repair or correction is not recoverable by Design-Builder from insurance, sureties,

Subcontractors of any tier or suppliers. Design-Builder shall take reasonable action to recover and, to the extent it has failed to recover, shall assign its rights to pursue and collect to Owner upon request.

9.2 Costs Not to Be Reimbursed.

The Cost of the Work shall not include:

9.2.1 Salaries and other compensation of Design-Builder's personnel stationed at Design-Builder's principal office or offices other than the site office, including all administrative and accounting personnel, except as specifically provided in Sections 9.1.2.

9.2.2 Expenses of Design-Builder's principal office and offices other than the site office.

9.2.3 Overhead and general expenses, except as may be expressly included in Section 9.1.

9.2.4 Design-Builder's capital expenses, including interest on Design-Builder's capital employed for the Work.

9.2.5 Rental costs of machinery and equipment, except as specifically provided in Section 9.1.5, or costs or losses resulting from lost, damaged or stolen machinery or equipment or negligent or improper use of machinery or equipment.

9.2.6 Costs due to the negligence or failure of Design-Builder, Subcontractors and/or suppliers or anyone directly or indirectly employed by any of them, or for whose acts any of them may be liable, to fulfill a specific responsibility of the Contract Documents.

9.2.7 Costs, other than costs included in Change Orders approved by Owner that would cause the GMP to be exceeded.

9.2.8 Penalties, extensions, fines, and re-inspection fees imposed by governmental entities to the extent caused by Design-Builder or a Subcontractor of any tier.

9.2.9 Safety costs expressed as a percentage or as any other calculated expression.

9.2.10 Legal, consultant, or claims-related expenses, except as specifically provided in Section 9.1.7.8.

9.2.11 Accounting in Design-Builder's main or home office.

9.2.12 Warehousing in Design-Builder's facility, except as approved under Section 9.1.7.6.

9.2.13 Daily commuting to the jobsite.

9.2.14 Business license(s).

9.2.15 Testing and inspection of rejected Work.

9.2.16 Home office data processing, software, hardware or computer-related costs.

9.2.17 Insurance or bonding costs except as specifically required and reimbursable under this Agreement.

9.2.18 Overtime wages unless pre-approved by Owner.

9.2.19 Any cost not specifically and expressly described in Section 9.1.

9.3 Discounts, Rebates and Refunds.

9.3.1 Trade discounts, rebates, refunds and amounts received from sales of surplus materials and equipment shall accrue to Owner and Design-Builder shall make provisions so that they can be obtained. If Design-Builder is offered discounts and/or rebates based upon prompt payment, Design-Builder shall offer Owner the opportunity to take advantage of such discount and/or rebate, and if Owner makes prompt payment then Owner shall only be charged the price as reduced by the discount and/or rebate. If Owner declines the opportunity, Design-Builder may keep any such discounts and/or rebates it achieves through its own prompt payment. If Design-Builder does not provide Owner the opportunity to participate then Design-Builder may only charge the net costs after consideration of discounts and rebates. Design-Builder shall notify Owner in a timely manner of the availability of such cash discounts, rebates, or refunds.

9.3.2 Amounts that accrue to Owner in accordance with the provisions of Section 9.3.1 shall be credited to Owner as a deduction from the Cost of Work.

9.4 Related Party Transactions.

9.4.1 For purposes of Section 9.4, the term “related party” shall mean a parent, subsidiary, affiliate or other entity having common ownership or management with Design-Builder; any entity in which any stockholder in, or management employee of, Design-Builder owns any interest in excess of ten percent in the aggregate; or any Person or entity which has the right to control the business or affairs of Design-Builder. The term “related party” includes any member of the immediate family of any Person identified above.

9.4.2 If any of the costs to be reimbursed arise from a transaction between Design-Builder and a related party, Design-Builder shall notify Owner of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If Owner, after such notification, authorizes the proposed transaction, then the cost incurred shall be included as a cost to be reimbursed, and Design-Builder shall procure the Work, equipment, goods or service from the related party. If Owner fails to authorize the transaction, Design-Builder shall procure the Work, equipment, goods or service from some Person or entity other than a related party according to the terms of the Contract Documents.

9.5 Accounting Records. Design-Builder and its Subcontractors shall keep full and detailed records and accounts related to the Cost of the Work and exercise such controls as may be necessary for proper financial management under this Contract and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to Owner. Owner will usually conduct, at a minimum, a pre-construction

audit conference, an interim audit and a final audit of the Project, however Owner reserves the right to conduct an audit at any time. Owner and Owner's auditors shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy (including electronically), Design-Builder's and Subcontractors' original records and accounts, including complete documentation supporting accounting entries, books, ledgers, computerized records, daily reports, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, purchase orders, vouchers, invoices of Subcontractors of any tier, memoranda and other data relating to this Project or any Claim. Design-Builder and its Subcontractors shall preserve these records for a period of six (6) years after Final Completion, or for such longer period as may be required by law.

Article 10
Payments

10.1 Applications for Payment.

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

10.1.2 Costs associated with the Initial Design Period (not to exceed the maximum payments designated for the Period) shall be identified within the Schedule of Values as a separate line item.

10.2 Progress Payments.

10.2.1 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 GMP properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the GMP 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 GMP 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 Add Design-Builder's Fee. Design-Builder's Fee shall be prorated to equal the percentage of the Cost of the Work described in .1 and .2 as compared to the GMP;

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

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

.6 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.

10.3 Final Accounting.

10.3.1 Following Substantial Completion and Final Completion, and when Design-Builder believes that all Work required by the Agreement has been fully performed, Design-Builder shall deliver to Owner a final accounting of the Cost of the Work with its final Application for Payment.

10.3.2 Owner will review and report in writing on Design-Builder's final accounting within thirty (30) Days after delivery, provided that Owner is given prompt access to Design-Builder's records. Design-Builder shall promptly make available at its office all accounting documents related to the Project. Based upon such Cost of the Work as Owner reports to be substantiated by Design-Builder's final accounting, and provided the other conditions of the Contract Documents or other applicable provisions of the Agreement have been met, Owner will notify Design-Builder in writing of Owner's intention to make final payment or to withhold payment. Owner's final accounting shall not preclude or in any way limit Owner from exercising its rights of audit under other provisions of the Design-Build Contract.

10.3.3 If Owner reports that the Cost of the Work as substantiated by Design-Builder's final accounting to be less than claimed by Design-Builder, Design-Builder shall be entitled to invoke the dispute resolution procedure of the Contract with respect to the disputed amount. If Design-Builder fails to so initiate resolution of the dispute within the time specified in Article 8 of the General Conditions following Owner's delivery of the accounting to Design-Builder, the substantiated amount reported by Owner shall become final and binding. Pending a final resolution pursuant to the Contract Documents, Owner shall pay Design-Builder any undisputed amount determined by Owner to be due Design-Builder, not to exceed the GMP, in response to Design-Builder's final Application for Payment.

10.3.4 If, subsequent to final payment and at Owner's request, Design-Builder incurs costs in connection with the correction or completion of Work as described as reimbursable in Article 9, Owner shall reimburse Design-Builder such costs and Design-Builder's Fee applicable thereto on the same basis as if such costs had been incurred prior to final payment, not to exceed the GMP.

10.4 Final Payment.

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

10.4.2 Owner shall release retainage to Design-Builder in accordance with RCW Chapter 60.28 and the Contract Documents.

Article 11
Instruments of Service

11.1 Instruments of service. The Drawings (including original Construction Documents), Specifications, materials, models, sketches, renderings, surveys, reports, and other documents, including those prepared as 3D electronic models, using CAD, and existing in other electronic formats, prepared or provided by Design-Builder's A/E and/or Design-Builder are instruments of service intended for use solely with respect to the Project. Owner shall own any instruments of service prepared during the Programmatic Period and Design-Development Period, and will be permitted to retain copies, including reproducible and originally stamped copies, of all other instruments of service. For all instruments of service, including those prepared during the Programmatic Period and Design-Development Period, Owner is granted an unlimited and royalty free license to utilize the instruments of service to communicate about the Project, complete or expand the Project, correct any deficiencies, make any renovations or repairs to the Project, or for future projects other than the construction of another building.

Owner agrees to indemnify and hold Design-Builder harmless from any subsequent modification of the instruments of service by Owner and from Owner's use of the instruments of service on other projects not involving Design-Builder.

11.2 Design-Builder to convey instruments of service to Owner. Upon Owner's request if made during the Project or within five (5) years of Substantial Completion, each of Design-Builder's design professionals, including Design-Builder's A/E, shall be contractually required to convey to Owner in whatever format Owner may designate that design professional's instruments of service for the completion, use, updating, modernizing, and maintenance of the Project, conditioned upon Owner's agreement to indemnify and hold harmless the design professional as set forth above. Design-Builder's design professionals, including Design-Builder's A/E, shall be permitted to remove all indications of their ownership and/or involvement from instruments of service provided in electronic format. Design-Builder shall incorporate the requirements of this Section in all agreements with design professionals.

11.3 Submission of instruments of service does not waive rights. Submission or distribution of Design-Builder's instruments of service to meet official regulatory requirements or for similar purposes in connection with the Project shall not be construed as publication in derogation of any rights reserved in this Section.

Article 12
Miscellaneous Provisions

12.1 Design-Builder's A/E. Design-Builder's A/E and other design professionals and consultants engaged by Design-Builder are listed below:

Name and Address	License Number	Relationship to Design-Builder	Other Information
TBD			

12.2 Owner's Consultants. Consultants, if any, engaged directly by Owner, as well as their professions and responsibilities, are listed below:

Name and Address	Responsibilities to Owner	Other Information
None		Owner consultants identified in this table are not eligible to contract with or provide services to Design-Builder.

12.3 Separate Contractors. Separate contractors, if any, engaged directly by Owner and known by Owner as of the date of this Agreement, as well as their trades and responsibilities, are listed below:

Name and Address	Responsibilities to Owner	Other Information
None		

12.4 Designated Representatives.

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

Kevin Poitra
Project Manager
Facilities Services, Capital

Brian Funke
Construction Manager
Facilities Services, Capital

12.4.2 Design-Builder's Designated Representative, identified below, shall be authorized to act on Design-Builder's behalf with respect to the Project:

TBD

12.4.3 Neither Owner's nor Design-Builder's Designated Representatives shall be changed without ten (10) Days' written Notice to the other party.

12.5 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.

12.6 Information to CPARB. Design-Builder and all Subcontractors shall submit Project information required by the state Capital Projects Advisory Review Board (CPARB).

12.6.1 Design-Builder shall submit to Owner the complete project specific diverse business inclusion plan summarized in the Design-Builder's Proposal. At a minimum, the plan must address inclusion of underutilized firms as subcontractors and suppliers including, but not limited to, the office of minority and women's business enterprises certified businesses, veteran certified businesses, and small business.

12.7 Insurance.

12.7.1 In addition to the insurance requirements imposed in the General Conditions and other Contract Documents, Design-Builder and Design-Builder's A/E, other design

consultants, and any design-build Subcontractors of any tier will purchase and maintain for at least six (6) years after Substantial Completion Professional Liability/Errors and Omissions Liability insurance in an amount of not less than two million dollars ($2,000,000) per claim and annual aggregate (deductible of up to fifty thousand dollars ($50,000) permitted). If design consultants or design-build Subcontractors of any tier have a contract value of less than two million dollars ($2,000,000), they may purchase and maintain for at least six (6) years after Substantial Completion Professional Liability/Errors and Omissions Liability insurance in an amount of not less than one million dollars ($1,000,000) per claim and annual aggregate (deductible of up to fifty thousand dollars ($50,000) permitted) in lieu of the requirements above. Design consultants or design-build Subcontractors of any tier whose contract value is greater than two million dollars ($2,000,000.00) but would like the reduced Professional Liability/Errors and Omissions Liability insurance requirements must receive Owner's written approval. Design-Builder, Design-Builder's A/E, other design consultants, and any design-build Subcontractors of any tier will promptly notify Owner of any material changes to, interruption of, or termination of this insurance, and will immediately procure replacement coverage. Design-Builder, Design-Builder's A/E, other design consultants, and any design-build Subcontractor of any tier will either maintain active policy coverage or secure an extended reporting period, providing coverage for claims first made and reported to the insurance company within six (6) years of Substantial Completion or termination of the Work under this Agreement, whichever occurs first.

12.8 Payment and performance bonds. Payment and performance bonds shall be provided by Design-Builder. During the Programmatic Period and Design-Development Period, the bonds must be in amounts that equal or exceed the maximum Programmatic Period and Design-Development Period Payments respectively. Upon execution of the Post-Design-Development Period Amendment, the amounts of such payment and performance bonds shall be increased to equal or exceed the GMP plus Washington State sales tax.

12.9 Use of Third Party Neutral. Owner and Design-Builder 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 13
Enumeration of the Contract Documents

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

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

13.1.2 The General Conditions and any Supplementary Conditions of the Contract.

13.1.3 Owner's Project Criteria.

13.1.4 The Addenda, if any, are as follows:

Number	Date	Pages
TBD		

13.1.5 Post-Programmatic Period Amendment executed by Owner and Design-Builder. The amendment will include Design-Builder's Voluntary Alternates List, if applicable, and any assumptions in the updated GMP accepted by Owner.

13.1.6 Post-Design-Development Period Amendment executed by Owner and Design-Builder. The amendment will include Design-Builder's Voluntary Alternates List, if applicable, and any assumptions in the updated GMP accepted by Owner.

13.1.7 Design-Builder's Proposal dated [date], and Statement of Qualifications dated [date] (together, the "Proposal"), to the extent consistent with or which represent enhancements to Owner's Project Criteria. Design-Builder's submission and identification of proposed design features to Owner are to be provided by Design-Builder within the GMP. Proposal and Construction Documents prepared by Design-Builder and accepted by Owner in accordance with the Contract Documents. Acceptance by Owner of each of the following design review packages shall establish baseline Construction Documents from which future submissions will be evaluated:

.1 Programmatic Period Submittal (accepted via the Post-Programmatic Period Amendment)
.2 Design-Development Submittal (accepted via the Post-Design-Development Period Amendment)
.3 Fifty percent (50%) Construction Document Submittal
.4 Ninety percent (90%) Construction Document Submittal
.5 One hundred percent (100%) Construction Document Submittal

All Submittals shall include updated deviation log(s) noting variances from previous Submittals, proposal criteria and standards for review and approval.

13.1.8 Other documents ("Exhibits"), if any, forming part of the Contract Documents are as follows:

Project Manual dated 10/9/2021
WSU Request for Qualifications dated 10/9/2021
WSU Request for Proposals dated TBD
Department of Labor and Industries Prevailing Wage Rates.

OWNER:
WASHINGTON STATE UNIVERSITY

(Signature) (Date)

(Printed Name)
Vice President for
Finance and Administration

DESIGN-BUILDER:
FIRM NAME
WA CONTRACTOR LICENSE NUMBER

(Signature) (Date)

(Printed Name)
(Title)

END OF SECTION 00 50 00

COMPLETION DELIVERABLES EXHIBIT
Bustad HVAC Service Equipment Elements and Controls Upgrade

This Attachment lists the deliverables specific to Design-Build required in addition to (or specifically altering) the established deliverables of the completion milestones of the Contract Documents.

Substantial Completion	
	Provide a Substantial Completion Submittal inclusive of all documentation required to achieve Substantial Completion as described in the Agreement, the General Conditions and Section 01 70 00. In additional, Design-Builder shall also provide:
	1. Record of Design-Builder's A/E Certification of review of the draft O&M Manual.
	2. Scheduled prior and submitted upon Substantial Completion provide Owner with the A/E developed punch list inspection report. Architect of record and Engineer of record must conduct the punchlist inspection accompanied by Owner's Repesentative.
Final Completion	
	Provide a Final Completion Submittal inclusive of all documentation required to Achieve Final Completion as described in the Agreement, the General Conditions and Section 01 70 00. In addition, Design-Builder shall also provide:
	1. In lieu of the Project Record as described in 00 72 00, Article 4.02, Design-Builder shall maintain the Project Record electronically in Bluebeam or approved equivalent. Design-Builder shall upon Final Completion provide a hyperlinked PDF that includes tracked changes showing all changes to the Project Documents throughout the project, and is bookmarked for all divisions.
	2. Design-Builder shall compile a final Conformed Record Drawing with revision date in native format, as a converted CAD sheet set in DWG format, as a text searchable PDF format, one no larger than 30" X 42" paper set drawing, and one set of 4-mil single sided Mylar Drawings no larger than 30" X 42". For the CAD drawings: Adhere to the National CAD Standars. Do not provide multiple tab layout in a a single file. Bind all .xrefs prior to submitting. Purge all files prior to submission. Must be viewable in native format without any add-ons.
	3. Provide an Excel or CSV drawing index.
	4. Provide any 3D Models in native format, if created.
	5. Provide any additional surveys or geotechnical reports obtained by Design-Builder.
	6. Provide a minimum of 2 Final O&M Manuals per the requirements of Section 01 78 39, as well as a text searchable PDF.
	7. Provide LEED submittal documentation.
	8. Provide the termination of stormwater permit.
Final Acceptance	
	Provide a Final Acceptance Submittal inclusive of all documentation required to Achieve Final Acceptance as described in the Agreement, the General Conditions and Section 01 70 00.
Retention Release	
	No deliverables required.

End of Attachment Completion Deliverables Exhibit

Washington State University
Bustad HVAC Service Equipment Elements and Controls Upgrade

Contract Continuation Amendment
(Amendment No. 1)
to
Agreement between Owner and Design-Builder
(Cost Plus Fee with a Guaranteed Maximum Price)

Contract No.

OWNER:	Washington State University c/o Facilities Services, Capital P.O. Box 641150 Pullman, WA 99164-1150
DESIGN-BUILDER:	[Design-Builder Firm Name] [Address]
PROJECT:	Bustad HVAC Service Equipment Elements and Controls Upgrade 1845 E Grimes Way Pullman, Wa 99164

In consideration of the mutual covenants and obligations contained herein, Owner and Design-Builder agree to supplement the Agreement as set forth herein.

1. Acceptance of Initial Design Period Submittal.

Design-Builder's Initial Design Period Submittal dated [Date], is accepted by Owner and made a part of the Contract.

2. Confirmation of Intent to Proceed with the Work.

Owner and Design-Builder confirm their intention to proceed with the Work in accordance with the Contract and this Contract Continuation Amendment.

3. Confirmation of Guaranteed Maximum Price.

Owner and Design-Builder confirm that the sum of the Cost of the Work and Design-Builder's Fee, for all design and construction services required by the Contract Documents including all Initial Design Period services, is guaranteed by Design-Builder not to exceed the GMP of _____ _____ dollars ($_____ _____), subject to additions and deductions for changes in the Work as provided in the Contract Documents. The GMP includes by way of example and not limitation all design and construction Costs of the Work; all taxes except Washington State sales tax due on the Contract Sum; Design-Builder's contingency; any approved Allowances; all insurance, including liability and E&O coverage; overhead; and Design-Builder's Fee. Costs that would cause the GMP to

be exceeded shall be paid by Design-Builder without reimbursement by Owner.

4. Confirmation of the Fee and Contingency Based Upon Establishment of the GMP.

Design-Builder's Fee. Design-Builder's Fee shall be a lump sum amount of _____ ($_____), which is calculated and fixed based upon the established GMP by multiplying _____ percent (_____%) times the estimated sum of the Cost of the Work. The Design-Builder's Fee covers all of Design-Builder's profit and home office overhead as well as all other costs not reimbursable under this Agreement, including but not limited to costs of principal participation, home office administrative support, taxes including B&O tax, financing costs, and profit. The insurance rates and bond premium used to calculate the GMP will not increase during the term of this Agreement. The fee for changed Work for Design-Builder and Subcontractors shall be as specified in the General Conditions. Design-Builder shall not separately mark-up such fee by the Design-Builder's Fee above.

Contingency. The GMP includes Design-Builder's contingency of _____ ($_____), which is _____ percent (_____%) of the estimated Cost of the Work. The contingency is a sum established for Design-Builder's use to cover costs that are properly reimbursable as Cost of the Work but not the basis for a Change Order, such as, for example, design omissions, buyout error, scope gaps, failure of a Subcontractor of any tier, or expediting costs for critical materials. Design-Builder shall use the contingency only with Owner's consent. Unused contingency will revert to Owner at Final Completion of the Project. Since Design-Builder's Fee is calculated based upon the GMP, which includes Design-Builder's contingency, Design-Builder shall apply no additional fee for use of contingency.

5. Confirmation of Scope of Work and Any Changes to the Contract During Initial Design Period.

[Identify/List Drawings, Specifications, and other scope of work documents on which the GMP is based, including any changes accepted by Owner during Initial Design Period,]

All other terms and conditions of the Agreement not changed by this Amendment shall remain in effect.

OWNER: **WASHINGTON STATE UNIVERSITY**	**DESIGN-BUILDER:** **FIRM NAME** **WA CONTRACTOR LICENSE NUMBER**
_____ (Signature) (Date)	_____ (Signature) (Date)
(Printed Name) Vice President for Finance and Administration	(Printed Name) (Title)

END OF CONTRACT CONTINUATION AMENDMENT NO. 1

Section **Description**

Section **Description**

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, flood, wind, temporary buildings, earthquake, debris removal including demolition, and 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, sex, age, marital status, or the presence of any physical, sensory, or mental disability, Vietnam era veteran status, or disabled veteran status, nor commit any other unfair practices as defined in RCW 49.60.

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, sex, age, marital status, or the presence of any physical, sensory, or mental 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

Environmental Health and Safety

Good Faith Survey Update
Bustad Hall (0807)
Washington State University, Pullman, Washington

June 19, 2013

Prepared by:

Matthew McKibbin
Industrial Hygienist III
WSU Environmental Health and Safety
AHERA Building Inspector #141107 (exp. March 27, 2014)

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FIGURES

TABLES

APPENDICES

1 INTRODUCTION

Asbestos sampling was conducted at Bustad Hall by PBS Engineering and Environmental (PBS) in a Limited Hazardous Materials Inspection Report dated May 2012. Washington State University (WSU) Environmental Health and Safety (EH&S) conducted additional sampling to satisfy good faith survey requirements for the entire building in March and April of 2013. Results of the previous survey and EH&S sampling are compiled below. Additional regulated materials including polychlorinated biphenyl caulk, lead-containing coatings and radon were sampled as part of PBS' survey which is provided in Appendix B.

1.1 LIMITATIONS OF THE ASSESSMENT

The conclusions within this report are professional opinions based solely upon visual site observations and interpretations of analytical data as described in this report. The survey excluded areas of the building which were inaccessible and would have caused damage to the building if sampled. Locations where inspectors would have been exposed to chemical or physical hazards were not tested (inside fume hoods with active experiments, HVAC systems in operations, etc). Typical construction techniques can render portions of the structure inaccessible. As a result, additional asbestos-containing materials (ACM) may be present in inaccessible areas (e.g., wall cavities, elevator machines, within energized systems). Suspect regulated materials within inaccessible areas should be presumed to contain asbestos until characterized.

The opinions presented herein apply to the site conditions existing at the time of the investigation, and interpretation of current regulations pertaining to asbestos. Opinions and recommendations provided herein may not apply to future conditions that may exist at the site. Regulatory requirements in effect at the time of the work should be verified prior to any work that impacts regulated materials. This report represents the findings of this survey only, and is not intended to establish scope or contractual terms to regulated material abatement.

2 METHODOLOGY

This good faith survey was conducted by Matthew McKibbin of EH&S, AHERA Building Inspector #135832 (exp. March 27, 2014) in March and April of 2013. Our asbestos survey was performed in accordance with good faith survey requirements outlined in WAC 296-62-07721. The previous Limited Hazardous Materials Inspection Report dated May 2012 by PBS Engineering and Environmental was used in conjunction with this survey to meet good faith survey requirements.

In order to identify suspect ACM, EH&S conducted a walk-through survey of accessible portions of the Bustad Hall. However, not all concealed areas or sub-surface suspect materials may have been surveyed (see Limiting Conditions in Section 1.1). Approximate quantities of suspect materials were estimated by field measurements.

2.1 Asbestos Bulk Sampling

Suspect ACM was grouped into homogeneous sampling areas (HSA) and categorized according to 40 CFR 763, as thermal systems insulation (TSI), surfacing material, or miscellaneous material. Sampling previously conducted by PBS was used to supplement homogeneous areas identified in this survey. The sampling plan included, at a minimum, the collection and analysis of samples as follows:

<u>Thermal System Insulation</u>

- In a distributive manner, a minimum of three samples of each HSA that was not presumed to contain asbestos.
- At least one bulk sample from each homogeneous area of patched TSI if the patch was less than 6 square feet.

Surfacing Material

- In a distributive manner, a minimum of three samples collected from each homogeneous area that was 1,000 square feet or less.
- A minimum of five samples collected from each homogeneous area that was greater than 1,000 square feet but less than or equal to 5,000 square feet.
- A minimum of seven samples collected from each homogeneous area that was greater than 5,000 square feet.

Miscellaneous Material

- In a distributive manner as deemed sufficient by the Inspector. At least one sample was collected of each suspect miscellaneous material not presumed to contain asbestos.

Non-Suspect Materials

- Fiberglass, wood, metal, or other generally recognized non-ACM were not sampled.

Asbestos bulk samples and chain-of-custody forms were delivered to Environmental Hazards Services, L.L.C (EHS) in Richmond, Virginia for analysis. Each sample was analyzed using PLM/dispersion staining in accordance with EPA Method 600/R-93/116. The detection limit for this type of analysis is approximately one percent (by volume). Materials containing more than one percent asbestos are considered to be ACM.

3 RESULTS

The following section details the results of asbestos sampling conducted by PBS and WSU EH&S. Sample locations are shown on Figures 1 through 6.

3.1 ASBESTOS-CONTAINING MATERIALS

The following ACM was identified in PBS' survey and EH&S sampling:

Material	Location(s) of ACM	Approximate Quantity
White 12"x12" vinyl floor tile with beige and gray streaks/black mastic	Hallways, offices, and some laboratories throughout Bustad Hall	44,000 SF
Cement asbestos board	Exterior paneling above windows of Rooms 122, 124, 126 and 110B through 110M; stairwell 10V walls; and skybridge walls	650 SF
White/gray pebble pattern sheet vinyl flooring with paper backing	Laboratory and some office spaces throughout 2nd, 3rd, and 4th floor	21,500 SF
Orange/yellow pebble pattern sheet vinyl flooring with paper backing	Custodial closets and restrooms throughout Bustad Hall	900 SF
Black sink undercoat (thin coat and thick textured coat)	Throughout 2nd, 3rd and 4th floor laboratories	70 EA
Black sink undercoat (thick) with metallic paint	Rooms 250B, 326, 334, 374, 414, 424, 432	8 EA
White sink undercoat	Rooms 209 and 270D	2 EA
White gasket and insulation packing in glassware dryer and sterilizer	Room 302	2 EA

Continued on next page

Continued from previous page

Material	Location(s) of ACM	Approximate Quantity
Gray mudded pipe seams on fiberglass insulated heating lines	Room 36 – Mechanical space	25 SF
Brown glue dollop under non asbestos-containing 12" rough textured etched ceiling tile	Stairwell ceilings, Rooms 145A, 145V and 100 (lobby)	600 SF
Black glassware drying racks (wall mounted)	Throughout 3rd and 4th floor laboratories	25 EA
Soft gray metal duct seam putty	Room 104	150 LF
Skybridge to McCoy Hall		
White 12"x12" vinyl floor tile with beige and gray streaks/black mastic	Skybridge stairwell at McCoy Hall	200 SF
Cement asbestos board	Wall paneling on skybridge	1,000 SF
Brown glue dollop under non asbestos-containing 12" rough textured etched ceiling tile	Skybridge stairwell at McCoy Hall	180 SF

The following materials contain <1% asbestos:

Material	Location(s)	Approximate Quantity
Gypsum wallboard system (joint compound contains 2% asbestos)	Throughout Bustad Hall	170,000 SF
Pink sink undercoat	Room 367	1 EA
Beige sand texture on concrete wall	Exterior concrete wall of 104	950 SF

The following materials are assumed/presumed to contain asbestos:

Material	Location(s)	Approximate Quantity
Built-up roofing system	Roof of Room 104	2,500 SF
Mudded pipe fittings on fiberglass pipe runs (6" -18" O.D.)	B70 and adjacent utility tunnel	3 EA
Fire doors	Throughout Bustad Hall	20 EA
Fume hood	Throughout laboratory spaces	30 EA
Flange gaskets	Mechanical spaces	150 EA
Elevator components (brake shoes, pads, insulation and electrical)	Roof elevator mechanical room	2 EA (elevator machines)

Asbestos survey sample numbers, material descriptions, sample locations and analytical results are provided in Table 2. Copies of laboratory analysis reports and chain-of-custody documents are provided in Appendix A. Sample locations for PBS' survey are provided with the full survey document in Appendix B.

4 CONCLUSIONS AND RECOMMENDATIONS

Laboratory analysis revealed that a number of building materials in Bustad Hall contain regulated quantities of asbestos (see Results Section 3.1 and Appendix A). Contractors should use caution during construction even after asbestos abatement activities, as concealed ACM that has not previously been analyzed for asbestos may be encountered. Inaccessible concealed spaces (e.g., wall and ceiling spaces enclosed by wallboard, internal components of energized systems etc. have not been surveyed for ACM, and should be presumed to contain asbestos until destructive sampling is performed in those areas.

A copy of this report must be provided to any entity bidding on work. A copy of this report must also be on site during any construction activities at the site. ACM identified should be removed and disposed prior to disturbance in accordance with WAC 296-62-077. Asbestos abatement must be performed by a licensed asbestos abatement contractor.

Other regulated materials were sampled as part of the previous Limited Hazardous Materials Inspection Report by PBS Engineering and Environmental (PBS) dated May 1, 2012 which is provided in Appendix B.

Asbestos-containing Flooring

All sheet vinyl flooring observed in Bustad Hall contains asbestos paper backing, including varieties with white/gray and orange/yellow pebble patterns. Sheet vinyl is found throughout custodial closets and laboratories of floors 2 through 4.

Asbestos-containing 12" white vinyl floor tile with beige streaks and black mastic are found in remaining areas of Bustad Hall including offices, hallways, and some laboratory spaces. Carpet is installed over asbestos-containing floor tile and mastic or non asbestos-containing terrazzo in the 1st floor offices. Conditions should be verified for the presence of asbestos-containing flooring prior to disturbance.

Non asbestos-containing terrazzo, unfinished concrete and epoxy flooring are found mainly in the basement and 1st floors.

Roofing

A new rubber membrane roof was installed on Bustad Hall in 2011 with one exception. The original built-up roofing system remains in place on the mechanical room 104 roof which was not tested for asbestos content; therefore, roofing materials on mechanical room 104 are assumed to contain asbestos until further characterized.

Gypsum Wallboard Systems

Gypsum wallboard systems were found to contain asbestos in the joint compound at various locations throughout Bustad Hall. Other samples of newer gypsum wallboard systems were found not to contain asbestos. Multiple renovations have made the locations of asbestos-containing joint compound difficult to determine; therefore, all joint compound is considered asbestos-containing (<1% asbestos as a composite of the wallboard system). Refer to WISHA Regional Directive 23.30 for Competent Persons, training, respiratory protection, air monitoring and work practices requirements of asbestos-containing joint compound in wallboard systems. Additional sampling may be considered in localized renovation projects to determine asbestos content at a specific location.

Textured Surfacing on Concrete Wall

Beige sand textured wall coating on the exterior concrete walls of mechanical room 104 contains <1% asbestos as determined by EPA Method 600/R-93/116 PLM 400 point count analysis. Materials containing <1% asbestos are not considered an ACM as defined by the EPA. In addition, the Washington State Department of Labor and Industries (L&I) will not consider work impacting the material an "Asbestos Project". However, Competent Persons, training, respiratory protection, air monitoring and work practices requirements of work impacting or disturbing materials containing <1% asbestos are outlined in WAC 296-62-077.

FIGURES

Figure 1 – Basement
ACM Locations and EH&S Sample Locations
(best viewed in color)

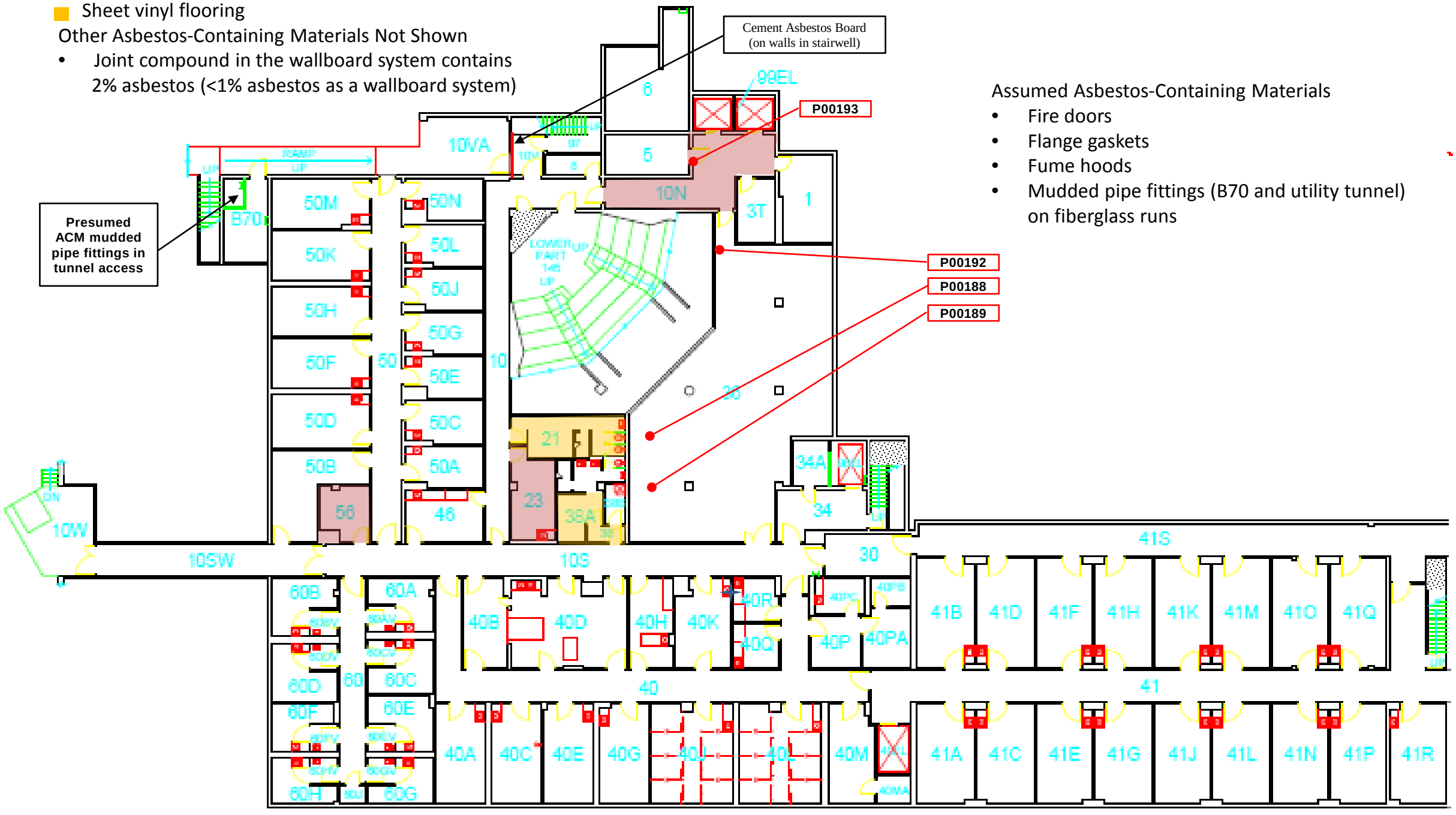
Legend

Asbestos-Containing Materials (ACM)

- Brown glue dollop under non asbestos-containing 12” white ceiling tile
- 12” Floor tile and black mastic
- Sheet vinyl flooring

Other Asbestos-Containing Materials Not Shown

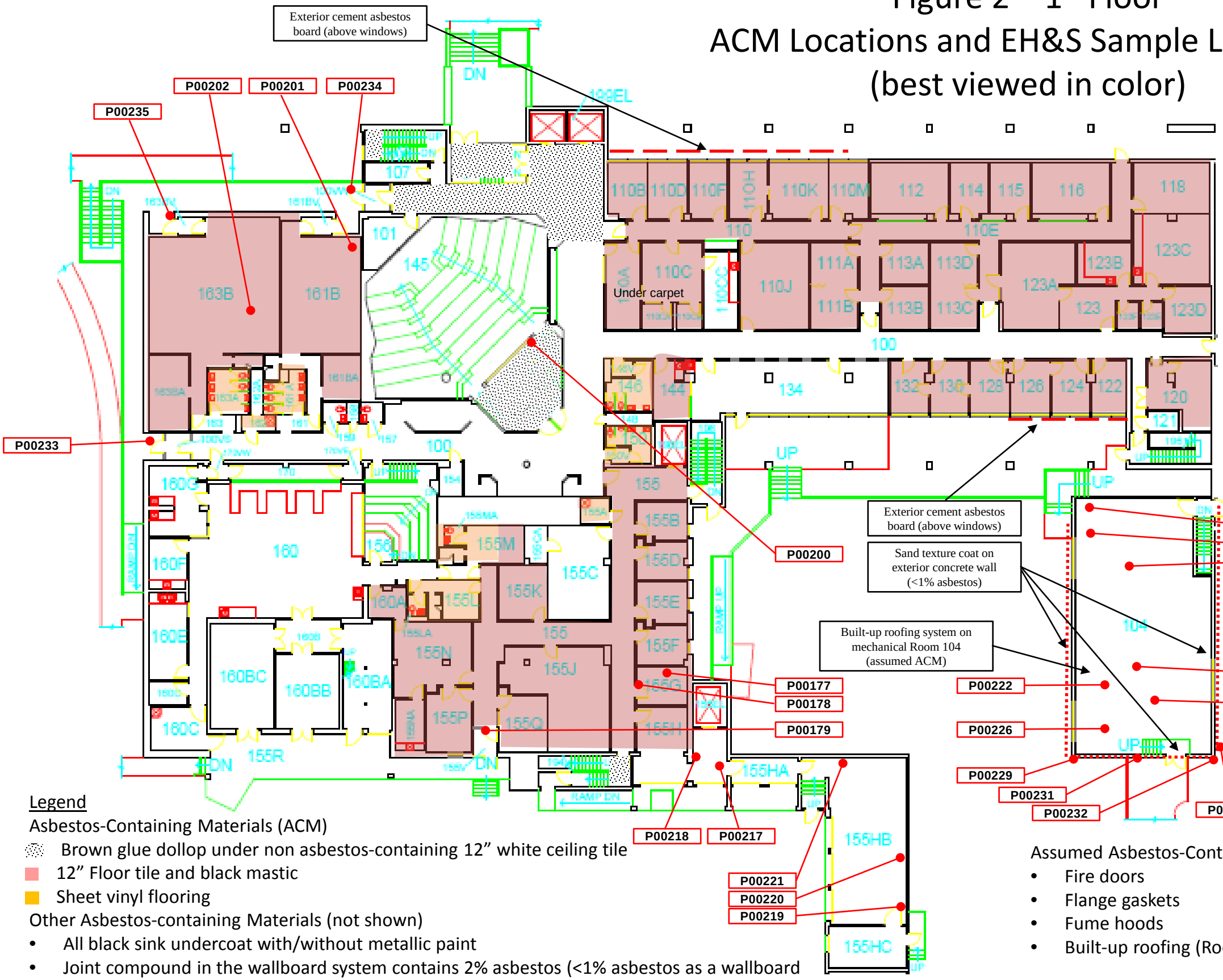
- Joint compound in the wallboard system contains 2% asbestos (<1% asbestos as a wallboard system)



Assumed Asbestos-Containing Materials

- Fire doors
- Flange gaskets
- Fume hoods
- Mudded pipe fittings (B70 and utility tunnel) on fiberglass runs

Figure 2 – 1st Floor
ACM Locations and EH&S Sample Locations
(best viewed in color)



Legend

Asbestos-Containing Materials (ACM)

- Brown glue dollop under non asbestos-containing 12” white ceiling tile
- 12” Floor tile and black mastic
- Sheet vinyl flooring

Other Asbestos-containing Materials (not shown)

- All black sink undercoat with/without metallic paint
- Joint compound in the wallboard system contains 2% asbestos (<1% asbestos as a wallboard system)

Assumed Asbestos-Containing Materials

- Fire doors
- Flange gaskets
- Fume hoods
- Built-up roofing (Room 104)

Figure 3 – 2nd Floor
ACM Locations and EH&S Sample Locations
(best viewed in color)

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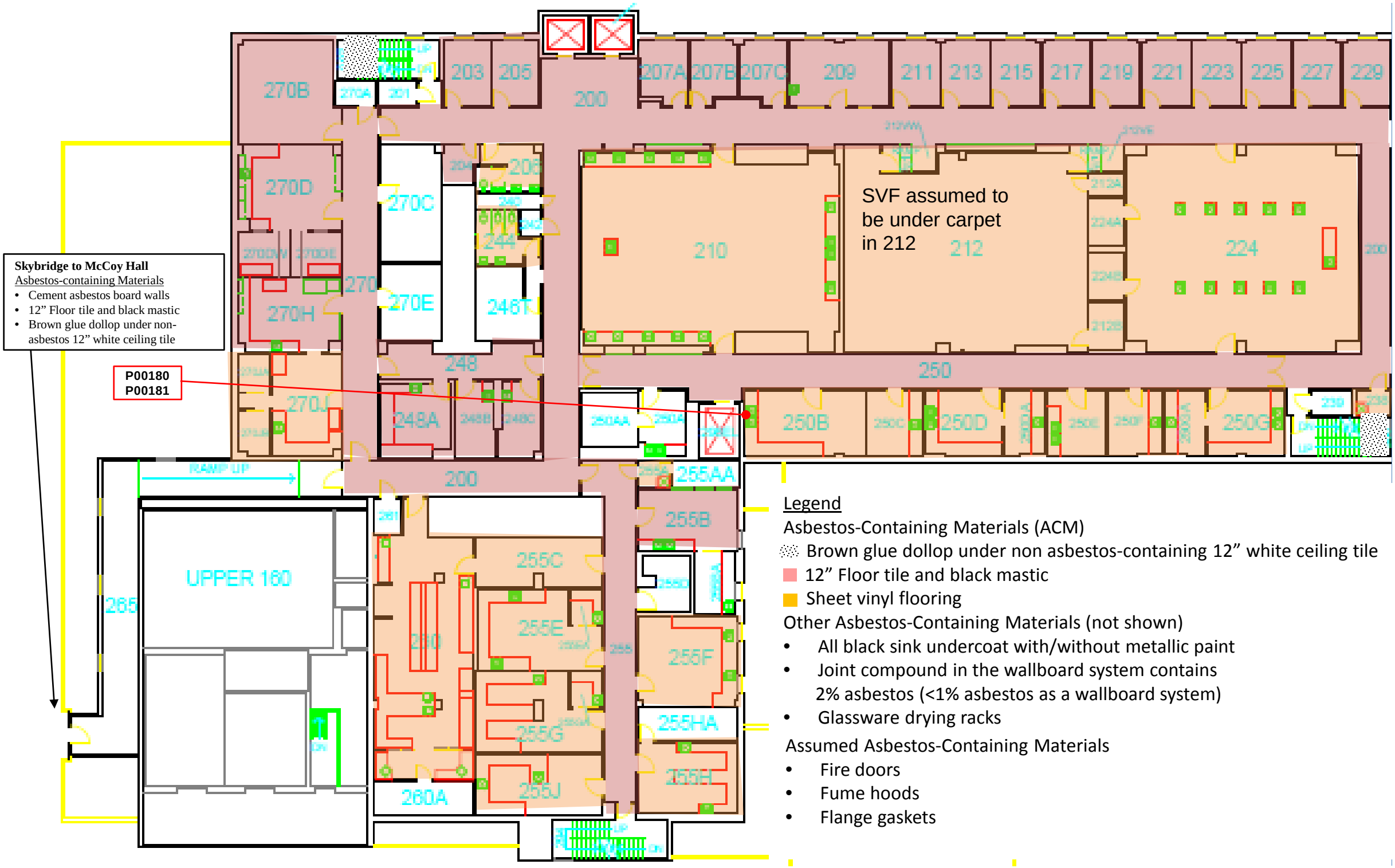
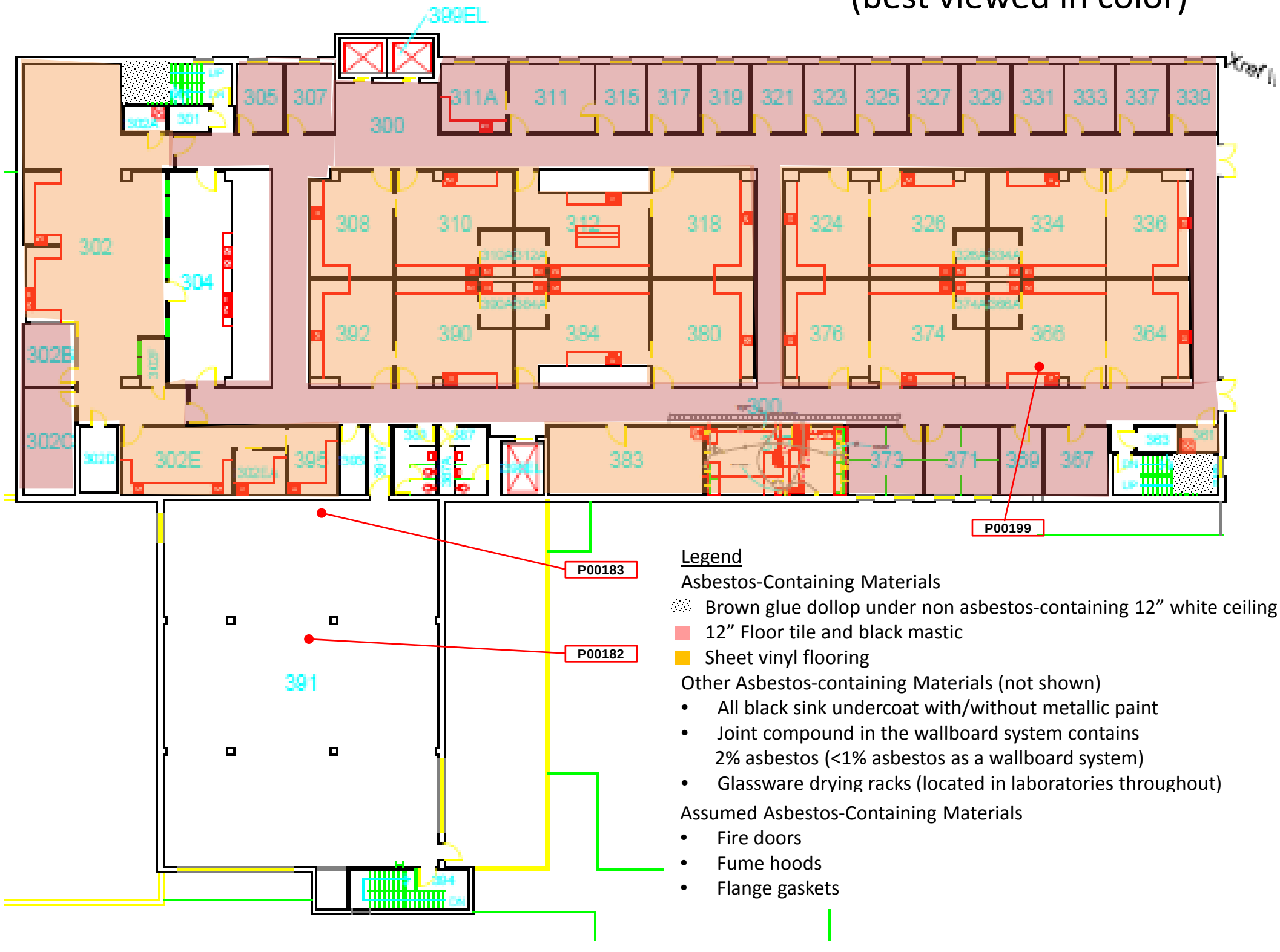


