

UNIVERSITY OF OREGON

HENDRICKS HALL EXTERIOR RESTORATION 2013

PROJECT MANUAL

BID SET



Architect:

SODERSTROM ARCHITECTS, P.C.
1200 NW NAITO PKWY., Suite 410
Portland, Oregon 97209
Voice: (503) 228-5617 Fax: (503) 273-8584

SAPC Project Manager: **Tommy White**

tommyw@sdra.com direct 503.595.2503

Owner:

UNIVERSITY OF OREGON
1295 Franklin Blvd.
Eugene, Oregon 97403-1276
Voice: (541) 346-2147 Fax: (541) 346-6927

Owner's Project Manager: **David Ward**

rdward@uoregon.edu

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OREGON UNIVERSITY SYSTEM

NOTICE OF RETAINER CONTRACT OPPORTUNITY

THIS OPPORTUNITY IS ONLY AVAILABLE TO CONTRACTORS WITH A CURRENT OREGON UNIVERSITY SYSTEM (OUS) RETAINER CONTRACT FOR CONSTRUCTION RELATED SERVICES.

The State of Oregon, acting by and through the State Board of Higher Education on behalf of the University of Oregon (“Owner”) is accepting sealed bids for a public improvement project at **University of Oregon/The Capital Construction Main Office at 1295 Franklin Blvd, Eugene, Oregon, 97403, attention: David Ward**, until **4:00PM**, Pacific Time, **April 11, 2013** (“Closing Date and Time”) for the **Hendricks Hall Exterior Restoration 2013** project located on the campus of the University of Oregon, in Eugene, Oregon (“Project”). The Project is generally described as:

Hendricks Hall Exterior Restoration will include carpentry, masonry and concrete repairs, wood shingle and single-ply roof membrane replacement, sheet metal replacement, wood window and door trim repair, window glazing replacement, sealant replacement, paint scraping and painting. Asbestos abatement and lead paint disposal shall be performed by others under separate contract with the owner.

A mandatory pre-bid conference and examination of the site and conditions will be conducted at 10:00 AM, March 27, 2013. Bidders shall meet with Owner’s Representative at **the main entrance on the East side of Hendricks Hall** for that purpose. Attendance will be documented through a sign-in sheet prepared by the Owner’s Representative. Prime bidders who arrive more than 5 minutes after start of time of the meeting (as stated in the solicitation and by the Owner’s Representative’s watch) or after the discussion portion of the meeting (whichever comes first) shall not be permitted to sign in and will not be permitted to submit a bid on the Project.

Bids will be received on a lump-sum basis for all of the work. **Bid packets may be obtained on the OUS Bid and Business Opportunities website (<http://secure.ous.edu/bid/>).**

All bidders must comply with requirements of the prevailing wage law in ORS 279C.800 through ORS 279C.870. All bidders must be registered with the Construction Contractor’s Board at the time of bid submission. No bid will be considered unless fully completed in the manner provided in the “Instructions to Bidders” upon the Bid Form provided and accompanied by Bid Security. OUS encourages bids from Minority, Women, and Emerging Small Businesses.

OREGON STATE BOARD OF HIGHER EDUCATION

By: Jamie Moffitt, Vice President for Finance and Administration

OREGON UNIVERSITY SYSTEM
STANDARD RETAINER CONTRACT
INSTRUCTIONS TO BIDDERS

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INSTRUCTIONS TO BIDDERS

Oregon Administrative Rules (“OAR”) Chapter 580, Divisions 61 and 63 govern this OUS procurement process.

Article 1. Definitions

1.1. Capitalized words used herein but not defined shall have the meaning set forth in the OUS Retainer General Conditions and OAR 580-061-0010. The following terms used herein shall have the meaning set forth below:

“Bid Form”- refers to OUS Contract Form B-5 provided by Owner to be completed by Bidder.

“Project Manual”- The Project Manual includes, but is not necessarily limited to the following: the Advertisement for Bids or Notice of Contracting Opportunity, these Instructions to Bidders, Supplemental Instructions to Bidders, Bid Form, OUS Retainer Contract General Conditions, Supplemental General Conditions (if any), Sample Retainer Contract Supplement, Performance Bond, Payment Bond, and the Plans and Specifications.

Article 2. Scope of Work

2.1 The Work contemplated in this document shall be for the Owner in connection with the Project described in the Project Manual.

Article 3. Examination of Site and Conditions

3.1 Before making a Bid, the Bidder shall examine the Work site to ascertain its physical condition. The Bidder shall be responsible for being fully informed as to the quality, quantity and sources of supply of the materials listed on the Project Manual. Failure to comply with this Section will not release Contractor from entering into the Contract nor excuse Contractor from performing the Work in strict accordance with the terms of the Contract Documents.

3.2 The Owner will not be responsible for any loss or unanticipated costs which may arise as a result of Contractor's failure to be fully informed in advance with regard to all conditions pertaining to the Work and the character of the Work required.

3.3. No statement made by any officer, agent, or employee of the Owner in relation to the physical conditions pertaining to the Work site or quality, quantity, and supply of materials will be binding on the Owner, unless included in writing in the Project Manual or an Addendum.

Article 4. Substitute Materials Approval Process

4.1 Prior to submitting a Bid including a Substitution, the Bidder must first seek approval of the Substitution from the Architect (or Engineer, as appropriate hereafter) by submitting a written request for approval at least three calendar days prior to the Closing Date and Time. The Bidder submitting the request shall be responsible for its timely delivery.

4.2 Substitution approval requests shall be accompanied by samples, records of performance, certified copies of tests by impartial and recognized laboratories, and such other information as the Architect may request.

4.3 Within a reasonable time after receiving such a request the Owner (or Architect if so designated) will consider

whether the Substitution sought by Bidder is of equal value, utility, as the designated product in the Project Manual. If the requested Substitution is approved an Addendum to the Project Manual shall be issued. A copy of each Addendum will be posted on the OUS Bid and Business Opportunities website (<http://secure.ous.edu/bid>) and shall become a part of the Project Manual.

4.4 When the Architect approves a Substitution by Addendum, it is with the understanding that the Contractor guarantees the substituted article or material to be equal or better than the one specified.

Article 5. Interpretation of Project Manual

5.1 A Bidder in doubt as to the meaning of any part of the Project Manual may submit a written request for an interpretation to the Architect at any time prior to three calendar days prior to the Closing Date and Time.

5.2 Any interpretation of the Project Manual will be made only by a duly issued Addendum. The Owner will not be responsible for any other explanation or interpretation of the Project Manual nor for any other approval of a particular manufacturer's process or item.

5.3 To establish a basis of quality, certain processes, types of machinery and equipment or kinds of materials may be specified in the Project Manual either by description of process or by designating a manufacturer by name and referring to a brand or product designation or by specifying a kind of material. Whenever a process is designated or a manufacturer named, brand or item designation given, or whenever a process or material covered by patent is designated or described, it shall be understood that the words "or approved equal" follow such name, designation or description, whether they do so or not.

Article 6. Execution of the Bid Form

6.1 The Bid Form relates to Bids on a specific Project Manual. Only the amounts and information asked for on the Bid Form furnished by the Owner will be considered as the Bid. Each Bidder shall Bid upon the Work exactly as set forth in the Bid Form. The Bidder shall include in the Bid a sum to cover the cost of all items contemplated by the Project Manual. Bids that fail to address alternates set forth on the Bid Form may be considered non-responsive.