Figure 4 – 3rd Floor
ACM Locations and EH&S Sample Locations
(best viewed in color)



Legend

Asbestos-Containing Materials

- Brown glue dollop under non asbestos-containing 12” white ceiling tile (stairwells)
- 12” Floor tile and black mastic
- Sheet vinyl flooring

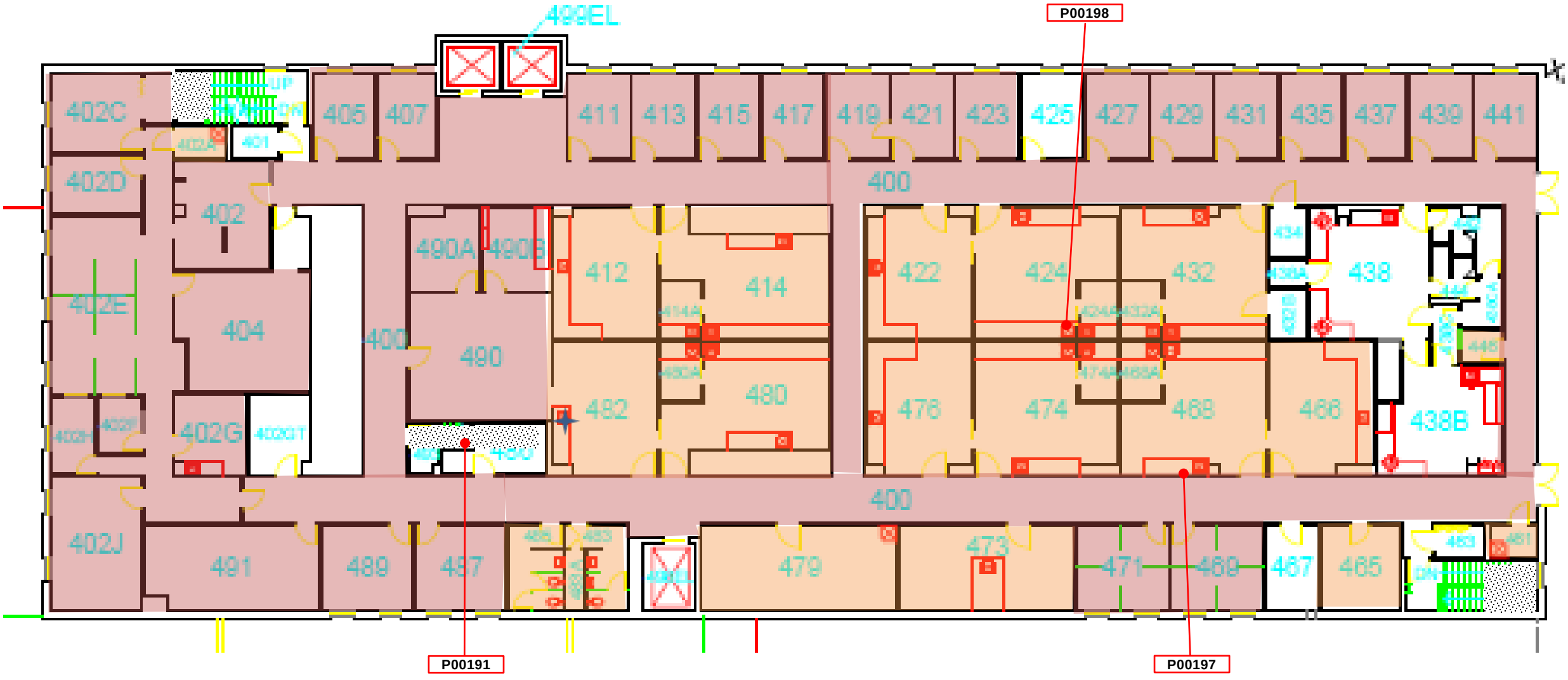
Other Asbestos-containing Materials (not shown)

- All black sink undercoat with/without metallic paint
- Joint compound in the wallboard system contains 2% asbestos (<1% asbestos as a wallboard system)
- Glassware drying racks (located in laboratories throughout)

Assumed Asbestos-Containing Materials

- Fire doors
- Fume hoods
- Flange gaskets

Figure 5 – 4th Floor
ACM Locations and EH&S Sample Locations
(best viewed in color)



Legend

Asbestos-Containing Materials (ACM)

- Brown glue dollop under non asbestos-containing 12” white ceiling tile (stairwells)
- 12” Floor tile and black mastic
- Sheet vinyl flooring

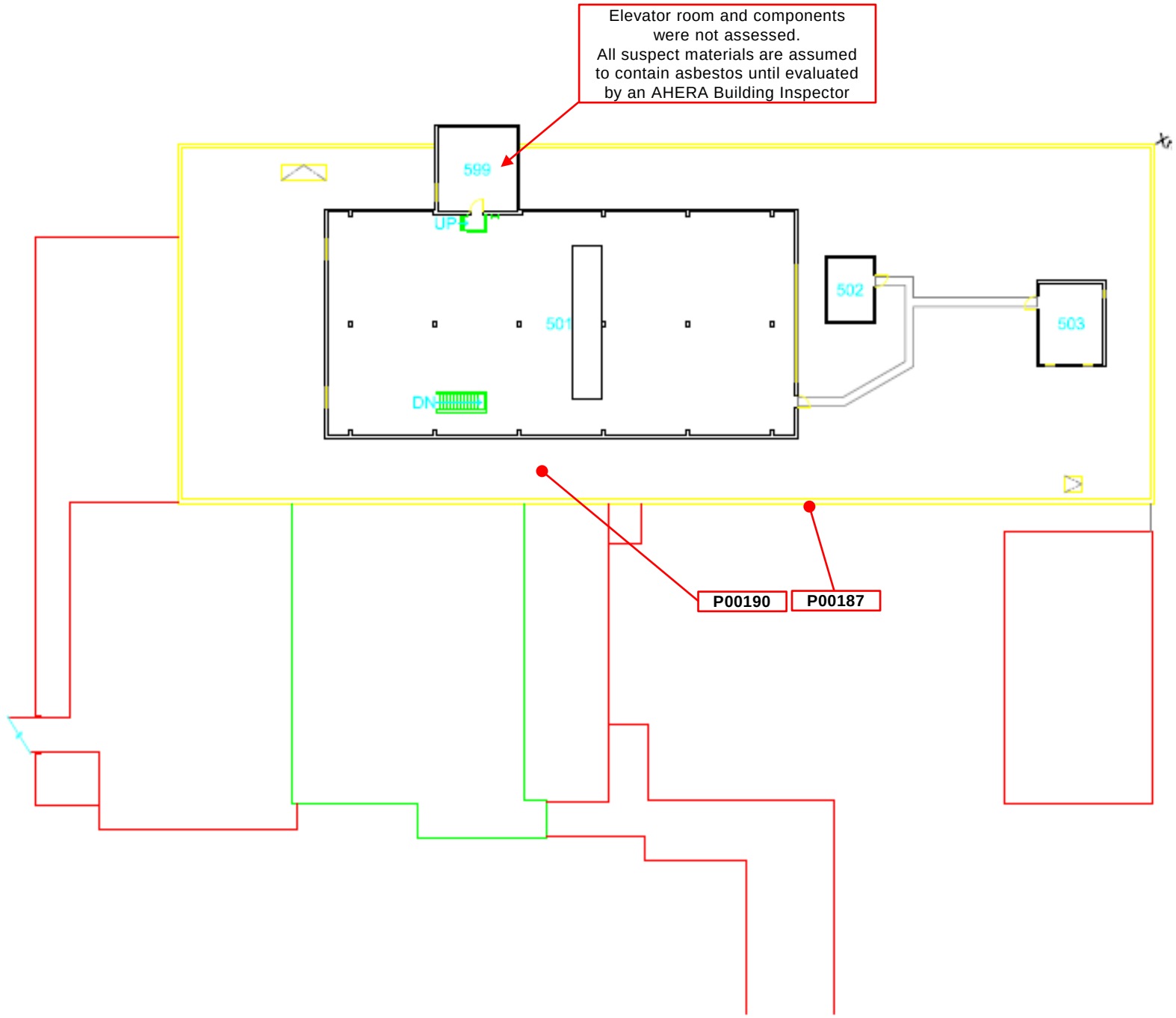
Other Asbestos-containing Materials Not Shown

- All black sink undercoat with/without metallic paint
- Joint compound in the wallboard system contains 2% asbestos (<1% asbestos as a wallboard system)
- Glassware drying racks (located throughout 4th floor labs)

Assumed Asbestos-Containing Materials

- Fire doors
- Fume hoods
- Flange gaskets

Figure 6 – Roof/Penthouse
ACM Locations and EH&S Sample Locations and
(best viewed in color)



TABLES

TABLE 1 – HOMOGENEOUS SAMPLING AREAS

HSA	Sample #'s	Material	Location/Rooms
A	A-01, P00201	White 12"x12" vinyl floor tile with beige streaks and black mastic	Hallways, offices, and some laboratories throughout Bustad Hall
B	B-01 through B-03	4" Dark brown vinyl cove base/mastic	Throughout Bustad Hall
C	C-01 through C-03, P00177 and P00202	2'x4' pinhole/etched drop-in ceiling tile	Throughout Bustad Hall
D	D-01 through D-03	Orange fireproofing	36 (Mechanical Room)
E	E-01 through E-03	Concrete masonry block and mortar	Throughout Bustad Hall
F	F-01, P00188 and P00189	Mag tank insulation	36 (Mechanical Room)
G	G-01	Flange gasket with black and brown mastic	36 (Mechanical Room)
H	H-01	Cement asbestos board	Exterior paneling above windows of rooms 122, 124, 126 and 110B through 110M; stairwell 10V walls; and skybridge walls
I, R, BB	I-01 through I-05, R-01 and BB-01	Gypsum wallboard with joint compound system	Throughout walls and ceilings of building
J	J-01	Green carpet mastic	145
K	K-01	Red brick and mortar	Exterior of building
L	L-01 through L-03	Orange/yellow pebble pattern sheet vinyl flooring with paper backing	Custodial closets and some restrooms throughout Bustad Hall
M	M-01, M-02 and P00178	4" Black vinyl cove base/brown-green and white mastic	155, 162, 155C, 197, 110, 120, 200, 238, 250, 300, 377, and 400
N	N-01	Beige epoxy floor coating	156
O	0-01	White backsplash/yellow mastic	40, 50 and 60 (series); 155A, 162, 255A and 270A
P	P-01, P-02, P00179	Tan carpet mastic under black carpet	100VS, 155V, 155Q
Q	Q-01 and Q-02	4" Orange ceramic tile with mastic	21, 38A, 146, 150, 155M, 157, 159, 161A, 163A, 206, 250A, 244, 387, 389, 304, 483, and 485
S	S-01	Gray textured epoxy floor	160, 160B, 160BB, 160BC, 160G, 160F, and 160C
T	T-01	Concrete textured anti-slip flooring with black mastic	160BA
U	U-01	Green-gray floor texture	160D and 160E
V	V-01 through V-03	Gray duct sealant	Ductwork throughout ceiling spaces of Bustad Hall
W	W-01	Tan carpet mastic under blue carpet	110F and 110A
X	X-01 and P00198	Black thin brittle sink undercoating	Kitchens and laboratories throughout 2nd, 3rd and 4th floors
Y	Y-01 and P00218	4" Tan vinyl cove base with brown mastic	134, 144, 155HA

HSA	Sample #'s	Material	Location/Rooms
Z	Z-01 through Z-04	White/gray pebble pattern sheet vinyl flooring with paper backing	Laboratory spaces throughout 2nd, 3rd and 4th floors
AA	AA-01, P00197 and P00199	Black thick textured sink undercoating	Kitchens and laboratories throughout 2nd, 3rd and 4th floors
CC	CC-01	White sink undercoat	209, 270D
DD	N/A	N/A	Sample Omitted
EE	EE-01, EE-02, P00191 and P00200	12" White rough textured ceiling tile with brown glue dollop	Stairwells throughout, including skybridge stairwell at McCoy Hall, 145A and 145V
FF	FF-01	2'x4' White solid suspended ceiling tile	255B
GG	GG-01 through GG-03	Gray sink undercoating	144, 302A and 377
HH	HH-01 through HH-03	White 12" ceiling tile with gray speckles and brown glue dollop	40Q, 40R and 46
II	II-01	Terrazzo with brown, black and white specks	Basement (under epoxy floor) and 100
JJ	JJ-01 through JJ-03	Gray textured floor coating	40 and 41 series rooms
KK	KK-01	Packing	302 Freas model 845 sterilizer
LL	LL-01	Packing	302 AMSCO Glassware dryer
MM	MM-01	Foil with brown paper and fiber glass pipe insulation (3" O.D.)	Stairwells, custodial closets and mechanical spaces throughout Bustad Hall
NN	NN-01	2'x4' White suspended ceiling tile with etches	304, 302E, and 395
OO	OO-01 and OO-02	1"x1" Ceramic floor tile	38A and 304
QQ	QQ-01	Vibration cloth around perpetual motion machine	501 and 503
RR	RR-01 through RR-03	Silver coat and black mastic on roof parapet wall	Roof over 400 level
SS	SS-01 through SS-03 and P00180	Black sink undercoating (thick) with metallic paint	250B, 334, 326, 374, 432, 424, 414
TT	TT-01	Pink sink undercoating	367
UU	P-00181	Black glassware drying rack	Laboratory spaces throughout 2nd, 3rd and 4th floors
VV	P00182	Green duct mastic painted white on uninsulated metal ducts	391
WW	P00183	White rubbery pipe seam mastic on fiberglass pipe runs	391
XX	P00187	Black vapor barrier paper under roof parapet flashing	Roof parapets
YY	P00190	Silver paint on roof drains (from previous roofing system)	Roof drains throughout
ZZ	P00192	Gray mudded pipe seams on fiberglass insulated heating lines	36 (mechanical space)

HSA	Sample #'s	Material	Location/Rooms
AAA	P00193	White 2'x4' suspended ceiling tile with dense pinholes and random etches (replacement tile)	30
BBB	P00217	White 2'x4' gypsum suspended ceiling tile with textured vinyl	155HA
CCC	P00219 through P00221	Gray spray-applied fireproofing	155HB
DDD	P00222 and P00226	Soft gray gasket/seam putty	104 (supply fan unit and associated ducting)
EEE	P00223 through P00225	White rubbery seam mastic with some mud on fiberglass pipe runs	104
FFF	P00227 and P00228	White pipe hangar block (magnesium silicate)	104
GGG	P00229, P00231 and P00232	Beige sand texture on exterior concrete wall	Exterior of 104
HHH	P00230	Black rubber vapor barrier with black mastic and concrete	East exterior to 104 at lower roof
III	P00233 through P00235	Plaster and gypsum soffit	Exterior soffit along north wall (1st floor overhang), northwest and west entrances

Table 2 - Summary of Sampling and Analytical Results

Sample #	Building Name	Building #	Sample Location	Material	Material Description/color	Type	Location Quantity	Quantity descriptor	Comments	Sample results	ACM?	Homogenous Material Location
									Areas not sampled			212A, 224A, 224B, 212B (freezers), 599 (elevator room)
A01	Bustad Hall	807	10N	12" vinyl floor tile/mastic	White 12"x12" vinyl floor tile with beige streaks and black mastic	Misc.	44,000	SF	Sample 1 of 2	0.5% CHR (tile), 1.5% CHR (mastic)	Y	Hallways, offices and some laboratories throughout Bustad Hall
P00201	Bustad Hall	807	161B	12" vinyl floor tile/mastic	White 12" vinyl floor tile with tan and gray streaks/black mastic	Misc.	44,000	SF	Sample 2 of 2	2% CHR (tile), 5% CHR (mastic)	Y	Hallways, offices and some laboratories throughout Bustad Hall
B01	Bustad Hall	807	10N	4" vinyl cove base w/mastic	4" Dark brown vinyl cove base with brown mastic	Misc.	1,200	SF	Sample 1 of 3	ND (all layers)	N	Throughout Bustad Hall
B02	Bustad Hall	807	100E	4" vinyl cove base w/mastic	4" Dark brown vinyl cove base with brown mastic	Misc.	1,200	SF	Sample 2 of 3	ND (all layers)	N	Throughout Bustad Hall
B03	Bustad Hall	807	376	4" vinyl cove base w/mastic	4" Dark brown vinyl cove base with brown mastic	Misc	1,200	SF	Sample 3 of 3	ND (all layers)	N	Throughout Bustad Hall
C01	Bustad Hall	807	10N	2'x4' suspended ceiling tile	2'x4' Pinhole/etched drop-in ceiling tile	Misc.	90,000	SF	Sample 3 of 5	ND	N	Throughout Bustad Hall
C02	Bustad Hall	807	156	2'x4' suspended ceiling tile	2'x4' Pinhole/etched drop-in ceiling tile	Misc.	90,000	SF	Sample 4 of 5	ND	N	Throughout Bustad Hall
C03	Bustad Hall	807	210	2'x4' suspended ceiling tile	2'x4' Pinhole/etched drop-in ceiling tile	Misc.	90,000	SF	Sample 5 of 5	ND	N	Throughout Bustad Hall
P00177	Bustad Hall	807	155G	2'x4' suspended ceiling tile	2'x4' White suspended ceiling tile with parallel wormholes and random pinholes	Misc.	90,000	SF	Sample 1 of 5	ND	N	Throughout Bustad Hall
P00202	Bustad Hall	807	163B	2'x4' suspended ceiling tile	2'x4' White suspended ceiling tile with parallel wormholes and random pinholes	Misc.	90,000	SF	Sample 2 of 5	ND	N	Throughout Bustad Hall
D01	Bustad Hall	807	36	Fireproofing	Orange spray applied fireproofing	Surf.	650	SF	Sample 1 of 3	ND	N	36 (mechanical room)
D02	Bustad Hall	807	36	Fireproofing	Orange spray applied fireproofing	Surf.	650	SF	Sample 2 of 3	ND	N	36 (mechanical room)
D03	Bustad Hall	807	36	Fireproofing	Orange spray applied fireproofing	Surf.	650	SF	Sample 3 of 3	ND	N	36 (mechanical room)
E01	Bustad Hall	807	10N	Concrete masonry and mortar	Concrete masonry block and mortar	Misc.	25,000	SF	Sample 1 of 3	ND	N	Throughout Bustad Hall
E02	Bustad Hall	807	36	Concrete masonry and mortar	Concrete masonry block and mortar	Misc.	25,000	SF	Sample 2 of 3	ND	N	Throughout Bustad Hall
E03	Bustad Hall	807	41E	Concrete masonry and mortar	Concrete masonry block and mortar	Misc.	25,000	SF	Sample 3 of 3	ND	N	Throughout Bustad Hall
F01	Bustad Hall	807	36	Tank insulation	Mag tank insulation and lagging	TSI	250	SF	Sample 1 of 3	ND (all layers)	N	Basement 36

P00188	Bustad Hall	807	36	Tank insulation	Yellow tank insulation and lagging	TSI	250	SF	Sample 2 of 3	ND (all layers)	N	Basement 36
P00189	Bustad Hall	807	36	Tank insulation	Orange heat converter tank insulation and lagging	TSI	250	SF	Sample 3 of 3	ND (all layers)	N	Basement 36
G01	Bustad Hall	807	36	Flange gasket	Flange gasket with black and brown mastic	TSI	250	SF	Sample 1 of 1	ND (all layers)	N	Basement 36
H01	Bustad Hall	807	10V	Cement-board	Cement asbestos board	Misc	650	SF	Sample 1 of 1	25% CHR	Y	Exterior paneling above windows of rooms 122, 124 and 126; 110B through 110M; stairwell 10V walls; and skybridge walls
I01	Bustad Hall	807	145	Gypsum wallboard system	Gypsum wallboard with seam tape and joint compound	Misc	170,000	SF	Sample 1 of 5	ND (gypsum wallboard, 2% CHR (joint compound), ND (seam tape)	Y	Throughout walls and ceilings of building
I02	Bustad Hall	807	162	Gypsum wallboard system	Gypsum wallboard	Misc	170,000	SF	Sample 2 of 5	ND	Y	Throughout walls and ceilings of building
I03	Bustad Hall	807	113A	Gypsum wallboard system	Gypsum wallboard and joint compound	Misc	170,000	SF	Sample 3 of 5	ND (gypsum wallboard, 2% CHR (joint compound)	Y	Throughout walls and ceilings of building
I04	Bustad Hall	807	250A	Gypsum wallboard system	Gypsum wallboard	Misc	170,000	SF	Sample 4 of 5	ND	Y	Throughout walls and ceilings of building
I05	Bustad Hall	807	302	Gypsum wallboard system	Gypsum wallboard with seam tape and joint compound	Misc	170,000	SF	Sample 5 of 5	ND (gypsum wallboard, 2% CHR (joint compound), ND (seam tape)	Y	Throughout walls and ceilings of building
J01	Bustad Hall	807	145	Carpet mastic	Green carpet mastic	Misc	500	SF	Sample 1 of 1	ND	N	145
K01	Bustad Hall	807	100	Exterior brick and mortar	Red brick and mortar	Misc	23,000	SF	Sample 1 of 1	ND (all layers)	N	Exterior of building
L01	Bustad Hall	807	162	Sheet vinyl flooring	Orange/yellow pebble pattern sheet vinyl flooring with paper backing	Misc	900	SF	Sample 1 of 3	ND (vinyl), 50% CHR (paper backing)	Y	Custodial closets and restrooms throughout Bustad Hall
L02	Bustad Hall	807	155A	Sheet vinyl flooring	Orange/yellow pebble pattern sheet vinyl flooring with paper backing	Misc	900	SF	Sample 2 of 3	ND (vinyl), 53% CHR (paper backing)	Y	Custodial closets and restrooms throughout Bustad Hall
L03	Bustad Hall	807	163A	Sheet vinyl flooring	Orange/yellow pebble pattern sheet vinyl flooring with paper backing	Misc	900	SF	Sample 3 of 3	ND (vinyl), 50% CHR (paper backing)	Y	Custodial closets and restrooms throughout Bustad Hall
M01	Bustad Hall	807	162	4" vinyl cove base and mastic	Black cove base with brown-green and white mastic	Misc	150	SF	Sample 1 of 3	ND (all layers)	N	110, 120 155, 155C, 162, 197, 200, 238, 250, 300, 377, and 400
M02	Bustad Hall	807	120	4" vinyl cove base and mastic	Black cove base with brown-green and white mastic	Misc	150	SF	Sample 2 of 3	ND (all layers)	N	110, 120 155, 155C, 162, 197, 200, 238, 250, 300, 377, and 400
P00178	Bustad Hall	807	155G	4" vinyl cove base and mastic	4" Black vinyl cove base with white and brown mastic	Misc.	150	SF	Sample 3 of 3	ND (all layers)	N	110, 120 155, 155C, 162, 197, 200, 238, 250, 300, 377, and 400

N01	Bustad Hall	807	156	Epoxy flooring	Beige epoxy floor coating	Misc	1,200	SF	Sample 1 of 1	ND	N	156
O01	Bustad Hall	807	155A	Fiberglass backsplash	White fiberglass backsplash panels with yellow mastic	Misc	3,500	SF	Sample 1 of 1	ND (all layers)	N	40, 50 and 60 (series); 155A, 162, 270A, 255A
P01	Bustad Hall	807	155V	Carpet mastic	Tan carpet mastic under black carpet	Misc	250	SF	Sample 1 of 3	ND	N	Under carpeting in 100VS, 155V, 155Q
P02	Bustad Hall	807	155Q	Carpet mastic	Tan carpet mastic under black carpet	Misc	250	SF	Sample 2 of 3	ND	N	Under carpeting in 100VS, 155V, 155Q
P00179	Bustad Hall	807	100VS	Carpet mastic	Tan carpet mastic under black carpet	Misc.	250	SF	Sample 3 of 3	ND	N	Under carpeting in 100VS, 155V, 155Q
Q01	Bustad Hall	807	155M	4" Ceramic floor tile and mastic	4” Orange ceramic tile with mastic	Misc	700	SF	Sample 1 of 2	ND (all layers)	N	21, 38A, 146, 150, 155M, 157, 159, 161A, 163A, 206, 250A, 244, 387, 389, 304, 483, and 485
Q02	Bustad Hall	807	206	4" Ceramic floor tile and mastic	4” Orange ceramic tile with mastic	Misc	700	SF	Sample 2 of 2	ND (all layers)	N	21, 38A, 146, 150, 155M, 157, 159, 161A, 163A, 206, 250A, 244, 387, 389, 304, 483, and 485
R01	Bustad Hall	807	158	Gypsum wallboard system	Gypsum wallboard and joint compound	Misc	170,000	SF	Sample 1 of 2	ND	N	Throughout walls and ceilings of building
R02	Bustad Hall	807	148	Gypsum wallboard system	Gypsum wallboard and joint compound	Misc	170,000	SF	Sample 2 of 2	ND	N	Throughout walls and ceilings of building
S01	Bustad Hall	807	160	Epoxy flooring	Gray textured epoxy floor	Misc	4,500	SF	Sample 1 of 1	ND	N	160, 160B, 160BB, 160BC, 160G, 160F, and 160C.
T01	Bustad Hall	807	160BA	Concrete floor texture	Concrete textured anti slip flooring with black mastic	Misc	250	SF	Sample 1 of 1	ND	N	160BA
U01	Bustad Hall	807	160E	Epoxy flooring	Green-gray floor texture	Misc	1,200	SF	Sample 1 of 1	ND	N	160D, 160E
V01	Bustad Hall	807	160	Duct mastic	Gray duct sealant	Misc	800	LF	Sample 1 of 3	ND	N	Ductwork throughout ceiling spaces of Bustad Hall
V02	Bustad Hall	807	10	Duct mastic	Gray duct sealant	Misc	800	LF	Sample 2 of 3	ND	N	Ductwork throughout ceiling spaces of Bustad Hall
V03	Bustad Hall	807	160	Duct mastic	Gray duct sealant	Misc	800	LF	Sample 3 of 3	ND	N	Ductwork throughout ceiling spaces of Bustad Hall
W01	Bustad Hall	807	110F	Carpet mastic	Tan carpet mastic under blue carpet	Misc	600	SF	Sample 1 of 1	ND	N	110A and 110F
X01	Bustad Hall	807	110CC	Sink undercoat	Black thin sink undercoating	Misc.	35	EA	Sample 1 of 2	0.3% Chrysotile	Y	Kitchens and laboratories throughout 2nd, 3rd and 4th floors
P00198	Bustad Hall	807	424	Sink undercoat	Black thin sink undercoating	Misc.	35	EA	Sample 2 of 2	3% CHR	Y	Kitchens and laboratories throughout 2nd, 3rd and 4th floors
Y01	Bustad Hall	807	134	4" Cove base w/mastic	4" Tan vinyl cove base with brown mastic	Misc.	150	SF	Sample 1 of 2	ND	N	134, 144 and 155HA
P00218	Bustad Hall	807	155HA	4" Cove base w/mastic	4" Dark brown vinyl cove base with brown mastic and joint compound	Misc.	150	SF	Sample 2 of 2	ND (all layers)	N	134, 144 and 155HA

Z01	Bustad Hall	807	210	Sheet vinyl flooring	White/gray pebble pattern sheet vinyl flooring with paper backing	Misc.	24,600	SF	Sample 1 of 4	ND (vinyl), 50% CHR (paper backing)	Y	Laboratory spaces throughout 2nd, 3rd and 4th floors
Z02	Bustad Hall	807	210	Sheet vinyl flooring	White/gray pebble pattern sheet vinyl flooring with paper backing	Misc.	24,600	SF	Sample 2 of 4	ND (vinyl), 48% CHR (paper backing)	Y	Laboratory spaces throughout 2nd, 3rd and 4th floors
Z03	Bustad Hall	807	210	Sheet vinyl flooring	White/gray pebble pattern sheet vinyl flooring with paper backing	Misc.	24,600	SF	Sample 3 of 4	ND (vinyl), 48% CHR (paper backing)	Y	Laboratory spaces throughout 2nd, 3rd and 4th floors
Z04	Bustad Hall	807	302	Sheet vinyl flooring	White/gray pebble pattern sheet vinyl flooring with paper backing	Misc.	24,600	SF	Sample 4 of 4	ND (vinyl), 50% CHR (paper backing)	Y	Laboratory spaces throughout 2nd, 3rd and 4th floors
AA01	Bustad Hall	807	210	Sink undercoat	Black thick textured sink undercoating	Misc.	35	EA	Sample 1 of 3	10% CHR	Y	Kitchens and laboratories throughout 2nd, 3rd and 4th floors
P00197	Bustad Hall	807	473	Sink undercoat	Black thick textured sink undercoat	Misc.	35	EA	Sample 2 of 3	3% CHR	Y	Kitchens and laboratories throughout 2nd, 3rd and 4th floors
P00199	Bustad Hall	807	366	Sink undercoat	Black thick textured sink undercoat	Misc.	35	EA	Sample 2 of 3	3% CHR	Y	Kitchens and laboratories throughout 2nd, 3rd and 4th floors
BB01	Bustad Hall	807	210	Gypsum wallboard system	Gypsum wallboard with joint compound	Misc.	170,000	SF	Sample 1 of 1	ND (all layers)	Y	210
CC01	Bustad Hall	807	209	Sink undercoat	White sink undercoating	Misc.	2	EA	Sample 1 of 3	1.3% CHR	Y	209, 270D
EE01	Bustad Hall	807	Not recorded	12" Ceiling tile and glue dollop	12" White rough textured ceiling tile with brown glue dollop	Misc.	600	SF	Sample 1 of 4	Tile (ND), 0.3% CHR (glue dollop)	Y	Stairwells throughout, including skybridge stairwell at McCoy Hall, 145A and 145V
EE02	Bustad Hall	807	Not recorded	12" Ceiling tile and glue dollop	12" White rough textured ceiling tile with brown glue dollop	Misc.	600	SF	Sample 2 of 4	Tile (ND), 0.1% CHR (glue dollop)	Y	Stairwells throughout, including skybridge stairwell at McCoy Hall, 145A and 145V
P00191	Bustad Hall	807	493	12" Ceiling tile and glue dollop	12" White rough textured ceiling tile with brown glue dollop	Misc.	600	SF	Sample 3 of 4	ND (tile), 2% CHR (glue dollop)	Y	Stairwells throughout, including skybridge stairwell at McCoy Hall, 145A and 145V
P00200	Bustad Hall	807	145A	Glue dollop	Brown glue dollop under 12" white rough textured ceiling tile	Misc.	600	SF	Sample 4 of 4	2% CHR (glue dollop)	Y	Stairwells throughout, including skybridge stairwell at McCoy Hall, 145A and 145V
FF01	Bustad Hall	807	255B	2' x 4' suspended ceiling tile	2'x4' White solid suspended ceiling tile	Misc.	200	SF	Sample 1 of 1	ND (all layers)	N	255B
GG01	Bustad Hall	807	144	Sink undercoat	Gray sink undercoating	Misc.	4	EA	Sample 1 of 3	ND	N	144, 302A, and 377
GG02	Bustad Hall	807	144	Sink undercoat	Gray sink undercoating	Misc.	4	EA	Sample 2 of 3	ND	N	144, 302A, and 377
GG03	Bustad Hall	807	144	Sink undercoat	Gray sink undercoating	Misc.	4	EA	Sample 3 of 3	ND	N	144, 302A, and 377

HH01	Bustad Hall	807	10	12" Ceiling tile and glue dollop	12" White ceiling tile with gray speckles and brown glue dollop	Misc.	250	SF	Sample 1 of 3	ND (all layers)	N	40Q, 40R and 46
HH02	Bustad Hall	807	10S	12" Ceiling tile and glue dollop	12" White ceiling tile with gray speckles and brown glue dollop	Misc.	250	SF	Sample 2 of 3	ND (all layers)	N	40Q, 40R and 46
HH03	Bustad Hall	807	10S	12" Ceiling tile and glue dollop	12" White ceiling tile with gray speckles and brown glue dollop	Misc.	250	SF	Sample 3 of 3	ND (all layers)	N	40Q, 40R and 46
II01	Bustad Hall	807	10S	Terrazo flooring	Terrazzo with brown, black and white specks	Misc.	8,000	SF	Sample 1 of 1	ND	N	Basement (under epoxy floor) and 100
JJ01	Bustad Hall	807	40	Rubberized flooring	Gray textured floor coating	Misc.	7,000	SF	Sample 1 of 3	ND	N	40 and 41 series rooms
JJ02	Bustad Hall	807	41	Rubberized flooring	Gray textured floor coating	Misc.	7,000	SF	Sample 2 of 3	ND	N	40 and 41 series rooms
JJ03	Bustad Hall	807	41	Rubberized flooring	Gray textured floor coating	Misc.	7,000	SF	Sample 3 of 3	ND	N	40 and 41 series rooms
KK01	Bustad Hall	807	302	Other	Packing from Freas model 845 sterilizer	TSI	1	EA	Sample 1 of 1	90% CHR	Y	302
LL01	Bustad Hall	807	302	Other	Packing from AMSCO Glassware dryer	TSI	1	EA	Sample 1 of 1	88% CHR	Y	302
MM01	Bustad Hall	807	302F	Fiberglass pipe insulation	Foil with brown paper and fiberglass insulation (3" O.D.)	TSI	1,500	LF	Sample 1 of 1	ND (all layers)	N	Stairwells, custodial closets and mechanical spaces throughout Bustad Hall
NN01	Bustad Hall	807	395	2' x 4' suspended ceiling tile	2'x4' White suspended ceiling tile with etches	Misc.	600	SF	Sample 1 of 1	ND (all layers)	N	304, 302E, and 395.
OO01	Bustad Hall	807	304	1" Ceramic floor tile	1" Ceramic floor tile and grout	Misc.	700	SF	Sample 1 of 2	ND (all layers)	N	38A, 304
OO02	Bustad Hall	807	304	1" Ceramic floor tile	1" Ceramic floor tile and grout	Misc.	700	SF	Sample 2 of 2	ND (all layers)	N	38A, 304
QQ01	Bustad Hall	807	501	Vibration dampening cloth	Vibration cloth around perpetual motion machine	Misc.			Sample 1 of 1	ND	N	501 and 503.
RR01	Bustad Hall	807	Roof	Roof silver coat	Silver coat and black mastic on parapet wall	Misc.	1,500	SF	Sample 1 of 3	ND	N	Roof over 400 level
RR02	Bustad Hall	807	Roof	Roof silver coat	Silver coat and black mastic on parapet wall	Misc.	1,500	SF	Sample 2 of 3	ND	N	Roof over 400 level
RR03	Bustad Hall	807	Roof	Roof silver coat	Silver coat and black mastic on parapet wall	Misc.	1,500	SF	Sample 3 of 3	ND	N	Roof over 400 level
SS01	Bustad Hall	807	334	Sink underocat	Black sink undercoat (thick) with metallic paint	Misc.	8	EA	Sample 1 of 4	1.8% CHR	Y	250B, 334, 326, 374, 432, 424, 414
SS02	Bustad Hall	807	326	Sink underocat	Black sink undercoat (thick) with metallic paint	Misc.	8	EA	Sample 2 of 4	1.5% CHR	Y	250B, 334, 326, 374, 432, 424, 414
SS03	Bustad Hall	807	326	Sink underocat	Black sink undercoat (thick) with metallic paint	Misc.	8	EA	Sample 3 of 4	1.8% CHR	Y	250B, 334, 326, 374, 432, 424, 414
P00180	Bustad Hall	807	250B	Sink undercoat	Black sink undercoat (thick) with metallic paint	Misc.	8	EA	Sample 4 of 4	10% CHR	Y	250B, 334, 326, 374, 432, 424, 414
TT01	Bustad Hall	807	367	Sink underocat	Pink Sink Undercoating	Surf	1	EA	Sample 1 of 3	0.5% CHR	Y	367

P00181	Bustad Hall	807	250B	Glassware drying rack	Black glassware drying rack mounted on wall	Misc.	25	EA	Sample 1 of 1	45% CHR	Y	Laboratory spaces throughout 2nd, 3rd and 4th floors
P00182	Bustad Hall	807	391	Duct mastic	Green duct mastic painted white on uninuslated metal duct	Misc.	250	LF	Sample 1 of 1	ND	N	391
P00183	Bustad Hall	807	391	Fiberglass pipe run seam mastic	White rubbery pipe seam mastic on fiberglass pipe runs	Misc.	30	SF	Sample 1 of 1	ND	N	391
P00187	Bustad Hall	807	Roof	Vapor barrier	Black vapor barrier paper under roof parapet flashing	Misc.	400	SF	Sample 1 of 1	ND	N	Roof parapets
P00190	Bustad Hall	807	Roof	Roofing silver coat	Silver paint on roof drain	Misc.	20	SF	Sample 1 of 1	ND	N	Roof drains
P00192	Bustad Hall	807	36	Insulation	Gray mudded pipe seams	TSI	25	SF	Sample 1 of 1	4% CHR	Y	Basement 36
P00193	Bustad Hall	807	30	2'x4' Suspended ceiling tile	White 2' x 4' suspended ceiling tile with dense pinholes and random etches	Misc.	5000	SF	Sample 1 of 1	ND	N	Basement 30
P00217	Bustad Hall	807	155HA	2'x4' Suspended ceiling tile	2'x4' White gypsum suspended ceiling tile with textured vinyl	Misc.	150	SF	Sample 1 of 1	ND	N	155 HA
P00219	Bustad Hall	807	155HB	Fireproofing	Gray spray-applied fireproofing	Surf.	800	SF	Sample 1 of 3	ND	N	155HB (Loading Dock)
P00220	Bustad Hall	807	155HB	Fireproofing	Gray spray-applied fireproofing	Surf.	800	SF	Sample 2 of 3	ND	N	155HB (Loading Dock)
P00221	Bustad Hall	807	155HB	Fireproofing	Gray spray-applied fireproofing	Surf.	800	SF	Sample 3 of 3	ND	N	155HB (Loading Dock)
P00222	Bustad Hall	807	104	Duct seam putty	Soft gray duct seam putty	Misc.	150	LF	Sample 1 of 2	3% CHR	Y	104 - Supply fan unit and associated ducting
P00226	Bustad Hall	807	104	Duct seam putty	Soft gray duct seam putty	Misc.	150	LF	Sample 2 of 2	ND	Y	104 - Supply fan unit and associated ducting
P00223	Bustad Hall	807	104	Fiberglass pipe insulation	White rubbery seam mastic with some mud on fiberglass pipe runs	Misc.	60	SF	Sample 1 of 1	ND	N	104
P00224	Bustad Hall	807	104	Fiberglass pipe insulation	White rubbery seam mastic with some mud on fiberglass pipe runs	Misc.	60	SF	Sample 2 of 3	ND	N	104
P00225	Bustad Hall	807	104	Fiberglass pipe insulation	White rubbery seam mastic with some mud on fiberglass pipe runs	Misc.	60	SF	Sample 3 of 3	ND	N	104
P00227	Bustad Hall	807	104	Pipe hangar block	White pipe hangar block (magnesium silicate)	Misc.	12	EA	Sample 1 of 2	ND	N	104
P00228	Bustad Hall	807	104	Pipe hangar block	White pipe hangar block (magnesium silicate)	Misc.	12	EA	Sample 2 of 2	ND	N	104
P00229	Bustad Hall	807	104	Exterior wall texture	Beige sand texture on concrete wall	Surf.	950	SF	Sample 1 of 3	0.25% CHR	Y	Exterior walls of 104
P00230	Bustad Hall	807	104	Vapor barrier	Black rubber vapor barrier with mastic and concrete	Misc.	400	SF	Sample 1 of 1	ND	N	East exterior wall to 104 at roofing
P00231	Bustad Hall	807	104	Exterior wall texture	Beige sand texture on concrete wall	Surf.	950	SF	Sample 2 of 3	0.75% CHR	Y	Exterior walls of 104
P00232	Bustad Hall	807	104	Exterior wall texture	Beige sand texture on concrete wall	Surf.	950	SF	Sample 3 of 3	0.50% CHR	Y	Exterior walls of 104

P00233	Bustad Hall	807	104	Plaster	Plaster and gypsum soffit	Surf.	600	SF	Sample 1 of 1	ND	N	Exterior soffit along north wall (1st floor overhang), northwest and west entrances
P00234	Bustad Hall	807	104	Plaster	Plaster and gypsum soffit	Surf.	600	SF	Sample 2 of 3	ND	N	Exterior soffit along north wall (1st floor overhang), northwest and west entrances
P00235	Bustad Hall	807	104	Plaster	Plaster and gypsum soffit	Surf.	600	SF	Sample 3 of 3	ND	N	Exterior soffit along north wall (1st floor overhang), northwest and west entrances

APPENDIX A

EH&S Chain-of-Custody and Laboratory Analytical Results

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Asbestos Bulk Analysis Report

Report Number: 13-03-01562

Client: Washington State University - Pullman
P.O. BOX 641172
Pullman, WA 99164

Received Date: 03/13/2013
Analyzed Date: 03/13/2013
Reported Date: 03/14/2013

Project/Test Address: Bustad Hall Fall Building; Pullman, WA

Client Number: 49-3308

Fax Number: 509-335-4442

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
13-03-01562-001	P00177		White Fibrous; Homogeneous	NAD	55% Cellulose 35% Fibrous Glass 10% Non-Fibrous
13-03-01562-002A	P00178	Cove Base	Black Vinyl; Homogeneous	NAD	100% Non-Fibrous
13-03-01562-002B	P00178	Mastic	Brown/White Adhesive; Inhomogeneous	NAD	100% Non-Fibrous
13-03-01562-003	P00179		Yellow Adhesive; Homogeneous	NAD	100% Non-Fibrous
13-03-01562-004	P00180		Black Tar-Like; Silver Paint Like; Inhomogeneous	10% Chrysotile	90% Non-Fibrous

Total Asbestos: 10%

Unable to separate layers without possible contamination

Environmental Hazards Services, L.L.C

Client Number: 49-3308 Report Number: 13-03-01562

Project/Test Address: Bustad Hall Fall Building; Pullman, WA

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
13-03-01562-005	P00181		Black Cementitious; Homogeneous	45% Chrysotile	55% Non-Fibrous
			Total Asbestos:	45%	
13-03-01562-006	P00182		Gray Adhesive; Homogeneous	NAD	100% Non-Fibrous
13-03-01562-007	P00183		White Adhesive; Homogeneous	NAD	100% Non-Fibrous

QC Sample: 25-NIST REF

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Sami Hosn

Reviewed By Authorized Signatory:

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected

PCM

13-03-01562

Due Date:
03/14/2013
(Thursday)
AE M

5

Asbestos Chain-of-Custody

EHS Laboratories™

Environmental Hazards Services, LLC

www.leadlab.com
(800)347-4010
(804)275-4907 (fax)

7469 Whitepine Rd
Richmond, VA
23237

Company Name: Washington State University Health and Safety Address: P.O. Box 641172 City/State/Zip: Pullman, WA 99164

Phone: (509) 335-5604 Fax: ( ) E-mail: WSU List Acct. Number: 49-3308 D

Project Name / Testing Address: Bustad Hall Full Building City/State (Required): Pullman, WA

Collected by: Matthew McKibbin Purchase Order Number: 5546-2010

Turn Around Times : *If no TAT is specified, sample(s) will be processed and charged as 3-day TAT.*

X 1 - Day _____ 2 - Day _____ 3 - Day _____ Same Day (Must Call Ahead) _____ Weekend (Must Call Ahead)

No.	Client Sample ID	Date Collected	ASBESTOS							AIR					COMMENTS
			PLM	PLM Point Count 400	PLM Point Count 1000	PLM NY Protocol	PCM	TEM Chatfield (Bulk)	TEM AHERA (Air)	Time On	Time Off	Flow Rate (L/min)	Total Time (minutes)	Volume (Total Liters)	
1	P00177	3-1-13	X												
2	P00178		X												
3	P00179		X												
4	P00180		X												
5	P00181		X												
6	P00182		X												
7	P00183		X												
8															
9															
10															

Released by: Matt McKibbin Signature: [signature] Date/Time: 3-12-13 / 1230

Received by: M. BLOWE Signature: [signature] Date/Time: 3/13/13

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Asbestos Bulk Analysis Report

Report Number: 13-03-02611

Client: Washington State University - Pullman
P.O. BOX 641172
Pullman, WA 99164

Received Date: 03/20/2013
Analyzed Date: 03/20/2013
Reported Date: 03/21/2013

Project/Test Address: Bustad Hall Building; Pullman, WA

Client Number: 49-3308

Fax Number: 509-335-4442

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
13-03-02611-001	P00187		Black Tar-Like; Fibrous; Homogeneous	NAD	80% Cellulose 20% Non-Fibrous
13-03-02611-002	P00188		Gray Powder; Fibrous; Off-White Fibrous; Yellow Paint-Like; Inhomogeneous	NAD	15% Cellulose 22% Fibrous Glass 63% Non-Fibrous
13-03-02611-003	P00189		Gray Powder; Fibrous; Orange Paint-Like; Inhomogeneous	NAD	18% Cellulose 22% Fibrous Glass 60% Non-Fibrous
13-03-02611-004	P00190		Silver Paint; Tan Brittle; Inhomogeneous	NAD	3% Cellulose 97% Non-Fibrous
13-03-02611-005A	P00191	Other *	White Fibrous; Paint-Like; Inhomogeneous	NAD	65% Fibrous Glass 35% Non-Fibrous

* Ceiling Tile I

Environmental Hazards Services, L.L.C

Client Number: 49-3308 Report Number: 13-03-02611

Project/Test Address: Bustad Hall Building; Pullman, WA

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
13-03-02611-005B	P00191	Other *	Tan Fibrous; Homogeneous	NAD	35% Cellulose 35% Fibrous Glass 30% Non-Fibrous
* Ceiling Tile II					
13-03-02611-005C	P00191	Mastic	Brown Adhesive; Homogeneous	2% Chrysotile	2% Cellulose 96% Non-Fibrous
			Total Asbestos:	2%	
13-03-02611-006A	P00192	Covering/ Jacket	White Rubbery; Green Paint-Like; Inhomogeneous	4% Chrysotile	4% Cellulose 1% Wollastonite 91% Non-Fibrous
			Total Asbestos:	4%	
Chrysotile present throughout sample.					
13-03-02611-006B	P00192	Insulation	Gray Powder; Fibrous; Homogeneous	NAD	6% Cellulose 30% Fibrous Glass 64% Non-Fibrous
13-03-02611-007	P00193		Beige Fibrous; White Powder; Inhomogeneous	NAD	40% Cellulose 30% Fibrous Glass 30% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number: 49-3308 Report Number: 13-03-02611

Project/Test Address: Bustad Hall Building; Pullman, WA

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials

QC Sample: 65-M12003-3

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Vickie Holmes

Reviewed By Authorized Signatory: 

Howard Varner
General Manager

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected

7 PLM

EHS Laboratories™

Asbestos Chain-of-Custody

13-03-02611

Due Date:
03/21/2013
(Thursday)
AE M

Environmental Hazards Services, LLC

www.leadlab.com
(800)347-4010
(804)275-4907 (fax)

7469 Whitepine Rd
Richmond, VA
23237

Company Name: Washington State University Health and Safety Address: P.O. Box 641172 City/State/Zip: Pullman, WA 99164

Phone: (509) 335-5604 Fax: ( ) E-mail: WSU List Acct. Number: 49-3308 D

Project Name / Testing Address: Busted Full Building City/State (Required): Pullman, WA

Collected by: Matthew McKibbin Purchase Order Number: 5546-2010

Turn Around Times : *If no TAT is specified, sample(s) will be processed and charged as 3-day TAT.*

X 1 - Day _____ 2 - Day _____ 3 - Day _____ Same Day (Must Call Ahead) _____ Weekend (Must Call Ahead)

No.	Client Sample ID	Date Collected	ASBESTOS							AIR					COMMENTS
			PLM	PLM Point Count 400	PLM Point Count 1000	PLM NY Protocol	PCM	TEM Chatfield (Bulk)	TEM AHERA (Air)	Time On	Time Off	Flow Rate (L/min)	Total Time (minutes)	Volume (Total Liters)	
1	P00187	3-14-13	X												
2	P00188	↓	X												
3	P00189		X												
4	P00190		X												
5	P00191		X												
6	P00192		X												
7	P00193	↓	X												
8															
9															
10															

Released by: Matt McKibbin Signature: Matt McKibbin Date/Time: 3-19-13

Received by: Stone Signature: [signature] Date/Time: 3-20-13

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Asbestos Bulk Analysis Report

Report Number: 13-03-03828

Client: Washington State University - Pullman
P.O. BOX 641172
Pullman, WA 99164

Received Date: 03/29/2013
Analyzed Date: 03/29/2013
Reported Date: 04/01/2013

Project/Test Address: Bustad Hall Full Building; Pullman, WA

Client Number: 49-3308

Fax Number: 509-335-4442

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
13-03-03828-001	P00197		Black Tar-Like; Homogeneous	3% Chrysotile	97% Non-Fibrous
			Total Asbestos:	3%	
13-03-03828-002	P00198		Black Tar-Like; Homogeneous	3% Chrysotile	97% Non-Fibrous
			Total Asbestos:	3%	
13-03-03828-003	P00199		Black Tar-Like; Homogeneous	3% Chrysotile	97% Non-Fibrous
			Total Asbestos:	3%	
13-03-03828-004	P00200		Brown Adhesive; Homogeneous	2% Chrysotile	98% Non-Fibrous
			Total Asbestos:	2%	
13-03-03828-005A	P00201	Tile	White/Gray Vinyl; Homogeneous	2% Chrysotile	98% Non-Fibrous
			Total Asbestos:	2%	

Environmental Hazards Services, L.L.C

Client Number: 49-3308 Report Number: 13-03-03828

Project/Test Address: Bustad Hall Full Building; Pullman, WA

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
13-03-03828-005B	P00201	Mastic	Black Adhesive; Homogeneous	5% Chrysotile	95% Non-Fibrous
			Total Asbestos:	5%	
13-03-03828-006	P00202		Gray Fibrous; White Paint-Like; Inhomogeneous	NAD	60% Cellulose 10% Fibrous Glass 30% Non-Fibrous

QC Sample: 70-M12000-3

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Araceli Enzler

Reviewed By Authorized Signatory: Howard D. Varner

Howard Varner
General Manager

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected

6 PLM

Asbestos Chain-of-Custody

13-03-03828 A

Due Date:
04/01/2013
(Monday)
AE M

Environmental Hazards Services, LLC

www.leadlab.com
(800)347-4010
(804)275-4907 (fax)

7469 Whitepine Rd
Richmond, VA
23237

Company Name: Washington State University Health and Safety Address: P.O. Box 641172 City/State/Zip: Pullman, WA 99164

Phone: (509) 335-5604 Fax: ( ) E-mail: WSU List Acct. Number: 49-3308 D

Project Name / Testing Address: Bustad Hall Fall Building **City/State (Required):** Pullman, WA

Collected by: Matthew McKibbin Purchase Order Number: 5546-2010

Turn Around Times : *If no TAT is specified, sample(s) will be processed and charged as 3-day TAT.*

X 1 - Day ____ 2 - Day ____ 3 - Day ____ Same Day (Must Call Ahead) ____ Weekend (Must Call Ahead)

No.	Client Sample ID	Date Collected	ASBESTOS							AIR					COMMENTS
			PLM	PLM Point Count 400	PLM Point Count 1000	PLM NY Protocol	PCM	TEM Chatfield (Bulk)	TEM AHERA (Air)	Time On	Time Off	Flow Rate (L/min)	Total Time (minutes)	Volume (Total Liters)	
1	P00197	3-28-13	X												
2	P00198	↓	X												
3	P00199		X												
4	P00200		X												
5	P00201		X												
6	P00202		X												
7															
8															
9															
10															

Released by: Matt McKibbin	Signature:	Date/Time: 3-28-13 1200
Received by: Travis	Signature:	Date/Time: 3/29/13

Asbestos 400 Point Count Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Report Number: 13-03-02995

Client: Washington State University - Pullman
P.O. BOX 641172
Pullman, WA 99164

Received Date: 03/20/2013
Analyzed Date: 03/22/2013
Reported Date: 03/22/2013

Project/Test Address: Bustad Hall Building; Pullman, WA; EHS#13-03-02611

Client Number:
49-3308

Fax Number:
509-335-4442

Laboratory Results

Lab Sample Number	Client Sample Number	Lab Gross Description	% Asbestos	Narrative ID
13-03-02995-001	P00191- C (mastic)	Brown Adhesive	1.00 % Chrysotile	

Reporting Limit: 0.25 % Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Christian H. Schaible

Reviewed By Authorized Signatory:

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714.

LEGEND NAD = No Asbestos Detected

EHS Laboratories

POINT COUNT REQUEST FORM

13-03-02995

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Due Date:
03/25/2013
(Monday)
AE M

Received Date: 03/22/2013
Client #: 49-3308
Company Name: Washington State University - Pullman
Project/Test Address: Bustad Hall Building; Pullman, WA; EHS#13-03-02611
Analysis Requested: 400 Pt Count

Client Sample #	EHS Sample #	Sample Location and/or Comments
P00191	13-03-2611-005C	

Date Samples Received	Received By	Original Analyst	Date Analyzed	Date Request Received	Received By
3/20/13	Tiffany	Vickie	3/20/13	3/22/13	Michelle

Michelle Murtha

From: McKibbin, Matthew Robert [mrmckibbin@wsu.edu]
Sent: Friday, March 22, 2013 1:00 PM
To: mmurtha@leadlab.com
Subject: Point Count Request

Can I please have the brown mastic point counted (EPA 400 point) in sample P00191 on report #13-03-02611 for 1-day TAT.

Thanks,

Matt McKibbin
Industrial Hygienist
Environmental Health and Safety
Desk: 509-335-5311
mrmckibbin@wsu.edu

Asbestos 400 Point Count Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Report Number: 13-04-01056

Client: Washington State University - Pullman
P.O. BOX 641172
Pullman, WA 99164

Received Date: 04/05/2013
Analyzed Date: 04/08/2013
Reported Date: 04/09/2013

Project/Test Address: Bustad Hall; Full Building; Pullman, WA; EHS#13-04-00720

Client Number:
49-3308

Laboratory Results

Fax Number:
509-335-4442

Lab Sample Number	Client Sample Number	Lab Gross Description	% Asbestos	Narrative ID
13-04-01056-001	P00229	Pale Beige/White Brittle to Coarse Powder	0.25 % Chrysotile	
13-04-01056-002	P00231	Pale Beige/White Brittle to Coarse Powder; Gray Cementitious	0.75 % Chrysotile	
13-04-01056-003	P00232	Pale Beige/White Brittle to Coarse Powder; Gray Cementitious	0.50 % Chrysotile	

Reporting Limit: 0.25 % Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Mark Case

Reviewed By Authorized Signatory:

Tasha Eaddy
QA/QC Clerk

LEGEND NAD = No Asbestos Detected

EHS Laboratories

POINT COUNT REQUEST FORM

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

13-04-01056

Due Date:
04/09/2013
(Tuesday)
AE M

Received Date: 04/08/2013
Client #: 49-3308
Company Name: Washington State University - Pullman
Project/Test Address: Bustad Hall; Full Building; Pullman, WA; EHS#13-04-00720
Analysis Requested: 400 Pt Count nse

Client Sample #	EHS Sample #	Sample Location and/or Comments
P00229	13-4-00720-013	
P00231	13-4-00720-015	
P00232	13-4-00720-016	

Date Samples Received	Received By	Original Analyst	Date Analyzed	Date Request Received	Received By
4/5/13	Kathy H	Tim	4/6/13	4/8/13	Michelle S

Michelle Murtha

From: McKibbin, Matthew Robert [mrmckibbin@wsu.edu]
Sent: Monday, April 08, 2013 2:41 PM
To: mmurtha@leadlab.com
Subject: Point Count Please

Can I please samples P00229, P00231 and P00232 point counted (EPA 400 point) on report #13-04-00720 for 1-day TAT.

Thanks!

Matt McKibbin
Industrial Hygienist
WSU-Environmental Health and Safety
Desk: 509-335-5311
mrmckibbin@wsu.edu

APPENDIX B

Limited Hazardous Materials Inspection Report dated May, 2012 by PBS Engineering and Environmental

PBS | Engineering + Environmental

Limited Hazardous Materials Inspection Report

Bustad Hall
Pullman, Washington

Prepared for:

Washington State University
Capital Planning and Development
110 Commons Building
PO Box 643611
Pullman, Washington 99164-3611

May 2012
Project No. 61987.028
WSU Project No. 5546-2010

320 N Johnson Street, Suite 700, Kennewick, WA 99336
509.735.2698 Main
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www.pbsenv.com

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ATTACHMENTS

Appendix A - PLM Asbestos and Lead Paint Laboratory Results
Appendix B - Radon Laboratory Results
Appendix C - Inspector and Laboratory Certifications
Appendix D - WSU Asbestos Database
Appendix E - Asbestos-Containing Materials Drawings

EXECUTIVE SUMMARY

PBS Engineering + Environmental (PBS) performed a limited hazardous materials inspection of Bustad Hall. The inspection included an asbestos-containing materials inspection, lead paint inspection, radon sampling, mercury-containing thermostat switch/thermometer inspection and a polychlorinated biphenyl's (PCB) inspection of window caulking.

The asbestos-containing materials (ACM) inspection revealed that asbestos is present in floor tile mastic, cement asbestos board, vinyl sheet flooring, packing materials and sink undercoating. Presumed ACMs include laboratory counter tops. Asbestos was present, but in quantities less that 1% in floor tile, gypsum wallboard/joint compound and ceiling tile glue dots.

The lead paint inspection revealed several areas of lead paint are present throughout the building.

Radon testing was performed in the lowest level of the building. All results were well below the EPA action level of 4.0 picocuries/liter of air.

PBS did not observe any window putty at Bustad Hall.

PBS observed ten mercury-containing thermometers and three mercury-containing switches in the building.

1.0 HAZARDOUS MATERIALS INSPECTION

1.1 Introduction

Between the dates of January 3, through the 7, 2011, PBS Engineering + Environmental (PBS) performed a Limited Hazardous Materials Inspection of Bustad Hall located on the Washington State University Campus. The inspection included an asbestos-containing materials inspection, lead inspection, radon sampling, mercury-containing thermostat switch/thermometer inspection and a polychlorinated biphenyl's (PCP) inspection of window caulking. The following report describes the inspection and provides analytical results and recommendations.

1.2 Asbestos Inspection

PBS Engineering + Environmental (PBS) performed the inspection in relation to anticipated renovation and/or demolition activities at the above mentioned sites. It is the intent of this investigation to provide Washington State University (WSU), with information to meet the Washington State Department of Labor and Industries requirement that a "good faith" inspection is performed prior to renovation or demolition activities.

Sampling was limited to accessible areas. Inaccessible areas are defined as those requiring selective demolition, fall protection, confined-space entry protocols to gain access. In addition the above mentioned limitations, some rooms were inaccessible to inspectors by instruction of hall representatives or lack of a correct key. Inaccessible are as follows; 50H, 50K, 50M, 50N, 50J, 50L, 50G, 50E, 50C, 204, 212A, 224A, 224B, 212B, 438, 434, 502, and 599. Additionally, roofing systems were not sampled per the owners request.

The following report summarizes inspection activities, laboratory results and provides recommendations as necessary.

1.3 Survey Process

Accessible areas were inspected by AHERA Certified Building Inspectors David Ross, Greg Lovell and Averie Powell. Building inspector certificates are enclosed in this report.

A total of 89 bulk samples were collected from suspect building materials. The samples were relinquished to NVL Laboratories, Inc., (NVLAP #102063). For quality control purposes, 7 samples were split in half, and sent to NVL Laboratories, Inc., and Seattle Asbestos Test, LLC, (NVLAP #200876-0).

Samples were shipped under chain-of-custody protocols and analyzed according to EPA Method 600R-93/116 using Polarized Light Microscopy (PLM), which has a reliable limit of quantification of 1% asbestos by volume. Additionally, samples A-01, X-01, CC01, EE-01, EE-02, SS-01, SS-02, SS-03, and TT-01 were later submitted for analysis by PLM Point Count method.

1.4 Homogenous Sampling Areas

Materials similar in general appearance were classified into groups called Homogenous Sampling Areas (HSAs). An HSA is any specific type of surfacing material, thermal system insulation, or miscellaneous material that is uniform in color, texture and general appearance, and which appears to have been installed during the same time frame. The primary purpose of the HSA designation is for establishing a sampling strategy and interpreting laboratory results. Table 1 lists the sampled materials, material type, HSAs and describes material locations.

Table 1

Homogenous Sampling Areas			
HSA	**Type of Material**	**Material Description**	**Material Location**
A	Misc.	Off-white 12”x12” vinyl floor tile with beige streaks and black mastic	10N, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110M, 111A, 111B, 113A, 113B, 112, 113, 113C, 114, 123A, 115, 116, 118, 123B, 123C, 123, 122, 124, 126, 128, 130, 132, 144, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 242, 270H, 270D, 270DW, 270DE, 270B, 246T, 255, 255B, 23, 56, 302B, 302C, 373, 371, 367, 339, 337, 333, 331, 329, 327, 325, 323, 321, 319, 317, 315, 311, 305, 307, 490, 490A, 407, 405, 402, 404, 402C, 402D, 402E, 402F, 402G, 402H, 402J, 491, 489, 487, 482, 490, 490A, 400, 471, 469, 441, 439, 437, 435, 431, 429, 427, 426, 421, 419, 417, 415, 413, 411, 424, 422, 423, 414, and 412.
B	Misc.	Dark brown cove base/mastic	10N, 8, 145, 145A, 156, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110A, 110B, 110C, 110D, 110F, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 100E, 123A, 113C, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 121, 123, 122, 124, 126, 128, 130, 132, 210, 250B, 205C, 250D, 250F, 250G, 224, 239, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE, 270D, 270B, 201, 246T, 255, 260, 255E, 255EA, 255F, 255G, 255H, 255J, 10, 21, 56, 38A, 302A, 302, 302B, 302C, 391V, 393, 392, 390, 384, 380, 376, 374, 373, 371, 367, 364, 366, 383, 369, 361, 363, 336, 334, 326, 324, 318, 312, 310, 308, 305, 307, 486, 480, 479, 476, 474, 468, 466, 467, 465, 441, 439, 437, 435, 431, 432, 401, 407, 405, 402, 404, 402C, 402D, 402E, 402F, 402G, 402H, 402J, 491, 489, 487, 482, 490, 490A, 471, 469, 429, 427, 426, 423, 421, 419, 417, 415, 413, 411, 424, 422, 414, and 412

HSA	Type of Material	Material Description	Material Location
C	Misc.	2'x4' pinhole/etched drop-in ceiling tile	10N, 10V, 145A, 162, 163, 100, 156, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155A, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 159, 157, 150, 150V, 146, 146V, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 113C, 123A, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 120, 123, 122, 124, 126, 128, 130, 132, 134, 144, 210, 200, 250B, 250C, 250D, 250E, 250F, 250G, 224, 238, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 244, 206, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE, 270B, 270C, 270A, 246T, 255, 260, 255B, 255C, 255E, 255EA, 255F, 255G, 255H, 255J, 10, 21, 23, 302, 302A, 302B, 302C, 391V, 393, 392, 390, 384, 380, 376, 374, 373, 367, 364, 366, 383, 377, 369, 361, 336, 334, 326, 324, 318, 312, 310, 308, 339, 337, 333, 331, 329, 327, 325, 323, 321, 319, 317, 315, 311, 483, 485, 305, 307, 405, 402, 404, 402, 402C, 402D, 402E, 402F, 402G, 402H, 402J, 491, 489, 487, 482, 490, 490A, 441, 439, 437, 435, 431, 432, 480, 479, 476, 474, 473, 471, 469, 468, 466, 467, 465, 461, 411, 424, 422, 414, and 412.
D	Surf.	Fireproofing	Ceiling of room 36
E	Misc.	CMU block and Mortar	36, 10N, 8, 10V, 156, 248C, 248B, 248A, 255D, 41B, 40, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41, 41T, 41F, 41P, 41N, 41L, 41J, 41G, 41C, 41A, and 41E.
F	TSI	Mag tank insulation	36
G	TSI	Flange gasket with black and brown mastic	36
H	Misc.	Cement asbestos board	West wall 10V, South wall 134
I	Misc.	Gypsum system	Throughout walls and ceilings of building
J	Misc.	Green carpet mastic	145
K	Misc.	Red brick and mortar	Exterior of building
L	Misc.	Tan vinyl sheet flooring with square pebbles	162, 155A, 155M, 155L, 163A, 161A, 159, 157, 150, 150V, 146, 146V, 238, 244, 270A, 255A, 21, 38A, 389, 387, 361, and 461.
M	Misc.	Black covebase/brown-green mastic	155, 162, 155C, 197, 110, 120, 200, 238, 250, 300, 377, and 400.
N	Misc.	Beige floor coating	156, 248C, 248B, 248A, 255D

HSA	Type of Material	Material Description	Material Location
O	Misc.	White backsplash/yellow mastic	155A, 162, 270A, 255A, 46, 56, 40B, 40D, 40H, 40K, 50, 50B, 50A, 50D, 50F, 50H, 50K, 50M, 50N, 50L, 50J, 50G, 50E, 50C, 40Q, 40R, 40P, 40PA, 40PC, 40PB, 40M, 40G, 40E, 40C, 40A, 60, 60A, 60B, 60C, 60D, 60E, 60F, 60G, 60H, 60J, and 38A
P	Misc.	Tan mastic (carpet)	Under carpeting in 155V, 155Q, 100VS
Q	Misc.	4”x4” light orange ceramic tile/mastic	155L, 155M, 161A, 163A, 159, 157, 150, 146, 250A, 244, 206, 21, 38A, 387, 389, 304, 483, and 485
R	Misc.	Gypsum wallboard system	148, and in the pipe chases of 158
S	Misc.	Gray textured floor	160, 160B, 160BB, 160BC, 160G, 160F, and 160C.
T	Misc.	Concrete textured anti-slip flooring with black mastic	160BA
U	Misc.	Green-Gray floor texture	160D, 160E
V	Misc.	Gray sealant	160 throughout building duct work seams
W	Misc.	Tan mastic (carpet)	110F, and 110A (under carpet)
X	Misc.	Black brittle sink undercoating	110CC, 120, 210, 224, 255E, 255EA, 255J, 255H, 255F, 402G, 482, 476, 474, 473, 468, 466, 465, 432, 424, 422, 414, 412, 490, 392, 390, 384, 380, 377, 374, 376, 364, 336, 334, 324, 318, 312, 310, 308, 23, 46, and 366
Y	Misc.	Tan covebase/brown mastic	134 and 144
Z	Misc.	Light gray pebbled vinyl sheet flooring	210, 250B, 250C, 250D, 250E, 250F, 250G, 224, 212, 270J, 270JA, 270JB, 255B, 255C, 260, 255E, 255EA, 255F, 255G, 255H, 255J, 302, 302E, 395, 392, 390, 384, 380, 376, 374, 364, 366, 383, 377, 336, 334, 326, 324, 318, 312, 310, 308, 480, 485, 479, 476, 474, 473, 468, 460, 465, 446, 432, and 422
AA	Misc.	Black sink undercoating/yellow mastic	210, 224, 248B, 270J, 270H, 40R, 40Q, 40P, 60, 302, 302E, 395, 482, 480
BB	Misc.	Gypsum Wallboard system	210
CC	Misc.	White sink undercoating	209, 270D
DD	N/A	N/A	Sample Omitted
EE	Misc.	12”x12” pinhole/etched glued-on ceiling tile	41V, 96, 97, 195, 196, 197, 294, 295, 297, 394, 395, 397, 495, and 497
FF	Misc.	2’x4’ solid ceiling tile	255B
GG	Surf.	Gray sink undercoating	144, 302A, and 377
HH	Misc.	White 1’x1’ ceiling tile with gray speckles and brown glue dot	46, 105, 10, 40R, and 40Q
II	Misc.	Brown Terrazzo with black and white specks	10S, 10SW, 40D, 40B, 50B, 40R, 40Q, 40PA, 40PC, 40PB, 40M, 40G, 40E, 40C, 40A, and 100

HSA	Type of Material	Material Description	Material Location
JJ	Misc.	Gray textured floor coating	40, 40B, 40D, 40H, 40K, 40R, 40Q, 40PC, 40P, 40PB, 40PA, 40A, 40C, 40E, 40G, 40J, 40L, 40M, 40MA, 41, 41B, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41A, 41C, 41E, 41G, 41J, 41L, 41N, 41P, and 41R
KK	TSI	Packing	302 Freas model 845 sterilizer
LL	TSI	Packing	302 AMSCO Glassware dryer
MM	TSI	Foil with brown paper and fiber glass insulation	302F
NN	Misc.	2'x4' etched drop-in ceiling tile	304, 302E, and 395
OO	Misc.	1"x1" ceramic floor tile	38A and 304
QQ	Misc.	Vibration cloth around perpetual motion machine	501 and 503
RR	Misc.	Silver coat atop black mastic atop parapet wall	Roof over 400 level
SS	Misc.	Gold sink undercoating	334, 326, 374, 432, 424, 414
TT	Misc.	Pink sink undercoating	367
UU	Misc.	Black lab counter top	50D, 50F, 50H, 50K, 50M, 50N, 50L, 50J, 50G, 50E, and 50C

Misc. = Miscellaneous
TSI = Thermal System Insulation
Surf. = Surfacing
CMU = Cement Masonry Unit

1.5 Laboratory Results

An asbestos-containing material (ACM) is defined by state and federal regulations as any building material containing greater than 1% asbestos. Laboratory analysis revealed that 34 of the 89 sampled materials contain asbestos. Asbestos percentages with * indicate materials sent for quality control and/or PLM point count analysis. Refer to Table 2 below and/or the attached laboratory analysis report for final asbestos percentages.

Table 2

Asbestos-containing Materials				
Sample Number	**Material Description**	**Material Location**	**Asbestos Percent and Type**	**Approximate Quantity**
*A-01 A-02 A-03	Off-white 12”x12” vinyl floor tile with beige streaks and black mastic Layers, 1 and 2 of 2 Off-white vinyl floor tile Black mastic	10N, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110M, 111A, 111B, 113A, 113B, 112, 113C, 113D, 114, 123A, 115, 116, 118, 123B, 123C, 123, 122, 124, 126, 128, 130, 132, 144, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 242, 270H, 270D, 270DW, 270DE, 270B, 246T, 255, 255B, 23, 56, 302B, 302C, 373, 371, 367, 339, 337, 333, 331, 329, 327, 325, 323, 321, 319, 317, 315, 311, 305, 307, 490, 490A, 407, 405, 402, 404, 402C, 402D, 402E, 402F, 402G, 402H, 402J, 491, 489, 487, 482, 400, 471, 469, 441, 439, 437, 435, 431, 429, 427, 421, 419, 417, 415, 413, 411, 424, 422, 423, 414, and 412	*<1% Chrysotile (tile) Layer 1 of 2 *1.5% Chrysotile (mastic) Layer 2 of 2	29,100 sf.
H-01	Cement asbestos board	West wall 10V, South wall 134	25% Chrysotile Layer 1 of 1	450 sf.
I-01 I-02 I-03 I-04 I-05	Gypsum wallboard/joint compound	Throughout walls and ceilings of building	<1% Chrysotile	Not Quantified
L-01 L-02 L-03	Tan vinyl sheet flooring with square pebbles Layers, 2 of 2 Paper backing	162, 155A, 155M, 155L, 163A, 161A, 159, 157, 150, 150V, 146, 146V, 238, 244, 270A, 255A, 21, 38A, 389, 387, 361, and 461	50% Chrysotile Layer 2 of 2	2,000 sf.

Sample Number	Material Description	Material Location	Asbestos Percent and Type	Approximate Quantity
X-01 X-02 X-03	Black brittle sink undercoating	110CC, 120, 210, 224, 255E, 255EA, 255J, 255H, 255F, 402G, 482, 476, 474, 473, 468, 466, 465, 432, 424, 422, 414, 412, 490, 392, 390, 384, 380, 377, 374, 376, 364, 336, 334, 324, 318, 312, 310, 308, 23, 46, and 366	*<1% Chrysotile	67 ea
Z-01 Z-02 Z-03 Z-04	Light gray pebbled vinyl sheet flooring Layer, 2 of 2 Paper backing	210, 250B, 250C, 250D, 250E, 250F, 250G, 224, 212, 270J, 270JA, 270JB, 255B, 255C, 260, 255E, 255EA, 255F, 255G, 255H, 255J, 302, 302E, 395, 392, 390, 384, 380, 376, 374, 364, 366, 383, 377, 336, 334, 326, 324, 318, 312, 310, 308, 480, 485, 479, 476, 474, 473, 468, 460, 465, 446, 432, and 422,	50% Chrysotile Layer 2 of 2	24,600 sf.
AA-01 AA-02 AA-03	Black sink undercoating/yellow mastic	210, 224, 248B, 270J, 270H, 40R, 40Q, 40P, 60, 302, 302E, 395, 482, 480	10% Chrysotile Layer 1 of 1	24 each
CC-01 CC-02 CC-03	White sink undercoating	209, 270D	*1.3% Chrysotile Layer 1 of 1	2 each
EE-01 EE-02	12”x12” pinhole/etched glued-on ceiling tile Layer, 2 of 2 Glue dot	41V, 96, 97, 195, 196, 197, 294, 295, 297, 394, 395, 397, 495, and 497	*<1% Chrysotile Layer 2 of 2	Not Quantified
KK-01	Packing	302 (Freas model 845 sterilizer)	90% Chrysotile Layer 1 of 1	1 each
LL-01	Packing	302 (AMSCO Glassware dryer)	88% Chrysotile Layer 1 of 1	1 each
SS-01 SS-02 SS-03	Gold sink undercoating	334, 326, 374, 432, 424, 414	*1.8% Chrysotile Layer 2 of 2	6 each
TT-01	Pink Sink Undercoating	367	*<1% Chrysotile	1 each
UU	Black lab counter top	50D, 50F. 50H, 50K, 50M, 50N, 50L, 50J, 50G, 50E, and 50C	Presumed	1,100 sf.

sf. = square feet

1.6 Asbestos Recommendations

- Identified ACMs that may be impacted during renovation activities shall be removed or impacted in accordance with applicable local, state and federal asbestos regulations. Asbestos removal or repair work shall be performed by trained workers

knowledgeable in the hazards of asbestos, and properly trained in the use of personal protective equipment and engineering controls.

- Impact to ACMs is administered by two primary regulatory agencies: (1) the Washington Department of Ecology, under the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP); and (2) the Washington Department of Labor and Industries (L&I) under the Division of Occupational Safety & Health (DOSH). NESHAP regulates environmental air emissions and asbestos disposal, whereas DOSH regulates worker exposure and work practices.

- The removal of asbestos-containing TSI (packing) is regulated by DOSH as a Class I activity. Class I activities require removal and disposal to be conducted in accordance with Chapter 296-62-077 of the Washington Administrative Code (WAC), by 32 hour Washington State Certified Asbestos Workers under the direct supervision of a Washington State Certified Asbestos Supervisor.

- The removal of asbestos-containing miscellaneous materials is regulated by DOSH as a Class II activity. Class II activities require that removal and disposal be conducted in accordance with WAC 296-62-077. Workers must have a minimum of eight hours training regarding the hazards and proper removal methods specific to the material being abated, as specified in WAC 296-62-722(4)(a); or must be Washington State Certified Asbestos Workers. Additionally, a Washington State Certified Asbestos Supervisor must be present during abatement activities.

- Analysis of some miscellaneous building materials (refer to Table 1) indicated that asbestos was present, but at concentrations of less than one percent. Asbestos worker certification is not required for removal of materials containing less than one-percent asbestos. Worker training should include basic asbestos awareness (WAC 296-62-07722(5)), and respiratory protection must be based on overall dust levels. The work must be done in compliance with WAC 296-62-07712(2)(b). NESHAP does not regulate materials containing less than one-percent asbestos; therefore, wallboard materials may be disposed of as general construction debris. A competent person (as defined in WAC 296-62-07703) must make the determination as to whether or not an exposure is likely to be above the PEL. Refer to WRD 23.30 for appropriate treatment.

- If additional suspect ACMs are encountered during renovation, demolition and/or construction activities, the material shall be treated as asbestos-containing until polarized light microscopy analysis is conducted to characterize the material.

- Maintain a copy of this report on-site at all times during construction activities.

2.0 LEAD SAMPLING

The purpose of the lead sampling was to determine if lead is present in paint that may be impacted during renovation or demolition activities, and to provide an awareness to building occupants of the presence of lead-containing paint. The presence of lead in paint was determined through two methods, x-ray fluorescence spectroscopy and bulk sampling.

2.1 XRF Sampling

A handheld INNOV-X Systems Inc. X-Ray Fluorescence Analyzer (XRF), Serial No. 6576, operating in lead paint mode was used to perform lead paint testing of various interior and exterior building materials and substrates throughout the subject buildings.

All calibration readings were within the tolerance for this instrument. No substrate correction is required with the INNOV-X Systems XRF per the instrument's performance characteristic sheet.

2.2 XRF Sampling Results

XRF results are reported in mg/cm^2. Table 3 lists the sampled components, provides the sample location and XRF results. For further details, see the attached laboratory analysis report, corresponding sample data sheet and/or the floor plan drawings.

Table 3

XRF Sampling Results						
Sample Number	**Color**	**Substrate**	**Component**	**Sample Location**	**Results (mg/cm^2)**	**XRF Error**
3B	Yellow	CMU	Wall	160	0	0
4B	Brown	Metal	Door Frame	160	0.05	0.1
5B	Orange-red	Metal	Door Frame	160B	0.02	0.03
6B	Sea Green	CMU	Wall	160BA	0	0
7B	Rust orange	Gypsum	Wall	155L	0	0
8B	Beige	Gypsum	Wall	155	0	0
9B	yellow beige	CMU	Wall	10N	0	0
10B	Dark Beige	Gypsum	Wall	100	0	0
11B	Light Beige	Gypsum	Wall	100	0	0
12B	White	Gypsum	Wall	113A	0	0
13B	Black	Gypsum	Wall	116	0	0
14B	Light yellow	Gypsum	Wall	210	0	0
15B	Light brown	Epoxy	Floor	250	0.09	0.06
16B	Red	Metal	Fire extinguisher	200	0	0
17B	Orange-red	Gypsum	Wall	224	0	0
18B	Mustard yellow	Metal	Drinking Fountain	200	0.1	0.05
19B	Orange	Metal	Lockers	200	1.58	0.24
21B	Gray	Metal	Lockers	200	0	0.01
25B	Mint	CMU	Wall	248	0	0
3D	Light Yellow	Gypsum	Wall	23	0	0.02
4D	Brown	Concrete	Floor	46	0.03	0.03
5D	Fire Red	Plastic	Door	60	0.01	0.02
6D	Gray	Plastic	Floor	50	0.02	0.04

Sample Number	Color	Substrate	Component	Sample Location	Results (mg/cm^2)	XRF Error
7D	Light blue gray	CMU	Wall	40Q	0	0.01
8D	Gray	CMU	Wall	40P	0	0
9D	Orange Red	Metal	Wall	10	0	0
10D	Sky Blue	CMU	Wall	41B	0	0
11D	Dark Blue	Metal	Door frame	41	0	0
12D	Peach	CMU	Wall	41	0	0
13D	Rust red	Metal	Door frame	391	0	0
14D	Light Gray	Metal	Vent	391	0.01	0.03
15D	Pistachio green	Metal	Heating Pump	391	0.08	0.04
16D	Very Light green	Gypsum	Wall	391	0	0
17D	Bright Yellow	Metal	Cabinet West wall	391	1.18	0.17
18D	Bright Yellow	Metal	Cabinet East wall	391	0	0
22D	Light Beige	Gypsum	Wall	469	0.01	0.03
23D	Dark Green	Paper	Pipe Insulation	501	0	0
24D	Orange	Paper	Pipe Insulation	501	0	0

2.3 Bulk Paint-Chip Sampling

For quality control purposes, representative bulk paint chip samples were collected. Using hand held tools, a total of ten (10) samples were collected and relinquished to NVL Laboratories, Inc. of Seattle, Washington, where they were analyzed for lead concentration by Flame Atomic Absorption Spectrophotometry. Sample locations were chosen at random and compared to XRF results for QAQC purposes.

2.4 Laboratory Results

Flame Atomic Absorption Spectrophotometry (FAAS) results are reported in milligrams per kilogram (mg/kg) whereas, XRF results which are reported in mg/cm^2. The two methods of analysis show differing units of measurement and therefore quantity of lead in each sample will vary between methods.

The FAAS samples greater than the reporting limit are considered positive for lead. Samples with the lower than symbol (<) were analyzed to less than the reporting limit and are not considered lead-containing.

Table 4 lists the sampled components, provides the sample location and laboratory results. Positive results are in bold print for ease of identification. For further details, see the attached laboratory analysis report, corresponding sample data sheet and/or the floor plan drawings.

Table 4

QAQC Bulk Paint Sample Results						
Sample Number	**XRF #**	**Color**	**Substrate**	**Component**	**Sample Location**	**Results (mg/kg)**
61987.025-L-01	3B	Yellow	CMU	Wall	156	<45.0
61987.025-L-02	8B	Beige	Gypsum System	Wall	155	<69.0
61987.025-L-03	7B	Orange	Gypsum System	Wall	155L	<180.0
61987.025-L-04	6B	Light sea green	CMU	Wall	160BA	<65.0
61987.025-L-05	14B	Light yellow	Gypsum System	Wall	210	<300.0
61987.025-L-06	25B	Mint	CMU	Wall	255	<55.0
61987.025-L-07	14D	Light gray	Metal	Vent	391	<140.0
61987.025-L-08	22D	Light Beige	Gypsum	Wall	469	350.0
61987.025-L-09	23D	Dark green	Paper	Insulation sleeve	501	<87.0
61987.025-L-10	24D	Orange	Paper	Insulation sleeve	501	<260.0

Mg/kg = Milligrams per kilogram

2.5 Recommendations

- The presence of lead-containing paint and lead-containing materials requires contractors to perform construction and maintenance work in compliance with state lead regulations (WAC 296-155-176, Lead in Construction). Until an exposure assessment is complete, initial monitoring and interim worker protection will be required for workers impacting lead-containing paint. Requirements include respiratory protection, protective clothing, decontamination procedures, and exposure monitoring until an initial exposure assessment (through personal air monitoring) demonstrates that lead exposure to workers does not exceed the action level of 30 micrograms per cubic meter (μg/m3) and/or permissible exposure limit (PEL) of 50 μg/m3 of air.

- Prior to impacting lead-containing materials, a qualified paint removal contractor may remove lead-containing paint from surfaces to be impacted.

- The State of Washington requires employers and employees to follow the regulations codified in Standard for Lead in Construction, WAC 296-155-176 and the Federal Lead in Construction standards codified in 29 CFR 1926.62.

- The presence of lead in painted coatings requires that waste disposal comply with WAC 173-303, Dangerous Waste Regulations. Characterization or sampling of representative waste, by means of a Toxicity Characteristic Leaching Procedure (TCLP) for leachable lead, is required to determine disposal requirements. The lead TCLP sample must include the representative materials in their representative proportions that will be included in the waste stream. Materials failing the TCLP test (greater than five milligrams of lead per liter of waste) must be disposed of as hazardous waste.

3.0 RADON TESTING

3.1 Survey Process

Three radon tests were placed throughout the basement/lower level of Bustad Hall by PBS Industrial Hygienist Averie Powell on January 3, 2011. Exterior doors and windows were closed other than normal entry and exit during the test. Each test was placed in a room with no noted air flow, low humidity, away from heat sources, and at least 20 inches above the floor. Each sample was analyzed by First Alert/Alpha Energy Laboratories on January 13, 2011.

3.2 Findings

The Exterior US Environmental Protection Agency (EPA) recommends further action if the radon level is above 4.0 picocuries per liter of air (pCi/L). Laboratory analysis revealed that the radon tests results were well below the limit. For test results, see Table 5 and/or the attached laboratory analysis report.

Table 5

Radon Test Kit ID	Building	Sample Location	Date of Testing	Duration (Total Hours)	Results (pCi/L)
N64654	Bustad	36	January 3rd-January 6th, 2011	67	<0.5
N64779	Bustad	145	January 3rd-January 6th, 2011	66	<0.5
N64744	Bustad	8	January 4th-January 6th, 2011	49	<0.5

4.0 POLYCHLORINATED BIPHENYLS

PBS did not detect any window putty at Bustad Hall.

5.0 MERCURY-CONTAINING COMPONENTS

PBS detected 10 mercury-containing thermostats (5 in room 36 and 5 in room 501) and 3 mercury-containing switches (2 in room 503 and 1 in room 446).

6.0 LIMITATIONS

The findings and conclusions of this report are limited to the areas inspected, samples collected and analytical results obtained during the inspection, as well as professional judgment concerning the significance of the data gathered during the course of the investigation. Only accessible suspect materials were sampled during this survey. Additional sampling may be required if concealed suspect materials are discovered during construction, renovation, and/or demolition activities.

7.0 CERTIFICATION

PBS Environmental has conducted a physical inspection of the building, compiled this report consistent with the survey scope, and certifies that the information is correct and accurate within the standards of professional quality and contractual obligations.

PBS appreciates the opportunity to provide these inspection services for WSU, if you have any questions or require additional information, please do not hesitate to contact me at (509) 735-2698.