6.2 Each Bid Form must: 1) Be completed in accordance with these instructions; 2) Include the appropriate signatures as noted on the Bid Form; 3) Include numbers pertaining to base Bids stated both in writing and in figures; and 4) Include the Bidder's typed or clearly printed address.

6.3 When Bidding on an alternate for which there is no charge, the Bidder shall write the words "No Charge" in the space provided on the Bid Form. If one or more alternates is shown on the Bid Form, the Bidder shall indicate whether each is "add" or "deduct."

Article 7. Prohibition of Alterations to Bid

7.1 Bids which are incomplete, or contain ambiguities or conditions not provided for in the Bid Form, may be rejected.

Article 8. Submission of Bid

8.1 Each Bid shall be sealed in an envelope, properly addressed to the appropriate project representative of the Owner, showing on the outside of the envelope the name of the Bidder and the name of the project. Bids will be received at the time and place stated in the Advertisement for Bids.

Article 9. Bid Closing and Opening of Bids

9.1 All Bids must be received by the Owner before the Closing Date and Time. Any Bids received after the Closing Date and Time will be rejected and returned to the Bidder unopened.

Article 10. Acceptance or Rejection of Bids by Owner

10.1 Unless all Bids are rejected, the Owner will award the Contract based on the lowest responsive Bid from a responsible Bidder. If that Bidder does not execute the Contract, the Contract will be awarded to the next lowest responsible Bidder or Bidders in succession.

10.2 The procedures for Contract awards shall be in compliance with the provisions of OARs adopted by the Owner.

10.3 The Owner reserves the right to reject all Bids and to waive minor informalities.

10.4 In determining the lowest Bidder, the Owner reserves the right to take into consideration any or all authorized base Bids as well as alternates or combinations indicated in the Bid Form.

10.5 If Owner has not accepted a Bid within 30 calendar days after the opening of the Bids, each of the three lowest Bidders may withdraw the Bid submitted.

Article 11. Withdrawal of Bid

11.1 At any time prior to the Closing Date and Time a Bidder may withdraw its Bid. This will not preclude the submission of another Bid by such Bidder prior to the Closing Date and Time.

11.2 After the Closing Date and Time, no Bidder will be permitted to withdraw its Bid within the time period specified in Article 10 for award and execution, except as provided for in that Article.

Article 12. Execution of Contract, Agreement, Performance Bond and Payment Bond

12.1 The Owner will provide the successful Bidder with Contract Documents within 10 calendar days after the award of the Contract. The Bidder shall be required to execute the Contract as provided, including a Performance Bond and a Payment Bond from a surety company licensed to do surety business in the State of Oregon, within 20 calendar days after the award of the Contract. The Contract Documents shall be delivered to the Owner in the manner stated in the Notice of Award.

Article 13. Recyclable Products

13.1 Contractors must use recyclable products to the maximum extent economically feasible in the performance of the Contract.

OREGON UNIVERSITY SYSTEM
STANDARD RETAINER CONTRACT
BID FORM

OUS CAMPUS: **UNIVERSITY OF OREGON**
PROJECT: **HENDRICKS HALL EXTERIOR RESTORATION 2013**
BID CLOSING DATE: **APRIL 11, 2013**

FROM: _____
Name of Contractor

TO: The State of Oregon, acting by and through the Oregon State Board of Higher Education,
 on behalf of the University of Oregon (“Owner”)

Capital Construction
Attn: David Ward
1295 Franklin Boulevard
Eugene, OR 97403-1276

BASE BID:

Provide Labor and Materials for the work as depicted on the drawings and specifications for the Exterior Restoration of Hendricks Hall located at the University of Oregon in Eugene, OR.

Work to Include but not limited to:

Hendricks Hall Exterior Restoration will include carpentry, masonry and concrete repairs, wood shingle and single-ply roof membrane replacement, sheet metal replacement, wood window and door trim repair, window glazing replacement, sealant replacement, paint scraping and painting. Asbestos abatement and lead paint disposal shall be performed by others under separate contract with the Owner.

1. The Undersigned (*check one of the following and insert information as requested*):

____ a. An individual doing business under an assumed name registered under the laws of the State of _____; or

____ b. A partnership registered under the laws of the State of _____; or

____ c. A corporation organized under the laws of the State of _____; or

____ d. A limited liability corporation/company organized under the laws of the State of _____;

hereby proposes to furnish all material and labor and perform all Work hereinafter indicated for the above project in strict accordance with the Contract Documents for the Basic Bid as follows:

HENDRICKS HALL EXTERIOR RESTORATION PROJECT 2013

BASE BID TABULATION TABLE:

ITEM:	QUANTITY In Base Bid	PRICE PER UNIT "All Inclusive"	BASE BID SUBTOTAL
All bid items other than those listed below: Example base bid items: Roofing, Painting, Brick Cleaning, copper gutters	Field Verify Quantitative Takeoff		\$ _____
Repointing Brick*	5,500 SF	\$ _____ SF	\$ _____
Brick Replacement*	75 Bricks to replace	\$ _____ SF	\$ _____
Concrete Spall Repair*	50 SF	\$ _____ SF	\$ _____
1/2" Plywood Roof* Decking	160 SF	\$ _____ SF	
Deteriorated Wood* Replacement at Cornice, Eaves, Rakes, and Trim	150 Board Feet	\$ _____ BF	\$ _____
Deteriorated Wood* Replacement at Window Sash, Frame, and Sill	50 Board Feet	\$ _____ BF	\$ _____
Glazing Compound* Replacement	2,500 LF	\$ _____ LF	\$ _____
Broken Window* Hardware Replacement	10 Sets	\$ _____ Per Set	\$ _____
Broken Window Pane* Replacement	5 Panes	\$ _____ Per Pane	\$ _____

BASE BID TOTAL:

_____ **Dollars** \$ _____

* If the actual quantities in the field are more than what is described in this base bid tabulation table for the items highlighted with an asterisk, a Change Directive must be issued. This Change Directive will be based on the Price Per Unit cost outlined in this table. All Price Per Unit items must be quantified by an itemized list of the actual quantities and must be presented with the Change Directive. The Change Directive is to be approved by the Architect and University of Oregon Owner's rep prior to any work and subsequent payment.

and the Undersigned agrees to be bound by each of the following documents:

- Notice of Retainer Contract Opportunity
- Instructions to Bidders
- Supplemental Instructions to Bidders, if any
- OUS Retainer Contract General Conditions
- UO Supplemental Retainer Contract General Conditions
- Sample Retainer Contract Supplement
- Performance Bond and Payment Bond
- Plans and Specifications
- Prevailing Wage Rates
- Payroll and Certified Statement Form

(found at http://egov.oregon.gov/BOLI/WHD/PWR/W_PWR_Forms.shtml)

- Any ADDENDA numbered ____ through ____, inclusive (*fill in blanks*).

2. The Undersigned proposes to add to or deduct from the Base Bid Total indicated above from the items or work relating to the Unit Price(s) as designated in the Base Bid Tabulation above, for which any adjustments in the Contract amount during construction will be made in accordance with Section D of the OUS General Conditions:

3. The Undersigned proposes to add to or deduct from the Base Bid indicated above the items of work relating to the following Alternate(s) as designated in the Specifications:

Add Alternate #1: Repoint only the brick on the garden wall, steps and patio between Hendricks and Susan Campbell per percentages indicated on sheet A2. Do no work on cast concrete cap, balustrades, sill and decorative balls.
ADD: \$ _____

Add Alternate # 2: Complete demolition of west porch staircase and footings. Install new concrete footings, metal deck and metal stairs with concrete fill, wood shelter with wood cornice and single-ply roof membrane, gutter and downspouts, metal hand and guardrails and reconfigured sprinkler system per drawing sheets A39 – A49 and structural drawings.
ADD: \$ _____

Add Alternate #3: Remove and dispose of the existing leaning light post, footing, and adjacent J-Box. Protect existing wiring at J-Box for new lamp post. Install three (3) lamp posts; one (1) at existing location and two (2) adjacent to ramp. Provide all appropriate materials such as but not limited to; concrete footing, conduit, wiring, and j-Box as noted in the specification. Refer to drawing sheet A1 for locations and specification for shop drawings.
ADD: \$ _____

Add Alternate #4: Remove and dispose of existing west entry wood door. Salvage all existing door hardware for re-use. Install new solid core wood door to match existing size, profile, species, new weather stripping, and re-install existing door hardware. See drawing sheets A5 and A9.
ADD: \$ _____

4. The work shall be completed within the time stipulated and specified in Division 1, Section 01 11 00 – Summary of Work, of the Specifications.

5. The Undersigned certifies that: (1) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit independent bidding or competition; and (2) The contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned and will not be communicated to such person prior to the official opening of the Bid.

6. The undersigned **HAS, HAS NOT** (*circle applicable status*) paid unemployment or income taxes in Oregon within the past 12 months and **HAS, HAS NOT** (*circle applicable status*) a business address in Oregon.

7. The Undersigned agrees, if awarded a contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

8. Contractor's CCB registration number is _____. As a condition to submitting a bid, a Contractor must be registered with the Oregon Construction Contractors Board in accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will render the bid unresponsive and it will be rejected, unless contrary to federal law.

9. The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a bid to work under the Contract.

10. The successful Bidder hereby certifies that, in compliance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is _____, Policy No. _____, and that Contractor shall submit Certificates of Insurance as required.

11. Contractor's Project Manager for this project is: _____,
Office Phone: _____ Cell Phone: _____.

12. The Undersigned certifies that it has not discriminated against minority, women, or emerging small businesses in obtaining any subcontracts for this project.

13. The Undersigned agrees, if awarded the Contract, to execute and deliver to Owner, within twenty (20) calendar days after receiving the Contract Documents, an Agreement Form and a satisfactory Performance Bond and Payment Bond, each in an amount equal to one hundred (100) percent of the Contract sum, using forms provided by the Owner. The surety requested to issue the Performance Bond and Payment Bond will be:

(name of surety company - not insurance agency)

The Undersigned hereby authorizes said surety company to disclose any information to the Owner

concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

14. In determining the lowest Bidder, the Owner reserves the right to take into consideration any or all authorized base Bids as well as alternates or combinations indicated in the Bid Form.

By signature below, Contractor agrees to be bound by this Bid.

NAME OF FIRM _____

ADDRESS _____

FEDERAL TAX ID _____

TELEPHONE NO _____

FAX NO _____

SIGNATURE 1) _____

Sole Individual

or 2) _____

Partner

or 3) _____

Authorized Officer of Corporation

(SEAL)

Attested: Secretary of Corporation

Payment information will be reported to the IRS under the name and taxpayer ID # provided above. Information not matching IRS records could subject Contractor to 31 percent backup withholding.

******* END OF BID *******

OREGON UNIVERSITY SYSTEM
RETAINER SUPPLEMENTAL GENERAL CONDITIONS

To The
GENERAL CONDITIONS
FOR RETAINER CONTRACTS

Supplement No. _____
Project Name _____

The following modify the July 1, 2012 Oregon University System “General Conditions for Retainer Contracts (“OUS Retainer General Conditions”) for the above referenced Retainer Contract Supplement. Where a portion of the OUS Retainer General Conditions is modified by these Supplemental General Conditions, the unaltered portions shall remain in effect.

Section B.4 is hereby deleted and replaced with the following:

Contractor shall obtain and pay for all necessary permits, licenses and fees, except for those specifically excluded in the Retainer Supplemental General Conditions, for the construction of the Work, for temporary obstructions, enclosures, opening of streets for pipes, walls, utilities, environmental Work, etc., as required for the project. Contractor shall be responsible for all violations of the law, in connection with the construction or caused by obstructing streets, sidewalks or otherwise. Contractor shall give all requisite notices to public authorities. Notwithstanding the first sentence of this paragraph, Owner shall pay for the following: Plan check fees and permit fees required for the general building permit, systems development charges, and building department inspection fees. Notwithstanding the foregoing, however, Contractor shall obtain all permits, licenses and fees required for the construction of the Work.

Section K.2 is hereby deleted and replaced with the following:

As part of the Work, Contractor shall submit two completed operation and maintenance manuals ("O & M Manuals") for review by the Owner prior to submission of any pay request for more than 75% of the Work. Owner's receipt of the O & M Manuals shall be a condition precedent to any payment thereafter due. The O & M Manuals shall contain a complete set of all submittals, all product data as required by the specifications, training information, telephone list and contact information for all consultants, manufacturers, installer and suppliers, manufacturer's printed data, record and shop drawings, schematic diagrams of systems, appropriate equipment indices, warranties and bonds. The Owner shall review and return one O & M Manual for any modifications or adjustments

required. Prior to submission of its final pay request, Contractor shall deliver two complete and approved sets of O & M Manuals in paper form and one complete and approved set in electronic form to the Owner and Owner's receipt of the O & M Manuals shall be a condition precedent to Owner's obligation to make final payment.

Section K.4 is hereby deleted and replaced with the following:

As part of the Work, and prior to submission of the final application for payment, the Contractor shall schedule with the Owner and provide training sessions for all equipment and systems as required by the Contract Documents. Contractor shall schedule training sessions at least two weeks in advance of the date of training to allow Owner to provide its personnel with adequate notice. The O & M Manual shall be used as a basis for training. In addition to any off-site training required by the Contract Documents, training shall include a formal session conducted at the Work site after the equipment and/or system is completely installed and operational in its normal operating environment.

OREGON UNIVERSITY SYSTEM

GENERAL CONDITIONS
FOR RETAINER CONTRACTS

July 1, 2012

INSTRUCTIONS: The attached Oregon University System General Conditions for Retainer Contracts ("OUS Retainer General Conditions") apply to all designated retainer contracts. Changes to the OUS Retainer General Conditions (including any additions, deletions or substitutions) should only be made by attaching Retainer Supplemental General Conditions. The text of these OUS Retainer General Conditions should not otherwise be altered.