Sincerely,

Steve Devine
Senior Project Manager

January 18, 2011

NVL™ LABS
HAZARDOUS MATERIALS SERVICES

David Ross
PBS Environmental (Kennewick)
320 N. Johnson St., Suite 700
Kennewick, WA 99336

RE: Bulk Asbestos Fiber Analysis, NVL Batch # 3100579.00

Dear Mr. Ross,

Enclosed please find test results for the bulk samples submitted to our laboratory for analysis. Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA/600/R-93/116 Test Method.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos. If you would like us to further refine the concentration estimates of asbestos in these samples using point counting, please let me know.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

NVLAP Lab Code 102063-0

Enc.: Sample Results

NVL LABORATORIES, INC
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NVLAP

For the scope of accreditation under NVLAP Lab Code 102063-0

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: **Mr. David Ross**
Project Location: Busted

Batch #: 3100579.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 32
Samples Analyzed: 26
Method: EPA/600R-93/116

Lab ID: 31002784 **Client Sample #: 61987.028-N-01**
Location: Busted

Layer 1 of 1 **Description:** Beige brittle material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Binder/Filler, Mineral grains, Paint	None Detected	ND	**None Detected ND**

Lab ID: 31002785 **Client Sample #: 61987.028-0-01**
Location: Busted

Layer 1 of 2 **Description:** Tan brittle mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Beige fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Paint	Cellulose	55%	**None Detected ND**

Lab ID: 31002786 **Client Sample #: 61987.028-P-01**
Location: Busted

Layer 1 of 2 **Description:** Trace thin gray crumbly material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Tan soft mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002787 **Client Sample #: 61987.028-P-02**
Location: Busted

Layer 1 of 2 **Description:** Trace thin gray crumbly material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Batch #: 3100579.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 32
Samples Analyzed: 26
Method: EPA/600R-93/116

Layer 2 of 2 **Description:** Tan/yellow soft mastic

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Mastic/Binder	Talc fibers 2%	**None Detected ND**

Lab ID: 31002788 **Client Sample #: 61987.028-Q-01**
Location: Busted

Layer 1 of 2 **Description:** Tan soft mastic

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Mastic/Binder	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Trace thin off-white compacted powdery material with trace paper

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Calcareous particles	Cellulose 15%	**None Detected ND**

Lab ID: 31002789 **Client Sample #: 61987.028-Q-02**
Location: Busted

Layer 1 of 2 **Description:** Tan soft mastic

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Mastic/Binder	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Off-white compacted powdery material

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Calcareous particles	None Detected ND	**None Detected ND**

Lab ID: 31002790 **Client Sample #: 61987.028-R_01**
Location: Busted

Layer 1 of 2 **Description:** Off-white layered compacted powdery material with paper

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Calcareous binder	Cellulose 27%	**None Detected ND**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

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Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100579.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 32
Samples Analyzed: 26
Method: EPA/600R-93/116

Layer 2 of 2 **Description:** Off-white chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Gypsum/Binder	Cellulose 18%	**None Detected ND**
	Glass fibers 3%	

Lab ID: 31002791 **Client Sample #: 61987.028-R-02**
Location: Busted

Layer 1 of 2 **Description:** White compacted powdery material with paper

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Calcareous particles	Cellulose 30%	**None Detected ND**

Layer 2 of 2 **Description:** Tan chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Gypsum/Binder	Cellulose 18%	**None Detected ND**
	Glass fibers 3%	

Lab ID: 31002792 **Client Sample #: 61987.028-S-01**
Location: Busted

Layer 1 of 1 **Description:** Beige brittle material

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Fine particles, Binder/Filler	None Detected ND	**None Detected ND**

Lab ID: 31002793 **Client Sample #: 61987.028-T-01**
Location: Busted

Layer 1 of 1 **Description:** Beige/gray brittle material

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Fine particles, Binder/Filler, Mineral grains	Cellulose 1%	**None Detected ND**

Lab ID: 31002794 **Client Sample #: 61987.028-U-01**
Location: Busted

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

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Batch #: 3100579.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 32
Samples Analyzed: 26
Method: EPA/600R-93/116

Layer 1 of 1 **Description:** Light gray hard brittle material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**None Detected ND**

Lab ID: 31002795 **Client Sample #: 61987.028-V-01**
Location: Busted

Layer 1 of 1 **Description:** Gray soft material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**None Detected ND**

Lab ID: 31002796 **Client Sample #: 61987.028-V-02**
Location: Busted

Layer 1 of 1 **Description:** Gray soft material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**None Detected ND**

Lab ID: 31002797 **Client Sample #: 61987.028-V-03**
Location: Busted

Layer 1 of 1 **Description:** Gray soft material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**None Detected ND**

Lab ID: 31002798 **Client Sample #: 61987.028-W-01**
Location: Busted

Layer 1 of 1 **Description:** Tan soft mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002799 **Client Sample #: 61987.028-X-01**
Location: Busted

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

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Project Location: Busted

Batch #: 3100579.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 32
Samples Analyzed: 26
Method: EPA/600R-93/116

Layer 1 of 1 **Description:** Black asphaltic flaky material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Calcareous particles, Asphalt/Binder	None Detected ND	**Chrysotile 2%**

Lab ID: 31002800 **Client Sample #: 61987.028-X-02** **Sample Status: Not Analyzed**

Lab ID: 31002801 **Client Sample #: 61987.028-X-03** **Sample Status: Not Analyzed**

Lab ID: 31002802 **Client Sample #: 61987.028-Y-01**
Location: Busted

Layer 1 of 2 **Description:** Tan rubbery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Rubber/Binder	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Brown brittle mastic

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Mastic/Binder	None Detected ND	**None Detected ND**

Lab ID: 31002803 **Client Sample #: 61987.028-Z-01**
Location: Busted

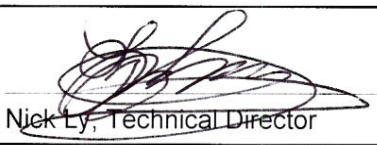
Layer 1 of 2 **Description:** Gray/beige pebbled sheet vinyl

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Vinyl/Binder	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Light gray fibrous backing with mastic

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Mastic/Binder	Cellulose 2%	**Chrysotile 50%**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011



Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

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Address: 320 N. Johnson St., Suite 700
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Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100579.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 32
Samples Analyzed: 26
Method: EPA/600R-93/116

Lab ID: 31002804 **Client Sample #: 61987.028-Z-02**
Location: Busted

Layer 1 of 2	**Description:** Gray/beige pebbled sheet vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Light gray fibrous backing with mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Mastic/Binder	None Detected	ND	**Chrysotile 48%**

Lab ID: 31002805 **Client Sample #: 61987.028-Z-03**
Location: Busted

Layer 1 of 2	**Description:** Gray/beige pebbled sheet vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Light gray fibrous backing with mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Mastic/Binder	None Detected	ND	**Chrysotile 48%**

Lab ID: 31002806 **Client Sample #: 61987.028-Z-04**
Location: Busted

Layer 1 of 2	**Description:** Gray/beige pebbled sheet vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Light gray fibrous backing with mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Mastic/Binder	Cellulose	1%	**Chrysotile 50%**

Lab ID: 31002807 **Client Sample #: 61987.028-AA-01**
Location: Busted

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

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Attention: **Mr. David Ross**
Project Location: Busted

Batch #: 3100579.00
Client Project #: 61987.028
Date Received: 01/13/2011
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Samples Analyzed: 26
Method: EPA/600R-93/116

Layer 1 of 1 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Asphalt/Binder	None Detected	ND	**Chrysotile 10%**

Lab ID: 31002808 **Client Sample #: 61987.028-AA-02** **Sample Status: Not Analyzed**

Lab ID: 31002809 **Client Sample #: 61987.028-AA-03** **Sample Status: Not Analyzed**

Lab ID: 31002810 **Client Sample #: 61987.028-BB-01**
Location: Busted

Layer 1 of 2 **Description:** White compacted powdery material with yellow paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous binder, Paint	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Off-white chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Gypsum/Binder	Cellulose	20%	**None Detected ND**
	Glass fibers	2%	

Lab ID: 31002811 **Client Sample #: 61987.028-CC-01**
Location: Busted

Layer 1 of 1 **Description:** White flaky material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Binder/Filler, Mica	None Detected	ND	**Chrysotile 3%**

Lab ID: 31002812 **Client Sample #: 61987.028-CC-02** **Sample Status: Not Analyzed**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

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Method: EPA/600R-93/116

Lab ID: 31002813 **Client Sample #: 61987.028-CC-03** **Sample Status: Not Analyzed**

Lab ID: 31002836 **Client Sample #: 61987.02-EE-02**
Location: Busted

Layer 1 of 2 **Description:** Tan compressed fibrous material with white coating

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Binder/Filler, Glass beads	Cellulose	15%	**None Detected ND**
	Glass fibers	83%	

Layer 2 of 2 **Description:** Brown brittle mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	None Detected	ND	**Chrysotile 2%**

Lab ID: 31002837 **Client Sample #: 61987.02-EE-01**
Location: Busted

Layer 1 of 2 **Description:** Tan compressed fibrous material with white coating

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Binder/Filler, Glass beads	Cellulose	20%	**None Detected ND**
	Glass fibers	72%	

Layer 2 of 2 **Description:** Brown brittle mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	None Detected	ND	**Chrysotile 2%**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

BATCH ID
3100579.00

NVL Laboratories, Inc.

4708 Aurora Ave N, Seattle, WA 98103
Tel: 206.547.0100 Emerg.Pager: 206.344.1878
Fax: 206.634.1936 1.888.NVL.LABS (685.5227)

CHAIN of CUSTODY SAMPLE LOG

Client: PBS (KENNEWICK)
Street: 320 N JOHNSON ST. Suite 700 KENNEWICK WA 99336
Project Manager: Mr. David Ross
Project Location: Busted

NVL Batch Number:
Client Job Number: 61987.028
Total Samples: ~~84~~ 87 ✓
Turn Around Time: ☐ 1-Hr ☐ 24-Hrs ☐ 4 Days ☐ 2-Hrs ☐ 2 Days ☑ 5 Days ☐ 4-Hrs ☐ 3 Days ☐ 6 to 10 Days
Please call for TAT less than 24 Hrs
Email address: david_ross@pbsenv.com

Phone: Fax:

☐ Asbestos Air	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☑ Asbestos Bulk	☑ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM Bulk	
☐ Mold/Fungus	☐ Mold Air	☐ Mold Bulk	☐ Rotometer Calibration		

METALS	Inst./Det Limit	Matrix		RCRA Metals ☐ All 8		Other Metals
☐ Total Metals ☐ TCLP	☐ FAA (ppm) ☐ ICP (ppm) ☐ GFAA (ppb)	☐ Air Filter ☐ Drinking water ☐ Dust/wipe (Area) ☐ Soil ☐ Paint Chips in %	☐ Paint Chips in cm ☐ Waste Water ☐ Other	☐ Arsenic (As) ☐ Barium (Ba) ☐ Cadmium (Cd) ☐ Chromium (Cr) ☐ Lead (Pb)	☐ Mercury (Hg) ☐ Selenium (Se) ☐ Silver (Ag)	☐ All 3 ☐ Copper (Cu) ☐ Nickel (Ni) ☐ Zinc (Zn)

☐ Other Types of Analysis: ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) ☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments (e.g Sample area, Sample Volume, etc)	A/R
1		61987.028 A01		
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15		TT-03		

	Print Below	Sign Below	Company	Date	Time
Sampled by	David Ross	D-K	PBS	1-3-11	11:00A
Relinquished by	David Ross	D-K	PBS	1-11-11	11:00A
Received by	Midori Koike	M	NVL	1/13/11	930 UPS
Analyzed by	[illegible]	[illegible]	NVL	1/18/11	8:32
Results Called by					
Results ~~Faxed~~ by (email)	J.K			1/19/11	6:00

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

* Stop at first positive

January 18, 2011

David Ross
PBS Environmental (Kennewick)
320 N. Johnson St., Suite 700
Kennewick, WA 99336

NVL LABS
HAZARDOUS MATERIALS SERVICES

RE: Bulk Asbestos Fiber Analysis, NVL Batch # 3100580.00

Dear Mr. Ross,

Enclosed please find test results for the bulk samples submitted to our laboratory for analysis. Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA/600/R-93/116 Test Method.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos. If you would like us to further refine the concentration estimates of asbestos in these samples using point counting, please let me know.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

NVLAP Lab Code 102063-0

Enc.: Sample Results

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SEATTLE, WA 98103.6516
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Tel: 206.547.0100, Fax: 206.634.1936
www.nvllabs.com

NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Lab ID: 31002814 **Client Sample #: 61987-028-FF-01**
Location: Busted

Layer 1 of 2 **Description:** White thin plastic with mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Plastic, Mastic/Binder	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Light gray compressed fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Perlite, Glass beads	Cellulose	55%	**None Detected ND**
	Glass fibers	20%	

Lab ID: 31002815 **Client Sample #: 61987-028-GG-01**
Location: Busted

Layer 1 of 1 **Description:** Gray flaky material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Binder/Filler, Mica	Cellulose	8%	**None Detected ND**

Lab ID: 31002816 **Client Sample #: 61987-028-GG-02**
Location: Busted

Layer 1 of 1 **Description:** Gray flaky material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Binder/Filler, Mica	Cellulose	7%	**None Detected ND**

Lab ID: 31002817 **Client Sample #: 61987-028-GG-03**
Location: Busted

Layer 1 of 1 **Description:** Gray flaky material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Binder/Filler, Mica	Cellulose	10%	**None Detected ND**

Lab ID: 31002818 **Client Sample #: 61987-028-HH-01**
Location: Busted

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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NVLAP

For the scope of accreditation under NVLAP Lab Code 102063-0

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Layer 1 of 2 **Description:** White thin plastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Plastic	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Light gray compressed fibrous material with white thin plastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Glass beads, Plastic	Cellulose	10%	**None Detected ND**
	Glass fibers	57%	

Lab ID: 31002819 **Client Sample #: 61987-028-HH-02**
Location: Busted

Layer 1 of 3 **Description:** White thin plastic with mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Plastic, Mastic/Binder	None Detected	ND	**None Detected ND**

Layer 2 of 3 **Description:** Light gray compressed fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Glass beads	Cellulose	25%	**None Detected ND**
	Glass fibers	48%	

Layer 3 of 3 **Description:** Yellow soft mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002820 **Client Sample #: 61987-028-HH-03**
Location: Busted

Layer 1 of 3 **Description:** White thin plastic with mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Plastic, Mastic/Binder	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Layer 2 of 3 **Description:** Light gray compressed fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Glass beads	Cellulose	23%	**None Detected ND**
	Glass fibers	52%	

Layer 3 of 3 **Description:** Yellow soft mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002821 **Client Sample #: 61987-028-II-01**
Location: Busted

Layer 1 of 1 **Description:** Brown with white and black specks hard brittle material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**None Detected ND**

Lab ID: 31002822 **Client Sample #: 61987-028-JJ-01**
Location: Busted

Layer 1 of 1 **Description:** Gray hard brittle material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Mineral grains, Paint	None Detected	ND	**None Detected ND**

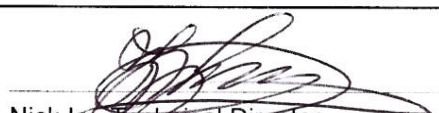
Lab ID: 31002823 **Client Sample #: 61987-028-JJ-02**
Location: Busted

Layer 1 of 1 **Description:** Gray hard brittle material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Mineral grains, Paint	None Detected	ND	**None Detected ND**

Lab ID: 31002824 **Client Sample #: 61987-028-JJ-03**
Location: Busted

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011



Nick Ly, Technical Director

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For the scope of accreditation under NVLAP Lab Code 102063-0

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Layer 1 of 1 **Description:** Gray hard brittle material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Mineral grains, Paint	None Detected	ND	**None Detected ND**

Lab ID: 31002825 **Client Sample #: 61987-028-KK-01**
Location: Busted

Layer 1 of 1 **Description:** Off-white woven fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles	None Detected	ND	**Chrysotile 90%**

Lab ID: 31002826 **Client Sample #: 61987-028-LL-01**
Location: Busted

Layer 1 of 1 **Description:** Off-white woven fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles	None Detected	ND	**Chrysotile 88%**

Lab ID: 31002827 **Client Sample #: 61987-028-MM-01**
Location: Busted

Layer 1 of 2 **Description:** Tan fibrous material with mastic and foil

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Mastic/Binder, Metal foil	Cellulose	47%	**None Detected ND**

Layer 2 of 2 **Description:** Tan fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles	Glass fibers	98%	**None Detected ND**

Lab ID: 31002828 **Client Sample #: 61987-028-NN-01**
Location: Busted

Layer 1 of 3 **Description:** White soft material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Layer 2 of 3	**Description:** White thin plastic with mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Plastic, Mastic/Binder	None Detected ND	**None Detected ND**
Layer 3 of 3	**Description:** Light gray compressed fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Perlite, Glass beads	Cellulose 30%	**None Detected ND**
		Glass fibers 45%	

Lab ID: 31002829 **Client Sample #: 61987-028-OO-01**
Location: Busted

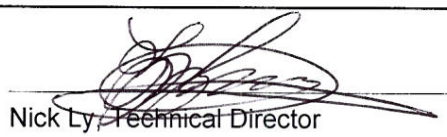
Layer 1 of 2	**Description:** Light beige /yellow ceramic tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Ceramic/Binder	None Detected ND	**None Detected ND**
Layer 2 of 2	**Description:** Gray hard brittle material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Mineral grains	None Detected ND	**None Detected ND**

Lab ID: 31002830 **Client Sample #: 61987-028-OO-02**
Location: Busted

Layer 1 of 2	**Description:** Light beige /yellow ceramic tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Ceramic/Binder	None Detected ND	**None Detected ND**
Layer 2 of 2	**Description:** Trace gray hard brittle material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Mineral grains	None Detected ND	**None Detected ND**

Lab ID: 31002831 **Client Sample #: 61987-028-QQ-01**
Location: Busted

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011



Nick Ly, Technical Director

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NVLAP
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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Layer 1 of 2	**Description:** Black soft asphaltic material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Asphalt/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Black soft material with white fibrous mesh			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Binder/Filler	Glass fibers	55%	**None Detected ND**

Lab ID: 31002832 **Client Sample #: 61987-028-RR-01**
Location: Busted

Layer 1 of 3	**Description:** Yellow soft mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 3	**Description:** Silver paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Metallic paint	None Detected	ND	**None Detected ND**
Layer 3 of 3	**Description:** Black asphaltic material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Asphalt/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002833 **Client Sample #: 61987-028-RR-02**
Location: Busted

Layer 1 of 3	**Description:** Yellow soft mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 3	**Description:** Silver paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Metallic paint	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Layer 3 of 3 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Asphalt/Binder	None Detected ND	**None Detected ND**

Lab ID: 31002834 **Client Sample #: 61987-028-RR-03**
Location: Busted

Layer 1 of 2 **Description:** Silver paint

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Metallic paint	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Asphalt/Binder	None Detected ND	**None Detected ND**

Lab ID: 31002838 **Client Sample #: 61987-028-SS-01**
Location: Busted

Comments: Unable to analyze silver paint as a separate layer

Layer 1 of 2 **Description:** Gold soft mastic

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Mastic/Binder	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Black asphaltic material with thin silver paint

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Asphalt/Binder, Metallic paint	None Detected ND	**Chrysotile 5%**

Lab ID: 31002839 **Client Sample #: 61987-028-SS-02**
Location: Busted

Comments: Unable to analyze silver paint as a separate layer

Layer 1 of 2 **Description:** Gold soft mastic

Non-Fibrous Materials:	Other Fibrous Materials: %	**Asbestos Type: %**
Mastic/Binder	None Detected ND	**None Detected ND**

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100580.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 27
Samples Analyzed: 25
Method: EPA/600R-93/116

Layer 2 of 2 **Description:** Black asphaltic material with thin silver paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Asphalt/Binder, Metallic paint	None Detected	ND	**Chrysotile 5%**

Lab ID: 31002840 **Client Sample #: 61987.028-SS-03**
Location: Busted
Comments: Unable to analyze silver paint as a separate layer

Layer 1 of 2 **Description:** Gold soft mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Black asphaltic material with thin silver painr

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Asphalt/Binder, Metallic paint	None Detected	ND	**Chrysotile 6%**

Lab ID: 31002841 **Client Sample #: 61987.028-TT-01**
Location: Busted

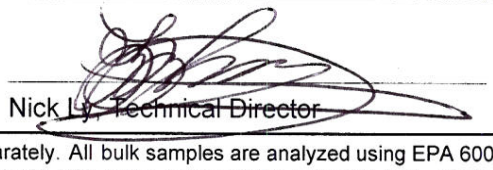
Layer 1 of 1 **Description:** Pink material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**Chrysotile 3%**

Lab ID: 31002842 **Client Sample #: 61987.028-TT-02** **Sample Status: Not Analyzed**

Lab ID: 31002843 **Client Sample #: 61987.028-TT-03** **Sample Status: Not Analyzed**

Sampled by: Client
Analyzed by: Nadezhda Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011



Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

BATCH ID
3100580.00

NVL Laboratories, Inc.

4708 Aurora Ave N, Seattle, WA 98103
Tel: 206.547.0100 Emerg.Pager: 206.344.1878
Fax: 206.634.1936 1.888.NVL.LABS (685.5227)

CHAIN of CUSTODY / SAMPLE LOG

Client PBS (KENNEWICK)
Street 320 N JOHNSON ST. Suite 700
KENNEWICK WA 99336
Project Manager Mr. David Ross
Project Location Busted

NVL Batch Number
Client Job Number 61987.028
Total Samples ~~87~~ 87
Turn Around Time ☐ 1-Hr ☐ 24-Hrs ☐ 4 Days ☐ 2-Hrs ☐ 2 Days ☑ 5 Days ☐ 4-Hrs ☐ 3 Days ☐ 6 to 10 Days
Please call for TAT less than 24 Hrs
Email address david_ross@pbsenv.com

Phone: Fax:

☐ Asbestos Air	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☑ Asbestos Bulk	☑ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM Bulk	
☐ Mold/Fungus	☐ Mold Air	☐ Mold Bulk	☐ Rotometer Calibration		

METALS	Inst./Det Limit	Matrix		RCRA Metals	☐ All 8	Other Metals
☐ Total Metals ☐ TCLP	☐ FAA (ppm) ☐ ICP (ppm) ☐ GFAA (ppb)	☐ Air Filter ☐ Drinking water ☐ Dust/wipe (Area) ☐ Soil ☐ Paint Chips in %	☐ Paint Chips in cm ☐ Waste Water ☐ Other	☐ Arsenic (As) ☐ Barium (Ba) ☐ Cadmium (Cd) ☐ Chromium (Cr) ☐ Lead (Pb)	☐ Mercury (Hg) ☐ Selenium (Se) ☐ Silver (Ag)	☐ All 3 ☐ Copper (Cu) ☐ Nickel (Ni) ☐ Zinc (Zn)

☐ Other Types of Analysis ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) ☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments (e.g Sample area, Sample Volume, etc)	A/R
1		61987.028 A01		
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15		TT-03		

	Print Below	Sign Below	Company	Date	Time
Sampled by	David Ross	[signature]	PBS	1-3-11	11:00A
Relinquished by	David Ross	[signature]	PBS	1-11-11	11:00A
Received by	Midori Koike	[signature]	NVL	1/13/11	930 UPS
Analyzed by	Various	[signature]	NVL	1/18/11	2:50PM
Results Called by					
Results ~~Faxed~~ Emailed by	MR			1/19/11	6am

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

* Stop at first positive

January 18, 2011

NVL LABS
HAZARDOUS MATERIALS SERVICES

David Ross
PBS Environmental (Kennewick)
320 N. Johnson St., Suite 700
Kennewick, WA 99336

RE: Bulk Asbestos Fiber Analysis, NVL Batch # 3100578.00

Dear Mr. Ross,

Enclosed please find test results for the bulk samples submitted to our laboratory for analysis. Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA/600/R-93/116 Test Method.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos. If you would like us to further refine the concentration estimates of asbestos in these samples using point counting, please let me know.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

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NVLAP Lab Code 102063-0

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Enc.: Sample Results

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NVLAP

For the scope of accreditation under NVLAP Lab Code 102063-0

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Lab ID: 31002754 **Client Sample #: 61987.028-A-01**
Location: Busted

Layer 1 of 2 **Description:** Off-white tile with beige streaks

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Vinyl/Binder	None Detected	ND	**Chrysotile 2%**

Layer 2 of 2 **Description:** Black asphaltic mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Asphalt/Binder	None Detected	ND	**Chrysotile 3%**

Lab ID: 31002755 **Client Sample #: 61987.028-A-02** **Sample Status: Not Analyzed**

Lab ID: 31002756 **Client Sample #: 61987.028-A-03** **Sample Status: Not Analyzed**

Lab ID: 31002757 **Client Sample #: 61987.028-B-01**
Location: Busted

Layer 1 of 2 **Description:** Dark brown rubbery material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Rubber/Binder, Paint	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Dark brown brittle mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002758 **Client Sample #: 61987.028-B-02**
Location: Busted

Layer 1 of 2 **Description:** Dark brown rubbery material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Rubber/Binder	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: **Mr. David Ross**
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Layer 2 of 2	**Description:** Dark brown brittle mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002759 **Client Sample #: 61987.028-B-03**
Location: Busted

Layer 1 of 2	**Description:** Dark brown rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Calcareous particles, Rubber/Binder, Paint	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Dark brown brittle mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002760 **Client Sample #: 61987.028-C-01**
Location: Busted

Layer 1 of 1	**Description:** Light gray compressed fibrous material with white paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Paint, Perlite	Cellulose	82%	**None Detected ND**
		Glass fibers	6%	

Lab ID: 31002761 **Client Sample #: 61987.028-C-02**
Location: Busted

Layer 1 of 1	**Description:** Light gray compressed fibrous material with white paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Paint, Perlite	Cellulose	79%	**None Detected ND**
		Glass fibers	4%	

Lab ID: 31002762 **Client Sample #: 61987.028-C-03**
Location: Busted

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: **Mr. David Ross**
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Layer 1 of 1 **Description:** Light gray compressed fibrous material with white paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Perlite	Cellulose 80%	**None Detected ND**
	Glass fibers 4%	

Lab ID: 31002763 **Client Sample #: 61987.028-D-01**
Location: Busted

Layer 1 of 1 **Description:** Tan fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	Cellulose 92%	**None Detected ND**

Lab ID: 31002764 **Client Sample #: 61987.028-D-02**
Location: Busted

Layer 1 of 1 **Description:** Tan fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	Cellulose 94%	**None Detected ND**

Lab ID: 31002765 **Client Sample #: 61987.028-D-03**
Location: Busted

Layer 1 of 1 **Description:** Tan fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	Cellulose 94%	**None Detected ND**

Lab ID: 31002766 **Client Sample #: 61987.028-E-01**
Location: Busted

Layer 1 of 1 **Description:** Gray brittle material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles, Binder/Filler, Mineral grains	None Detected ND	**None Detected ND**

Lab ID: 31002767 **Client Sample #: 61987.028-E-02**
Location: Busted

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

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Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Layer 1 of 1	**Description:** Gray brittle material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Binder/Filler, Granules, Mica	None Detected	ND	**None Detected ND**

Lab ID: 31002768 **Client Sample #: 61987.028-E-03**
Location: Busted

Layer 1 of 1	**Description:** Gray brittle material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Binder/Filler, Granules	None Detected	ND	**None Detected ND**

Lab ID: 31002769 **Client Sample #: 61987.028-F-01**
Location: Busted

Layer 1 of 2	**Description:** White woven fibrous material with blue paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Paint	Cellulose	35%	**None Detected ND**
Layer 2 of 2	**Description:** Light gray compressed powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles	Glass fibers	13%	**None Detected ND**
		Cellulose	2%	

Lab ID: 31002770 **Client Sample #: 61987.028-G-01**
Location: Busted

Layer 1 of 2	**Description:** Bown brittle material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Binder/Filler	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Black soft mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011


Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Lab ID: 31002771 **Client Sample #: 61987.028-H-01**
Location: Busted

Layer 1 of 1 **Description:** Light gray cementitious material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Cement/Binder, Paint	None Detected ND	**Chrysotile 25%**

Lab ID: 31002772 **Client Sample #: 61987.028-I-01**
Location: Busted

Comments: Composite result for Layer 2 & Layer 3 equals less than 1% asbestos

Layer 1 of 3 **Description:** White compacted powdery material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Calcareous particles, Paint	None Detected ND	**None Detected ND**

Layer 2 of 3 **Description:** White compacted powdery material with paper

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Calcareous particles	Cellulose 27%	**Chrysotile 2%**

Layer 3 of 3 **Description:** Off-white chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Gypsum/Binder	Cellulose 18%	**None Detected ND**

Lab ID: 31002773 **Client Sample #: 61987.028-I-02**
Location: Busted

Layer 1 of 1 **Description:** Off-white chalky material with paper and paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Gypsum/Binder, Paint	Cellulose 19%	**None Detected ND**
	Glass fibers 2%	

Lab ID: 31002774 **Client Sample #: 61987.028-I-03**
Location: Busted

Comments: Composite result for whole sample is less than 1% asbestos

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: **Mr. David Ross**
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Layer 1 of 2 **Description:** Off-white compacted powdery material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous binder, Paint	None Detected	ND	**Chrysotile 2%**

Layer 2 of 2 **Description:** Off-white chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Gypsum/Binder	Cellulose	20%	**None Detected ND**
	Glass fibers	3%	

Lab ID: 31002775 **Client Sample #: 61987.028-I-04**
Location: Busted

Layer 1 of 1 **Description:** White chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Gypsum/Binder	Cellulose	22%	**None Detected ND**
	Glass fibers	3%	

Lab ID: 31002776 **Client Sample #: 61987.028-I-05**
Location: Busted

Comments: Composite result for Layer 2 & Layer 3 equals less than 1% asbestos

Layer 1 of 3 **Description:** Off-white compacted powdery material with paint

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles, Paint	None Detected	ND	**None Detected ND**

Layer 2 of 3 **Description:** Off-white compacted powdery material with paper

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Calcareous particles	Cellulose	25%	**Chrysotile 2%**

Layer 3 of 3 **Description:** Off-white chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Gypsum/Binder	Cellulose	20%	**None Detected ND**
	Glass fibers	2%	

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Lab ID: 31002777 **Client Sample #: 61987.028-J-01**
Location: Busted

Layer 1 of 1 **Description:** Pale green/tan soft mastic

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Mastic/Binder	Synthetic fibers	1%	**None Detected ND**

Lab ID: 31002778 **Client Sample #: 61987.028-K-01**
Location: Busted

Layer 1 of 2 **Description:** Brown hard brittle material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Gray brittle material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Fine particles, Binder/Filler, Granules, Mica	None Detected	ND	**None Detected ND**

Lab ID: 31002779 **Client Sample #: 61987.028-L-01**
Location: Busted

Layer 1 of 2 **Description:** Tan sheet vinyl

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Vinyl/Binder	None Detected	ND	**None Detected ND**

Layer 2 of 2 **Description:** Off-white fibrous backing

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler	Cellulose	2%	**Chrysotile 50%**

Lab ID: 31002780 **Client Sample #: 61987.028-L-02**
Location: Busted

Layer 1 of 2 **Description:** Tan sheet vinyl

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Vinyl/Binder	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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NVLAP

For the scope of accreditation under NVLAP Lab Code 102063-0

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: **Mr. David Ross**
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Layer 2 of 2	**Description:** Off-white fibrous backing			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler	None Detected	ND	**Chrysotile 53%**

Lab ID: 31002781 **Client Sample #: 61987.028-L-03**
Location: Busted

Layer 1 of 2	**Description:** Tan sheet vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Off-white fibrous backing			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler	None Detected	ND	**Chrysotile 50%**

Lab ID: 31002782 **Client Sample #: 61987.028-M-01**
Location: Busted

Layer 1 of 3	**Description:** Black rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Rubber/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 3	**Description:** Off-white soft mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**
Layer 3 of 3	**Description:** Brown brittle mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**

Lab ID: 31002783 **Client Sample #: 61987.028-M-02**
Location: Busted

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: **Mr. David Ross**
Project Location: Busted

Batch #: 3100578.00
Client Project #: 61987.028
Date Received: 01/13/2011
Samples Received: 30
Samples Analyzed: 28
Method: EPA/600R-93/116

Layer 1 of 2	**Description:** Black rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Rubber/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Off-white soft mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/18/2011
Reviewed by: Nick Ly **Date:** 01/18/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

BATCH ID
3100578.00

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Tel: 206.547.0100 Emerg.Pager: 206.344.1878
Fax: 206.634.1936 1.888.NVL.LABS (685.5227)

CHAIN of CUSTODY SAMPLE LOG

NVL LABS

Client: PBS (Kennewick)
Street: 320 N Johnson St. Suite 700 Kennewick WA 99336
Project Manager: Mr. David Ross
Project Location: Busted
Phone:
Fax:

NVL Batch Number:
Client Job Number: 61987.028
Total Samples: ~~84~~ 87
Turn Around Time: ☐ 1-Hr ☐ 24-Hrs ☐ 4 Days ☐ 2-Hrs ☐ 2 Days ☑ 5 Days ☐ 4-Hrs ☐ 3 Days ☐ 6 to 10 Days
Please call for TAT less than 24 Hrs
Email address: david_ross@pbsenv.com

☐ Asbestos Air	☐ PCM (NIOSH 7400) ☐ TEM (NIOSH 7402) ☐ TEM (AHERA) ☐ TEM (EPA Level II) ☐ Other
☑ Asbestos Bulk	☑ PLM (EPA/600/R-93/116) ☐ PLM (EPA Point Count) ☐ PLM (EPA Gravimetry) ☐ TEM Bulk
☐ Mold/Fungus	☐ Mold Air ☐ Mold Bulk ☐ Rotometer Calibration

METALS	Inst./Det Limit	Matrix		RCRA Metals ☐ All 8		Other Metals
☐ Total Metals	☐ FAA (ppm)	☐ Air Filter	☐ Paint Chips in cm	☐ Arsenic (As)	☐ Mercury (Hg)	☐ All 3
☐ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Waste Water	☐ Barium (Ba)	☐ Selenium (Se)	☐ Copper (Cu)
	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Other	☐ Cadmium (Cd)	☐ Silver (Ag)	☐ Nickel (Ni)
		☐ Soil		☐ Chromium (Cr)		☐ Zinc (Zn)
		☐ Paint Chips in %		☐ Lead (Pb)		

☐ Other Types of Analysis	☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) ☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments (e.g Sample area, Sample Volume, etc)	A/R
1		61987.028 A01		
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15		TT-03		

	Print Below	Sign Below	Company	Date	Time
Sampled by	David Ross	[signature]	PBS	1-3-11	11:00A
Relinquished by	David Ross	[signature]	PBS	1-11-11	11:00A
Received by	Midori Koike	[signature]	NVL	1/13/11	930 UPS
Analyzed by	Alia Rusyatchinka	[signature]	[illegible]	1/18/11	15:43
Results Called by					
Results ~~Faxed~~ e-mail by	YK			1/19/11	6:00

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

*Stop at first positive

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NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005031 Client Sample #: 61987.028-A-01

Sample Description: Analyzed layer 1 of 1: Off-white tile with beige streaks

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 1 . Corresponding Lab ID 31002754

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	1	49	50
8	0	50	50
Total	2	398	400

Conclusion: This Sample Contains 0.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005032 Client Sample #: 61987.028-A-01

Sample Description: Analyzed layer 2 of 2: Black asphaltic mastic

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 3 % in Layer 2 . Corresponding Lab ID 31002754

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	2	48	50
2	2	48	50
3	1	49	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	1	49	50
Total	6	394	400

Conclusion: This Sample Contains 1.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005033 Client Sample #: 61987.028-X-01

Sample Description: Analyzed layer 1 of 1: Black asphaltic flaky material

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 1 . Corresponding Lab ID 31002799

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	1	49	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	1	399	400

Conclusion: This Sample Contains 0.3 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005034 Client Sample #: 61987.028-CC-01

Sample Description: Analyzed layer 1 of 1: Off-white flaky material

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 3 % in Layer 1 . Corresponding Lab ID 31002811

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	2	48	50
4	1	49	50
5	0	50	50
6	0	50	50
7	0	50	50
8	1	49	50
Total	5	395	400

Conclusion: This Sample Contains 1.3 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005035 Client Sample #: 61987.028-EE-02

Sample Description: Analyzed layer 2 of 2: Brown brittle mastic

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 2 . Corresponding Lab ID 31002836

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	1	49	50
8	0	50	50
Total	1	399	400

Conclusion: This Sample Contains 0.3 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005036 Client Sample #: 61987.028-EE-01

Sample Description: Analyzed layer 2 of 2: Brown brittle mastic

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 2 . Corresponding Lab ID 31002837

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.1 % ASBESTOS

Comments: Asbestos fibers observed in the field of view but not counted as points

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005037 Client Sample #: 61987.028-SS-01

Sample Description: Analyzed layer 2 of 2: Black asphaltic material with thin silver paint

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 5 % in Layer 2 . Corresponding Lab ID 31002838

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	3	47	50
2	1	49	50
3	0	50	50
4	1	49	50
5	0	50	50
6	0	50	50
7	0	50	50
8	2	48	50
Total	7	393	400

Conclusion: This Sample Contains 1.8 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005038 Client Sample #: 61987.028-SS-02

Sample Description: Analyzed layer 2 of 2: Black asphaltic material with thin silver paint

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 5 % in Layer 2 . Corresponding Lab ID 31002839

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	1	49	50
3	2	48	50
4	0	50	50
5	1	49	50
6	0	50	50
7	1	49	50
8	0	50	50
Total	6	394	400

Conclusion: This Sample Contains 1.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

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Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005039 Client Sample #: 61987.028-SS-03

Sample Description: Analyzed layer 2 of 2: Black asphaltic material with thin silver paint

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 6 % in Layer 2 . Corresponding Lab ID 31002840

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	2	48	50
4	1	49	50
5	0	50	50
6	1	49	50
7	1	49	50
8	1	49	50
Total	7	393	400

Conclusion: This Sample Contains 1.8 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005040 Client Sample #: 61987.028-TT-01

Sample Description: Analyzed layer 1 of 1: Pink material

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 3 % in Layer 1 . Corresponding Lab ID 31002841

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	1	49	50
4	0	50	50
5	0	50	50
6	1	49	50
7	0	50	50
8	0	50	50
Total	2	398	400

Conclusion: This Sample Contains 0.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

DRAFT
Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

2011090148

SEATTLE ASBESTOS TEST, LLC

WE TREAT CLIENTS BETTER!

CHAIN OF CUSTODY

TYPE OF ANALYSIS: BULK ASBESTOS TEST ✓, POINT COUNT (400)___, POINT COUNT (600)___, POINT COUNT (1000)___

averiep@pbsenv.com
~~greg-lovett@pbsenv.com~~

PBS, Tri-Cities
320 N. Johnson St. Suite 700, Kennewick, WA 99336

Phone: (509) 735-2698 Fax: (509) 735-1867 Email: ~~danielson@pbsenv.com~~

7 EDD 1/13/11

Project Location: Busted Project Manager: **Steve Devine**

Turn Around Time 5d Number of Samples 4 Client Job # 61987.028

Sample Condition: Good JRL Damaged_____ Severe Damage(Spillage)_____

SEQ#	CLIENT SAMPLE #	SAMPLE DESCRIPTION	LAB ID	A/R
1	61987.028 A-01B			
2	A-01B			
3	I-04B			
4	M-02B			
5	V-02B			
6	Z-04B			
7	AA-02B			
8	HH-02B	– sample not submitted ED 1/13/11		
9	OO-01B	– empty sample bag submitted ED 1/13/11		
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

	Print Name	Signature	Company Name	Date	Time
Sampled	Averie Powell		PBS	1-3-11	1P
Relinquished	Averie Powell		PBS	1-11-11	1P
Delivered					
Received	Jessica Ludke		SAT	1-12-11	1238
Analyzed	Jessica Ludke		SAT	1-12-11	1234
Reported	Steve			1/12/11	

Result reporting method: Phone___, Fax___, Email ✓, Pick-up report___

A Copy of this COC and other information available at your VIP page: www.seattleasbestostest.com/pbsenv777

Seattle Asbestos Test warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted and disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. Seattle Asbestos Test accepts no legal responsibility for the purpose for which the client uses the test results. By signing on this form the clients agree to relieve Seattle Asbestos Test of any liability that may arise from the test results.

PBS | Engineering + Environmental

20110948

HSA: A-00 Building: Bustad Date: 1/10/11 Project No: 61987.028

Material: Quality Control Page 1 of 2 Inspector/s: Powell, Lovell, Ross

Sample #	Sample
A-01 B	12" x 12" off white streaked beige floor tile
D-01 B	Fireproofing
I-04 B	Gypsum system
M-02 B	Black cove base with brownish green mastic
V-02 B	Gray duct work ceilant
Z-04 B	Light Gray and beige pebbled vinal sheet flooring
AA-02 B	Black Sink undercoating with yellowish mastic

Material Locations	Quantity
-NA-	

PBS | Engineering + Environmental

2011090048

HSA: A-00 Building: Busted Date: 1/11/10 Project No: 61987.028

Material: Quality Control Page 2 of 2 Inspector/s: Powell, Lowell, Ross

Sample #	Sample
HH-02B	1'x1' Ceiling tile gray speckles - sample not submitted ED 1/13/11
00-01B	1"x1" Ceramic floor tile. - empty sample bag submitted ED 1/13/11

Material Locations	Quantity
-NA-	

SEATTLE ASBESTOS TEST, LLC NVLAP Accredited - Bellevue:200876; Lynnwood:200768
Lynnwood Laboratory: 19711 Scriber Lake Rd, Suite D, Lynnwood, WA 98036; Tel: 425.673.9850, Fax:425.673.9810
Bellevue Laboratory: 12727 Northup Way, Suite 1, Bellevue, WA 98005; Tel: 425.861.1111, Fax: 425.861.1118
Website: http://www.seattleasbestostest.com, E-mail: admin@seattleasbestostest.com

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Steve Devine
Client: PBS, Tri-Cities
Address: 320 N. Johnson St. Suite 700
Kennewick, WA 99336

Client Job #: 61987.028
Laboratory Batch #: 201109048
Date Received: 1/12/2011
Samples Received: 7
Date Analyzed: 1/13/2011
Samples Analyzed: 7

Project: Busted

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-Fibrous Components	%	Non-asbestos Fibers
1	A-01 B	1	Off-white/beige tile	2	None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Black mastic	5	Chrysotile	Mastic/binder	4	Cellulose
2	D-01 B	1	Brown fibrous material		None detected	Filler, Fine particles	83	Cellulose
3	I-04 B	1	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	29	Cellulose, Glass fibers
4	M-02 B	1	Black rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Brown/green mastic		None detected	Mastic/binder	3	Cellulose
5	V-02 B	1	Gray soft/elastic material		None detected	Binder, Filler	4	Cellulose
6	Z-04 B	1	Light grey/beige vinyl		None detected	Vinyl/binder	2	Cellulose
		2	Gray fibrous material with mastic	51	Chrysotile	Binder/filler, Mastic/binder	32	Cellulose
7	AA-02 B	1	Black soft/loose material	10	Chrysotile	Filler, Fine particles	14	Cellulose
8	HH-02 B		Sample not analyzed					
9	00-01 B		Sample not analyzed					

Analyzed by: Jessica Luedke/Weilong Tai

Report reviewed by: Steve (Fanyao) Zhang, President

January 25, 2011

David Ross
PBS Environmental (Kennewick)
320 N. Johnson St., Suite 700
Kennewick, WA 99336

NVL LABS
HAZARDOUS MATERIALS SERVICES

RE: Bulk Asbestos Fiber Concentration by Point Count
NVL Batch # 3100892.00

Dear Mr. Ross,

At your request, NVL Laboratories conducted analysis of your sample to determine the asbestos concentration using point count procedures.

NVLAP Lab Code:102063

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

The sample was analyzed for the presence of asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA method 600/R -93/116.

Eight slides of thoroughly homogenized material are prepared for any given sample that requires point counting. In order to be counted as a point, the crosshairs of the microscope must center on either a fiber or a particle. The analyst counts at least 50 points per slide preparation. A minimum of 400 non-empty points are counted, then the number of counted asbestos fibers are divided by the total number of points counted to arrive at the percentage of asbestos in the sample.

Please see the conclusion section of the lab reports for point count results.