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**OREGON UNIVERSITY SYSTEM
GENERAL CONDITIONS FOR RETAINER CONTRACTS
("OUS Retainer General Conditions")**

**SECTION A
GENERAL PROVISIONS**

A.1 DEFINITION OF TERMS

In the Contract Documents the following terms shall be as defined below:

AMENDMENT, means a writing which, when fully executed by the Parties to this Contract, constitutes a change to a Contract Document. Amendments to Supplements (hereinafter a "Supplement Amendment") shall be issued in accordance with the changes provisions of Section D and, if applicable, establish a Contract Price or Contract Time adjustment.

APPLICABLE LAWS, means federal, state and local laws, codes, rules, regulations and ordinances applicable to the Work and to the Contract.

ARCHITECT/ENGINEER, means the Person appointed by the Owner to make drawings and specifications and, to provide contract administration of the Work contemplated by the Contract to the extent provided herein or by supplemental instruction of Owner (under which Owner may delegate responsibilities to the Architect/Engineer), in accordance with ORS Chapter 671 (Architects) or ORS Chapter 672 (Engineers) and administrative rules adopted thereunder.

CHANGE ORDER, means a written order issued by the Owner to be later included as an Amendment. A Change Order shall not be effective until executed as an Amendment.

CLAIM, means a demand by Contractor pursuant to Section D.3 for review of the denial of Contractor's initial request for an adjustment of Contract terms, payment of money, extension of Contract Time or other relief, submitted in accordance with the requirements and within the time limits established for review of Claims in these OUS Retainer General Conditions.

CONSTRUCTION CHANGE DIRECTIVE, means a written order by the Owner to the Contractor requiring a change in the Work within the general scope of the Contract Documents, issued under the changes provisions of Section D.

CONTRACT, means the written agreement between the Owner and the Contractor comprised of the Contract Documents which describe the Work to be done and the obligations between the parties.

CONTRACT DOCUMENTS, means the Solicitation Document and addenda thereto, Instructions to Offerors, Supplemental Instructions to Offerors, the OUS Retainer Contract, OUS Retainer General Conditions, Retainer Supplemental General Conditions, if any, the accepted Offer, Plans, Specifications, Supplements, Amendments, and Construction Change Directives .

CONTRACT PERIOD, as set forth in the Contract Documents, means the total period of time beginning with the full execution of a Supplement and, if applicable, the issuance of a Notice to Proceed and concluding upon Final Completion.

CONTRACT PRICE, means the total of the awarded Offer amount, as increased or decreased by the price of approved alternates, as indicated in the Contract Documents.

CONTRACT TIME, means any incremental period of time allowed under the Contract to complete any portion of the Work as reflected in the project schedule.

CONTRACTOR, means the Person awarded the Contract for the Work contemplated.

DAYS, are calendar days, including weekdays, weekends and holidays, unless otherwise specified.

DIRECT COSTS, means, unless otherwise provided in the Contract Documents, the cost of materials, including sales tax, cost of delivery; cost of labor, including social security, Medicare and unemployment insurance, and fringe benefits required by agreement or custom; worker's compensation insurance; project specific insurance (including, without limitation, Builder's Risk Insurance and Builder's Risk Installation Floater); bond premiums, rental cost of equipment, and machinery required for execution of the Work; and the additional costs of field personnel directly attributable to the Work.

FINAL COMPLETION, means the final completion of all requirements under the Contract, including Contract Closeout as described in Section K but excluding Warranty Work as described in Section I.2, and the final payment and release of all retainage, if any, released.

FORCE MAJEURE, means an act, event or occurrence caused by fire, riot, war, acts of God, nature, sovereign, or public enemy, strikes, freight embargoes or any other act, event or occurrence that is beyond the control of the party to this Contract who is asserting Force Majeure.

MWESB REPORT, means an accurate report by the Contractor to the Owner identifying all Minority, Women and Emerging Small Business (MWESB) enterprises, as those terms are defined in ORS 200.005, receiving contracts throughout the course of the Work. An initial MWESB report is required (see Section E.2.9) and MWESB Reports are required annually (see Section E.2.9) and as a condition of final payment (see Section K.1). The initial report shall be in the form required by OUS and as posted from time to time on the OUS website and shall include the total number of contracts and subcontracts awarded to MWESB enterprises and the dollar value of their respective contracts and subcontracts. The annual reports shall include the total number of contracts and subcontracts awarded to MWESB enterprises, the dollar value of each, and the expenditure toward each contract and subcontract during the previous twelve (12) months. The final report shall include the total number of contracts and subcontracts awarded to MWESB enterprises and the dollar value of their respective contracts and subcontracts including all Supplements and Amendments incorporated during the course of the project. The reports shall only include enterprises certified with the State of Oregon as MWESB enterprises and shall include individual identification of each enterprise as a Minority business enterprise, a Women business enterprise, and/or an Emerging Small Business Enterprise, as applicable.

NOTICE TO PROCEED, means the official written notice from the Owner stating that the Contractor is to proceed with the Work defined in the Contract Documents. Notwithstanding the Notice to Proceed, Contractor shall not be authorized to proceed with the Work until all initial Contract requirements, including the Contract, performance bond and payment bond, and certificates of insurance, have been fully executed and submitted to Owner in a suitable form.

OFFER, means a bid in connection with Instructions to Bidders or a proposal in connection with a Request for Proposals.

OFFEROR, means a bidder in connection with Instructions to Bidders or a proposer in connection with a Request for Proposals.

OVERHEAD, means those items which may be included in the Contractor's markup (general and administrative expense and profit) and that shall not be charged as Direct Cost of the Work, including without limitation such Overhead expenses as wages or salary of personnel above the level of foreman (i.e., superintendents and project managers), expenses of Contractor's offices and supplies at the job site (e.g. job trailer) and at Contractor's principal place of business and including expenses of personnel staffing the job site office and Contractor's principal place of business, and Commercial General Liability Insurance and Automobile Liability Insurance.

OWNER, means the State of Oregon acting by and through the Oregon State Board of Higher Education, in its own right or on behalf of one of its institutions as identified in the Solicitation Document, also known as the Oregon University System (OUS). Owner may elect, by written notice to Contractor, to delegate certain duties to more than one party, including without limitation, to an Architect/Engineer. However, nothing in these OUS Retainer General Conditions is intended to abrogate the separate design professional responsibilities of Architects under ORS Chapter 671 or of Engineers under ORS Chapter 672.

PERSON, means a natural person or entity doing business as a sole proprietorship, a partnership, a joint venture, a corporation, a limited liability company or partnership, or any other entity possessing the legal capacity to contract.

PLANS, means the drawings which show the location, type, dimensions, and details of the Work to be done under the Contract.

PUNCH LIST, means the list of Work yet to be completed or deficiencies which need to be corrected in order to achieve Final Completion of the Contract.

RECORD DOCUMENT, means the as-built Plans, Specifications, testing and inspection records, product data, samples, manufacturer and distributor/supplier warranties evidencing transfer of ownership to Owner, operational and maintenance manuals, shop drawings, Construction Change Directives, MWESB Reports, correspondence, certificate(s) of occupancy, and other documents listed in Subsection B.9.1 of these OUS Retainer General Conditions, recording all Services performed.

SOLICITATION DOCUMENT, means Instructions to Bidders or Offerors or a Request for Proposal or a Request for Quotes.