It has been a pleasure to be of service to you. Please feel free to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

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NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005031 Client Sample #: 61987.028-A-01

Sample Description: Analyzed layer 1 of 1: Off-white tile with beige streaks

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 1 . Corresponding Lab ID 31002754

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	1	49	50
8	0	50	50
Total	2	398	400

Conclusion: This Sample Contains 0.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005032 Client Sample #: 61987.028-A-01

Sample Description: Analyzed layer 2 of 2: Black asphaltic mastic

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 3 % in Layer 2 . Corresponding Lab ID 31002754

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	2	48	50
2	2	48	50
3	1	49	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	1	49	50
Total	6	394	400

Conclusion: This Sample Contains 1.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005033 Client Sample #: 61987.028-X-01

Sample Description: Analyzed layer 1 of 1: Black asphaltic flaky material

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 1 . Corresponding Lab ID 31002799

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	1	49	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	1	399	400

Conclusion: This Sample Contains 0.3 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005034 Client Sample #: 61987.028-CC-01

Sample Description: Analyzed layer 1 of 1: Off-white flaky material

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 3 % in Layer 1 . Corresponding Lab ID 31002811

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	2	48	50
4	1	49	50
5	0	50	50
6	0	50	50
7	0	50	50
8	1	49	50
Total	5	395	400

Conclusion: This Sample Contains 1.3 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005035 Client Sample #: 61987.028-EE-02

Sample Description: Analyzed layer 2 of 2: Brown brittle mastic

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 2 . Corresponding Lab ID 31002836

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	1	49	50
8	0	50	50
Total	1	399	400

Conclusion: This Sample Contains 0.3 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005036 Client Sample #: 61987.028-EE-01

Sample Description: Analyzed layer 2 of 2: Brown brittle mastic

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2 % in Layer 2 . Corresponding Lab ID 31002837

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	0	50	50
4	0	50	50
5	0	50	50
6	0	50	50
7	0	50	50
8	0	50	50
Total	0	400	400

Conclusion: This Sample Contains 0.1 % ASBESTOS

Comments: Asbestos fibers observed in the field of view but not counted as points

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005037 Client Sample #: 61987.028-SS-01

Sample Description: Analyzed layer 2 of 2: Black asphaltic material with thin silver paint

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 5 % in Layer 2 . Corresponding Lab ID 31002838

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	3	47	50
2	1	49	50
3	0	50	50
4	1	49	50
5	0	50	50
6	0	50	50
7	0	50	50
8	2	48	50
Total	7	393	400

Conclusion: This Sample Contains 1.8 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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PLM Point Count Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005038 Client Sample #: 61987.028-SS-02

Sample Description: Analyzed layer 2 of 2: Black asphaltic material with thin silver paint

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 5 % in Layer 2 . Corresponding Lab ID 31002839

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	1	49	50
3	2	48	50
4	0	50	50
5	1	49	50
6	0	50	50
7	1	49	50
8	0	50	50
Total	6	394	400

Conclusion: This Sample Contains 1.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

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Tel: 206.547.0100, Fax: 206.634.1936
www.nvllabs.com

NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005039 Client Sample #: 61987.028-SS-03

Sample Description: Analyzed layer 2 of 2: Black asphaltic material with thin silver paint

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 6 % in Layer 2 . Corresponding Lab ID 31002840

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	1	49	50
2	0	50	50
3	2	48	50
4	1	49	50
5	0	50	50
6	1	49	50
7	1	49	50
8	1	49	50
Total	7	393	400

Conclusion: This Sample Contains 1.8 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

NVL Laboratories, Inc.
4708 Aurora Ave. N., Seattle, WA 98103
Tel: 206.547.0100, Fax: 206.634.1936
www.nvllabs.com

NVLAP
For the scope of accreditation under NVLAP Lab Code 102063-0

PLM Point Count
Bulk Asbestos Fibers Analysis

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick. WA 99336
Attention: Mr. David Ross
Project Location: Busted

Batch #: 3100892.00
Client Project #: 61987.028
Date Received: 01/20/2011
Samples Received: 10
Samples Analyzed: 10
Method: EPA/600R-93/116

Lab ID : 31005040 Client Sample #: 61987.028-TT-01

Sample Description: Analyzed layer 1 of 1: Pink material

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 3 % in Layer 1 . Corresponding Lab ID 31002841

Prep Slide #	Asbestos Point	Non Asbestos Point	Total Points Counted
1	0	50	50
2	0	50	50
3	1	49	50
4	0	50	50
5	0	50	50
6	1	49	50
7	0	50	50
8	0	50	50
Total	2	398	400

Conclusion: This Sample Contains 0.5 % ASBESTOS

Sampled by: Client
Analyzed by: Alla Prysyazhnyuk **Date:** 01/25/2011
Reviewed by: Nick Ly **Date:** 01/25/2011

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R -93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40 -60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

Midori Koike

BATCH ID
3100892.00

From: Steve Devine [steve_devine@pbsenv.com]
Sent: Thursday, January 20, 2011 8:18 AM
To: Front Desk
Subject: Point Counts

Good Morning,
We would like to get some more points counts (standard 5-day TAT).

Our Project no. 61987.028 Bustad Hall

A-01 (both layers 3100578
X-01 3100579
CC-01 3100579
EE-02 (layer 2) 3100579
EE-01 (layer 2) 3100579
SS-01,02,03 3100580
TT-01 3100580

Please let me know if you have questions. Thanks!

Steve Devine
Senior Project Manager/Tricities Operations
steve_devine@pbsenv.com
509-737-6684

PBS Engineering + Environmental
Engineering | Natural Resources | Environmental | Health and Safety
www.pbsenv.com
320 N. Johnson St. Suite 700 Kennewick, WA 99336
ph: 509.735.2698 : fax: 866.727.0140

Analyzed by: Ana P. Lueth, MR
1/25/11 14:57

NVL Laboratories, Inc.
4708 Aurora Ave N, Seattle, WA 98103
Tel: 206.547.0100 Emerg. Cell: 206.914.4646
1.888.NVL.LABS (685.5227) www.nvllabs.com

CHAIN OF CUSTODY SAMPLE LOG

NVL LABS HAZARDOUS MATERIALS SERVICES

Client PBS Environmental (Kennewick)
Address 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Project Manager Mr. David Ross
Project Location Busted

NVL Batch Number 3100892.00
Client Job Number 61987.028
Total Samples 10 **Rush Samples** ____
TAT 5 Days **Rush TAT** ____ **AH:** ____
Due Date 01/27/2011 **Time** 8:18 AM
Email address david_ross@pbsenv.com

Phone: (509) 735-2698 **Fax:** (866) 727-0140 Cell (509) 727-0652

☐ **Asbestos Air**	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☒ **Asbestos Bulk**	☐ PLM (EPA/600/R-93/116)	☒ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK	
☐ **Mold/Fungus**	☐ Mold Air	☐ Mold Bulk	☐ **Rotometer Calibration**		

METALS	**Inst/Det.Limit**	**Matrix**		**RCRA Metals**		
☐ Total Metals	☐ FAA (ppm)	☐ Air Filter	☐ Paint Chips in %	☐ Arsenic (As)	☐ Lead (Pb)	☐ Copper (Cu)
☐ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Paint Chips in cn	☐ Barium (Ba)	☐ Mercury (Hg)	☐ Nickel (Ni)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Waste Water	☐ Cadmium (Cd)	☐ Selenium (Se)	☐ Zinc (Zn)
	☐ CVAA (ppb)	☐ Soil	☐ Other ____	☐ Chromium (Cr)	☐ Silver (Ag)	

☐ **Other Types of Analysis** ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) ____
☐ Silica ☐ Respirable Dust

Condition of Package ☒ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

1	31005031	61987.028-A-01	Layer 1	A
2	31005032	61987.028-A-01	Layer 2	A
3	31005033	61987.028-X-01		A
4	31005034	61987.028-CC-01		A
5	31005035	61987.028-EE-02	Layer 2	A
6	31005036	61987.028-EE-01	Layer 2	A
7	31005037	61987.028-SS-01		A
8	31005038	61987.028-SS-02		A
9	31005039	61987.028-SS-03		A
10	31005040	61987.028-TT-01		A

	Print Below	Sign Below	Company	Date	Time
Sampled by	Client				
Relinquished by	Emailed by Client				
Received by	Midori Koike		NVL	1/20/11	818
Relinquished by					
Analyzed by	ANA PRYSYAZHNYUK		NVL	1/25/11	14:57
Results Called by	MK				
☐ Faxed ☒ Emailed				1/26/11	6:05

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

January 13, 2011

Averie Powell
PBS Environmental (Kennewick)
320 N. Johnson St., Suite 700
Kennewick, WA 99336

NVL LABS
HAZARDOUS MATERIALS SERVICES

RE: Metals Analysis; NVL Batch # 3100439.00

Dear Ms. Powell,

Enclosed please find the test results for samples submitted to our laboratory for analysis. Preparation of these samples was conducted following protocol outlined in EPA Method SW 846-3051 unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with U.S. EPA, NIOSH, OSHA and other ASTM methods.

NVLAP # 102063

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY
AIHA - IH #101861

For matrix materials submitted as paint, dust wipe, soil or TCLP samples, analysis for the presence of total metals is conducted using published U.S. EPA Methods. Paint and soil results are usually expressed in mg/Kg which is equivalent to parts per million (ppm). Lead (Pb) in paint is usually expressed in mg/Kg (ppm) , Percent (%) or mg/cm^2 by area. Dust wipe sample results are usually expressed in ug/wipe and ug/ft^2. TCLP samples are reported in mg/L (ppm). For air filter samples, analyses are conducted using NIOSH and OSHA Methods. Results are expressed in ug/filter and ug/m^3. Other matrix materials are analyzed accordingly using published methods or specified by client. The reported test results pertain only to items tested. Lead test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more details.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. if you need further assistance please feel free to call us at 206-547-0100 or 1-888-NVLLABS.

Sincerely,

Nick Ly, Technical Director

Enclosure:

NVL LABORATORIES, INC
4708 AURORA AVE N
SEATTLE, WA 98103.6516
TEL 206.547.0100
FAX 206.634.1936
nvllabs@nvllabs.com

www.nvllabs.com
1.888.NVL.LABS (685.5227)

NVL Laboratories, Inc.

4708 Aurora Ave. N., Seattle, WA 98103
Tel: 206.547.0100, Fax: 206.634.1936
www.nvllabs.com

Analysis Report

AIHA - IH # 101861
WA - DOE # C1765

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Total Lead (Pb)

Client: PBS Environmental (Kennewick)
Address: 320 N. Johnson St., Suite 700
Kennewick, WA 99336

Attention: Ms. Averie Powell
Project Location: Bustad

Batch #: 3100439.00
Matrix: Paint Chips
Method: EPA 7000B
Client Project #: 61987.028
Date Received: 01/11/2011
Samples Received: 10
Samples Analyzed: 10

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
31001845	61987.028L-01	0.1968	45.0	< 45.0	< 0.0045
31001846	61987.028L-02	0.1298	69.0	< 69.0	< 0.0069
31001847	61987.028L-03	0.0254	180.0	< 180.0	< 0.0180
31001848	61987.028L-04	0.1380	65.0	< 65.0	< 0.0065
31001849	61987.028L-05	0.0147	300.0	< 300.0	< 0.0300
31001850	61987.028L-06	0.1630	55.0	< 55.0	< 0.0055
31001851	61987.028L-07	0.0316	140.0	< 140.0	< 0.0140
31001852	61987.028L-08	0.0453	99.0	350.0	0.0350
31001853	61987.028L-09	0.1033	87.0	< 87.0	< 0.0087
31001854	61987.028L-10	0.0175	260.0	< 260.0	< 0.0260

Sampled by: Client
Analyzed by: Aaron Brown
Reviewed by: Nick Ly

Date Analyzed: 01/13/2011
Date Issued: 01/13/2011

Nick Ly, Technical Director

mg/ Kg =Milligrams per kilogram
Percent = Milligrams per kilogram / 10000
Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

RL = Reporting Limit
'<' = Below the reporting Limit

Bench Run No: 31-0111-06

BATCH ID
3100439.00

NVL Laboratories, Inc.

4708 Aurora Ave N, Seattle, WA 98103
Tel: 206.547.0100 Emerg.Pager: 206.344.1878
Fax: 206.634.1936 1.888.NVL.LABS (685.5227)

CHAIN of CUSTODY SAMPLE LOG

LABS

Client PBS Engineering
Street 320 N Johnson St Ste 700
Bellingham, WA
Project Manager Averie Powell
Project Location Bustad

NVL Batch Number
Client Job Number 61987.028
Total Samples 10
Turn Around Time ☐ 1-Hr ☐ 24-Hrs ☐ 4 Days ☐ 2-Hrs ☐ 2 Days ☐ 5 Days ☐ 4-Hrs ☑ 3 Days ☐ 6 to 10 Days
Please call for TAT less than 24 Hrs

Phone: (509) 735-2698 Fax:
Email address averiep@pbsenv.com

☐ Asbestos Air	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☐ Asbestos Bulk	☐ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM Bulk	
☐ Mold/Fungus	☐ Mold Air	☐ Mold Bulk	☐ Rotometer Calibration		

METALS	Inst./Det Limit	Matrix		RCRA Metals	☐ All 8	Other Metals
☑ Total Metals	☑ FAA (ppm)	☐ Air Filter	☐ Paint Chips in cm	☐ Arsenic (As)	☐ Mercury (Hg)	☐ All 3
☐ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Waste Water	☐ Barium (Ba)	☐ Selenium (Se)	☐ Copper (Cu)
	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Other	☐ Cadmium (Cd)	☐ Silver (Ag)	☐ Nickel (Ni)
		☐ Soil		☐ Chromium (Cr)		☐ Zinc (Zn)
		☑ Paint Chips in %		☑ Lead (Pb)		

☐ Other Types of Analysis ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) ☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments (e.g Sample area, Sample Volume, etc)	A/R
1		61987.028 L-01		
2				
3				
4				
5				
6				
7				
8				
9				
10		L-10		
11				
12				
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	Averie Powell	A Powell	PBS		
Relinquished by	X Averie Powell	X A Powell	PBS	1/10/11	3:30P
Received by	Fed Ex		NVL	1/11/11	1030 LBS
Analyzed by	Aaron Brown		NVL	1/13/11	13:40
Results Called by					
Results Faxed by	Aaron Brown		NVL	1/13/11	17:45

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

PBS Engineering + Environmental

BATCH ID
3100439.00

Lead Paint Sample Data Form

Client: WSU Date: 1/3/11 Inspector: Powell

Location: Bustad Job#: 61987.028 Signature: [signature]

Sample #	Color	Substrate	Component	Location	Condition
L-01	yellow	CMU	wall	156	Good
L-02	Pink Tan	Gypsum wallsystem	wall	155- N side	"
L-03	Bright orange	"	wall	155 L	"
L-04	light sea green	CMU	wall	160 BA	"
L-05	light yellow	Gyp.	wall	~~155~~ 210 S wall	"
L-06	mint ~~sea green~~	CMU	wall	255 N ~~(same color as L-03)~~	~~Poor~~
L-07	light gray	metal	vent	391 N	Good
L-08	nude	gyp.	wall	469 N	"
L-09	dark green	paper	insulation sleeve	501	"
L-10	orange (bright)	"	"	501	"

Bend | Boise | Coquille | Eugene | Portland | Seattle | Tri-Cities | Vancouver

320 N Johnson Street, Suite 700, Kennewick, WA 99336
509.735.2698 Main
866.727.0140 Fax
www.pbsenv.com

ALPHA ENERGY LABORATORIES
2501 Mayes Road, Suite 100
Carrollton, Texas 75006
Phone 972-242-2479 ext. 52 Fax 972-242-8860

Project:

Client:

320 N Johnson St 700
Kennewick, WA 99336
Attn: Averie Powell

Date Received: 1/13/2011
NEHA ID#: 101132 AL
State ID#:

RADON RESULT SUMMARY

Kit_ID_1	Test Location	pCi/L	Start Date	End Date	Room Location
N64832	G13 Wegner	<0.5	1-5-2011	1-7-2011	Not Provided
N64714	1 Mccoy	<0.5	1-4-2011	1-7-2011	Not Provided
N75613	Mccoy 60	<0.5	1-4-2011	1-7-2011	Not Provided
N64704	1 Mccoy	0.5	1-4-2011	1-7-2011	Not Provided
N64692	2 Mccoy	<0.5	1-4-2011	1-7-2011	Not Provided
N64649	Sw Mccoy	0.6	1-4-2011	1-7-2011	Not Provided
N64667	G 70 Wegner	<0.5	1-5-2011	1-7-2011	Not Provided
N64797	G 1 Wegner	<0.5	1-5-2011	1-7-2011	Not Provided
N64654	36 Busted	<0.5	1-3-2011	1-6-2011	Not Provided
N64779	145 Busted	<0.5	1-3-2011	1-6-2011	Not Provided
N64744	8 Busted	<0.5	1-3-2011	1-6-2011	Not Provided
N64644		0.6	1-5-2011	1-7-2011	Not Provided

Laboratory Director _____ Date 1/13/2011

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/21/11
Date Received: 01/13/11
Project: WSU 61987.028, F&BI 101133
Date Extracted: 01/13/11
Date Analyzed: 01/19/11

RESULTS FROM THE ANALYSIS OF SOLID SAMPLES FOR PCBs REPORTED AS AROCLORS USING EPA METHOD 8082A

Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Aroclor 1221	1232	1016	1242	1248	1254	1260	Surrogate (% Rec.) (Limit 50-150)
61987.028 MC dv 101133-01 1/100	<200	<200	<200	<200	<200	4,700	<200	ds
61987.029 FS dv 101133-02	<10	<10	<10	<10	<10	<10	<10	65
61987.028 WE dv 101133-03	<5	<5	<5	<5	<5	<5	<5	ip
61987.030 WAP dv 101133-04	<1	<1	<1	<1	<1	1.7	<1	ip
61987.029 EQ dv 101133-05	<5	<5	<5	<5	<5	<5	<5	56
Method Blank	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 13, 2011 by Friedman & Bruya, Inc. from the PBS Engineering and Environmental WSU 61987.028, F&BI 101133 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	PBS Engineering and Environmental
101133-01	61987.028 MC
101133-02	61987.029 FS
101133-03	61987.028 WE
101133-04	61987.030 WAP
101133-05	61987.029 EQ

All quality control requirements were acceptable.

Date of Report: 01/21/11
Date Received: 01/13/11
Project: WSU 61987.028, F&BI 101133

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOLID SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 012130-37 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	<0.1	85	100	68-127	16
Aroclor 1260	mg/kg (ppm)	0.8	<0.1	90	106	63-140	16

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.8	106	60-142
Aroclor 1260	mg/kg (ppm)	0.8	109	63-144

THIS IS TO CERTIFY THAT

DAVID D ROSS

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 01/22/2010

Course Location: Kennewick, WA

Certificate: IR-10-6483A

PBS

Engineering + Environmental

Expiration Date: 01/22/2011

AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

David Stover

David Stover, Director of Training

THIS IS TO CERTIFY THAT

GREG M LOVELL

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 01/22/2010

Course Location: Kennewick, WA

Certificate: IR-10-7809A

PBS | Engineering + Environmental

Expiration Date: 01/22/2011

AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

David Stover

David Stover, Director of Training

THIS IS TO CERTIFY THAT

AVERIE POWELL

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR INITIAL COURSE

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 10/25/2010 - 10/27/2010

Course Location: Portland, OR

Certificate: IN-10-1435B

PBS | Engineering + Environmental

Expiration Date: 10/27/2011

AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

David Stover

David Stover, Director of Training

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 102063-0

NVL Laboratories, Inc.

Seattle, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2010-10-01 through 2011-09-30

Effective dates

Sally S. Bruce

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)

AIHA

Protecting Worker Health

The American Industrial Hygiene Association

acknowledges that

NVL Laboratories, Inc.

4708 Aurora Avenue N., Seattle, WA 98103

Laboratory ID: 101861

has fulfilled the requirements of the AIHA Laboratory Quality Assurance Programs (LQAP), thereby, conforming to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories*. The above named laboratory, along with all premises from which key activities are performed, as listed above, have been accredited by AIHA in the following:

ACCREDITATION PROGRAMS

✓	**INDUSTRIAL HYGIENE**	Accreditation Expires: 02/01/2011
✓	**ENVIRONMENTAL LEAD**	Accreditation Expires: 02/01/2011
✓	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: 02/01/2011
☐	**FOOD**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with LQAP requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA website for the most current status of the scope of accreditation.

Pamela A. Kostle

Pamela A. Kostle, CIH
Chairperson, Analytical Accreditation Board

Lindsay E. Booher

Lindsay E. Booher, CIH, CSP
President, AIHA

Date Issued: 02/01/2009

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200876-0

Seattle Asbestos Test Bellevue

Bellevue, WA

Is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2009-08-04 through 2010-03-31

Effective dates

Sally S. Bruce

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)

Sample #	Building Name	Building #	Sample Location	Material	Material Description/color	Type	Location Quantity	Quantity descriptor	Comments	Sample results	ACM ?	Homogenous Material Location
									Areas not sampled			50H, 50K, 50M, 50N, 50J, 50L, 50G, 50E, 50C, 204, 212A, 224A, 224B, 212B, 438, 434, 502, 599
5546-2010A01	Bustad Hall	807	10N	vinyl tile 12 w/ mastic	Off-white 12"x12" vinyl floor tile with beige streaks and black mastic	Misc	29,100	SF	Sample 1 of 3	*<1% Chrysotile Layer 1 of 2 (tile) *1.5% Chrysotile (mastic) Layer 2 of 2	Y	10N, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 112, 113, 113C, 114, 123A, 115, 116, 118, 123B, 123C, 123, 122, 124, 126, 128, 130, 132, 144, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 242, 270H, 270D, 270DW, 270DE, 270B, 246T, 255, 255B, 23, 56, 302B, 302C, 373, 371, 367, 339, 337, 333, 331, 329, 327, 325, 323, 321, 319, 317, 315, 311, 305, 307, 490, 490A, 407, 405, 402, 404,

5546-2010A02	Bustad Hall	807	155	vinyl tile 12 w/ mastic	Off-white 12”x12” vinyl floor tile with beige streaks and black mastic	Misc.	29,100	SF	Sample 2 of 3	*<1% Chrysotile Layer 1 of 2 (tile) *1.5% Chrysotile (mastic) Layer 2 of 2	Y	10N, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 112, 113, 113C, 114, 123A, 115, 116, 118, 123B, 123C, 123, 122, 124, 126, 128, 130, 132, 144, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 242, 270H, 270D, 270DW, 270DE, 270B, 246T, 255, 255B, 23, 56, 302B, 302C, 373, 371, 367, 339, 337, 333, 331, 329, 327, 325, 323, 321, 319, 317, 315, 311, 305, 307, 490, 490A, 407, 405, 402, 404,

5546-2010A03	Bustad Hall	807	110F	vinyl tile 12 w/ mastic	Off-white 12”x12” vinyl floor tile with beige streaks and black mastic	Misc	29,100	SF	Sample 3 of 3	*<1% Chrysotile (tile) Layer 1 of 2 *1.5% Chrysotile (mastic) Layer 2 of 2	Y	10N, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 112, 113, 113C, 114, 123A, 115, 116, 118, 123B, 123C, 123, 122, 124, 126, 128, 130, 132, 144, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 242, 270H, 270D, 270DW, 270DE, 270B, 246T, 255, 255B, 23, 56, 302B, 302C, 373, 371, 367, 339, 337, 333, 331, 329, 327, 325, 323, 321, 319, 317, 315, 311, 305, 307, 490, 490A, 407, 405, 402, 404,

5546-2010B01	Bustad Hall	807	10N	cove base w/mastic	Dark brown cove base	Misc.			Sample 1 of 3	ND	N	10N, 8, 145, 145A, 156, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110A, 110B, 110C, 110D, 110F, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 100E, 123A, 113C, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 121, 123, 122, 124, 126, 128, 130, 132, 210, 250B, 205C, 250D, 250F, 250G, 224, 239, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE, 270D, 270B, 201, 246T, 255, 260, 255E, 255EA, 255F, 255G, 255H,

5546-2010B02	Bustad Hall	807	100E	cove base w/mastic	Dark brown cove base	Misc.			Sample 2 of 3	ND	N	10N, 8, 145, 145A, 156, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110A, 110B, 110C, 110D, 110F, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 100E, 123A, 113C, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 121, 123, 122, 124, 126, 128, 130, 132, 210, 250B, 205C, 250D, 250F, 250G, 224, 239, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE, 270D, 270B, 201, 246T, 255, 260, 255E, 255EA, 255F, 255G, 255H,

5546-2010B03	Bustad Hall	807	376	cove base w/mastic	Dark brown cove base	Misc			Sample 3 of 3	ND	N	10N, 8, 145, 145A, 156, 155B, 155D, 155E, 155F, 155G, 155H, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 110A, 110B, 110C, 110D, 110F, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 100E, 123A, 113C, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 121, 123, 122, 124, 126, 128, 130, 132, 210, 250B, 205C, 250D, 250F, 250G, 224, 239, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE, 270D, 270B, 201, 246T, 255, 260, 255E, 255EA, 255F, 255G, 255H,

5546-2010C01	Bustad Hall	807	10N	2' x 4' ceiling tile	2'x4' pinhole/etched drop-in ceiling tile				Sample 1 of 3	ND	N	10N, 10V, 145A, 162, 163, 100, 156, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155A, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 159, 157, 150, 150V, 146, 146V, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 113C, 123A, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 120, 123, 122, 124, 126, 128, 130, 132, 134, 144, 210, 200, 250B, 250C, 250D, 250E, 250F, 250G, 224, 238, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 244, 206, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE,

5546-2010C02	Bustad Hall	807	156	2' x 4' ceiling tile	2'x4' pinhole/etched drop-in ceiling tile				Sample 2 of 3	ND	N	10N, 10V, 145A, 162, 163, 100, 156, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155A, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 159, 157, 150, 150V, 146, 146V, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 113C, 123A, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 120, 123, 122, 124, 126, 128, 130, 132, 134, 144, 210, 200, 250B, 250C, 250D, 250E, 250F, 250G, 224, 238, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 244, 206, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE,

5546-2010C03	Bustad Hall	807	210	2' x 4' ceiling tile	2'x4' pinhole/etched drop-in ceiling tile				Sample 3 of 3	ND	N	10N, 10V, 145A, 162, 163, 100, 156, 155, 155B, 155D, 155E, 155F, 155G, 155H, 155A, 155J, 155K, 155M, 155L, 155Q, 155P, 155N, 155NA, 160A, 163B, 163BA, 161B, 161BA, 159, 157, 150, 150V, 146, 146V, 110, 110A, 110B, 110C, 110D, 110F, 110J, 110H, 110K, 110L, 110M, 111A, 111B, 113A, 113B, 113C, 123A, 115, 116, 118, 123B, 123C, 123D, 123E, 123F, 120, 123, 122, 124, 126, 128, 130, 132, 134, 144, 210, 200, 250B, 250C, 250D, 250E, 250F, 250G, 224, 238, 229, 227, 225, 223, 221, 219, 217, 215, 213, 211, 209, 207C, 207B, 207A, 205, 203, 270, 212, 244, 206, 242, 270J, 270JA, 270JB, 270D, 270DW, 270DE,
5546-2010D01	Bustad Hall	807	36	fire-proofing	Fireproofing	Surf			Sample 1 of 3	ND	N	36
5546-2010D02	Bustad Hall	807	36	fire-proofing	Fireproofing	Surf			Sample 2 of 3	ND	N	36
5546-2010D03	Bustad Hall	807	36	fire-proofing	Fireproofing	Surf			Sample 3 of 3	ND	N	36

5546-2010E01	Bustad Hall	807	10N	Other	CMU block and Mortar	Misc			Sample 1 of 3	ND	N	36, 10N, 8, 10V, 156, 248C, 248B, 248A, 255D, 41B, 40, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41, 41T, 41F, 41P, 41N, 41L, 41J, 41G, 41C, 41A, and 41E.
5546-2010E02	Bustad Hall	807	36	Other	CMU block and Mortar	Misc			Sample 2 of 3	ND	N	36, 10N, 8, 10V, 156, 248C, 248B, 248A, 255D, 41B, 40, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41, 41T, 41F, 41P, 41N, 41L, 41J, 41G, 41C, 41A, and 41E.
5546-2010E03	Bustad Hall	807	41E	Other	CMU block and Mortar	Misc.			Sample 3 of 3	ND	N	36, 10N, 8, 10V, 156, 248C, 248B, 248A, 255D, 41B, 40, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41, 41T, 41F, 41P, 41N, 41L, 41J, 41G, 41C, 41A, and 41E.
5546-2010F01	Bustad Hall	807	36	Other	Mag tank insulation	Misc			Sample 1 of 1	ND	N	36
5546-2010G01	Bustad Hall	807	36	Other	Mag tank insulation	Misc			Sample 1 of 1	ND	N	36
5546-2010H01	Bustad Hall	807	10V	Cement-board	Cement asbestos board	Misc	450	SF	Sample 1 of 1	25% Chrysotile Layer 1 of 1	Y	10V, 134
5546-2010I01	Bustad Hall	807	145	gypsum wallboard w/joint compound	Gypsum system	Misc	Not Quantified		Sample 1 of 5	<1% Chrysotile	Y	Throughout walls and ceilings of building
5546-2010I02	Bustad Hall	807	162	gypsum wallboard w/joint compound	Gypsum system	Misc	Not Quantified		Sample 2 of 5	<1% Chrysotile	Y	Throughout walls and ceilings of building

5546-2010I03	Bustad Hall	807	113A	gypsum wallboard w/joint compound	Gypsum system	Misc	Not Quantified		Sample 3 of 5	<1% Chrysotile	Y	Throughout walls and ceilings of building
5546-2010I04	Bustad Hall	807	250A	gypsum wallboard w/joint compound	Gypsum system	Misc	Not Quantified		Sample 4 of 5	<1% Chrysotile	Y	Throughout walls and ceilings of building
5546-2010I05	Bustad Hall	807	302	gypsum wallboard w/joint compound	Gypsum system	Misc	Not Quantified		Sample 5 of 5	<1% Chrysotile	Y	Throughout walls and ceilings of building
5546-2010J01	Bustad Hall	807	145	Mastic	Green Carpet mastic	Misc			Sample 1 of 1	ND	N	145
5546-2010K01	Bustad Hall	807	100	Other	Red brick and mortar	Misc			Sample 1 of 1	ND	N	Exterior of building
5546-2010L01	Bustad Hall	807	162	Other	Golden brown vinyl sheet flooring with square pebbles	Misc	2,000	SF	Sample 1 of 3	50% Chrysotile Layer 2 of 2	Y	162, 155A, 155M, 155L, 163A, 161A, 159, 157, 150, 150V, 146, 146V, 238, 244, 270A, 255A, 21, 38A, 389, 387, 361, and 461.
5546-2010L02	Bustad Hall	807	155A	Other	Golden brown vinyl sheet flooring with square pebbles	Misc	2,000	SF	Sample 2 of 3	50% Chrysotile Layer 2 of 2	Y	162, 155A, 155M, 155L, 163A, 161A, 159, 157, 150, 150V, 146, 146V, 238, 244, 270A, 255A, 21, 38A, 389, 387, 361, and 461.
5546-2010L03	Bustad Hall	807	163A	Other	Golden brown vinyl sheet flooring with square pebbles	Misc	2,000	SF	Sample 3 of 3	50% Chrysotile Layer 2 of 2	Y	162, 155A, 155M, 155L, 163A, 161A, 159, 157, 150, 150V, 146, 146V, 238, 244, 270A, 255A, 21, 38A, 389, 387, 361, and 461.
5546-2010M01	Bustad Hall	807	162	cove base w/mastic	Black cove base with brown-green mastic	Misc			Sample 1 of 2	ND	N	155, 162, 155C, 197, 110, 120, 200, 238, 250, 300, 377, and 400.

5546-2010M02	Bustad Hall	807	120	cove base w/mastic	Black cove base with brown-green mastic	Misc			Sample 2 of 2	ND	N	155, 162, 155C, 197, 110, 120, 200, 238, 250, 300, 377, and 400.
5546-2010N01	Bustad Hall	807	156	Other	Beige floor coating	Misc			Sample 1 of 1	ND	N	156, 248C, 248B, 248A, 255D
5546-2010O01	Bustad Hall	807	155A	Other	White backsplash with yellow mastic	Misc			Sample 1 of 1	ND	N	155A, 162, 270A, 255A, 46, 56, 40B, 40D, 40H, 40K, 50, 50B, 50A, 50D, 50F, 50H, 50K, 50M, 50N, 50L, 50J, 50G, 50E, 50C, 40Q, 40R, 40P, 40PA, 40PC, 40PB, 40M, 40G, 40E, 40C, 40A, 60, 60A, 60B, 60C, 60D, 60E, 60F, 60G, 60H, 60J, and 38A.
5546-2010P01	Bustad Hall	807	155V	Mastic	Mastic	Misc			Sample 1 of 2	ND	N	Under carpeting in 155V, 155Q, 100VS
5546-2010P02	Bustad Hall	807	155Q	Mastic	Mastic	Misc			Sample 2 of 2	ND	N	Under carpeting in 155V, 155Q, 100VS
5546-2010Q01	Bustad Hall	807	155M	Mastic	Light orange mastic of 4”x4” ceramic tile	Misc			Sample 1 of 2	ND	N	155L, 155M, 161A, 163A, 159, 157, 150, 146, 250A, 244, 206, 21, 38A, 387, 389, 304, 483, and 485.
5546-2010Q02	Bustad Hall	807	206	Mastic	Light orange mastic of 4”x4” ceramic tile	Misc			Sample 2 of 2	ND	N	155L, 155M, 161A, 163A, 159, 157, 150, 146, 250A, 244, 206, 21, 38A, 387, 389, 304, 483, and 485.

5546-2010R01	Bustad Hall	807	158	gypsum wallboard w/joint compound	Gypsum wallboard system presumed asbestos	Misc			Sample 1 of 2	ND	N	148, and in the pipe chases of 158.
5546-2010R02	Bustad Hall	807	148	gypsum wallboard w/joint compound	Gypsum wallboard system presumed asbestos	Misc			Sample 2 of 2	ND	N	148, and in the pipe chases of 158.
5546-2010S01	Bustad Hall	807	160	Other	Gray textured floor	Misc			Sample 1 of 1	ND	N	160, 160B, 160BB, 160BC, 160G, 160F, and 160C.
5546-2010T01	Bustad Hall	807	160BA	Other	Concrete textured anti slip flooring with black mastic	Misc			Sample 1 of 1	ND	N	160BA
5546-2010U01	Bustad Hall	807	160E	Other	Green-Gray floor texture	Misc			Sample 1 of 1	ND	N	160D, 160E
5546-2010V01	Bustad Hall	807	160	Other	Gray duct work sealant	Misc			Sample 1 of 3	ND	N	160 and throughout duct work areas
5546-2010V02	Bustad Hall	807	10	Other	Gray duct work sealant	Misc			Sample 2 of 3	ND	N	160 and throughout duct work areas
5546-2010V03	Bustad Hall	807	160	Other	Gray duct work sealant	Misc			Sample 3 of 3	ND	N	160 and throughout duct work areas
5546-2010W01	Bustad Hall	807	110F	Mastic	Brown carpet mastic	Misc			Sample 1 of 1	ND	N	110F, and 110A.
5546-2010X01	Bustad Hall	807	110CC	Other	Black brittle sink undercoating	Surf	67 ea		Sample 1 of 3	0.3% Chrysotile	Y	110CC, 120, 210, 224, 255E, 255EA, 255J, 255H, 255F, 402G, 482, 476, 474, 473, 468, 466, 465, 432, 424, 422, 414, 412, 490, 392, 390, 384, 380, 377, 374, 376, 364, 336, 334, 324, 318, 312, 310, 308, 23, 46, and 366.

5546-2010X02	Bustad Hall	807	210	Other	Black brittle sink undercoating	Surf	Not Quantified		Sample 2 of 3	0.3% Chrysotile	Y	110CC, 120, 210, 224, 255E, 255EA, 255J, 255H, 255F, 402G, 482, 476, 474, 473, 468, 466, 465, 432, 424, 422, 414, 412, 490, 392, 390, 384, 380, 377, 374, 376, 364, 336, 334, 324, 318, 312, 310, 308, 23, 46, and 366.
5546-2010X03	Bustad Hall	807	255J	Other	Black brittle sink undercoating	Surf	Not Quantified		Sample 3 of 3	0.3% Chrysotile	Y	110CC, 120, 210, 224, 255E, 255EA, 255J, 255H, 255F, 402G, 482, 476, 474, 473, 468, 466, 465, 432, 424, 422, 414, 412, 490, 392, 390, 384, 380, 377, 374, 376, 364, 336, 334, 324, 318, 312, 310, 308, 23, 46, and 366.
5546-2010Y01	Bustad Hall	807	134	cove base w/mastic	Tan covebase with brown mastic	Misc			Sample 1 of 1	ND		134 and 144.

5546-2010Z01	Bustad Hall	807	210	Other	Light gray vinyl sheet flooring with gray and beige pebbles	Misc.	24,600	SF	Sample 1 of 4	50% Chrysotile Layer 2 of 2	Y	210, 250B, 250C, 250D, 250E, 250E, 250E, 250F, 250G, 224, 212, 270J, 270JA, 270JB, 255B, 255C, 260, 255E, 255EA, 255, 255F, 255G, 255H, 255J, 38A, 302, 302E, 395, 392, 390, 384, 380, 376, 374, 371, 364, 366, 383, 377, 336, 334, 326, 324, 318, 312, 310, 308, 482, 480, 485, 479, 476, 474, 473, 468, 460, 465, 446, 432, 424, 422, 414, and 412.

5546-2010Z02	Bustad Hall	807	210	Other	Light gray vinyl sheet flooring with gray and beige pebbles	Misc	24,600	SF	Sample 2 of 4	50% Chrysotile Layer 2 of 2	Y	210, 250B, 250C, 250D, 250E, 250E, 250E, 250F, 250G, 224, 212, 270J, 270JA, 270JB, 255B, 255C, 260, 255E, 255EA, 255, 255F, 255G, 255H, 255J, 38A, 302, 302E, 395, 392, 390, 384, 380, 376, 374, 371, 364, 366, 383, 377, 336, 334, 326, 324, 318, 312, 310, 308, 482, 480, 485, 479, 476, 474, 473, 468, 460, 465, 446, 432, 424, 422, 414, and 412.

5546-2010Z03	Bustad Hall	807	210	Other	Light gray vinyl sheet flooring with gray and beige pebbles	Misc.	24,600	SF	Sample 3 of 4	50% Chrysotile Layer 2 of 2	Y	210, 250B, 250C, 250D, 250E, 250E, 250E, 250F, 250G, 224, 212, 270J, 270JA, 270JB, 255B, 255C, 260, 255E, 255EA, 255, 255F, 255G, 255H, 255J, 38A, 302, 302E, 395, 392, 390, 384, 380, 376, 374, 371, 364, 366, 383, 377, 336, 334, 326, 324, 318, 312, 310, 308, 482, 480, 485, 479, 476, 474, 473, 468, 460, 465, 446, 432, 424, 422, 414, and 412.

5546-2010Z04	Bustad Hall	807	302	Other	Light gray vinyl sheet flooring with gray and beige pebbles	Misc.	24,600	SF	Sample 4 of 4	50% Chrysotile Layer 2 of 2	Y	210, 250B, 250C, 250D, 250E, 250E, 250E, 250F, 250G, 224, 212, 270J, 270JA, 270JB, 255B, 255C, 260, 255E, 255EA, 255, 255F, 255G, 255H, 255J, 38A, 302, 302E, 395, 392, 390, 384, 380, 376, 374, 371, 364, 366, 383, 377, 336, 334, 326, 324, 318, 312, 310, 308, 482, 480, 485, 479, 476, 474, 473, 468, 460, 465, 446, 432, 424, 422, 414, and 412.
5546-2010AA01	Bustad Hall	807	210	Other	Black sink undercoating with yellow mastic	Surf	24	EA	Sample 1 of 3	10% Chrysotile Layer 1 of 1	Y	210, 224, 248B, 270J, 270H, 40R, 40Q, 40P, 60, 302, 302E, 395, 482, 480
5546-2010AA02	Bustad Hall	807	40Q	Other	Black sink undercoating with yellow mastic	Surf	24	EA	Sample 2 of 3	10% Chrysotile Layer 1 of 1	Y	210, 224, 248B, 270J, 270H, 40R, 40Q, 40P, 60, 302, 302E, 395, 482, 480
5546-2010AA03	Bustad Hall	807	210	Other	Black sink undercoating with yellow mastic	Surf	24	EA	Sample 3 of 3	10% Chrysotile Layer 1 of 1	Y	210, 224, 248B, 270J, 270H, 40R, 40Q, 40P, 60, 302, 302E, 395, 482, 480
5546-2010BB01	Bustad Hall	807	210	plaster	Chalky wall system	Misc			Sample 1 of 1	ND	N	210
5546-2010CC01	Bustad Hall	807	209	Other	White sink undercoating	Surf	2	EA	Sample 1 of 3	*1.3% Chrysotile Layer 1 of 1	Y	209, 270D

5546-2010CC02	Bustad Hall	807	209	Other	White sink undercoating	Surf		EA	Sample 2 of 3	*1.3% Chrysotile Layer 1 of 1	Y	209, 270D
5546-2010CC03	Bustad Hall	807	270D	Other	White sink undercoating	Surf		EA	Sample 3 of 3	*1.3% Chrysotile Layer 1 of 1	Y	209, 270D
5546-2010EE01	Bustad Hall	807		12" ceiling tile w/mastic	12”x12” Etched pinhole ceiling tile with glue dot	Misc	Not Quantified		Sample 1 of 2	*<1% Chrysotile	Y	41V, 96, 97, 195, 196, 197, 294, 295, 297, 394, 395, 397, 495, and 497.
5546-2010EE02	Bustad Hall	807		12" ceiling tile w/mastic	12”x12” Etched pinhole ceiling tile with glue dot	Misc	Not Quantified		Sample 2 of 2	*<1% Chrysotile	Y	41V, 96, 97, 195, 196, 197, 294, 295, 297, 394, 395, 397, 495, and 497.
5546-2010FF01	Bustad Hall	807	255B	2' x 4' ceiling tile	2’x4’ Non pinhole ceiling tile	Misc			Sample 1 of 1	ND	N	255B
5546-2010GG01	Bustad Hall	807	144	Other	Gray sink undercoating	Surf			Sample 1 of 3	ND	N	144, 302A, and 377.
5546-2010GG02	Bustad Hall	807	144	Other	Gray sink undercoating	Surf			Sample 2 of 3	ND	N	144, 302A, and 377.
5546-2010GG03	Bustad Hall	807	144	Other	Gray sink undercoating	Surf			Sample 3 of 3	ND	N	144, 302A, and 377.
5546-2010HH01	Bustad Hall	807	10	12" ceiling tile w/mastic	White 1’x1’ ceiling tile with gray speckles and brown glue dot	Misc			Sample 1 of 3	ND	N	46, 105, 10, 40R, and 40Q.
5546-2010HH02	Bustad Hall	807	10S	12" ceiling tile w/mastic	White 1’x1’ ceiling tile with gray speckles and brown glue dot	Misc			Sample 2 of 3	ND	N	46, 105, 10, 40R, and 40Q.
5546-2010HH03	Bustad Hall	807	10S	12" ceiling tile w/mastic	White 1’x1’ ceiling tile with gray speckles and brown glue dot	Misc			Sample 3 of 3	ND	N	46, 105, 10, 40R, and 40Q.
5546-2010II01	Bustad Hall	807	10S	Other	Brown Terrazzo with black and white specks	Misc			Sample 1 of 1	ND	N	10S, 10SW, 40D, 40B, 50B, 40R, 40Q, 40PA, 40PC, 40PB, 40M, 40G, 40E, 40C, 40A, and 100.

5546-2010JJ01	Bustad Hall	807	40	Other	Gray Floor texture	Misc			Sample 1 of 3	ND	N	40, 40B, 40D, 40H, 40K, 40R, 40Q, 40PC, 40P, 40PB, 40PA, 40A, 40C, 40E, 40G, 40J, 40L, 40M, 40MA, 41, 41B, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41A, 41C, 41E, 41G, 41J, 41L, 41N, 41P, and 41R.
5546-2010JJ02	Bustad Hall	807	41		Gray Floor texture	Misc			Sample 2 of 3	ND	N	40, 40B, 40D, 40H, 40K, 40R, 40Q, 40PC, 40P, 40PB, 40PA, 40A, 40C, 40E, 40G, 40J, 40L, 40M, 40MA, 41, 41B, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41A, 41C, 41E, 41G, 41J, 41L, 41N, 41P, and 41R.
5546-2010JJ03	Bustad Hall	807	41	Other	Gray Floor texture	Misc			Sample 3 of 3	ND	N	40, 40B, 40D, 40H, 40K, 40R, 40Q, 40PC, 40P, 40PB, 40PA, 40A, 40C, 40E, 40G, 40J, 40L, 40M, 40MA, 41, 41B, 41D, 41F, 41H, 41K, 41M, 41O, 41Q, 41A, 41C, 41E, 41G, 41J, 41L, 41N, 41P, and 41R.
5546-2010KK01	Bustad Hall	807	302	Other	Packing from Freas model 845 sterilizer	TSI	1	EA	Sample 1 of 1	90% Chrysotile Layer 1 of 1	Y	302

5546-2010LL01	Bustad Hall	807	302	Other	Packing from AMSCO Glassware dryer	TSI	1	EA	Sample 1 of 1	88% Chrysotile Layer 1 of 1	Y	302
5546-2010MM01	Bustad Hall	807	302F	Other	Foil with brown paper and fiber glass insulation	TSI			Sample 1 of 1	ND	N	302F
5546-2010NN01	Bustad Hall	807	395	2' x 4' ceiling tile	Drop in 2'x4' ceiling tile, no pinhole with gray spots	Misc			Sample 1 of 1	ND	N	304, 302E, and 395.
5546-2010OO01	Bustad Hall	807	304	Other	1"x1" ceramic floor tile	Misc			Sample 1 of 2	ND	N	38A, 304
5546-2010OO02	Bustad Hall	807	304	Other	1"x1" ceramic floor tile	Misc			Sample 2 of 2	ND	N	38A, 304
5546-2010QQ01	Bustad Hall	807	501	Other	Vibration cloth around perpetual motion machine	Misc			Sample 1 of 1	ND	N	501 and 503.
5546-2010RR01	Bustad Hall	807	Roof over 400	Other	Silver coat on black mastic on parapet wall	Misc			Sample 1 of 3	ND	N	Roof over 400 level
5546-2010RR02	Bustad Hall	807	Roof over 400	Other	Silver coat on black mastic on parapet wall	Misc			Sample 2 of 3	ND	N	Roof over 400 level
5546-2010RR03	Bustad Hall	807	Roof over 400	Other	Silver coat on black mastic on parapet wall	Misc			Sample 3 of 3	ND	N	Roof over 400 level
5546-2010SS01	Bustad Hall	807	334	Other	Gold sink undercoating	Surf	6	EA	Sample 1 of 3	*1.8% Chrysotile Layer 2 of 2	Y	334, 326, 374, 432, 424, 414
5546-2010SS02	Bustad Hall	807	326	Other	Gold sink undercoating	Surf	6	EA	Sample 2 of 3	*1.5% Chrysotile Layer 2 of 2	Y	334, 326, 374, 432, 424, 414
5546-2010SS03	Bustad Hall	807	326	Other	Gold sink undercoating	Surf	6	EA	Sample 3 of 3	*1.8% Chrysotile Layer 2 of 2	Y	334, 326, 374, 432, 424, 414
5546-2010TT01	Bustad Hall	807	367	Other	Pink Sink Undercoating	Surf	1	EA	Sample 1 of 3	*<1% Chrysotile	Y	367
5546-2010TT02	Bustad Hall	807	367	Other	Pink Sink Undercoating	Surf	1	EA	Sample 2 of 3	*<1% Chrysotile	Y	367
5546-2010TT03	Bustad Hall	807	367	Other	Pink Sink Undercoating	Surf	1	EA	Sample 3 of 3	*<1% Chrysotile	Y	367
5546-2010UU	Bustad Hall	807		Other	Presumed Asbestos Black lab counter top	Misc	1,100 sf			Presumed	Y	50D, 50F. 50H, 50K, 50M, 50N, 50L, 50J, 50G, 50E, and 50C

Sample # Column: sample # format is the WSU job # + a unique identifier.