SPECIFICATION, means any description of the physical or functional characteristics of the Work, or of the nature of a supply, service or construction item. Specifications may include a description of any requirement for inspecting, testing or preparing a supply, service or construction item for delivery and the quantities or qualities of materials to be furnished under the Contract. Specifications generally will state the results or products to be obtained and may, on occasion, describe the method and manner of doing the Work to be performed. Specifications may be incorporated by reference and/or may be attached to the Contract.

SUBCONTRACTOR, means a Person having a direct contract with the Contractor, or another Subcontractor, to perform one or more items of the Work.

SUBSTANTIAL COMPLETION, means the date when the Owner accepts in writing the construction, alteration or repair of the improvement to real property constituting the Work or any designated portion thereof as having reached that state of completion when it may be used or occupied for its intended purpose. Substantial Completion of facilities with operating systems occurs only after thirty (30) continuous Days of successful, trouble-free operation of the operating systems as provided in Section K.4.2.

SUBSTITUTIONS, means items that in function, performance, reliability, quality, and general configuration are the same or better than the product(s) specified. Approval of any substitute item shall be solely determined by the Owner. The decision of the Owner is final.

SUPPLEMENT, means a writing which, when fully executed by the Parties thereto, constitutes written agreement between the Owner and the Contractor comprised of the Contract Documents which describe the Work to be done and the obligations between the parties.

RETAINER SUPPLEMENTAL GENERAL CONDITIONS, means those conditions that remove from, add to, or modify these OUS Retainer General Conditions. Retainer Supplemental General Conditions may be included in the Solicitation Document or may be a separate attachment to the Contract.

WORK, means the furnishing of all materials, equipment, labor, transportation, services and incidentals necessary to successfully complete any individual item or the entire Contract and the carrying out of duties and obligations imposed by the Contract Documents.

A.2 SCOPE OF WORK

The Work contemplated under this Contract includes all labor, materials, transportation, equipment and services for, and incidental to, the completion of all construction work in connection with the project described in the Contract Documents. The Contractor shall perform all Work necessary so that the project can be legally occupied and fully used for the intended use as set forth in the Contract Documents.

A.3 INTERPRETATION OF CONTRACT DOCUMENTS

A.3.1 Unless otherwise specifically defined in the Contract Documents, words which have well-known technical meanings or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Contract Documents are intended to be complementary. Whatever is called for in one, is interpreted to be called for in all. However, in the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following descending order of precedence:

- (a) Contract Supplements, Amendments and Construction Change Directives, with those of later date having precedence over those of an earlier date;
- (b) The Retainer Supplemental General Conditions;
- (c) The OUS Retainer Contract;
- (d) The OUS Retainer General Conditions;
- (e) Division One (General Requirements) of the Specifications;
- (f) Detailed Schedules of finishes, equipment and other items included in the Specifications;
- (g) Plans and Specifications (other than Division One and the Detailed Schedules to the Specifications);
- (h) Large-scale drawings on Plans;
- (i) Small-scale drawings on Plans;
- (j) Dimension numbers written on Plans which shall prevail and take precedence over dimensions scaled from Plans;
- (k) The Solicitation Document, and any addenda thereto;
- (l) The accepted Offer.

A.3.2 In the case of an inconsistency between Plans and Specifications or within either document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Owner's interpretation in writing.

A.3.3 If the Contractor finds discrepancies in, or omissions from the Contract Documents, or if the Contractor is in doubt as to their meaning, the Contractor shall at once notify the Owner. Matters concerning and interpretation of requirements of the Contract Documents will be decided by the Owner, who may delegate that duty in some instances to the Architect/Engineer. Responses to Contractor's requests for interpretation of Contract Documents will be made in writing by Owner (or the Architect/Engineer) within any time limits agreed upon or otherwise with reasonable promptness. Interpretations and decisions of the Owner (or Architect/Engineer) will be consistent with the intent of and reasonably inferable from the Contract Documents. Contractor shall not proceed without direction in writing from the Owner (or Architect/Engineer).

A.3.4 References to standard specifications, manuals, codes of any technical society, organization or association, to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, laws or regulations in effect in the jurisdiction where the project is occurring on the first published date of the Solicitation Document, except as may be otherwise specifically stated.

A.4 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE

A.4.1 It is understood that the Contractor, before submitting an Offer, has made a careful examination of the Contract Documents; has become fully informed as to the quality and quantity of materials and the character of the Work required; and has made a careful examination of the location and conditions of the Work and the sources of supply for materials. The Owner will in no case be responsible for any loss or for any unanticipated costs that may be suffered by the Contractor as a result of the Contractor's failure to acquire full information in advance in regard to all conditions pertaining to the Work. No oral agreement or conversation with any officer, agent, or personnel of the Owner, or with the Architect/Engineer either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

A.4.2 Should the Plans or Specifications fail to particularly describe the materials, kind of goods, or details of construction of any aspect of the Work, Contractor shall have the duty to make inquiry of the Owner and Architect/Engineer as to what is required prior to performance of the Work. Absent Specifications to the contrary, the materials or processes that would normally be used to produce first quality finished Work shall be considered a part of the Contract requirements.

A.4.3 Any design errors or omissions noted by the Contractor shall be reported promptly to the Owner, including without limitation, any nonconformity with Applicable Laws.

A.4.4 If the Contractor believes that adjustments to cost or Contract Time is involved because of clarifications or instructions issued by the Owner (or Architect/Engineer) in response to the Contractor's notices or requests for information, the Contractor must submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt by Contractor of the clarifications or instructions issued. If the Owner denies Contractor's request for additional compensation, additional Contract Time, or other relief that Contractor believes results from the clarifications or instructions, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process. If the Contractor fails to perform the obligations of Sections A.4.1 to A.4.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.

A.5 INDEPENDENT CONTRACTOR STATUS

The service or services to be performed under this Contract are those of an independent contractor as defined in ORS 670.600. Contractor represents and warrants that it is not an officer, employee or agent of the Owner as those terms are used in ORS 30.265.

A.6 RETIREMENT SYSTEM STATUS AND TAXES

Contractor represents and warrants that it is not a contributing member of the Public Employees' Retirement System and will be responsible for any federal or state taxes applicable to payment received under this Contract. Contractor will not be eligible for any benefits from these Contract payments of federal Social Security, employment insurance, workers' compensation or the Public Employees' Retirement System, except as a self-employed individual. Unless the Contractor is subject to backup withholding, Owner will not withhold from such payments any amount(s) to cover Contractor's federal or state tax obligations.

A.7 GOVERNMENT EMPLOYMENT STATUS

A.7.1 If this payment is to be charged against federal funds, Contractor represents and warrants that it is not currently employed by the Federal Government. This does not preclude the Contractor from holding another contract with the Federal Government.

A.7.2 Contractor represents and warrants that Contractor is not an employee of the State of Oregon for purposes of performing Work under this Contract.

SECTION B ADMINISTRATION OF THE CONTRACT

B.1 OWNER'S ADMINISTRATION OF THE CONTRACT

B.1.1 The Owner shall administer the Contract as described in the Contract Documents (1) during construction (2) until final payment is due and (3) during the one-year period for correction of Work. The Owner will act as provided in the Contract Documents, unless modified in writing in accordance with other provisions of the Contract. In performing these tasks, the Owner may rely on the Architect/Engineer or other consultants to perform some or all of these tasks.