Sample # Column: If multiple samples are being taken of a homogeneous material, use the same WSU project/job # + unique number + a letter qualifier behind it for each sample, e.g. Job1-4032A, Job1-B4032b, etc.

Building # Column: A list of WSU building numbers can be found at: http://www.cpd.wsu.edu/FacilityRoster/

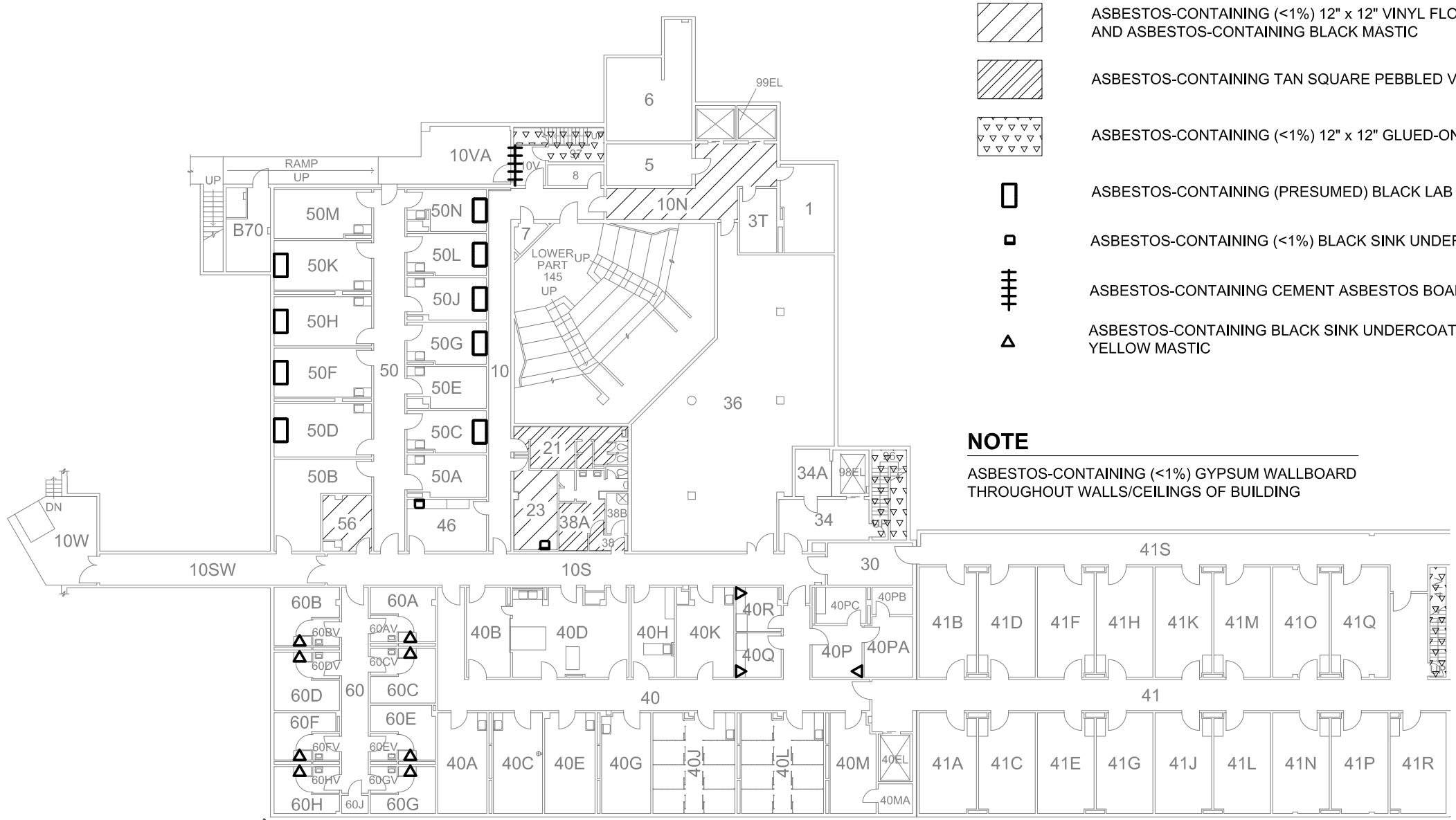
Sample Location Column: column is for the space number. Any project officer you work for should get you an R-sheet prior to any survey. R-sheets are .pdf floor plans with room numbers. For locations not numbered on R-sheets (roofs, tunnels, etc.) use descriptive terms like north flat roof.

Material Column: The descriptors are generic in the material column. There should be a pull down menu in this template. Please use only the descriptions from the pull down menu.

Material Description/color Column: Please enter specific material descriptions in this column.

Type Column: Surf (Surfacing, TSI (thermal system insulation, Misc (miscellaneous material). Please use only the descriptions in the pull-down menu.

Location Quantity Column: is mant to be the total quantity of a homogenous material. Please use whole interger(s). The descriptor is placed in the Quantity descriptor column.
down menu.
Commnets Column:General comments about the sample, material or other information can be placed in this column
Sample results Column: Use ND as a descriptor for "None Detected", or the format "% asbestos, type of asbestos"
ACM? Column: Y = yes, N = no
Homogeneous Material Location Column: describes homogeneous material location. Use space identifiers from R-sheets. For un-numbered spaces like roofs, use descriptors like roof.
NOTE: Quantites need not be included for materials that do not contain asbestos; Empty cells are acceptable.
NOTE: Please place firm name, WSU project #, report title and report date in the header.



LEGEND

- ASBESTOS-CONTAINING (<1%) 12" x 12" VINYL FLOOR TILE AND ASBESTOS-CONTAINING BLACK MASTIC
- ASBESTOS-CONTAINING TAN SQUARE PEBBLED VINYL SHEET FLOORING
- ASBESTOS-CONTAINING (<1%) 12" x 12" GLUED-ON CEILING TILE
- ASBESTOS-CONTAINING (PRESUMED) BLACK LAB COUNTER TOP
- ASBESTOS-CONTAINING (<1%) BLACK SINK UNDERCOATING
- ASBESTOS-CONTAINING CEMENT ASBESTOS BOARD
- ASBESTOS-CONTAINING BLACK SINK UNDERCOATING WITH YELLOW MASTIC

NOTE

ASBESTOS-CONTAINING (<1%) GYPSUM WALLBOARD THROUGHOUT WALLS/CEILINGS OF BUILDING

BASEMENT FLOOR PLAN

0' 15' 30' 60'

SCALE: 1" = 30'

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www.pbsenv.com

BUSTAD HALL

BLDG. NO. 807

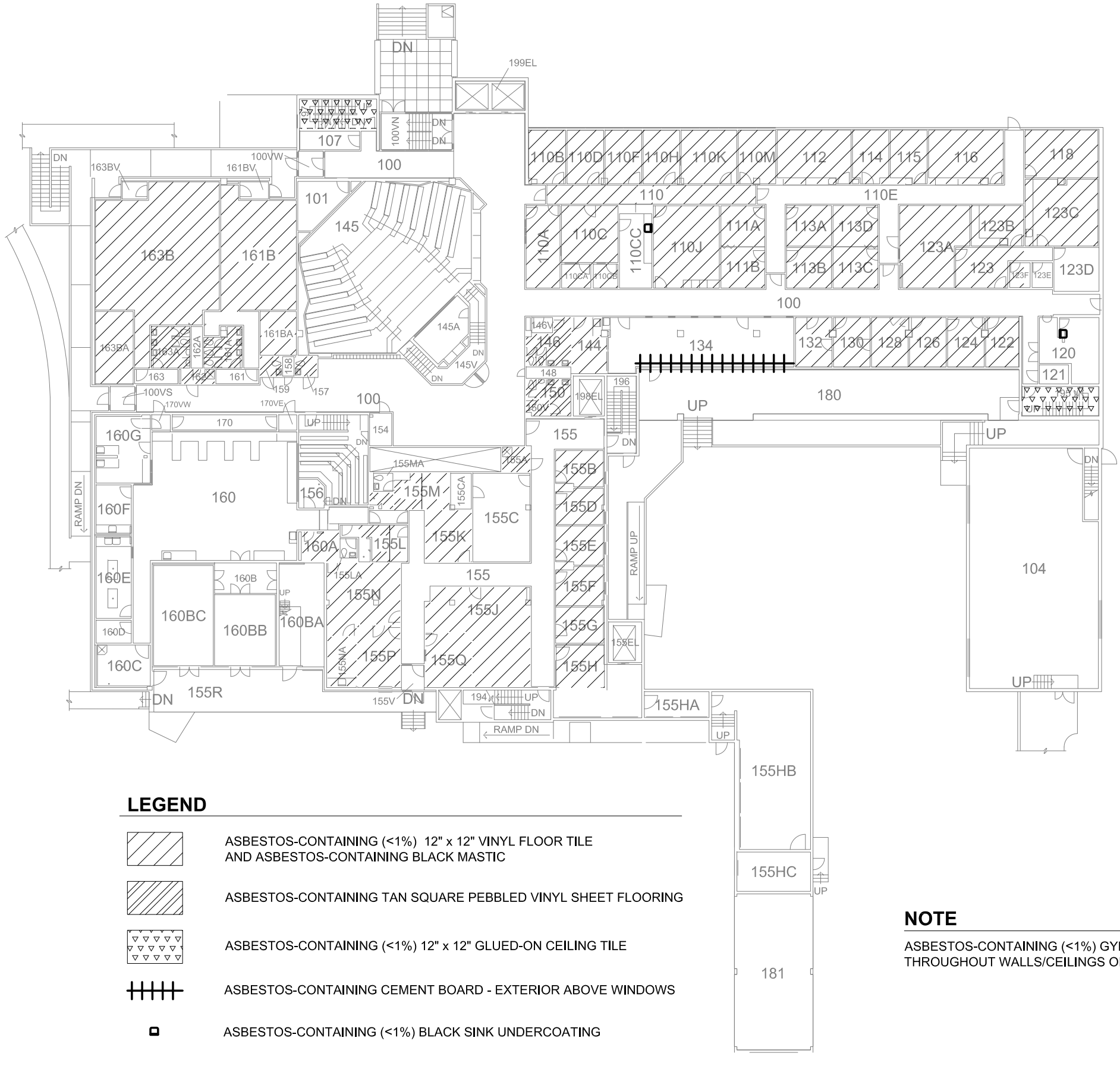
PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028

DATE: FEBRUARY 2011

FIGURE: **HM1**



LEGEND

- ASBESTOS-CONTAINING (<1%) 12" x 12" VINYL FLOOR TILE AND ASBESTOS-CONTAINING BLACK MASTIC
- ASBESTOS-CONTAINING TAN SQUARE PEBBLED VINYL SHEET FLOORING
- ASBESTOS-CONTAINING (<1%) 12" x 12" GLUED-ON CEILING TILE
- ASBESTOS-CONTAINING CEMENT BOARD - EXTERIOR ABOVE WINDOWS
- ASBESTOS-CONTAINING (<1%) BLACK SINK UNDERCOATING

NOTE

ASBESTOS-CONTAINING (<1%) GYPSUM WALLBOARD THROUGHOUT WALLS/CEILINGS OF BUILDING

0' 15' 30' 60'

SCALE: 1" = 30'

FIRST FLOOR PLAN

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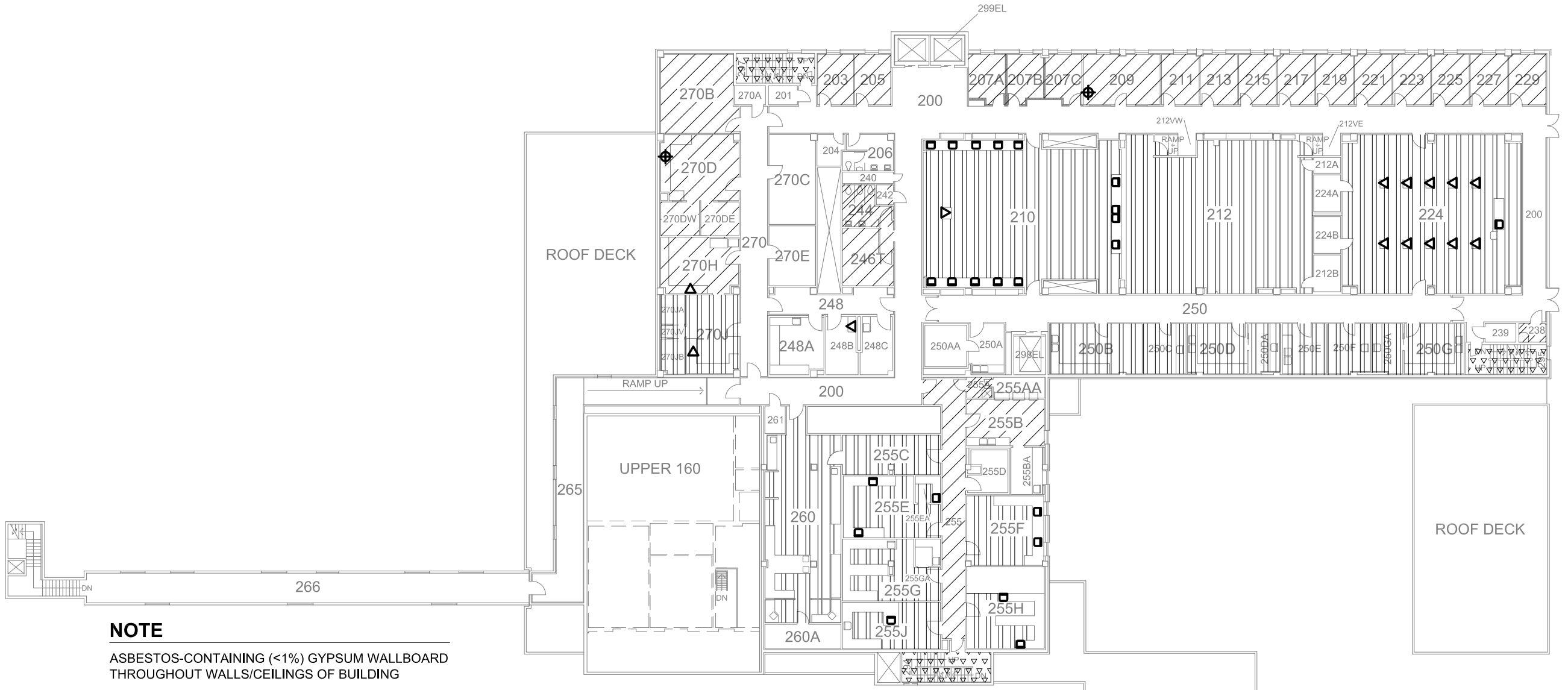
PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028
DATE: FEBRUARY 2012

FIGURE: **HM2**



NOTE

ASBESTOS-CONTAINING (<1%) GYPSUM WALLBOARD THROUGHOUT WALLS/CEILINGS OF BUILDING

LEGEND

- ASBESTOS-CONTAINING (<1%) 12" x 12" VINYL FLOOR TILE AND ASBESTOS-CONTAINING BLACK MASTIC
- ASBESTOS-CONTAINING TAN SQUARE PEBBLED VINYL SHEET FLOORING
- ASBESTOS-CONTAINING (<1%) 12" x 12" GLUED-ON CEILING TILE
- ASBESTOS-CONTAINING LIGHT GRAY PEBBLED VINYL SHEET FLOORING
- ASBESTOS-CONTAINING (<1%) BLACK SINK UNDERCOATING
- ASBESTOS-CONTAINING WHITE SINK UNDERCOATING
- ASBESTOS-CONTAINING BLACK SINK UNDERCOATING WITH YELLOW MASTIC

SECOND FLOOR PLAN

0' 15' 30' 60'

SCALE: 1" = 30'

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BUSTAD HALL
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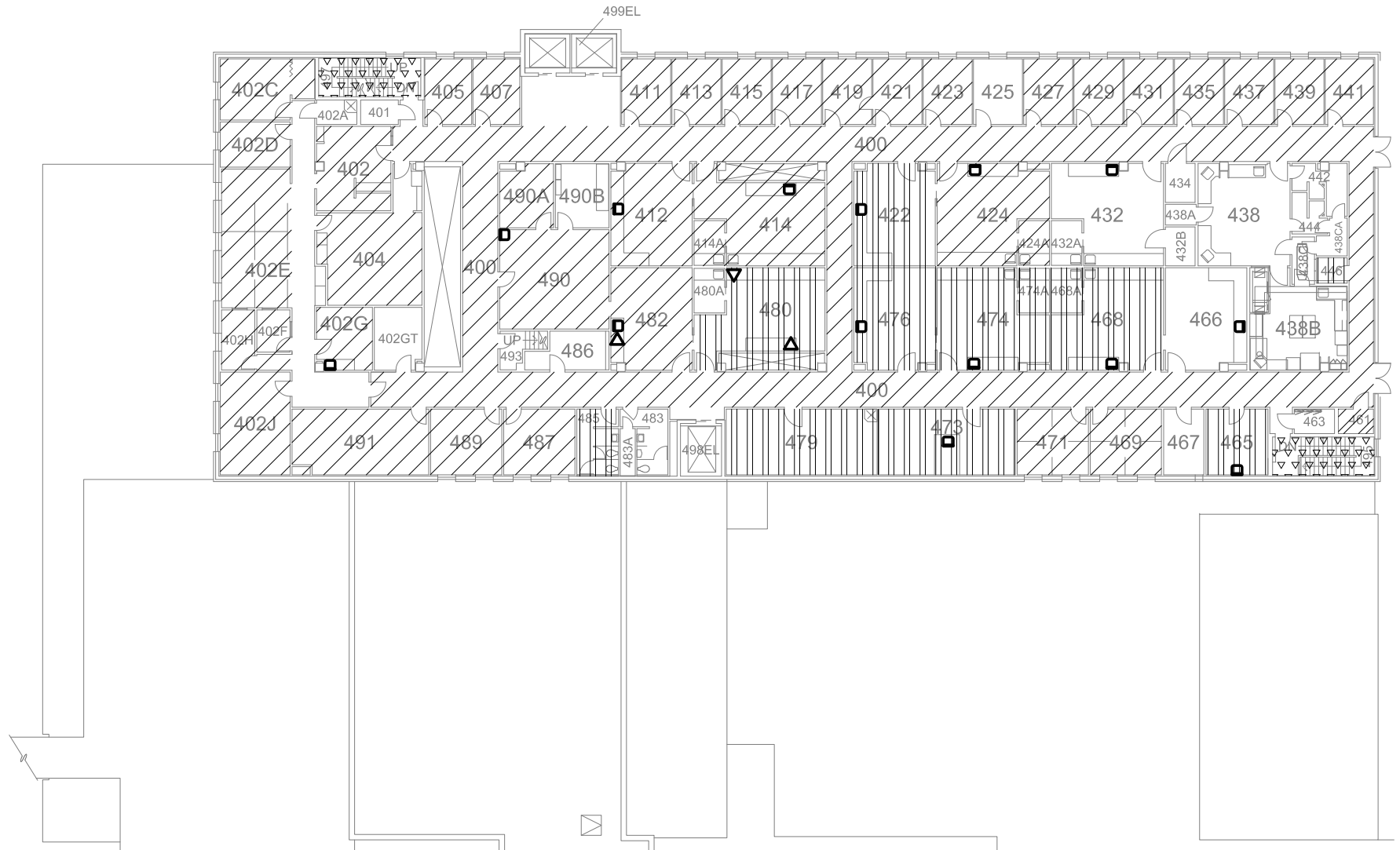
PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028
DATE: FEBRUARY 2011
FIGURE: **HM3**



NOTE

ASBESTOS-CONTAINING (<1%) GYPSUM WALLBOARD THROUGHOUT WALLS/CEILINGS OF BUILDING

LEGEND

- ASBESTOS-CONTAINING (<1%) 12" x 12" VINYL FLOOR TILE AND ASBESTOS-CONTAINING BLACK MASTIC
- ASBESTOS-CONTAINING TAN SQUARE PEBBLED VINYL SHEET FLOORING
- ASBESTOS-CONTAINING (<1%) 12" x 12" GLUED-ON CEILING TILE
- ASBESTOS-CONTAINING LIGHT GRAY PEBBLED VINYL SHEET FLOORING
- ASBESTOS-CONTAINING (<1%) BLACK SINK UNDERCOATING
- ASBESTOS-CONTAINING BLACK SINK UNDERCOATING WITH YELLOW MASTIC

FOURTH FLOOR PLAN

0' 15' 30' 60'

SCALE: 1" = 30'

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BUSTAD HALL

BLDG. NO. 807

PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028

DATE: FEBRUARY 2011

FIGURE: **HM5**

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.

ASBESTOS SAMPLE SYMBOLS

◇ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

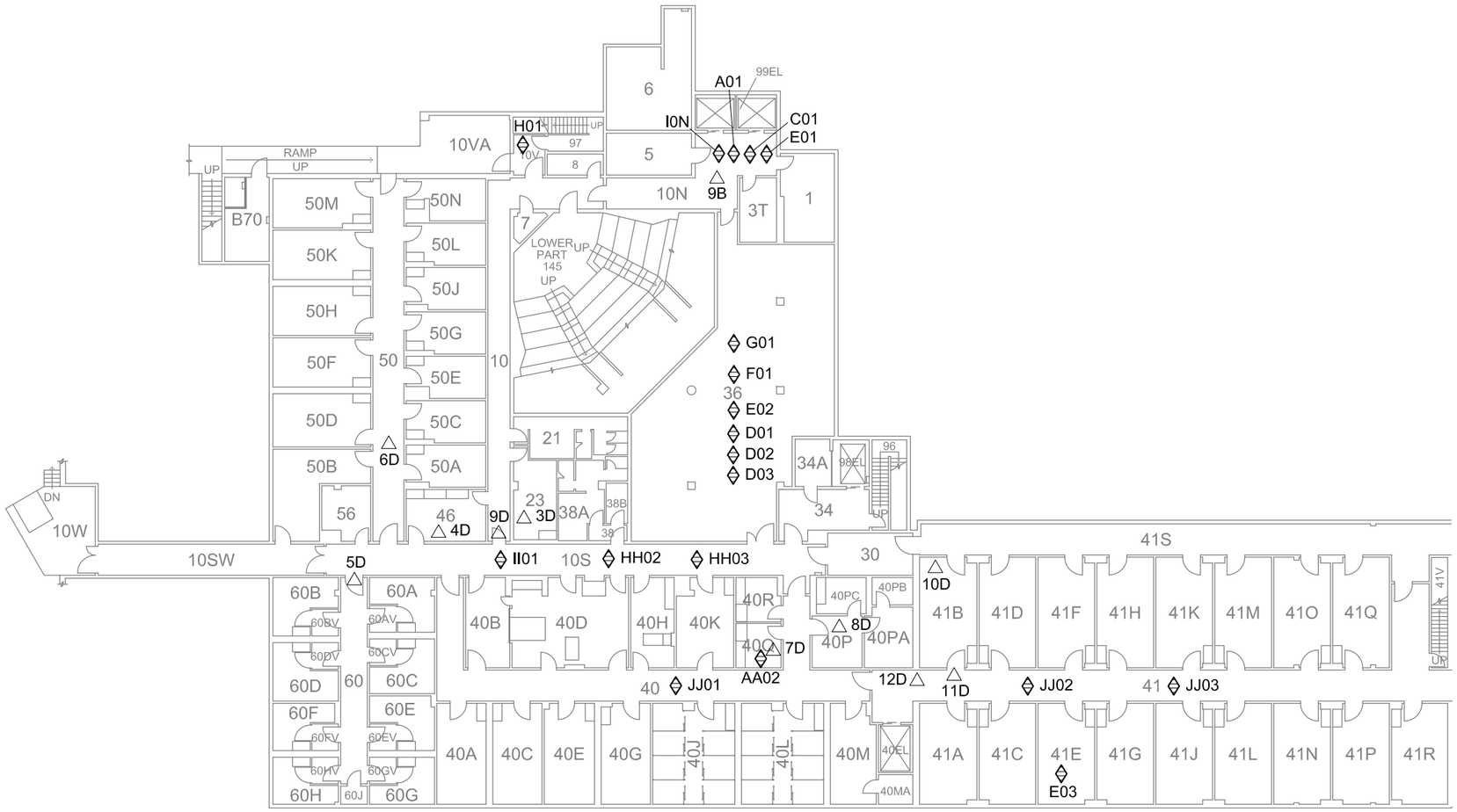
NEGATIVE -	POSITIVE +	
⊖	●	MECHANICAL INSULATION
▤	■	SURFACING MATERIAL
◇	◆	MISCELLANEOUS MATERIAL

LEAD SAMPLE SYMBOLS

△ 0007 — DRAWING REFERENCE TO LEAD SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

▲ LEAD DETECTED.

△ BELOW THE LIMIT OF DETECTION.



SAMPLE LOCATIONS - BASEMENT FLOOR PLAN

NOT TO SCALE

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BUSTAD HALL
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PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028
DATE: FEBRUARY 2011
FIGURE: **HM1**

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION.

2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.

ASBESTOS SAMPLE SYMBOLS

◈ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

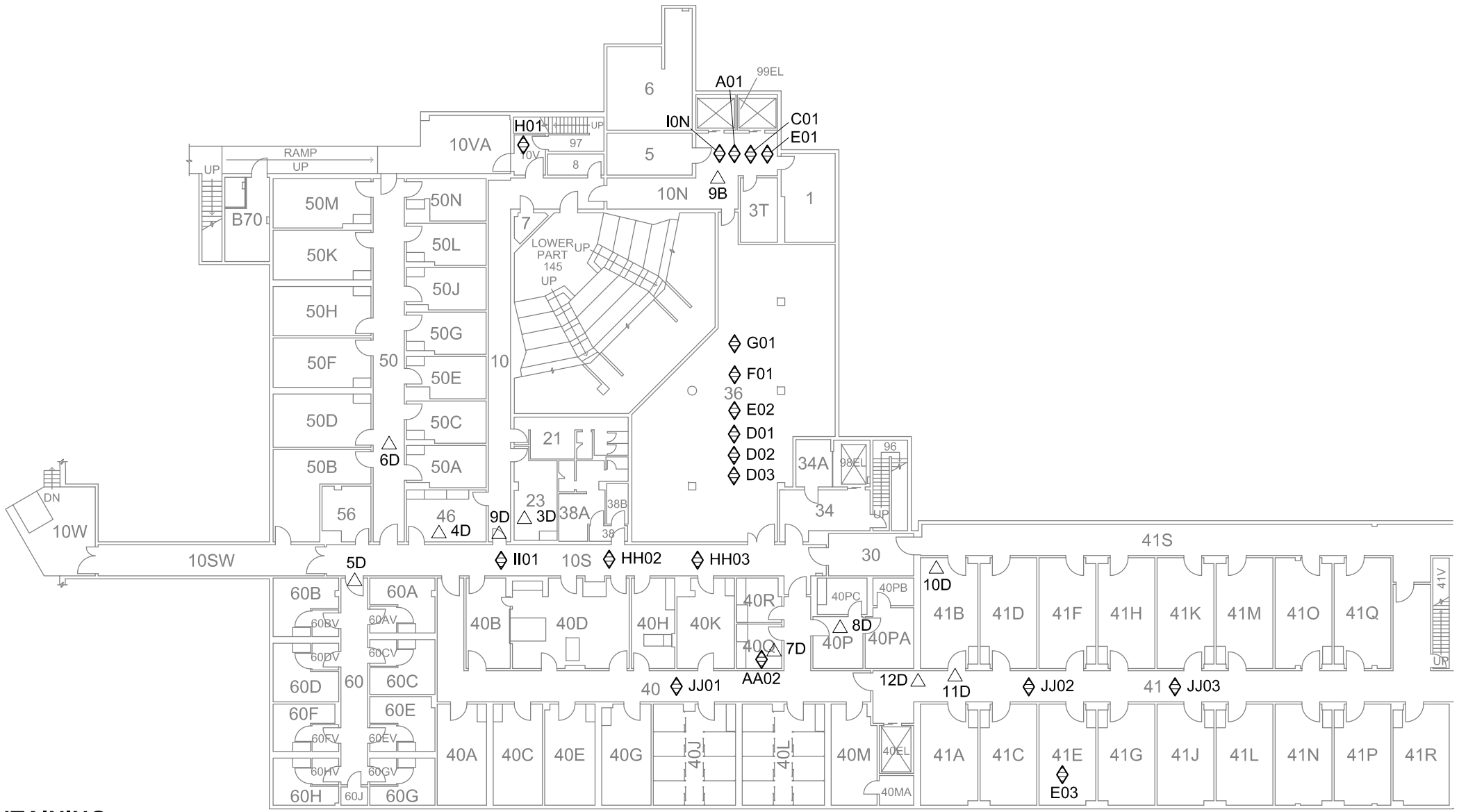
NEGATIVE -	POSITIVE +	
⊖	●	MECHANICAL INSULATION
▤	■	SURFACING MATERIAL
◈	◆	MISCELLANEOUS MATERIAL

LEAD SAMPLE SYMBOLS

△ 0007 — DRAWING REFERENCE TO LEAD SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

▲ LEAD DETECTED.

△ BELOW THE LIMIT OF DETECTION.



NO ASBESTOS-CONTAINING MATERIALS FOUND THIS AREA

NOT TO SCALE

BASEMENT FLOOR PLAN

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BUSTAD HALL
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PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028
DATE: FEBRUARY 2011
FIGURE: **HM1**

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION.

2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.

ASBESTOS SAMPLE SYMBOLS

◇ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

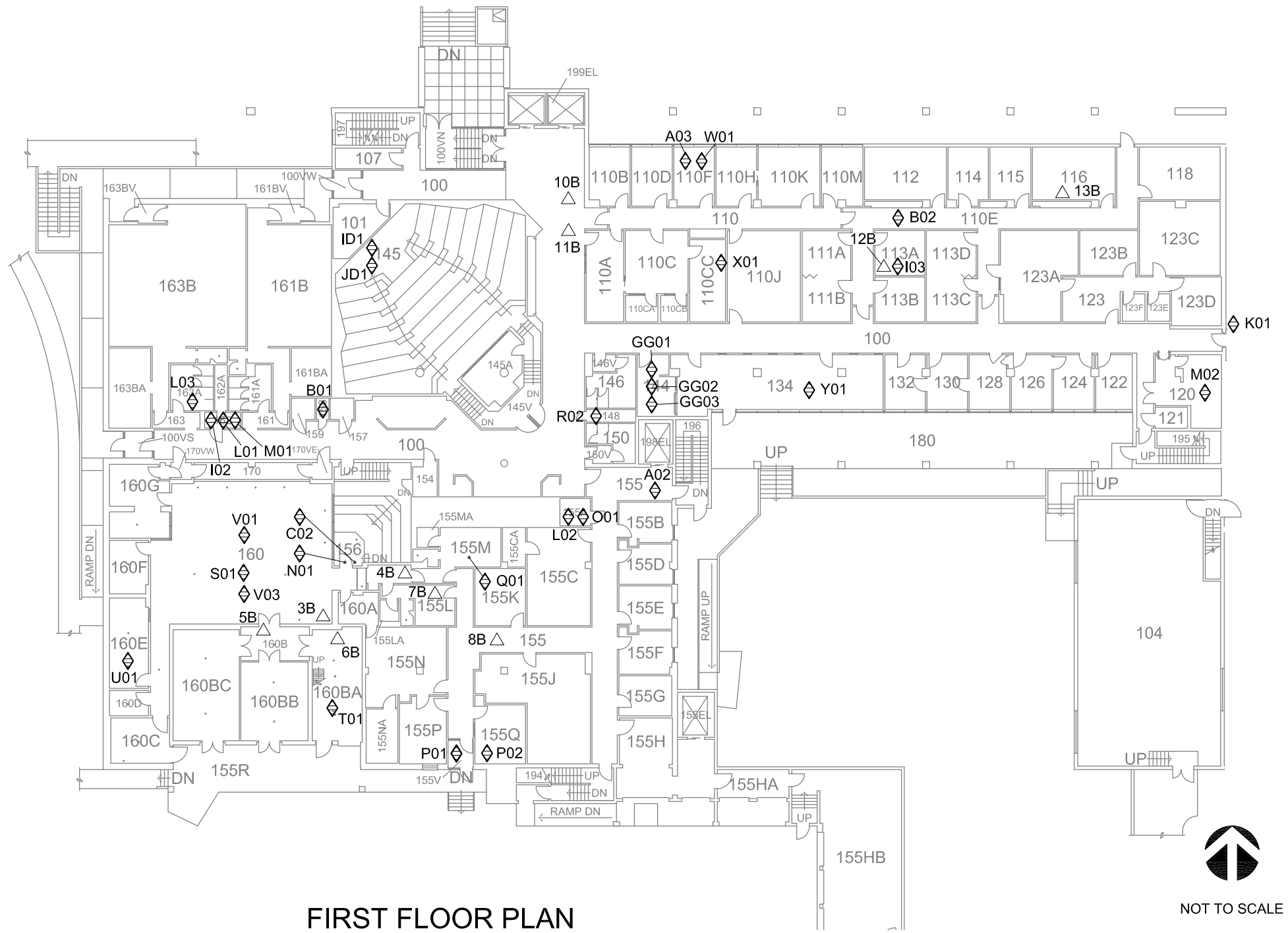
NEGATIVE -	POSITIVE +	
⊖	●	MECHANICAL INSULATION
▭	■	SURFACING MATERIAL
◇	◆	MISCELLANEOUS MATERIAL

LEAD SAMPLE SYMBOLS

△ 0007 — DRAWING REFERENCE TO LEAD SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

▲ LEAD DETECTED.

△ BELOW THE LIMIT OF DETECTION.



FIRST FLOOR PLAN

NO ASBESTOS-CONTAINING MATERIALS FOUND THIS AREA

NOT TO SCALE

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BUSTAD HALL
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PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028
DATE: FEBRUARY 2011
FIGURE: **HM2**

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION.

2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.

ASBESTOS SAMPLE SYMBOLS

◈ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

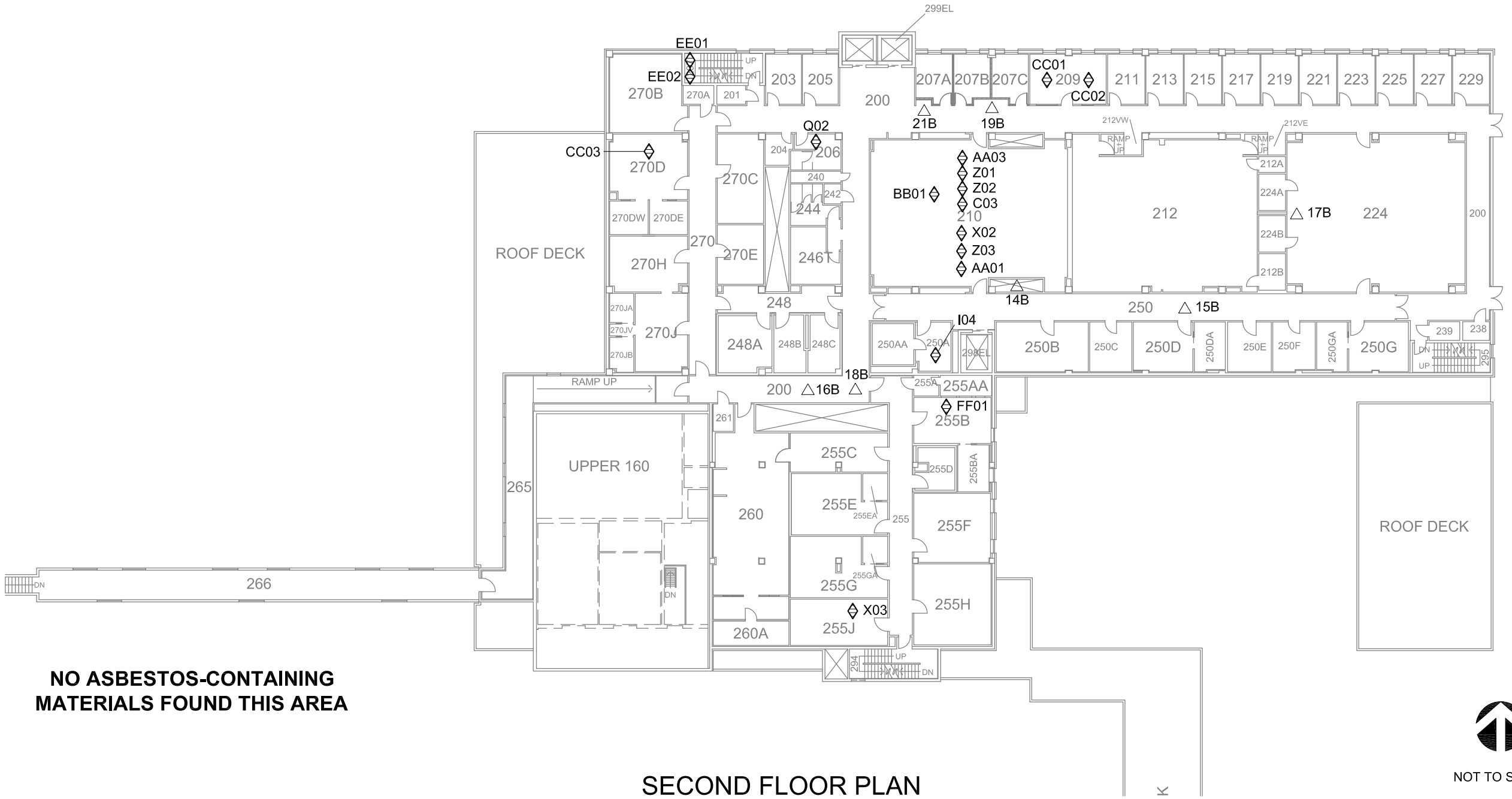
NEGATIVE -	POSITIVE +	
⊖	●	MECHANICAL INSULATION
▤	■	SURFACING MATERIAL
◈	◆	MISCELLANEOUS MATERIAL

LEAD SAMPLE SYMBOLS

△ 0007 — DRAWING REFERENCE TO LEAD SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

▲ LEAD DETECTED.

△ BELOW THE LIMIT OF DETECTION.



SECOND FLOOR PLAN

NO ASBESTOS-CONTAINING MATERIALS FOUND THIS AREA

NOT TO SCALE

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BUSTAD HALL
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HAZARDOUS MATERIALS SURVEY

PROJECT:	61987.028
DATE:	FEBRUARY 2011

FIGURE:
HM3

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION.

2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.

ASBESTOS SAMPLE SYMBOLS

◇ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

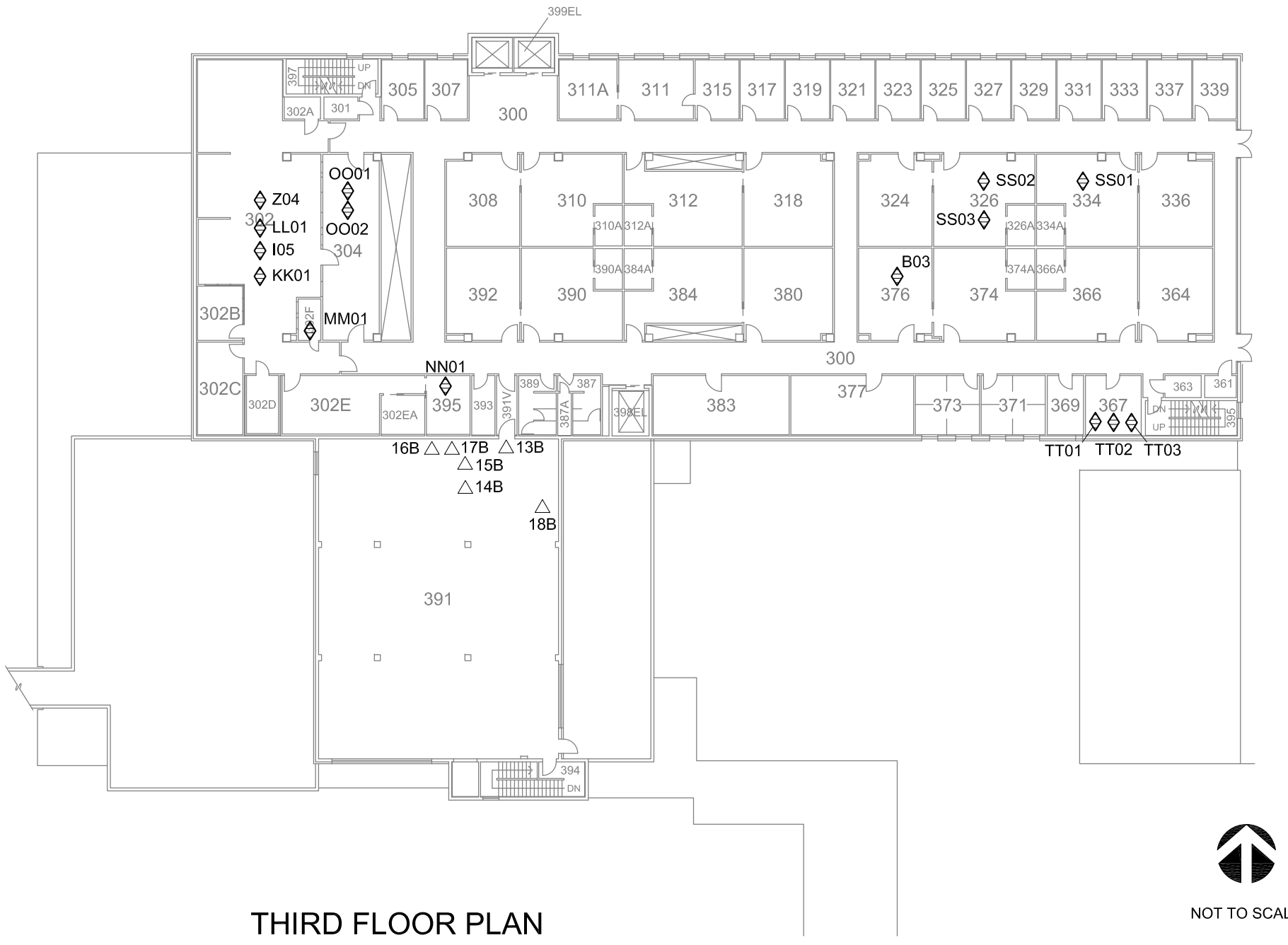
NEGATIVE -	POSITIVE +	
⊖	●	MECHANICAL INSULATION
▭	■	SURFACING MATERIAL
◇	◆	MISCELLANEOUS MATERIAL

LEAD SAMPLE SYMBOLS

△ 0007 — DRAWING REFERENCE TO LEAD SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

▲ LEAD DETECTED.

△ BELOW THE LIMIT OF DETECTION.



THIRD FLOOR PLAN

NO ASBESTOS-CONTAINING MATERIALS FOUND THIS AREA

NOT TO SCALE

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BUSTAD HALL
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HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028
DATE: FEBRUARY 2011
FIGURE: **HM4**

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION.

2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.