B.1.2 The Owner will visit the site at intervals appropriate to the stage of the Contractor's operations (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Owner will not make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Owner will neither have control over or charge of, nor be responsible for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work.

B.1.3 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, the Owner and Contractor shall communicate with each other about matters arising out of or relating to the Contract. Communications by and with the Architect/Engineer's consultants shall be through the Architect/Engineer. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

B.1.4 Based upon the Architect/Engineer's evaluations of the Contractor's Application for Payment, or unless otherwise stipulated by the Owner, the Architect/Engineer will review and

certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

B.2 CONTRACTOR'S MEANS AND METHODS: MITIGATION OF IMPACTS

- B.2.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The 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 under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures.
- B.2.2 The Contractor is responsible to protect and maintain the Work during the course of construction and to mitigate any adverse impacts to the project, including those caused by authorized changes, which may affect cost, schedule, or quality.
- B.2.3 The Contractor is responsible for the actions of all its personnel, laborers, suppliers, and Subcontractors on the project. The Contractor shall enforce strict discipline and good order among Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of persons who are unfit or unskilled for the tasks assigned to them.

B.3 MATERIALS AND WORKMANSHIP

- B.3.1 The intent of the Contract Documents is to provide for the construction and completion in every detail of the Work described. All Work shall be performed in a professional manner and unless the means or methods of performing a task are specified elsewhere in the Contract Documents, Contractor shall employ methods that are generally accepted and used by the industry, in accordance with industry standards.
- B.3.2 The Contractor is responsible to perform the Work as required by the Contract Documents. Defective Work shall be corrected at the Contractor's expense.
- B.3.3 Work done and materials furnished shall be subject to inspection and/or observation and testing by the Owner to determine if they conform to the Contract Documents. Inspection of the Work by the Owner does not relieve the Contractor of responsibility for the Work in accordance with the Contract Documents.
- B.3.4 Contractor shall furnish adequate facilities, as required, for the Owner to have safe access to the Work including without limitation walkways, railings, ladders, tunnels, and platforms. Producers, suppliers, and fabricators shall also provide proper facilities and access to their facilities.
- B.3.5 The Contractor shall furnish Samples of materials for testing by the Owner and include the cost of the Samples in the Contract Price.

B.4 PERMITS

Contractor shall obtain and pay for all necessary permits, licenses and fees, except for those specifically excluded in the Retainer Supplemental General Conditions, for the construction of the Work, for temporary obstructions, enclosures, opening of streets for pipes, walls, utilities, environmental Work, etc., as required for the project. Contractor shall be responsible for all violations of the law, in connection with the construction or caused by obstructing streets, sidewalks or otherwise. Contractor shall give all requisite notices to public authorities.

B.5 COMPLIANCE WITH GOVERNMENT REGULATIONS

- B.5.1 Contractor shall comply with Applicable Laws pertaining to the Work and the Contract. Failure to comply with such requirements shall constitute a breach of Contract and shall be grounds for Contract termination. Without limiting the generality of the foregoing, Contractor expressly agrees to comply with the following, as applicable:
- (i) Title VI and VII of Civil Rights Act of 1964, as amended;
 - (ii) Section 503 and 504 of the Rehabilitation Act of 1973, as amended;
 - (iii) the Health Insurance Portability and Accountability Act of 1996;
 - (iv) the Americans with Disabilities Act of 1990, as amended;
 - (v) ORS Chapter 659A, as amended;
 - (vi) all regulations and administrative rules established pursuant to the foregoing laws; and
 - (vii) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.
- B.5.2 Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations, and
- (a) Contractor shall not discriminate against Disadvantaged, Minority, Women or Emerging Small Business enterprises, as those terms are defined in ORS 200.005, or a business enterprise that is owned or controlled by or that employs a disabled veteran, as that term is defined in ORS 408.225, in the awarding of subcontracts.
 - (b) Contractor shall maintain, in current and valid form, all licenses and certificates required by Applicable Laws or this Contract when performing the Work.
- B.5.3 Unless contrary to federal law, Contractor shall certify that it shall not accept a bid from Subcontractors to perform Work as described in ORS 701.005 under this Contract unless such Subcontractors are registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time they submit their bids to the Contractor.
- B.5.4 Unless contrary to federal law, Contractor shall certify that each landscape contractor, as defined in ORS 671.520(2), performing Work under this Contract holds a valid landscape contractor's license issued pursuant to ORS 671.560.
- B.5.5 The following notice is applicable to Contractors who perform excavation Work. ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0090. You may obtain copies of the rules by calling the center at (503)232-1987.
- B.5.6 Failure to comply with any or all of the requirements of B.5.1 through B.5.5 shall be a breach of Contract and constitute grounds for Contract termination. Damages or costs resulting from such noncompliance shall be the responsibility of Contractor.

B.6 SUPERINTENDENCE

Contractor shall keep on the site, during the progress of the Work, a competent superintendent and any necessary assistants who shall be satisfactory to the Owner and who shall represent the Contractor on the site. Directions given to the superintendent by the Owner shall be confirmed in writing to the Contractor.

B.7 INSPECTION

- B.7.1 Owner shall have access to the Work at all times.
- B.7.2 Inspection of the Work will be made by the Owner at its discretion. The Owner will have authority to reject Work that

does not conform to the Contract Documents. Any Work found to be not in conformance with the Contract Documents, in the discretion of the Owner, shall be removed and replaced at the Contractor's expense.

- B.7.3 Contractor shall make or obtain at the appropriate time all tests, inspections and approvals of portions of the Work required by the Contract Documents or by Applicable Laws or orders of public authorities having jurisdiction. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work. The Contractor shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner.
- B.7.4 As required by the Contract Documents, Work done or material used without required inspection or testing and/or without providing timely notice to the Owner may be ordered removed at the Contractor's expense.
- B.7.5 If directed to do so any time before the Work is accepted, the Contractor shall uncover portions of the completed Work for inspection. After inspection, the Contractor shall restore such portions of Work to the standard required by the Contract. If the Work uncovered is unacceptable or was done without required testing or inspection or sufficient notice to the Owner, the uncovering and restoration shall be done at the Contractor's expense. If the Work uncovered is acceptable and was done with sufficient notice to the Owner, the uncovering and restoration will be paid for pursuant to a Supplement Amendment.
- B.7.6 If any testing or inspection 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 the Owner's and Architect/Engineer's services and expenses, shall be at the Contractor's expense.
- B.7.7 When the United States government participates in the cost of the Work, or the Owner has an agreement with other public or private organizations, or if any portion of the Work is being performed for a third party or in close proximity to third party facilities, representatives of these organizations shall have the right to inspect the Work affecting their interests or property. Their right to inspect shall not make them a party to the Contract and shall not interfere with the rights of the parties of the Contract. Instructions or orders of such parties shall be transmitted to the Contractor, through the Owner.

B.8 SEVERABILITY

If any provision of this Contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular provision held to be invalid.

B.9 ACCESS TO RECORDS

- B.9.1 Contractor shall keep, at all times on the Work site, one record copy of the complete Contract Documents, including the Plans, Specifications, Construction Change Directives and addenda, in good order and marked currently to record field changes and selections made during construction, and one record copy of

Shop Drawings, Product Data, Samples and similar submittals, and shall at all times give the Owner access thereto.

- B.9.2 Contractor shall retain and the Owner and its duly authorized representatives shall have access, for a period not less than ten (10) years, to all Record Documents, financial and accounting records, and other books, documents, papers and records of Contractor which are pertinent to the Contract, including records pertaining to Overhead and indirect costs, for the purpose of making audit, examination, excerpts and transcripts. If for any reason, any part of the Work or this Contract shall be subject to litigation, Contractor shall retain all such records until all litigation is resolved and Contractor shall continue to provide Owner and/or its agents with full access to such records until such time as all litigation is complete and all periods for appeal have expired and full and final satisfaction of any judgment, order or decree is recorded and Owner receives a record copy of documentation from Contractor.

B.10 WAIVER

Failure of the Owner to enforce any provision of this Contract shall not constitute a waiver or relinquishment by the Owner of the right to such performance in the future nor of the right to enforce any other provision of this Contract.

B.11 SUBCONTRACTS AND ASSIGNMENT

- B.11.1 Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound by the terms and conditions of these OUS Retainer General Conditions, and to assume toward the Contractor all of the obligations and responsibilities which the Contractor assumes toward the Owner thereunder, unless (1) the same are clearly inapplicable to the subcontract at issue because of legal requirements or industry practices, or (2) specific exceptions are requested by Contractor and approved in writing by Owner. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with sub-subcontractors at any level.
- B.11.2 At Owner's request, Contractor shall submit to Owner prior to their execution either Contractor's form of subcontract, or the subcontract to be executed with any particular Subcontractor. If Owner disapproves such form, Contractor shall not execute the form until the matters disapproved are resolved to Owner's satisfaction. Owner's review, comment upon or approval of any such form shall not relieve Contractor of its obligations under this Agreement or be deemed a waiver of such obligations of Contractor.

- B.11.3 Contractor shall not assign, sell, or transfer its rights, or delegate its responsibilities under this Contract, in whole or in part, without the prior written approval of the Owner. No such written approval shall relieve Contractor of any obligations of this Contract, and any transferee shall be considered the agent of the Contractor and bound to perform in accordance with the Contract Documents. Contractor shall remain liable as between the original parties to the Contract as if no assignment had occurred.

B.12 SUCCESSORS IN INTEREST

The provisions of this Contract shall be binding upon and shall accrue to the benefit of the parties to the Contract and their respective permitted successors and assigns.

B.13 OWNER'S RIGHT TO DO WORK

Owner reserves the right to perform other or additional work at or near the project site with other forces than those of the Contractor. If such work takes place within or next to the project site, Contractor shall coordinate work with the other contractors or forces, cooperate with all

other contractors or forces, carry out the Work in a way that will minimize interference and delay for all forces involved, place and dispose of materials being used so as not to interfere with the operations of another, and join the Work with the work of the others in an acceptable manner and perform it in proper sequence to that of the others. The Owner will resolve any disagreements that may arise between or among Contractor and the other contractors over the method or order of doing all work (including the Work). In case of unavoidable interference, the Owner will establish work priority (including the Work) which generally will be in the sequence that the contracts were awarded.

B.14 OTHER CONTRACTS

In all cases and at any time, the Owner has the right to execute other contracts related to or unrelated to the Work of this Contract. The Contractor of this Contract shall fully cooperate with any and all other contractors without additional cost to the Owner in the manner described in section B.13.

B.15 GOVERNING LAW

This Contract shall be governed by and construed in accordance with the laws of the State of Oregon without regard to principles of conflict of laws.

B.16 LITIGATION

Any Claim between Owner and Contractor that arises from or relates to this Contract and that is not resolved through the Claims Review Process in Section D.3 shall be brought and conducted solely and exclusively within the Circuit Court of Marion County for the State of Oregon; provided, however, if a Claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the State of Oregon of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. CONTRACTOR, BY EXECUTION OF THIS CONTRACT, HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF THE COURTS REFERENCED IN THIS SECTION B.16.

B.17 ALLOWANCES

B.17.1 The Contractor shall include in the Contract Price all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct.

B.17.2 Unless otherwise provided in the Contract Documents:

- (a) when finally reconciled, allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- (b) Contractor's costs for unloading and handling at the site, labor, installation costs, Overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Price but not in the allowances;
 - (c) whenever costs are more than or less than allowances, the Contract Price shall be adjusted accordingly by Amendment. The amount of the Amendment shall reflect (i) the difference between actual costs and the allowances under Section B.17.2(a) and (2) changes in Contractor's costs under Section B.17.2(b).
- (d) Unless Owner requests otherwise, Contractor shall provide to Owner a proposed fixed price for any allowance work prior to its performance.

B.18 SUBMITTALS, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

B.18.1 The Contractor shall prepare and keep current, for the Architect's/Engineer's approval (or for the approval of Owner if approval authority has not been delegated to the Architect/Engineer), a schedule and list of submittals which is coordinated with the Contractor's construction schedule and allows the Architect/Engineer reasonable time to review submittals. Owner reserves the right to finally approve the schedule and list of submittals. Submittals include, without limitation, Shop Drawings, Product Data, and Samples which are described below:

- (a) Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor (including any sub-subcontractor), manufacturer, supplier or distributor to illustrate some portion of the Work.
- (b) Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- (c) Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

B.18.2 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required by the Contract Documents the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review of submittals by the Architect/Engineer is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, or for approval of safety precautions or, unless otherwise specifically stated by the Architect/Engineer, of any construction means, methods, techniques, sequences or procedures, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect/Engineer's review of the Contractor's submittals shall not relieve the Contractor of its obligations under the Contract Documents. The Architect/Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component. Informational submittals upon which the Architect/Engineer is not expected to take responsive action may be so identified in the Contract Documents. Submittals which are not required by the Contract Documents may be returned by the Architect/Engineer without action.

B.18.3 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect/Engineer Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect/Engineer without action.

B.18.4 By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

B.18.5 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect/Engineer.

B.18.6 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect/Engineer's review or approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect/Engineer in writing of such deviation at the time of submittal and (i) the Architect/Engineer has given written approval to the specific deviation as a minor change in the Work, or (ii) a Supplement Amendment or Construction Change Directive has been executed by Owner authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect/Engineer's review or approval thereof.

B.18.7 In the event that Owner elects not to have the obligations and duties described under this Section B.18 performed by the Architect/Engineer, or in the event no Architect/Engineer is employed by Owner on the project, all obligations and duties assigned to the Architect/Engineer hereunder shall be performed by the Owner.

B.19 SUBSTITUTIONS

The Contractor may make Substitutions only with the consent of the Owner, after evaluation by the Owner and only in accordance with a Supplement Amendment or Construction Change Directive. Substitutions shall be subject to the requirements of the bid documents. By making requests for Substitutions, the Contractor: represents that the Contractor has personally investigated the proposed substitute product; represents that the Contractor will provide the same warranty for the Substitution that the Contractor would for the product originally specified unless approved otherwise; certifies that the cost data presented is complete and includes all related costs under this Contract including redesign costs, and waives all claims for additional costs related to the Substitution which subsequently become apparent; and will coordinate the installation of the accepted Substitution, making such changes as may be required for the Work to be completed in all respects.