ASBESTOS SAMPLE SYMBOLS

◇ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

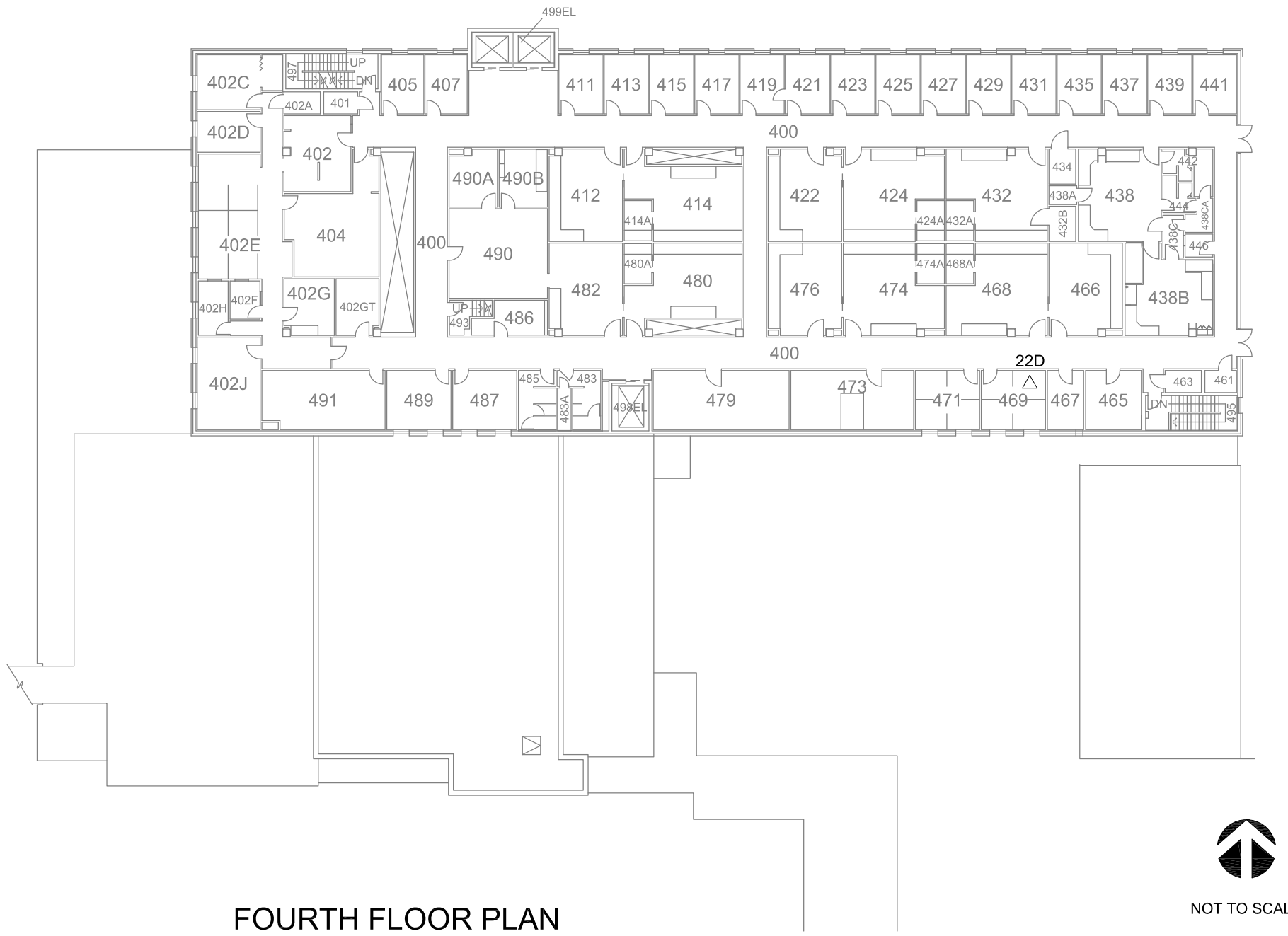
NEGATIVE -	POSITIVE +	
⊖	●	MECHANICAL INSULATION
▭	■	SURFACING MATERIAL
◇	◆	MISCELLANEOUS MATERIAL

LEAD SAMPLE SYMBOLS

△ 0007 — DRAWING REFERENCE TO LEAD SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

▲ LEAD DETECTED.

△ BELOW THE LIMIT OF DETECTION.



FOURTH FLOOR PLAN

NO ASBESTOS-CONTAINING MATERIALS FOUND THIS AREA

NOT TO SCALE

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BUSTAD HALL

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PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT: 61987.028

DATE: FEBRUARY 2011

FIGURE:
HM5

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION.

2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING.

ASBESTOS SAMPLE SYMBOLS

◈ 007 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

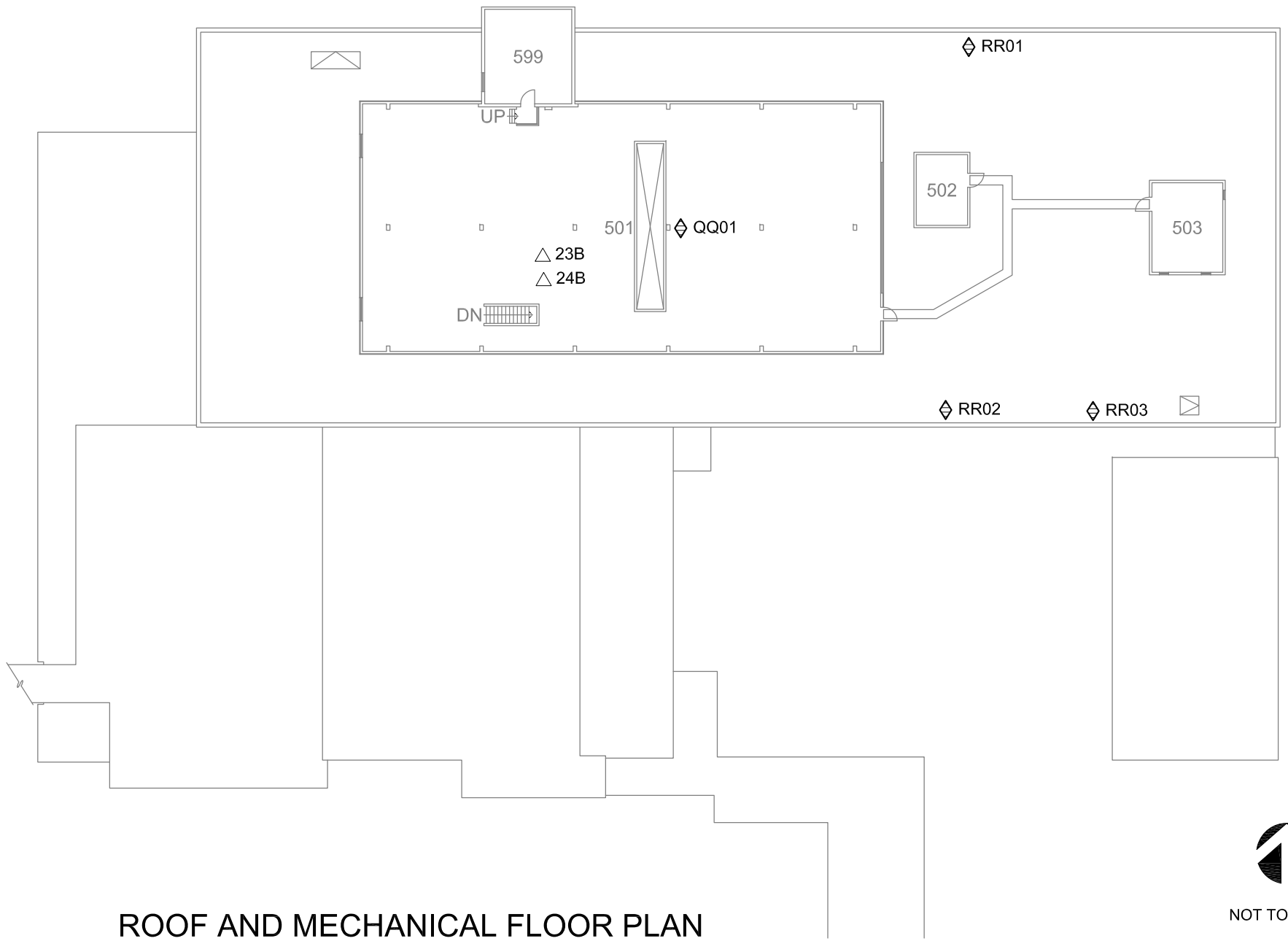
NEGATIVE -	POSITIVE +	
⊖	●	MECHANICAL INSULATION
▤	■	SURFACING MATERIAL
◈	◆	MISCELLANEOUS MATERIAL

LEAD SAMPLE SYMBOLS

△ 0007 — DRAWING REFERENCE TO LEAD SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
MATERIAL SYMBOL

▲ LEAD DETECTED.

△ BELOW THE LIMIT OF DETECTION.



NO ASBESTOS-CONTAINING MATERIALS FOUND THIS AREA

ROOF AND MECHANICAL FLOOR PLAN

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BUSTAD HALL
BLDG. NO. 807
PULLMAN, WASHINGTON

HAZARDOUS MATERIALS SURVEY

PROJECT:	61987.028
DATE:	FEBRUARY 2011

FIGURE:
HM6

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 primary goal of this project is improve operations, maintenance, and energy savings in Bustad on the Pullman Campus. WSU anticipates that the Design-Builder will need to replace pneumatic actuators, pneumatic valves, and to add or revise control from some processes from the pneumatic final elements to electronic final elements such as electronic valves, actuators and variable frequency drives.

C. Expected Owner-supplied Contractor-installed Work:
   1. Potential equipment purchased will be determined through the process of Design-Build.

D. Expected Work by Owner:
   1. Potential scopes of work will be determined through the process of Design-Build.

1.02 SCHEDULE OF ALTERNATES – NOT USED

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.

1.06 SPECIAL CONDITIONS

A. Key items such as Site Access, schedule and phasing, occupancy and hazardous materials will be determined in conjunction with the Design-Build throughout the Design-Build process.

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 if its actual design wage rates.

B. 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).

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

D. 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/Whitman County" 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. 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.

G. 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: 10/11/2021

County	Trade	Job Classification	Wage	Holiday	Overtime	Note	*Risk Class
Whitman	Asbestos Abatement Workers	Journey Level	$44.04	5D	1H		View
Whitman	Boilermakers	Journey Level	$70.79	5N	1C		View
Whitman	Brick Mason	Journey Level	$53.34	5A	1M		View
Whitman	Building Service Employees	Janitor	$13.69		1		View
Whitman	Building Service Employees	Shampooer	$13.69		1		View
Whitman	Building Service Employees	Waxer	$13.69		1		View
Whitman	Building Service Employees	Window Cleaner	$13.69		1		View
Whitman	Cabinet Makers (In Shop)	Journey Level	$13.69		1		View
Whitman	Carpenters	Acoustical Worker	$51.25	7E	4X	8N	View
Whitman	Carpenters	Bridge, Dock & Wharf Carpenter	$52.25	7E	4X	8N	View
Whitman	Carpenters	Floor Layer & Floor Finisher	$51.25	7E	4X	8N	View
Whitman	Carpenters	Form Builder	$51.25	7E	4X	8N	View
Whitman	Carpenters	General Carpenter	$51.25	7E	4X	8N	View
Whitman	Carpenters	Heavy Construction Carpenter	$56.71	7E	4X	9E	View
Whitman	Carpenters	Scaffold/Shoring Erecting & Dismantling	$56.71	7E	4X	8N	View
Whitman	Cement Masons	Journey Level	$46.83	7B	1N		View
Whitman	Divers & Tenders	Assistant Tender	$59.01	7E	4X		View
Whitman	Divers & Tenders	Dive Supervisors	$109.30	7E	4X		View
Whitman	Divers & Tenders	Diver	$107.80	7E	4X	8V	View
Whitman	Divers & Tenders	Diver on Standby	$62.82	7E	4X		View
Whitman	Divers & Tenders	Diver Tender	$61.82	7E	4X		View
Whitman	Divers & Tenders	Diving Master	$73.32	7E	4X		View
Whitman	Divers & Tenders	Manifold Operator	$61.82	7E	4X		View
Whitman	Divers & Tenders	Manifold Operator Mixed Gas	$65.82	7E	4X		View
Whitman	Divers & Tenders	Remote Operated Vehicle Operator	$61.82	7E	4X		View
Whitman	Divers & Tenders	Remote Operated Vehicle Tender/Technician	$59.01	7E	4X		View
Whitman	Divers & Tenders	Surface RCV & ROV Operator	$61.82	7E	4X		View

Whitman	Dredge Workers	Assistant Engineer	$73.62	5D	3F		View
Whitman	Dredge Workers	Assistant Mate (Deckhand)	$73.05	5D	3F		View
Whitman	Dredge Workers	Boatmen	$73.62	5D	3F		View
Whitman	Dredge Workers	Engineer Welder	$75.03	5D	3F		View
Whitman	Dredge Workers	Leverman, Hydraulic	$76.53	5D	3F		View
Whitman	Dredge Workers	Mates	$73.62	5D	3F		View
Whitman	Dredge Workers	Oiler	$73.05	5D	3F		View
Whitman	Drywall Applicator	Journey Level	$51.25	7E	4X	8N	View
Whitman	Drywall Tapers	Journey Level	$46.18	7E	1P		View
Whitman	Electrical Fixture Maintenance Workers	Journey Level	$13.69		1		View
Whitman	Electricians - Inside	Journeyman	$59.85	7G	1E		View
Whitman	Electricians - Motor Shop	Craftsman	$15.37		1		View
Whitman	Electricians - Motor Shop	Journey Level	$14.69		1		View
Whitman	Electricians - Powerline Construction	Cable Splicer	$82.39	5A	4D		View
Whitman	Electricians - Powerline Construction	Certified Line Welder	$75.64	5A	4D		View
Whitman	Electricians - Powerline Construction	Groundperson	$49.17	5A	4D		View
Whitman	Electricians - Powerline Construction	Heavy Line Equipment Operator	$75.64	5A	4D		View
Whitman	Electricians - Powerline Construction	Journey Level Lineperson	$75.64	5A	4D		View
Whitman	Electricians - Powerline Construction	Line Equipment Operator	$64.54	5A	4D		View
Whitman	Electricians - Powerline Construction	Meter Installer	$49.17	5A	4D	8W	View
Whitman	Electricians - Powerline Construction	Pole Sprayer	$75.64	5A	4D		View
Whitman	Electricians - Powerline Construction	Powderperson	$56.49	5A	4D		View
Whitman	Electronic Technicians	Journey Level	$46.26	5I	1B		View
Whitman	Elevator Constructors	Mechanic	$100.51	7D	4A		View
Whitman	Elevator Constructors	Mechanic In Charge	$108.53	7D	4A		View
Whitman	Fabricated Precast Concrete Products	Journey Level	$13.69		1		View
Whitman	Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	$13.69		1		View
Whitman	Fence Erectors	Fence Erector	$44.04	7B	1M	8Z	View
Whitman	Fence Erectors	Fence Erector	$44.04	7B	1M	8Z	View
Whitman	Flaggers	Journey Level	$41.94	7B	1M	8Z	View
Whitman	Glaziers	Journey Level	$35.56	7L	4L		View
Whitman	Heat & Frost Insulators And Asbestos Workers	Journey Level	$55.24	5K	1U		View
Whitman	Heating Equipment Mechanics	Journey Level	$61.36	6Z	1B		View
Whitman	Hod Carriers & Mason Tenders	Journey Level	$44.89	7B	1M	8Z	View
Whitman	Industrial Power Vacuum Cleaner	Journey Level	$13.69		1		View
Whitman	Inland Boatmen	Journey Level	$13.69		1		View

Whitman	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	$13.69		1		View
Whitman	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	$13.69		1		View
Whitman	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	$13.69		1		View
Whitman	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	$13.69		1		View
Whitman	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	$13.69		1		View
Whitman	Insulation Applicators	Journey Level	$51.25	7E	4X	8N	View
Whitman	Ironworkers	Journeyman	$65.91	7N	1O		View
Whitman	Laborers	Air And Hydraulic Track Drill	$44.58	7B	1M	8Z	View
Whitman	Laborers	Asphalt Raker	$44.58	7B	1M	8Z	View
Whitman	Laborers	Asphalt Roller, Walking	$44.31	7B	1M	8Z	View
Whitman	Laborers	Brick Pavers	$44.04	7B	1M	8Z	View
Whitman	Laborers	Brush Hog Feeder	$44.04	7B	1M	8Z	View
Whitman	Laborers	Brush Machine	$44.58	7B	1M	8Z	View
Whitman	Laborers	Caisson Worker, Free AIr	$44.58	7B	1M	8Z	View
Whitman	Laborers	Carpenter Tender	$44.04	7B	1M	8Z	View
Whitman	Laborers	Cement Finisher Tender	$44.31	7B	1M	8Z	View
Whitman	Laborers	Cement Handler	$44.04	7B	1M	8Z	View
Whitman	Laborers	Chain Saw Operator & Faller	$44.58	7B	1M	8Z	View
Whitman	Laborers	Clean-up Laborer	$44.04	7B	1M	8Z	View
Whitman	Laborers	Compaction Equipment	$44.31	7B	1M	8Z	View
Whitman	Laborers	Concrete Crewman	$44.04	7B	1M	8Z	View
Whitman	Laborers	Concrete Saw, Walking	$44.31	7B	1M	8Z	View
Whitman	Laborers	Concrete Signalman	$44.04	7B	1M	8Z	View
Whitman	Laborers	Concrete Stack	$44.58	7B	1M	8Z	View
Whitman	Laborers	Confined Space Attendant	$44.04	7B	1M	8Z	View
Whitman	Laborers	Crusher Feeder	$44.04	7B	1M	8Z	View
Whitman	Laborers	Demolition	$44.04	7B	1M	8Z	View
Whitman	Laborers	Demolition Torch	$44.31	7B	1M	8Z	View
Whitman	Laborers	Dope Pot Fireman, Non-mechanical	$44.31	7B	1M	8Z	View
Whitman	Laborers	Driller Helper (when Required To Move & Position Machine)	$44.31	7B	1M	8Z	View
Whitman	Laborers	Drills With Dual Masts	$44.86	7B	1M	8Z	View
Whitman	Laborers	Dry Stack Walls	$44.04	7B	1M	8Z	View
Whitman	Laborers	Dumpman	$44.04	7B	1M	8Z	View
Whitman	Laborers	Erosion Control Laborer	$44.04	7B	1M	8Z	View
Whitman	Laborers	Final Detail Cleanup (i.e, Dusting, Vacuuming, Window Cleaning; Not Construction Debris Cleanup)	$41.94	7B	1M	8Z	View

Whitman	Laborers	Firewatch	$44.04	7B	1M	8Z	View
Whitman	Laborers	Form Cleaning Machine Feeder, Stacker	$44.04	7B	1M	8Z	View
Whitman	Laborers	Form Setter, Paving	$44.31	7B	1M	8Z	View
Whitman	Laborers	General Laborer	$44.04	7B	1M	8Z	View
Whitman	Laborers	Grade Checker	$46.57	7B	1M	8Z	View
Whitman	Laborers	Grout Machine Header Tender	$44.04	7B	1M	8Z	View
Whitman	Laborers	Guard Rail	$44.04	7B	1M	8Z	View
Whitman	Laborers	Gunite	$44.58	7B	1M	8Z	View
Whitman	Laborers	Hazardous Waste Worker (level A)	$44.86	7B	1M	8Z	View
Whitman	Laborers	Hazardous Waste Worker (level B)	$44.58	7B	1M	8Z	View
Whitman	Laborers	Hazardous Waste Worker (level C)	$44.31	7B	1M	8Z	View
Whitman	Laborers	Hazardous Waste Worker (level D)	$44.04	7B	1M	8Z	View
Whitman	Laborers	Hdpe Or Similar Liner Installer	$44.04	7B	1M	8Z	View
Whitman	Laborers	High Scaler	$44.58	7B	1M	8Z	View
Whitman	Laborers	Jackhammer Operator Miner, Class "b"	$44.31	7B	1M	8Z	View
Whitman	Laborers	Laser Beam Operator	$44.58	7B	1M	8Z	View
Whitman	Laborers	Miner, Class "a"	$44.04	7B	1M	8Z	View
Whitman	Laborers	Miner, Class "c"	$44.58	7B	1M	8Z	View
Whitman	Laborers	Miner, Class "d"	$44.86	7B	1M	8Z	View
Whitman	Laborers	Monitor Operator, Air Track Or Similar Mounting	$44.58	7B	1M	8Z	View
Whitman	Laborers	Mortar Mixer	$44.58	7B	1M	8Z	View
Whitman	Laborers	Nipper	$44.04	7B	1M	8Z	View
Whitman	Laborers	Nozzleman	$44.58	7B	1M	8Z	View
Whitman	Laborers	Nozzleman, Water (to Include Fire Hose), Air Or Steam	$44.31	7B	1M	8Z	View
Whitman	Laborers	Pavement Breaker, 90 Lbs. & Over	$44.58	7B	1M	8Z	View
Whitman	Laborers	Pavement Breaker, Under 90 Lbs.	$44.31	7B	1M	8Z	View
Whitman	Laborers	Pipelayer	$44.58	7B	1M	8Z	View
Whitman	Laborers	Pipelayer, Corrugated Metal Culvert And Multi-plate.	$44.31	7B	1M	8Z	View
Whitman	Laborers	Pipewrapper	$44.58	7B	1M	8Z	View
Whitman	Laborers	Plasterer Tenders	$44.58	7B	1M	8Z	View
Whitman	Laborers	Pot Tender	$44.31	7B	1M	8Z	View
Whitman	Laborers	Powderman	$46.23	7B	1M	8Z	View
Whitman	Laborers	Powederman Helper	$44.31	7B	1M	8Z	View
Whitman	Laborers	Power Buggy Operator	$44.31	7B	1M	8Z	View
Whitman	Laborers	Power Tool Operator, Gas, Electric, Pneumatic	$44.31	7B	1M	8Z	View
Whitman	Laborers	Railroad Equipment, Power Driven, Except Dual Mobile	$44.31	7B	1M	8Z	View
Whitman	Laborers	Railroad Power Spiker Or	$44.31	7B	1M	8Z	View

		Puller, Dual Mobile					
Whitman	Laborers	Remote Equipment Operator	$44.86	7B	1M	8Z	View
Whitman	Laborers	Remote Equipment Operator (i.e Compaction And Demolition)	$44.31	7B	1M	8Z	View
Whitman	Laborers	Rigger/signal Person	$44.31	7B	1M	8Z	View
Whitman	Laborers	Riprap Person	$44.04	7B	1M	8Z	View
Whitman	Laborers	Rodder & Spreader	$44.31	7B	1M	8Z	View
Whitman	Laborers	Sandblast Tailhoseman	$44.04	7B	1M	8Z	View
Whitman	Laborers	Scaffold Erector, Wood Or Steel	$44.04	7B	1M	8Z	View
Whitman	Laborers	Stake Jumper	$44.04	7B	1M	8Z	View
Whitman	Laborers	Structural Mover	$44.04	7B	1M	8Z	View
Whitman	Laborers	Tailhoseman (water Nozzle)	$44.04	7B	1M	8Z	View
Whitman	Laborers	Timber Bucker & Faller (by Hand)	$44.04	7B	1M	8Z	View
Whitman	Laborers	Track Laborer (rr)	$44.04	7B	1M	8Z	View
Whitman	Laborers	Traffic Control Laborer	$41.94	7B	1M	9D	View
Whitman	Laborers	Traffic Control Supervisor	$42.94	7B	1M	9E	View
Whitman	Laborers	Trencher, Shawnee	$44.31	7B	1M	8Z	View
Whitman	Laborers	Trenchless Technology Technician	$44.58	7B	1M	8Z	View
Whitman	Laborers	Truck Loader	$44.04	7B	1M	8Z	View
Whitman	Laborers	Tugger Operator	$44.31	7B	1M	8Z	View
Whitman	Laborers	Vibrators, All	$44.58	7B	1M	8Z	View
Whitman	Laborers	Wagon Drills	$44.31	7B	1M	8Z	View
Whitman	Laborers	Water Pipe Liner	$44.31	7B	1M	8Z	View
Whitman	Laborers	Welder, Electrical, Manual Or Automatic (hdpe Or Similar Pipe And Liner)	$44.86	7B	1M	8Z	View
Whitman	Laborers	Well-point Person	$44.04	7B	1M	8Z	View
Whitman	Laborers	Wheelbarrow, Power Driven	$44.31	7B	1M	8Z	View
Whitman	Laborers - Underground Sewer & Water	General Laborer & Topman	$44.04	7B	1M	8Z	View
Whitman	Laborers - Underground Sewer & Water	Pipe Layer	$44.58	7B	1M	8Z	View
Whitman	Landscape Construction	Landscape Laborer	$41.94	7B	1M	9D	View
Whitman	Landscape Construction	Landscape Operator	$51.05	7B	4W	9A	View
Whitman	Landscape Maintenance	Groundskeeper	$13.69		1		View
Whitman	Lathers	Journey Level	$51.25	7E	4X	8N	View
Whitman	Marble Setters	Journey Level	$53.34	5A	1M		View
Whitman	Metal Fabrication (In Shop)	Fitter	$13.69		1		View
Whitman	Metal Fabrication (In Shop)	Laborer	$13.69		1		View
Whitman	Metal Fabrication (In Shop)	Machine Operator	$13.69		1		View
Whitman	Metal Fabrication (In Shop)	Painter	$13.69		1		View
Whitman	Metal Fabrication (In Shop)	Welder	$13.69		1		View
Whitman	Millwright	Journey Level	$71.07	5A	1B		View
Whitman	Modular Buildings	Journey Level	$13.69		1		View
Whitman	Painters	Commercial Painter	$40.26	6Z	1W		View

Whitman	Painters	Industrial Painter	$46.97	6Z	1W	9D	View
Whitman	Pile Driver	General Pile Driver	$52.25	7E	4X	8N	View
Whitman	Pile Driver	Heavy Construction Pile Driver	$58.01	7E	4X	9E	View
Whitman	Plasterers	Journey Level	$46.51	7K	1N		View
Whitman	Playground & Park Equipment Installers	Journey Level	$13.69		1		View
Whitman	Plumbers & Pipefitters	Journey Level	$86.69	6Z	1Q		View
Whitman	Power Equipment Operators	A-frame Truck (2 Or More Drums)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	A-frame Truck (single Drum)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Asphalt Plant Operator	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Assistant Plant Operator, Fireman Or Pugmixer (asphalt)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Assistant Refrigeration Plant & Chiller Operator (over 1000 Ton)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Assistant Refrigeration Plant (under 1000 Ton)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Automatic Subgrader (ditches & Trimmers)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Backfillers (cleveland & Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Backhoe & Hoe Ram (under 3/4 Yd.)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Backhoe (45,000 Gw & Under)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Backhoe (45,000 Gw To 110,000 Gw)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Backhoe (over 110,000 Gw)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Backhoes & Hoe Ram (3 Yds & Over)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Backhoes & Hoe Ram (3/4 Yd. To 3 Yd.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Bagley Or Stationary Scraper	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Batch & Wet Mix Operator (multiple Units, 2 & Incl. 4)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Batch Plant & Wet Mix Operator, Single Unit (concrete)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Batch Plant (over 4 Units)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Belt Finishing Machine	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Belt Loader (kocal Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Belt-crete Conveyors With Power Pack Or Similar	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Bending Machine	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Bit Grinders	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Blade (finish & Bluetop), Automatic, Cmi, Abc, Finish Athey & Huber & Similar When Used As Automatic	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Blade Operator (motor Patrol & Attachments)	$51.49	7B	4W	9A	View

Whitman	Power Equipment Operators	Blower Operator (cement)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Boat Operator	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Bob Cat (skid Steer)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Bolt Threading Machine	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Boom Cats (side)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Boring Machine (earth)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Boring Machine (Rock Under 8 inch Bit - Quarry Master, Joy Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Bump Cutter (wayne, Saginau Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Cableway Controller (dispatcher)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Cableway Operators	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Canal Lining Machine (concrete)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Carrydeck & Boom Truck (under 25 Tons)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Cement Hog	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Chipper (without Crane) Cleaning & Doping Machine (pipeline)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Clamshell, Dragline	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators	Compactor (self-propelled With Blade)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Compressor (2000 Cfm Or Over, 2 Or More, Gas Diesel Or Electric Power)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Compressors (under 2000 Cfm, Gas, Diesel Or Electric Power)	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Concrete Cleaning / Decontamination Machine Operator	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Concrete Pump Boon Truck	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Concrete Pumps (squeeze-crete, Flow-crete, Whitman & Similar)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Concrete Saw (multiple Cut)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Concrete Slip Form Paver	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Conveyor Aggregate Delivery Systems (c.a.d.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Crane Oiler- Driver (cdl Required) & Cable Tender, Mucking Machine	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Cranes (100 to 299 Tons) And All Climbing, Overhead, Rail & Tower. All Attachments Incl.	$53.36	7B	4W	9A	View
Whitman	Power Equipment Operators	Cranes (25 Tons & Under), All Attachments Incl. Clamshell, Dragline	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Cranes (25 Tons To And Including 45 Tons), All	$51.49	7B	4W	9A	View

		Attachments Incl. Clamshell, Dragline					
Whitman	Power Equipment Operators	Cranes (300 Tons and Over) And All Climbing, Overhead, Rail & Tower. All Attachments Incl.	$53.86	7B	4W	9A	View
Whitman	Power Equipment Operators	Cranes (45 Tons To 85 Tons), All Attachments Incl. Clamshell And Dragline	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Cranes (86 to 99 Tons) And All Climbing, Overhead, Rail & Tower. All Attachments Incl.	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators	Crusher Feeder	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Crusher, Grizzle & Screening Plant Operator	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Curb Extruder (asphalt Or Concrete)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Deck Engineer	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Deck Hand	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Derricks & Stifflegs (65 Tons & Over)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Derricks & Stifflegs (under 65 Tons)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Distributor Leverman	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Ditch Witch Or Similar	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Dope Pots (power Agitated	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Dozer / Tractor (up To D-6 Or Equivalent) And Traxcavator	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Dozer / Tractors (d-6 & Equivalent & Over)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Dozer, 834 R/t & Similar	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Drill Doctor	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Driller Licensed	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators	Drillers Helper	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Drilling Equipment (8 inch Bit & Over - Robbins, Reverse Circulation & Similar)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Drills (churn, Core, Calyx Or Diamond)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Elevating Belt (holland Type)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Elevating Belt-type Loader (euclid, Barber Green & Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Elevating Grader-type Loader (dumor, Adams Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Elevator Hoisting Materials	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Equipment Serviceman, Greaser & Oiler	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Fireman & Heater Tender	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Fork Lift Or Lumber Stacker, Hydra-life & Similar	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Generator Plant Engineers	$50.89	7B	4W	9A	View

		(diesel Or Electric)					
Whitman	Power Equipment Operators	Gin Trucks (pipeline)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Grade Checker	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Gunite Combination Mixer & Compressor	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	H.d. Mechanic	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	H.d. Welder	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Heavy Equipment Robotics Operator	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Helicopter Pilot	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators	Helper, Mechanic Or Welder, H.D	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Hoe Ram	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Hoist (2 Or More Drums Or Tower Hoist)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Hoist, Single Drum	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Hydraulic Platform Trailers (goldhofer, Shaurerly And Similar)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Hydro-seeder, Mulcher, Nozzleman	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Lime Batch Tank Operator (recycle Train)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Lime Brain Operator (recycle Train)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Loader (360 Degrees Revolving Koehring Scooper Or Similar)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Loader Operator (front-end & Overhead, 4 Yds. Incl. 8 Yds.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Loaders (bucket Elevators And Conveyors)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Loaders (overhead & Front-end, Over 8 Yds. To 10 Yds.)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Loaders (overhead & Front-end, Under 4 Yds.. R/t)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Loaders (overhead And Front-end, 10 Yds. & Over)	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators	Locomotive Engineer	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Longitudinal Float	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Master Environmental Maintenance Technician	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Mixer (portable - Concrete)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Mixermobile	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Mobile Crusher Operator (recycle Train)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Mucking Machine	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Multiple Dozer Units With Single Blade	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Pavement Breaker, Hydra-hammer & Similar	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Paving (dual Drum)	$51.21	7B	4W	9A	View

Whitman	Power Equipment Operators	Paving Machine (asphalt And Concrete)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Piledriving Engineers	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Plant Oiler	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Posthole Auger Or Punch	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Power Broom	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Pump (grout Or Jet)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Pumpman	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Quad-track Or Similar Equipment	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Railroad Ballast Regulation Operator (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Railroad Power Tamper Operator (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Railroad Tamper Jack Operator (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Railroad Track Liner Operator (self-propelled)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Refrigeration Plant Engineer (1000 Tons & Over)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Refrigeration Plant Engineer (under 1000 Ton)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Rollerman (finishing Asphalt Pavement)	$51.49	7B	4W	9A	View
Whitman	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	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Roto Mill (pavement Grinder)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Rotomill Groundsman	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Rubber-tired Scrapers (multiple Engine With Three Or More Scrapers)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Rubber-tired Skidders (r/t With Or Without Attachments)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Scrapers, All, Rubber-tired	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Screed Operator	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Shovels (3 Yds. & Over)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Shovels (under 3 Yds.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Signalman (whirleys, Highline, Hammerheads Or Similar)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators	Soil Stabilizer (p & H Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Spray Curing Machine (concrete)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Spreader Box (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Spreader Machine	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Steam Cleaner	$49.96	7B	4W	9A	View

Whitman	Power Equipment Operators	Straddle Buggy (ross & Similar On Construction Job Only)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Surface Heater & Planer Machine	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Tractor (farm Type R/t With Attachments, Except Backhoe)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Traverse Finish Machine	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Trenching Machines (7 Ft. Depth & Over)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Trenching Machines (under 7 Ft. Depth Capacity)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Tug Boat Operator	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Tugger Operator	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators	Turnhead (with Re-screening)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Turnhead Operator	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators	Ultra High Pressure Wateriet Cutting Tool System Operator, (30,000 Psi)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Vactor Guzzler, Super Sucker	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators	Vacuum Blasting Machine Operator	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators	Vacuum Drill (reverse Circulation Drill Under 8 Inch Bit)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators	Welding Machine	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators	Whirleys & Hammerheads, All	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	A-frame Truck (2 Or More Drums)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	A-frame Truck (single Drum)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Asphalt Plant Operator	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Assistant Plant Operator, Fireman Or Pugmixer (asphalt)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Assistant Refrigeration Plant & Chiller Operator (over 1000 Ton)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Assistant Refrigeration Plant (under 1000 Ton)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Automatic Subgrader (ditches & Trimmers)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Backfillers (cleveland & Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Backhoe & Hoe Ram (under 3/4 Yd.)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Backhoe (45,000 Gw & Under)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Backhoe (45,000 Gw To 110,000 Gw)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Backhoe (over 110,000 Gw)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-	Backhoes & Hoe Ram (3 Yds &	$51.76	7B	4W	9A	View

	Underground Sewer & Water	Over)					
Whitman	Power Equipment Operators-Underground Sewer & Water	Backhoes & Hoe Ram (3/4 Yd. To 3 Yd.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Bagley Or Stationary Scraper	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Batch & Wet Mix Operator (multiple Units, 2 & Incl. 4)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Batch Plant & Wet Mix Operator, Single Unit (concrete)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Batch Plant (over 4 Units)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Belt Finishing Machine	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Belt Loader (kocal Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Belt-crete Conveyors With Power Pack Or Similar	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Bending Machine	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Bit Grinders	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Blade (finish & Bluetop), Automatic, Cmi, Abc, Finish Athey & Huber & Similar When Used As Automatic	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Blade Operator (motor Patrol & Attachments)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Blower Operator (cement)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Boat Operator	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Bob Cat (skid Steer)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Bolt Threading Machine	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Boom Cats (side)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Boring Machine (earth)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Boring Machine (Rock Under 8 inch Bit - Quarry Master, Joy Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Bump Cutter (wayne, Saginau Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cableway Controller (dispatcher)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cableway Operators	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Canal Lining Machine (concrete)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Carrydeck & Boom Truck (under 25 Tons)	$51.21	7B	4W	9A	View

Whitman	Power Equipment Operators-Underground Sewer & Water	Cement Hog	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Chipper (without Crane) Cleaning & Doping Machine (pipeline)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Clamshell, Dragline	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Compactor (self-propelled With Blade)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Compressor (2000 Cfm Or Over, 2 Or More, Gas Diesel Or Electric Power)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Compressors (under 2000 Cfm, Gas, Diesel Or Electric Power)	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Concrete Cleaning / Decontamination Machine Operator	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Concrete Pump Boon Truck	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Concrete Pumps (squeeze-crete, Flow-crete, Whitman & Similar)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Concrete Saw (multiple Cut)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Concrete Slip Form Paver	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Conveyor Aggregate Delivery Systems (c.a.d.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Crane Oiler- Driver (cdl Required) & Cable Tender, Mucking Machine	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cranes (100 to 299 Tons) And All Climbing, Overhead, Rail & Tower. All Attachments Incl.	$53.36	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cranes (25 Tons & Under), All Attachments Incl. Clamshell, Dragline	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cranes (25 Tons To And Including 45 Tons), All Attachments Incl. Clamshell, Dragline	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cranes (300 Tons and Over) And All Climbing, Overhead, Rail & Tower. All Attachments Incl.	$53.86	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cranes (45 Tons To 85 Tons), All Attachments Incl. Clamshell And Dragline	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Cranes (86 to 99 Tons) And All Climbing, Overhead, Rail & Tower. All Attachments Incl.	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Crusher Feeder	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Crusher, Grizzle & Screening Plant Operator	$51.49	7B	4W	9A	View

Whitman	Power Equipment Operators-Underground Sewer & Water	Curb Extruder (asphalt Or Concrete)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Deck Engineer	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Deck Hand	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Derricks & Stifflegs (65 Tons & Over)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Derricks & Stifflegs (under 65 Tons)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Distributor Leverman	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Ditch Witch Or Similar	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Dope Pots (power Agitated	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Dozer / Tractor (up To D-6 Or Equivalent) And Traxcavator	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Dozer / Tractors (d-6 & Equivalent & Over)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Dozer, 834 R/t & Similar	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Drill Doctor	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Driller Licensed	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Drillers Helper	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Drilling Equipment (8 inch Bit & Over - Robbins, Reverse Circulation & Similar)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Drills (churn, Core, Calyx Or Diamond)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Elevating Belt (holland Type)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Elevating Belt-type Loader (euclid, Barber Green & Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Elevating Grader-type Loader (dumor, Adams Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Elevator Hoisting Materials	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Equipment Serviceman, Greaser & Oiler	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Fireman & Heater Tender	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Fork Lift Or Lumber Stacker, Hydra-life & Similar	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Generator Plant Engineers (diesel Or Electric)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Gin Trucks (pipeline)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-	Grade Checker	$51.21	7B	4W	9A	View

	Underground Sewer & Water						
Whitman	Power Equipment Operators-Underground Sewer & Water	Gunite Combination Mixer & Compressor	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	H.d. Mechanic	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	H.d. Welder	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Heavy Equipment Robotics Operator	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Helicopter Pilot	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Helper, Mechanic Or Welder, H.D	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Hoe Ram	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Hoist (2 Or More Drums Or Tower Hoist)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Hoist, Single Drum	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Hydraulic Platform Trailers (goldhofer, Shaurerly And Similar)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Hydro-seeder, Mulcher, Nozzleman	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Lime Batch Tank Operator (recycle Train)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Lime Brain Operator (recycle Train)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Loader (360 Degrees Revolving Koehring Scooper Or Similar)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Loader Operator (front-end & Overhead, 4 Yds. Incl. 8 Yds.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Loaders (bucket Elevators And Conveyors)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Loaders (overhead & Front-end, Over 8 Yds. To 10 Yds.)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Loaders (overhead & Front-end, Under 4 Yds.. R/t)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Loaders (overhead And Front-end, 10 Yds. & Over)	$52.86	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Locomotive Engineer	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Longitudinal Float	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Master Environmental Maintenance Technician	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Mixer (portable - Concrete)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Mixermobile	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Mobile Crusher Operator (recycle Train)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-	Mucking Machine	$50.89	7B	4W	9A	View

	Underground Sewer & Water						
Whitman	Power Equipment Operators-Underground Sewer & Water	Multiple Dozer Units With Single Blade	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Pavement Breaker, Hydra-hammer & Similar	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Paving (dual Drum)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Paving Machine (asphalt And Concrete)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Piledriving Engineers	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Plant Oiler	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Posthole Auger Or Punch	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Power Broom	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Pump (grout Or Jet)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Pumpman	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Quad-track Or Similar Equipment	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Railroad Ballast Regulation Operator (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Railroad Power Tamper Operator (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Railroad Tamper Jack Operator (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Railroad Track Liner Operator (self-propelled)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Refrigeration Plant Engineer (1000 Tons & Over)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Refrigeration Plant Engineer (under 1000 Ton)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Rollerman (finishing Asphalt Pavement)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Rollers, All Types On Subgrade, Including Seal And Chip Coating (farm Type, Case, John Deere And Similar,or Compacting Vibrator), Except When Pulled B	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Roto Mill (pavement Grinder)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Rotomill Groundsman	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Rubber-tired Scrapers (multiple Engine With Three Or More Scrapers)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Rubber-tired Skidders (r/t With Or Without Attachments)	$51.05	7B	4W	9A	View

Whitman	Power Equipment Operators-Underground Sewer & Water	Scrapers, All, Rubber-tired	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Screed Operator	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Shovels (3 Yds. & Over)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Shovels (under 3 Yds.)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Signalman (whirleys, Highline, Hammerheads Or Similar)	$51.21	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Soil Stabilizer (p & H Or Similar)	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Spray Curing Machine (concrete)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Spreader Box (self-propelled)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Spreader Machine	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Steam Cleaner	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Straddle Buggy (ross & Similar On Construction Job Only)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Surface Heater & Planer Machine	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Tractor (farm Type R/t With Attachments, Except Backhoe)	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Traverse Finish Machine	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Trenching Machines (7 Ft. Depth & Over)	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Trenching Machines (under 7 Ft. Depth Capacity)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Tug Boat Operator	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Tugger Operator	$50.28	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Turnhead (with Re-screening)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Turnhead Operator	$50.89	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Ultra High Pressure Wateriet Cutting Tool System Operator, (30,000 Psi)	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Vactor Guzzler, Super Sucker	$51.49	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Vacuum Blasting Machine Operator	$51.76	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Vacuum Drill (reverse Circulation Drill Under 8 Inch Bit)	$51.05	7B	4W	9A	View
Whitman	Power Equipment Operators-Underground Sewer & Water	Welding Machine	$49.96	7B	4W	9A	View
Whitman	Power Equipment Operators-	Whirleys & Hammerheads, All	$51.76	7B	4W	9A	View

	Underground Sewer & Water						
Whitman	Power Line Clearance Tree Trimmers	Journey Level In Charge	$55.03	5A	4A		View
Whitman	Power Line Clearance Tree Trimmers	Spray Person	$52.24	5A	4A		View
Whitman	Power Line Clearance Tree Trimmers	Tree Equipment Operator	$55.03	5A	4A		View
Whitman	Power Line Clearance Tree Trimmers	Tree Trimmer	$49.21	5A	4A		View
Whitman	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	$37.47	5A	4A		View
Whitman	Refrigeration & Air Conditioning Mechanics	Journey Level	$86.69	6Z	1Q		View
Whitman	Residential Brick Mason	Journey Level	$53.34	5A	1M		View
Whitman	Residential Carpenters	Journey Level	$25.00		1		View
Whitman	Residential Cement Masons	Journey Level	$16.24		1		View
Whitman	Residential Drywall Applicators	Journey Level	$25.64		1		View
Whitman	Residential Drywall Tapers	Journey Level	$46.18	7E	1P		View
Whitman	Residential Electricians	Journey Level	$31.82		1		View
Whitman	Residential Glaziers	Journey Level	$20.72		1		View
Whitman	Residential Insulation Applicators	Journey Level	$14.86		1		View
Whitman	Residential Laborers	Journey Level	$22.44		1		View
Whitman	Residential Marble Setters	Journey Level	$53.34	5A	1M		View
Whitman	Residential Painters	Journey Level	$25.08		1		View
Whitman	Residential Plumbers & Pipefitters	Journey Level	$21.92		1		View
Whitman	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	$13.69		1		View
Whitman	Residential Sheet Metal Workers	Journey Level (Field or Shop)	$61.36	5I	1B		View
Whitman	Residential Soft Floor Layers	Journey Level	$17.62		1		View
Whitman	Residential Sprinkler Fitters (Fire Protection)	Journey Level	$13.69		1		View
Whitman	Residential Stone Masons	Journey Level	$53.34	5A	1M		View
Whitman	Residential Terrazzo Workers	Journey Level	$20.61		1		View
Whitman	Residential Terrazzo/Tile Finishers	Journey Level	$17.92		1		View
Whitman	Residential Tile Setters	Journey Level	$20.61		1		View
Whitman	Roofers	Journey Level	$42.79	5I	1R		View
Whitman	Roofers	Using Irritable Bituminous Materials	$44.79	5I	1R		View
Whitman	Sheet Metal Workers	Journey Level (Field or Shop)	$69.36	6Z	1B		View
Whitman	Sign Makers & Installers (Electrical)	Journey Level	$13.91		1		View
Whitman	Sign Makers & Installers (Non-Electrical)	Journey Level	$13.91		1		View
Whitman	Soft Floor Layers	Journey Level	$51.91	5A	3J		View
Whitman	Solar Controls For Windows	Journey Level	$13.69		1		View
Whitman	Sprinkler Fitters (Fire Protection)	Journey Level	$60.86	7J	1R		View

Whitman	Stage Rigging Mechanics (Non Structural)	Journey Level	$13.69		1		View
Whitman	Stone Masons	Journey Level	$53.34	5A	1M		View
Whitman	Street And Parking Lot Sweeper Workers	Journey Level	$14.00		1		View
Whitman	Surveyors	Chain Person	$13.69	0	1		View
Whitman	Surveyors	Instrument Person	$13.69	0	1		View
Whitman	Surveyors	Party Chief	$15.05	0	1		View
Whitman	Telecommunication Technicians	Journey Level	$46.26	5I	1B		View
Whitman	Telephone Line Construction - Outside	Cable Splicer	$38.27	5A	2B		View
Whitman	Telephone Line Construction - Outside	Hole Digger/Ground Person	$25.66	5A	2B		View
Whitman	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	$31.96	5A	2B		View
Whitman	Telephone Line Construction - Outside	Telephone Lineperson	$36.17	5A	2B		View
Whitman	Terrazzo Workers	Journey Level	$43.81	5A	1M		View
Whitman	Tile Setters	Journey Level	$43.81	5A	1M		View
Whitman	Tile, Marble & Terrazzo Finishers	Journey Level	$35.93	5A	1M		View
Whitman	Traffic Control Stripers	Journey Level	$50.51	7A	1K		View
Whitman	Truck Drivers	Asphalt Mix Over 20 Yards	$49.05	5D	1V	8M	View
Whitman	Truck Drivers	Asphalt Mix To 20 Yards	$48.68	5D	1V	8M	View
Whitman	Truck Drivers	Dump Truck	$48.68	5D	1V	8M	View
Whitman	Truck Drivers	Dump Truck & Trailer	$49.05	5D	1V	8M	View
Whitman	Truck Drivers	Other Trucks	$48.57	5D	1V	8M	View
Whitman	Truck Drivers - Ready Mix	Transit Mixers 20 yards and under	$49.05	5D	1V	8M	View
Whitman	Truck Drivers - Ready Mix	Transit Mixers over 20 yards	$49.38	5D	1V	8M	View
Whitman	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	$13.92		1		View
Whitman	Well Drillers & Irrigation Pump Installers	Oiler	$13.69		1		View
Whitman	Well Drillers & Irrigation Pump Installers	Well Driller	$18.00		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.

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.

Overtime Codes Continued

1. 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.

   O. All hours worked on Sundays and holidays shall be paid at one and one-half times 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.

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.

Overtime Codes Continued

4. 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.

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.

V. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established or outside the normal shift (5 am to 6pm), and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

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.

W. 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.

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.

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.

   Y. 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 shift, and all work on Saturdays shall be paid at time and one-half the straight time rate. All work performed after 6:00 pm Saturday to 6:00 am Monday and holidays shall be paid at double the straight time rate of pay.

   Any shift starting between the hours of 6:00 pm and midnight shall receive an additional one dollar ($1.00) per hour for all hours worked that shift.

   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.

   Z. 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 20% over the hourly rate of wage. Work performed on Sundays may be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.

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.

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).

J. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Eve Day, And Christmas Day (7).

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).

Holiday Codes Continued

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).

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.

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.

Holiday Codes Continued

7. 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.

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.

Holiday Codes Continued

7. 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.

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.

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, 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.

Holiday Codes Continued

7. 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.

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.

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, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Eve Day, and Christmas Day (8). When the following holidays fall on a Saturday (New Year's Day, Independence Day, and Christmas Day) the preceding Friday will be considered as the holiday; should they fall on a Sunday, the following Monday shall be considered as the holiday.

I. Holidays: New Year's Day, President's Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the last regular workday before Christmas (8). 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.

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.

Note Codes Continued

8. 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.)

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.)

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.

Note Codes Continued

9. 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.

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.

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 weekly.

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. Coordinate the scope of work with Facilities Services Operations, Departments within the building, and WSU IT group.

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.

E. Contractor Badging:

1. All employees of Contractor and Subcontractors, vendors, or consultants retained by Contractor must obtain a Facilities Services Contractor Identification (ID) badge if they will be performing Work on the Pullman campus of Washington State University.

   a. ID badges issued for prior Facilities Services projects are valid provided the employee/employer information is still correct and the ID badge has not expired.

2. Facilities Services will issue the Contractor an authorization memorandum necessary to obtain ID badges. Contractor will be responsible for providing copies of the authorization letter to appropriate Subcontractors, consultants, and vendors for use in procuring ID badges for their employees.

3. ID badges will be issued by the Cougar Card Center located on the ground floor of the Compton Union Building (CUB). Employees are required to appear in person so pictures and signatures may be obtained.

   a. To receive an ID badge, each employee will be required to present a copy of the authorization letter issued by Facilities Services, a form of picture identification, the name of their current employer and a payment of $10.00.

   b. The maximum effective period for an ID badge is 24 months.

   c. When ID badges expire, if they are lost or stolen, or if the individual changes employers, the ID badge is no longer valid and

the employee is required to obtain a new ID badge through the standard authorization process.

4. A valid ID badge must be worn by all employees in full view above the waist at all times when working at the Pullman campus of Washington State University.

   a. Contractor shall enforce Owner's ID badge policy at all times at the Project site.

5. Subject to Owner review and approval, Contractor may acquire and maintain a limited number of temporary ID badges from Owner to utilize for short duration visits by employees for whom repeat visits are not anticipated. Contractor shall maintain a log indicating the date, time issued/returned, employee name, and employer for all temporary badges. The temporary ID badges shall display "Facilities Services Contractor, Temporary Badge", Contractor's name, and a number unique to that particular temporary ID badge.

6. Contractor ID badges will not function as Cougar Cards. Individuals may obtain a Cougar Card as a "community member" but those cards will not be considered an acceptable substitute for the requirement to obtain and display an ID badge.

7. ID badge expenses:

   a. On projects with a Guaranteed Maximum Price (GMP) the expense for ID badges may be considered a Cost of the Work.

   b. On fixed price contracts, Contractor shall include any and all expenses related to ID badges in its bid, including the actual cost of each badge. These costs will be included in the Contract Sum and not separately reimbursable.

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. Monthly progress updating is required and necessary prior to performing a Contemporaneous Period Analysis of any change to the calculated completion date from the prior update.

C. Contractor may, in a second report, incorporate any logic and duration changes that represent revised planning. All such changes must be clearly identified and submitted for acceptance.

D. The Progress Schedule must clearly identify the current Substantial and Final Completion dates.

E. 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 CPA of the accounting shall be included with the narrative report.

F. 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.

G. 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

A. It is Owner's intent to resolve all issues affecting the Contract completion date in a timely, efficient and effective manner. To achieve this goal, and in addition to contractor's obligation to follow the contractual dispute resolution procedure, Contractor shall analyze any delays to the critical path or completion date by application of the Contemporaneous Period Analysis method. A CPA shall normally coincide with the monthly schedule update meetings.

B. Assessment of impacts due to changes or other events, in accordance with the CPA method, must be based on the most recent accepted updated Progress Schedule. No logic or duration changes shall be made to updates until progress related data has been incorporated into the Progress Schedule and the Progress Schedule is updated to reflect actual progress for the period. All data shall be provided to Owner.

C. Submission of an accurate and properly updated Progress Schedule and completion of the Contemporaneous Period Analysis are conditions precedent to the review and approval of any request for an extension in the Contract Time. Owner may assess liquidated damages, if any, regardless of the status of any requests for time extensions pending, until any such requests are resolved.

D. The process for preparing and submitting a CPA is as follows:

1. Contractor will notify Owner in writing of event(s) or occurrence(s) which constitute a delay of the critical path or completion date affecting progress

of the Work.

2. Contractor shall evaluate the event(s) or occurrence(s) and produce a narrative of the resulting delay describing the effect upon concurrent or logically connected subsequent activities.

3. Consistent with the narrative, Contractor shall produce a subnet to graphically describe the event(s) or occurrence(s) and the effect upon the Progress Schedule.

4. Contractor will recalculate the Progress Schedule and provide an updated PDF and Native Progress Schedule.

E. The CPA will be reviewed at the monthly schedule update meeting or at a special meeting scheduled with Owner. At the CPA review meeting, Contractor shall present the CPA and respond to questions.

F. Until and unless substantiated delay is accepted by Owner, the time effect shall not be incorporated into any monthly update. If accepted after a monthly update in which the event(s) or occurrence(s) took place, that monthly update may be recalculated, resubmitted and shall be included in an approved Change Order.

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 or Primavera P6 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
5. Mock-ups.

B. Design-Builder shall review all construction phase submittals for compliance with WSU's standards, the contract documents, and the ensuing construction documents prior to issuance to the Owner.

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. Design-Builder shall provide a comprehensive submittal register for all deliverables on the project, including design submittals, construction submittals, administrative submittals, and closeout submittals. The comprehensive submittal register will be jointly reviewed by WSU and the Contractor for the purpose of agreeing whether each submittal is to be treated as: "For WSU Action", "For Information Only", "For Concurrent Action" or "For Record".

1. Action submittals requiring review by the Owner:
    a. Submittals for products, systems and equipment that deviate from those indicated in the final, approved Design-Build documents.
    b. Administrative submittals as specified elsewhere in the contract documents (i.e. bonds, insurance, management plans, logistical / site management plans, etc.)
2. Information submittals include all construction phase submittals once they have been processed through to 'approved' by the architect or engineer of record and the Contractor.
3. Concurrent action submittals include those limited submittals identified jointly as needing concurrent 'for approval' review by the architect or engineer of record and the Owner. Examples of concurrent action submittals may include those portions of the Work where Owner Furnished activities must be coordinated simultaneously with the Work (e.g. building controls, access control and door hardware, alarms, etc.).
4. Record submittals may include items such as permits, O&M documents,

warranties, closeout documentation, etc.

C. 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).

D. 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.

E. 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. Mock-ups: As required by the technical Specification section.

    d. Demonstrations: As required to facilitate installation and inspection.

    e. Reference technical Specifications for additional submittal requirements.

4. Owner may modify the required submittal quantities.

F. Material and Color Submittal: Submit samples of actual colors and/or materials.

G. Number submittals by Specification section number and revision letter.

H. 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.

I. 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 14 days of Notice to Proceed. Submittal review for these items only shall be supplied within 14 days of receipt by Owner.

1. Indoor Air Quality Management Plan
2. Site Safety and Health Plan (for information only)
3. Quality Control / Quality Assurance Plan
4. Waste Management Plan
5. Progress Schedule
6. Schedule of Values
7. Pre-Construction Photographs
8. Emergency Points of Contact
9. List of Subs and Suppliers
10. Demolition Plan
11. Asbestos Safety Plan
12. List of Long Lead Items

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.

C. Coordination Drawings:

1. Contractor and Subcontractors shall prepare and submit coordinated Shop Drawings at a scale not less than 1/4" = 1'0". Clearly show how the Work is to be installed or constructed in relation to the Work of other Subcontractors. Required coordinated Shop Drawings shall include but not be limited to the following:

a. Contractor shall prepare a drawing indicating the reflected ceiling plan, beam soffit elevation, ceiling heights, roof openings, and other items to be installed.

b. HVAC and controls Subcontractors shall prepare drawings indicating location, size, and elevation of ductwork, hangers, seismic bracing, grilles, registers, equipment, access (clear) areas to service equipment, and ceiling access doors.

c. Plumbing Subcontractor shall prepare drawings indicating location and elevation of piping, hangers, seismic bracing, valves, cleanouts, access doors, fixtures, and required access (clear) areas for service of fixtures.

d. Fire sprinkler Subcontractor shall prepare drawings indicating the layout of the complete sprinkler system including hangers, seismic bracing locations, and pipe runs including branch lines and riser diagrams. Indicate on a separate ceiling plan the location of sprinkler heads.

e. Electrical Subcontractor and fire alarm Subcontractor shall prepare drawings indicating the layout of fixtures, conduit runs 2”

in diameter or greater, clearances, pull boxes, junction boxes, sound system speakers, cable trays and hangers, electrical equipment, panels, and access areas for equipment and panels.

2. Contractor shall meet with its Subcontractors to resolve any apparent conflicts in the coordinated Shop Drawings.

3. When these drawings have been coordinated to the satisfaction of Contractor and each applicable Subcontractor, Contractor and the applicable Subcontractor will sign and date a certification indicating that:

   a. all related conditions have been reviewed;

   b. no apparent conflicts exist;

   c. the requirements of the Contract Documents have been complied with; and

   d. all elements of a complete installation are included.

4. Maintain and submit all coordinated Shop Drawings as part of the Project Record (see Section 01 78 39 – Project Record).

5. Owner encourages Contractor to conduct its coordination effort through the use of digital models and Building Information Modeling (BIM) technology. If Owner requests, Contractor must produce submittals acceptable to Owner, but the submittals must satisfy the requirements identified above.

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. Air or smoke barriers.
3. Fire-suppression systems.
4. Mechanical systems piping and ducts.
5. Control systems.
6. Communication systems.
7. Conveying systems.
8. Electrical wiring systems.
9. All low voltage systems.
10. Operating systems of special construction in Division 13.
11. Other operating systems as appropriate.

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. Piping, ductwork, vessels, and equipment.
7. Noise and vibration-control elements and systems.
8. 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 the City of Pullman, 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 the City of Pullman 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 the City of Pullman 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 City of Pullman 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.

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. American Society of Mechanical Engineers (ASME), ASME A17.1 Safety Code for Elevators and Escalators, current adopted edition.

E. American Society of Mechanical Engineers (ASME), ASME A18.1 Safety Standard for Platform Lifts and Stairway Chairlifts, current adopted edition.

F. State of Washington, WAC-51-50-1101, Accessibility, as adopted by the State of Washington.

G. International Code Council (ICC)/American National Standards Institute (ANSI) A117.1 Accessible and Usable Buildings and Facilities, current adopted edition.

H. State of Washington, WAC Chapters 173, 246, and 296, as applicable.

I. U.S. Environmental Protection Agency 40 CFR, as applicable.

J. U.S. Transportation Department Title 49, Parts Pertaining to Transportation of Hazardous Materials.

K. U.S. Nuclear Regulatory Commission Title 10, Parts Pertaining To Radioactive Materials Management.

L. Washington State Ventilation and Indoor Air Quality Code, WAC 51-13.

M. Washington State Energy Code, WAC 51-11C. Shortened

N. Mechanical Work: International Mechanical Code (IMC), current adopted edition.

O. Plumbing Work: Uniform Plumbing Code (UPC) as amended and adopted by the State of Washington, in the Washington Administrative Code (WAC).

P. Federal Emergency Management Agency (FEMA) requirements for floodway/floodplain development.

Q. Electrical Work:

1. NFPA 70, National Electrical Code (NEC), most recent adopted edition.
2. Underwriters' Laboratories (UL).
3. National Electrical Manufacturer's Association (NEMA).
4. National Electric Safety Code (NESC).

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.

C. Owner obtains permits for the following facilities and activities.

1. U.S. Army Corps of Engineers:
   a. Wetlands (404).
2. Permits and/or Approvals from the DOE or local environmental authority:
   a. Stormwater from Construction Sites (Notice of Intent).
   b. Wastewater Discharge Facilities.
   c. Well Construction (including Well Abandonment).
   d. Water Rights.
   e. Notice of Construction (Air Pollution Sources).
   f. SEPA.
   g. Floodway/Floodplain development.

1.07 APPRENTICESHIP REQUIREMENTS

A. Pursuant to RCW 39.04.320, if the Contact Sum exceeds one million dollars no less than fifteen percent of the Labor Hours must be performed by apprentices, unless a different amount is permitted or otherwise required by law.

B. Apprentice hours shall be performed by participants in training programs approved by the Washington State Apprenticeship Council.

C. "Labor hours" means the total hours of workers receiving an hourly wage who are directly employed on the site of the public works project. "Labor hours" includes hours performed by workers employed by Contractor and all Subcontractors working on the Project. "Labor hours" does not include hours worked by foremen, superintendents, owners, and workers who are not subject to prevailing wage requirements of RCW 39.12.

D. During the term of this Contract, the Owner may adjust the apprentice labor hour requirement upon its finding or determination that includes:

1. A demonstration of lack of availability of apprentices in the geographic area of the Project;

2. A disproportionately high ratio of material costs to labor hours that does not make feasible the required minimum levels of apprentice participation;

3. Demonstration by participating contractors of a good faith effort to comply with the requirements of RCW 39.04.300, RCW 39.04.310, and RCW 39.04.320;

4. Small contractors or subcontractors (e.g., small or emerging businesses) would be forced to displace regularly employed members of their workforce;

5. The reasonable and necessary requirements of the Contract render apprentice utilization infeasible at the required level (e.g., the number of skilled workers required and/or limitations on the time available to perform the Work preclude utilization of apprentices); or

6. Other criteria the Owner deems appropriate, which are subject to review by the office of the Governor.

E. Contractor shall report apprentice participation to the Owner monthly via the LnI Contractor's Portal. In addition, copies of certified payroll records may be requested to document the goal.

F. Contractors and subcontractors may not be required to exceed the apprenticeship utilization requirements of RCW 39.04.320.

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:

1. Contractor agrees and acknowledges that:

   a. Contractor has direct and exclusive control over the Work and operations at the Project site and is responsible for any Contractor generated, created, or disturbed Washington State dangerous waste and its collection, labeling, accumulation, transportation, and disposal. Owner's EH&S department will provide assistance to Contractor upon request, and will coordinate transportation and disposal of Project-generated Washington State dangerous waste.

   b. Contractor must provide Owner immediate notification of any pre-existing unanticipated Washington State dangerous waste or site contamination.

2. Contractor is responsible for securing its own waste generator identification number, and Contractor shall sign all manifests associated with the Contractor-generated waste.

   a. Contractor shall obtain an EPA/State ID number in accordance with WAC 173-303-360 before conducting activities generating chemical waste designated as Washington State dangerous waste.

b. Contractor shall cancel the EPA/State ID number when:

1) All activities generating or managing waste have ceased;

2) All regulated wastes have been removed from the Project site under proper manifests, and all site contamination is remediated; and

3) All annual dangerous-waste reporting requirements are complete.

c. Contractor may call the Washington State Department of Ecology (DOE) to request a reporting package for early submittal.

d. Contractor shall furnish to Owner's EH&S Department, Pullman, WA, within 3 Days from submittal or receipt, copies of the following documents:

1) Form 2 Notification of Dangerous Waste Activities;

2) All signed Uniform Hazardous Waste Manifests (original copy when shipping wastes and copy returned from the treatment, storage, disposal, or recycling facility), Land Disposal Restriction Notification forms, Certificates of Recycling/Disposal/Destruction, and Exception Reports;

3) All Annual Reports; and

4) All correspondence from the DOE.

3. Owner remains responsible for Washington State dangerous waste and site contamination: (1) pre-existing Contractor's activities at the site, (2) not listed in the Contract Documents, and (3) not disturbed by Contractor through improper construction activities.

4. For waste identified in contract document and for unanticipated Washington State dangerous waste or site contamination discovered during the course of the Work on the site, Contractor shall:

a. Collect, containerize, and accumulate all Washington State dangerous waste or site contamination in accordance with applicable Federal, State, and local regulations.

b. Coordinate all transportation and disposal activities through Owner's EH&S department, who will utilize the Washington State Hazardous Waste Disposal Services contract or equivalent pre-approved contractor. Owner's disposal contractor shall complete all applicable dangerous waste shipping papers including all Uniform Hazardous Waste Manifests, Land Disposal Restriction Notification forms, profiles and barrel packing lists.

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

A. Contractor shall comply with all provisions of the Owner's Air Operating Permit, WAC 173-400 and WAC 173-401 requirements as applicable.

B. Contractor shall control pollutants, such as diesel emissions, chemical emissions, and dust generated by the Project, so that pollutants do not adversely impact the Project site or the surrounding-area air quality.

C. Contractor shall submit to Owner within 30 Days of the Notice to Proceed a list of any stationary air emission-generating equipment included in the Work, such as: fuel-powered electrical generators, internal combustion engines, boilers, paint booths, CFC-containing equipment, or other regulated emission sources. Contractor shall assist Owner in the preparation of necessary permit applications, and Owner shall obtain necessary permits. Contractor shall abide by any conditions or requirements of permits.

D. Per WAC 173-400, Contractor shall mitigate all fugitive emissions (such as dust, vehicle exhausts, and other emissions that do not pass through a stack, chimney, or vent) generated by the Work. Contractor shall mitigate dust at the Project site throughout the entire duration of the Work. Dust mitigation may include application of specific chemical compounds approved by Owner, or may be accomplished with intermittent watering and sprinkling at such a frequency as will satisfactorily settle dust (excluding paved surfaces). Paved surfaces shall be cleaned mechanically without the discharge of water or chemicals to storm drains and/or surface waters. Under no circumstances shall Contractor permit dust mitigation cause soil erosion or pollution of surface waters.

E. No materials shall be burned without required permits. If permitted burning is done, odors shall be minimized in accordance with the Owner's Air Operating Permit.

F. CFCs (chlorofluorocarbons) or HCFCs (hydrochlorofluorocarbons) are not permitted as refrigerants in new or renovation projects. New permanently installed refrigeration equipment, such as chillers, temperature controlled chambers, air conditioning equipment, compressors, etc., must contain HFC (hydrofluorocarbon) refrigerants only (i.e., R-134A, R-404A, or R-507). At the completion of the Project, Contractor must provide detailed documentation to Owner about the refrigeration equipment installed, including identifying markings, capacity, and type of refrigerant. Refrigerant must be installed only by persons certified to do so.

G. Indoor Air Quality:

1. Owner shall notify Contractor of the location of fresh air supply intakes for buildings in the immediate area of the Work, and of fresh air supply intakes for buildings that may be affected by emissions from Contractor operations.
2. Contractor shall notify Owner 3 Days prior to commencing Work in which Contractor must operate vehicles or equipment in areas where fresh air supply intakes are located.
3. Contractor shall notify Owner 3 Days prior to commencing Work in which Contractor will be using solvents or other volatile chemicals, or processes which emit fumes, smoke, or strong odors that may affect fresh air supply intakes, or may enter Owner's buildings through doorways or windows.
4. Contractor shall not allow its activities that emit vapors, fumes, smoke or strong odors to negatively affect fresh air supply intakes.
5. If air releases of hazardous chemicals must occur, Contractor shall submit no later than 30 Days after the Notice to Proceed a chemical release plan detailing how such incidents may adversely affect Owner. Such a plan shall also specify protection to be provided to the employees of Owner and Contractor actions required to minimize chemical overexposure.
6. During welding activity, Contractor shall confine fumes to the Project site, and the fumes must not adversely affect Owner's employees or students.

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:

1. Contractor is responsible for fully complying with WAC 246-272. A construction permit application shall be submitted to the appropriate jurisdictional authority for approval. The jurisdictional authority shall issue a construction permit prior to the commencement of construction and shall perform pre-opening inspections. Contractor shall ensure that the appropriate authority inspects and approves the site prior to construction and when the project is substantially complete.

G. Water Recreation Facilities:

1. Contractor is responsible for fully complying with WAC 246-260. A construction permit application shall be submitted to the appropriate jurisdictional authority for approval prior to the commencement of construction. WSU EH&S shall be consulted prior to the development of a construction permit application. Contractor shall ensure that the appropriate regulatory authority inspects and approves the site prior to operation.

H. Food Service Facilities:

1. Contractor is responsible for fully complying with WAC 246-215. A construction permit application shall be submitted to the appropriate jurisdictional authority for approval prior to the commencement of construction. WSU EH&S shall be consulted prior to the development of a construction permit application. Contractor shall ensure that the appropriate regulatory authority inspects and approves the food service prior to operation.

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 city 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

A. Contractor shall provide mock-ups as required by the Contract Documents. Provide additional mock-ups, as required by Owner, until approval is obtained.

B. Do not proceed with subsequent Work until approval of the mock-up is obtained.

C. The approved mock-up shall be the standard of workmanship and materials for the Work that is represented by the mock-up.

D. Maintain mock-up in approved condition, until directed otherwise by Owner.

E. Unless specified otherwise, remove mock-up at completion of the Work or when directed by Owner.

F. Unless specified or approved otherwise, mock-ups shall be completed and approved prior to the pre-installation meeting at which the Work represented by the mock-up will be discussed.

G. Notify Owner a minimum of 7 Days prior to requesting mock-up approval.

1.06 MANUFACTURERS' INSTRUCTIONS

A. Contractor shall comply with manufacturers' instructions in full detail, including each step in sequence. Do not omit preparatory steps or installation procedures unless specifically modified or exempted by Contract Documents.

B. Should instructions conflict with Contract Documents, Contractor shall request clarification before proceeding.

1.07 MANUFACTURERS' FIELD SERVICES

A. When specified, Contractor must require product manufacturer to furnish a qualified representative to observe field conditions and quality of workmanship, and to provide recommendations, certifications, and other specified services.

B. Representative shall submit written report to Owner listing observations and recommendations.

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.
3. Geotechnical inspection will be performed by a licensed geotechnical consulting firm.

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. Owner; and
2. 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. When using Owner-owned utilities, Contractor is to make metered connections to the nearest available service and disconnect same when no longer needed.

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

A. Contractor shall provide heat and ventilation as required to maintain specified conditions for construction operations and to protect materials and finishes from damage due to temperature or humidity.

B. After a building is substantially enclosed, the permanent heating system or a temporary hook-up of equipment from the permanent system may be used for temporary heat provided that the equipment is properly installed by the responsible electrical and mechanical Subcontractors and available for supplying temporary heat. Owner shall be the sole judge of the adequacy of the building enclosure for temporary heating or cooling purposes.

C. Contractor shall arrange with the electrical and mechanical Subcontractors installing said systems and equipment for the use, operation, and maintenance of

the systems. Contractor shall pay for all connections and attendants for temporary heating, including necessary accessories such as temporary (construction) air filters to protect the air distribution systems from contamination.

D. Contractor shall provide a dust free air distribution system and correct all damage to this system caused by the Work.

E. In existing facilities, Contractor shall coordinate use of the existing systems with Owner. Contractor shall extend and supplement with temporary units as required to maintain specified conditions for construction operations.

F. Use of electric resistance type heating systems for temporary heat is prohibited.

G. The warranty period for any permanent equipment used during construction will not commence until Contractor achieves Substantial Completion.

1.04 TEMPORARY WATER SERVICE

A. Unless available from an Owner-owned utility, Contractor shall provide service required for construction operations. At all times, Contractor shall utilize backflow/cross-connection devices, certified by Owner, to safeguard water supply.

B. For Work in existing facilities, Contractor shall connect to existing services when approved by Owner and extend branch piping with outlets so that water is available for use by all persons associated with the Work.

C. Provide drinking water from a safe source for all those associated with the Work.

1.05 SANITARY FACILITIES

A. Use of permanent and/or existing Owner’s facilities will be allowed as long as proper cleanliness is maintained. If, in the opinion of the Owner, restrooms are not being properly maintained, Contractor will be required to provide its own sanitary facilities at its own expense.

B. Owner will designate any restrooms that can be used by Contractor personnel.

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. Utility Tunnel Protection: Contractor shall provide adequate planking across any tunnels to distribute loads and prevent damage. If necessary, Contractor shall provide temporary shoring inside tunnel areas.

B. 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.

C. 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

A. Contractor's employees may park only in accordance with campus traffic and parking regulations and pay all required fees.

B. When working in Pullman's central campus, Contractor’s vehicular use will be limited to the following:

1. Delivery of materials to and from Project site;
2. Single vehicle for use by Project supervisor of each major Contractor

(four total vehicles maximum); and

3. Workers' vehicles shall not be allowed to park in the central mall.

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. Land survey Work; and
2. 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

A. Surveyor: Contractor shall engage a registered Professional Land Surveyor registered in the State of Washington to perform the required land-surveying services.

B. Owner may furnish surveys describing physical characteristics, legal limitations, utility locations, and a legal description for the Project site. Contractor may rely on the information furnished by Owner but must exercise proper precautions to ensure the safe performance of the Work. Contractor shall assume that the locations of any underground or hidden utilities, underground tanks, plumbing, or electrical runs indicated in the surveys or Contract Documents are shown in approximate locations, but Contractor is responsible for verifying the location of all utilities impacted by the Work. Additionally, Owner may make available to Contractor the results of investigations of hidden or subsurface conditions for the convenience of Contractor. While Contractor may rely upon such investigation results, there is no guarantee, express or implied, that the conditions indicated are representative of those existing throughout the Project site, or that unforeseen developments may not occur. Contractor is solely responsible for interpreting the information and extrapolating beyond the location, including each individual boring, test pit, or other locations.

1.04 EXAMINATION

A. Identification: Contractor shall verify the location of benchmarks and control points provided by Owner.

B. Contractor shall verify layout information on Drawings in relation to the property survey and existing benchmarks before proceeding to layout the Work.

Contractor shall also locate and protect existing benchmarks and control points and preserve permanent reference points during construction.

1. Do not change or relocate benchmarks or control points without prior written approval of Owner. Promptly report lost or destroyed reference points and requests to relocate reference points because of changes in grades or locations.
2. Promptly replace lost or destroyed Project control points. Base replacements on the original survey control points.

C. Contractor shall establish and maintain a minimum of two permanent benchmarks at the Project site.

1. Record benchmark locations, with horizontal and vertical data, on Project Record.

D. 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 property survey; establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to locate each element of the Project; and calculate and measure required dimensions within indicated or recognized tolerances. 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. Surveyor’s Log: Contractor shall maintain a surveyor’s log of control points and other survey Work. Make this log available to Owner for reference.

1. Record deviations from required lines and levels and advise Owner when deviations that exceed indicated or recognized tolerances are detected. On Project Record, record deviations that are accepted and not corrected.
2. Following completion of foundation walls, major site improvements, and other Work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and site Work.

C. Site Improvements: Contractor shall locate and lay out site improvements, including pavement, stakes for grading, fill and topsoil placement, utility slopes, and invert elevations.

D. 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.

E. 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 sorting, segregating, and placing designated waste materials into containers provided by Owner. Contractor shall be responsible for segregating and disposing all unacceptable and dangerous wastes as defined below.

C. Owner shall be responsible for furnishing waste collection containers, servicing those containers, and disposing solid waste from the Project, with the exception of unacceptable and dangerous waste.

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. Plan for communicating salvage and recycling requirements on the Project.
4. Dangerous waste identification, accumulation, and disposal management procedures.
5. Materials to be sorted, salvaged, and recycled:
    a. At a minimum, the following types of materials in reusable condition shall be salvaged and sorted. Contractor shall remove and deliver to the Owner at designated location on the Pullman campus.
        1) Surplus building materials (new, leftover, unwanted). Review with Owner for clarification.

b. At a minimum, the following types of materials shall be sorted and included for recycling:

1) All metals (from banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze);

2) Beverage containers;

3) Cardboard (from supplies and packaging);

4) Clean wood (all unpainted, untreated wood scrap including pallets and engineered wood);

5) Mixed office paper (including blue prints);

6) Film plastic (from shrink wrap and other packaging, and sheeting used as protection or erosion control); and

7) Plate glass.

c. With the exception of unacceptable waste, all materials not designated for salvage or recycle per Paragraph 1.03(A)(5) above, may be co-mingled and disposed of as waste.

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. Owner will provide and service containers for all wastes, with the exception of unacceptable waste. This service is at no cost to Contractor.

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. Co-mingling of waste:

1. Should designated recycle or salvage containers become cross contaminated with other than unacceptable wastes, the Contract Sum shall be reduced at a rate of $500.00 per cubic yard size of container. (i.e. a partially full, co-mingled 3 yard container would result in a charge to Contractor of $1,500.00).

D. 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. Contractor shall submit O&Ms in heavy-duty, three-hole, screw-post, black vinyl-covered binders similar to those made by Arts & Crafts Book Bindery, 618 E. 2nd Avenue, Spokane, WA, (509) 747-3818.

B. Cover and spine to be composed and laid out per the cover page template on the last page of this Section. The cover and spine lettering shall be gold-colored embossed.

C. 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.).

D. 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.

E. 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 #0807, Bustad Hall

Bustad HVAC Service Equipment Elements and Controls Upgrade

2022

General
O&M Manual

Vol. X of Y

(Spine and Cover)

PART 1 GENERAL

1.01 DESCRIPTION

A. Owner has set the following indoor air quality requirements for site operations on the Project, within the limits of the Progress Schedule, Contract Sum, and available materials, equipment, products, and services. These include:

1. Protect workers on the site from air quality problems during construction.
2. Prevent indoor air quality problems in the completed facility.
3. Prevent indoor air quality problems in adjacent facilities.

B. To achieve these requirements, Contractor shall develop an “Indoor Air Quality (IAQ) Management Plan” for this Project.

C. Comply with current LEED Reference Guide.

1.02 IAQ MANAGEMENT PLAN MANAGER

A. Contractor shall identify an IAQ Management Plan Manager who will be responsible to monitor construction activities to ensure that the requirements of the IAQ Management Plan are met. The IAQ Manager may also be the Contractor’s Quality Control Manager. The IAQ Manager will be responsible for the following:

1. Draft and submit the IAQ Management Plan to Owner for acceptance.
2. Document IAQ Management Plan progress on a weekly basis.
3. Conduct meetings as required with all participants in the construction process to communicate the IAQ procedures and understand the importance of the requirements of the IAQ Management Plan. If necessary, post signs to ensure workers' safety.
4. Identify IAQ problems and institute remedial action as necessary.
5. Be present at regular Progress Meetings, as appropriate, and be responsible for providing a monthly written status report as it relates to IAQ for the Project and be prepared to discuss construction related IAQ procedures currently in effect.

1.03 IAQ MANAGEMENT PLAN

A. Draft IAQ Management Plan: Submit a Draft IAQ Management Plan within 14 Days after Notice to Proceed, which contains preliminary descriptions of the following procedures for which Contractor is responsible (initial installation, verification that element(s) are in place, daily inspection and upkeep, and removal):

1. List of indoor air quality protective measures to be instituted at Project

site, including HVAC system protection during construction and any other control measure applicable to the Project;

2. A plan and schedule for inspection and maintenance of indoor air quality measures;

3. Installation sequencing for porous materials, including paint;

4. Measures to be employed to protect ducts and stored on-site or installed absorptive materials from moisture damage;

5. Type of filtration media used during construction; and

6. Cleanup of contaminated components after construction.

B. The Draft IAQ Management Plan shall meet or exceed the minimum requirements of the current Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines.

C. Final IAQ Management Plan: After review and comment on the "Draft IAQ Management Plan," Contractor shall submit a "Final IAQ Management Plan" that includes the finalized written procedures for above noted elements. This final plan shall address all review comments noted on the draft submittal and be submitted prior to the commencement of construction.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 IAQ MANAGEMENT PLAN IMPLEMENTATION

A. Contractor shall implement and maintain the approved IAQ Management Plan for the duration of the Project and update procedures at any time due to unanticipated building conditions. Contractor shall:

1. Use temporary filtration media during construction to protect HVAC at each return air grille; filtration media shall have a Minimum Efficiency Reporting Value (MERV) of 8 as determined by ASHRAE 52.2 - 1999. Isolate the return side of the HVAC system from the surrounding environment as much as possible. Return side shall have the heaviest Work areas dampered off and all return system openings sealed with plastic. Return side shall be shut down and sealed whenever possible.

2. Avoid the use of products, materials and operations that would cause IAQ problems or concerns.

3. Protect the ventilation system components (equipment and ductwork) from contamination, and provide cleaning of the ventilation components, including ductwork exposed to contamination during construction. Protect during transit and installation.

4. Provide ventilation as may be necessary to protect workers' health and avoid the accumulation of volatile compounds, dust and other harmful airborne contamination.

5. Provide weekly reports and photographs of construction IAQ management measures such as protection of ducts and stored or installed absorptive materials. In each report, describe and illustrate IAQ measures (installation, effectiveness, upkeep, etc.) during construction along with a description of the SMACNA approach employed.

6. Provide data sheets of filtration media used during construction and installed prior to building occupancy.

7. During installation of carpet, resilient flooring, paints, furnishings, and other VOC emitting products, provide supplemental (spot) ventilation for at least 72 hours after Work is completed and describe these activities in the weekly reports.

B. Contractor shall conduct regular inspection and maintenance of indoor air quality measures, including ventilation system protection and ventilation rate.

C. Contractor shall use low-toxic cleaning supplies for surfaces and equipment.

D. When dry sanding for gypsum board assemblies, Contractor shall provide the following protection:

1. Isolate the space;

2. Provide plastic sheet separation during sanding;

3. Close and seal all air system devices and ductwork; and

4. Sequence the Work to avoid contamination of other spaces with gypsum dust.

3.02 VENTILATION OF CONSTRUCTION FUMES

A. When hazardous chemicals, mineral-spirit based paints, adhesives, or other similar materials are used, the Contractor shall exhaust toxic, noxious, or odor producing fumes from the building in a manner approved by Owner. Contractor's method of exhaust shall ensure the safety of building occupants and pedestrians in and around the Project site. All supply and return air ductwork within the construction area shall be capped air-tight to prevent distribution of fumes.

3.03 BUILDING FLUSH-OUT – NOT USED

3.04 COMPLETION PROCEDURES

A. Remove all IAQ measures as well as signs, framing, and supports at completion of Project.

END OF SECTION 01 81 19

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

A. Commissioning is a systematic process of ensuring that all building systems perform interactively according to the design intent and Owner's operational needs. This begins in the design phase and continues through construction. The commissioning process incorporates the traditionally separate functions of system documentation, equipment startup, control system calibrations, testing and balancing, performance testing, and training. Commissioning during the construction phase is intended to achieve the following specific objectives:

1. Verify that applicable equipment and systems are installed according to the Contract, manufacturer's recommendations, and industry accepted standards and that they receive adequate operational checkout by installing contractors.
2. Verify and document proper functional performance of equipment and systems.
3. Document all non-performing equipment and systems and track corrective actions through to final resolution.
4. Ensure compliance with State Energy Code Requirements (WA NREC Latest Revision).

B. Work includes the completion of formal commissioning procedures on selected equipment and systems. Commissioning procedures will be designed and coordinated under the direction of a Commissioning Agent (CA). Contractor is not responsible for hiring the CA. The CA will work directly for Owner. Contractor is responsible for coordinating and cooperating with the CA as necessary to complete the training and commissioning processes.

1.02 DEFINITION OF TERMS

A. Commissioning Agent (CA): Is an independent third-party consultant under contract with Owner. CA responsibilities are listed in Subsection 1.03 for information, reference, and clarification.

B. Installation Verification Audit: Includes the on-site inspection and review of related system components for conformance to the Contract. The CA will check for proper systems installation and verify systems readiness for function testing. Noted deficiencies will be documented and must be satisfactorily resolved prior to continuing with commissioning on the affected component or system.

C. Commissioning Plan: Outlines the commissioning process. Provides a brief overview of each start-up and functional test to be performed and identifies the responsible Contractor and/or supplier. It also outlines the responsibilities of all personnel to the commissioning process, estimates the commissioning schedule and provides sample Installation Verification, Start-Up, and Functional Performance Test Procedures and related documentation for information.

D. Start-Up Testing: Initial test checkout of component or systems completed prior to functional performance testing. The start-up tests verify that the equipment is installed and operating properly per the Contact.

E. Testing, Adjusting and Balancing (TAB): Testing, adjusting and balancing is a process where heating and air conditioning systems are tested against design standards, adjusted for maximum efficiency, and balanced to provide optimum performance. The Work typically covers balancing and adjusting air and water distribution in areas of the building served by an HVAC system, and verification and adjustment of heating and cooling loads to insure proper indoor environmental conditions. Areas that do not meet the design standards are referred to the appropriate party for correction. Reports are prepared documenting performance and compliance with design standards.

F. Function Performance Testing: Includes the documented testing of individual components and equipment under actual operating conditions. Final performance commissioning of systems will begin only after Contractor certifies that system components are 100% complete, start-up test results have been accepted, and the CA agrees that systems are ready for functional testing.

G. Commissioning Issues Log: Generated by the CA, includes deficiencies discovered during the commissioning process. The log identifies the responsible contractor, current disposition of issues, and the date of final resolution as confirmed by the CA. Deficiencies are defined as those issues where products, execution or performance do not satisfy the Contract, the design intent or Owner's need.

H. Final Commissioning Report: Includes the overall final commissioning document, prepared by the CA, which details the actual commissioning procedures performed, inspection and testing results, and the final version of the Commissioning Issues Log indicating that all issues discovered through the commissioning process have been verified as resolved.

1.03 COMMISSIONING AGENT'S DUTIES AND RESPONSIBILITIES

A. Meet and communicate with the Owner's Designated Representative, Contractor, equipment representatives, and others as necessary to facilitate the commissioning process.

B. Write the commissioning plan.

C. Review commissioning-related Specifications, submittals, and Contract Documents. Communicate noted deficiencies and concerns to Owner.

D. Review the Owner Project requirements and Basis of Design documents to insure Owner's intent and design requirements are met.

E. Chair controls integration meetings to ensure acceptance of control strategies and determine methods to achieve the required sequence of operation.

F. Develop installation and start-up checklists from:

1. Information in the Contract Documents; and
2. Information from equipment manufacturers as provided by Contractor.

G. Coordinate functional testing procedures with Contractor and integrate into Progress Schedule.

H. Develop detailed and specific inspection and functional testing procedures for equipment and systems to be commissioned.

I. Confirm completion of all static piping and duct tests and flushing and cleaning as performed by Contractor.

J. Complete a detailed physical inspection and visual checkout of commissioning related equipment and components. Document specific deficiencies for resolution.

K. Confirm completion of equipment and systems start-up procedures as performed by Contractor and equipment representatives. Verify appropriate documentation is completed and provided for inclusion in the final commissioning report. Record noted deficiencies.

L. Schedule and coordinate the final on-site functional testing process. Complete a documented checkout of every specified operating parameter and mode. Document deficiencies and resolutions.

M. Review Contractor-provided O&Ms. Ensure the manuals provide in-depth, Project-specific information. Provide formal comment.

N. Work with Owner, Architect/Engineer, if any, and Contractor to satisfactorily resolve outstanding issues.

O. Provide Owner with final, complete, and documented verification to ensure commissioned systems are 100% operational per Contract, prior to Owner's acceptance. Exceptions may be made for seasonal commissioning.

P. Perform seasonal commissioning as required to verify proper system operation during peak heating and cooling seasons.

Q. Complete all other items noted in Contract as Commissioning Agent responsibilities.

R. Provide a final Commissioning Report to Owner.

1.04 DUTIES AND RESPONSIBILITIES FOR COMMISSIONING

A. The commissioning process will require the active participation of persons qualified to represent the following interests:

1. Owner,
2. Contractor,
3. Equipment manufacturer's representatives,
4. Mechanical Subcontractor,
5. HVAC Subcontractor,
6. Controls Subcontractor,
7. TAB Subcontractor,
8. Electrical Subcontractor, and
9. Others as appropriate.

B. The CA will coordinate, schedule, and oversee the final functional performance commissioning process. Participants shall include in their contracts all costs necessary to participate in and complete the commissioning process.

C. Contractor will assure the participation and cooperation of Subcontractors and coordinate with Owner and Architect/Engineer, as required for the commissioning process.

Owner will assure the participation of its chosen representatives.

PART 2 PRODUCTS − NOT USED

PART 3 EXECUTION

3.01 CONTRACTOR RESPONSIBILITIES FOR COMMISSIONING

A. Contractor shall provide material, equipment, and tools to facilitate completing the functional performance testing process. The CA will provide specialized and calibrated test equipment to perform the calibration and functional performance testing.

B. Contractor shall budget and provide sufficient time and qualified personnel to participate on-site in this process until the process is successfully completed and all deficiencies have been corrected or otherwise revolved.

C. Contractor shall provide training to Owner. Specified training on related systems and equipment operation and maintenance shall only commence after final performance commissioning is successfully completed, and systems are verified by the CA to be 100% complete and functional.

D. Contractor shall reimburse the CA for repeated test failures. After a second failed start-up or functional performance test, the CA and Owner shall be entitled to additional compensation for time and expenses involved with re-testing. The compensation shall be at published company billing rates.

E. Owner will not accept equipment and systems, and Owner will generally not make final payment, until all equipment and systems have been successfully

commissioned and all specified requirements have been satisfied.

F. Include a line item for commissioning in the Schedule of Values. Ensure sufficient costs are included for Contractor's expenses related to all commissioning tasks.

END OF SECTION 01 91 00