B.20 USE OF PLANS AND SPECIFICATIONS

Plans, Specifications and related Contract Documents furnished to Contractor by Owner or Owner's Architect/Engineer shall be used solely for the performance of the Work under this Contract. Contractor and its Subcontractors and suppliers are authorized to use and reproduce applicable portions of such documents appropriate to the execution of the Work, but shall not claim any ownership or other interest in them beyond the scope of this Contract, and no such interest shall attach. Unless otherwise indicated, all common law, statutory and other reserved rights, in addition to copyrights, are retained by Owner.

B.21 FUNDS AVAILABLE AND AUTHORIZED

Owner reasonably believes at the time of entering into this Contract that sufficient funds are available and authorized for expenditure to finance the cost of this Contract within the Owner's appropriation or limitation. Contractor understands and agrees that, to the extent that sufficient funds are not available and authorized for expenditure to finance the cost of this Contract, Owner's payment of amounts under this Contract attributable to Services performed after the last day of the current biennium is contingent on Owner receiving from the Oregon Legislative Assembly appropriations, limitations or other expenditure authority sufficient to allow Owner, in the exercise of its reasonable administrative discretion, to continue to make payments under this Contract.

B.22 NO THIRD PARTY BENEFICIARIES

Owner and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly, or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

SECTION C WAGES AND LABOR

C.1 MINIMUM WAGE RATES ON PUBLIC WORKS

Contractor shall comply fully with the provisions of ORS 279C.800 through 279C.870. Documents establishing those conditions, as determined by the Commissioner of the Bureau of Labor and Industries (BOLI), are included as attachments to or are incorporated by reference in the Contract Documents. Pursuant to ORS 279C.830(1)(d), Contractor shall pay workers at not less than the specified minimum hourly rate of wage, and shall include that requirement in all subcontracts. If the Work is subject to both the state prevailing wage rate law and the federal Davis-Bacon Act, Contractor shall pay the higher of the applicable state or federal prevailing rate of wage. Contractor shall provide written notice to all workers of the number of hours per day and days per week such workers may be required to work.

C.2 PAYROLL CERTIFICATION AND FEE REQUIREMENTS

C.2.1 In accordance with ORS 279C.845, the Contractor and every Subcontractor shall submit written certified statements to the Owner, on the form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker which the Contractor or the Subcontractor has employed on the project and further certifying that no worker employed on the project has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the Contract, which certificate and statement shall be verified by the oath of the Contractor or the Subcontractor that the Contractor or Subcontractor has read the certified statement, that the Contractor or Subcontractor knows the contents of the certified statement, and, that to the Contractor's or Subcontractor's best knowledge and belief, the certified statement is true. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Certified statements for each week during which the Contractor or Subcontractor has employed a worker on the project shall be submitted once a month, by the fifth business day of the following month. The Contractor and Subcontractors shall preserve the certified statements for a period of ten (10) years from the date of completion of the Contract.

C.2.2 Pursuant to ORS 279C.845(7), the Owner shall retain 25 percent of any amount earned by the Contractor on this public works project until the Contractor has filed the certified statements required by section C.2.1. The Owner shall pay to the Contractor the amount retained under this subsection within 14 days after the Contractor files the required certified statements, regardless of whether a Subcontractor has failed to file certified statements.

C.2.3 Pursuant to ORS 279C.845(8), the Contractor shall retain 25 percent of any amount earned by a first-tier Subcontractor on this public works project until the first-tier Subcontractor has

filed with the Owner the certified statements required by C.2.1. Before paying any amount retained under this subsection, the Contractor shall verify that the first-tier Subcontractor has filed the certified statement. Within 14 days after the first-tier Subcontractor files the required certified statement the Contractor shall pay the first-tier Subcontractor any amount retained under this subsection.

- C.2.4 In accordance with statutory requirements and administrative rules promulgated by the Commissioner of the Bureau of Labor and Industries, the fee required by ORS 279C.825(1) will be paid by Owner to the Commissioner.

C.3 PROMPT PAYMENT AND CONTRACT CONDITIONS

C.3.1 As a condition to Owner's performance hereunder, the Contractor shall:

C.3.1.1 Make payment promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the Work provided for in this Contract.

C.3.1.2 Pay all contributions or amounts due the State Industrial Accident Fund from such Contractor or Subcontractor incurred in the performance of the Contract.

C.3.1.3 Not permit any lien or claim to be filed or prosecuted against the Owner on account of any labor or material furnished. Contractor will not assign any claims that Contractor has against Owner, or assign any sums due by Owner, to Subcontractors, suppliers, or manufacturers, and will not make any agreement or act in any way to give Subcontractors a claim or standing to make a claim against the Owner.

C.3.1.4 Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

C.3.2 As a condition to Owner's performance hereunder, if Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor of a Subcontractor by any person in connection with the project as such claim becomes due, the proper officer(s) representing the Owner may pay the claim and charge the amount of the payment against funds due or to become due Contractor under this Contract. Payment of claims in this manner shall not relieve the Contractor or the Contractor's surety from obligation with respect to any unpaid claims.

C.3.3 Contractor shall include in each subcontract for property or services entered into by the Contractor and a first-tier subcontractor, including a material supplier, for the purpose of performing a construction contract, a payment clause that obligates the Contractor to pay the first-tier Subcontractor for satisfactory performance under its subcontract within ten (10) Days out of such amounts as are paid to the Contractor by the public contracting agency under such contract.

C.3.4 All employers, including Contractor, that employ subject workers who work under this contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Contractor shall ensure that each of its Subcontractors complies with these requirements.

C.4 PAYMENT FOR MEDICAL CARE

As a condition to Owner's performance hereunder, Contractor shall promptly, as due, make payment to any person, partnership, association or corporation furnishing medical, surgical, and hospital care or other needed care and attention, incident to sickness or injury, to the employees of such Contractor, all sums of which the Contractor

agrees to pay for such services and all moneys and sums which the Contractor has collected or deducted from the wages of personnel pursuant to any law, contract or agreement for the purpose of providing or paying for such services.

C.5 HOURS OF LABOR

As a condition to Owner's performance hereunder, no person shall be employed to perform Work under this Contract for more than ten (10) hours in any one day or forty (40) hours in any one week, except in cases of necessity, emergency or where public policy absolutely requires it. In such instances, Contractor shall pay the employee at least time and a half pay:

- (a) For all overtime in excess of eight (8) hours a day or forty (40) hours in any one week when the work week is five consecutive Days, Monday through Friday; or
- (b) For all overtime in excess of ten (10) hours a day or forty (40) hours in any one week when the work week is four consecutive Days, Monday through Friday; and
- (c) For all Work performed on Saturday and on any legal holiday specified in ORS 279C.540.

This section C.5 will not apply to Contractor's Work under this Contract to the extent Contractor is currently a party to a collective bargaining agreement with any labor organization.

This Section C.5 shall not excuse Contractor from completion of the Work within the time required under this Contract.

SECTION D CHANGES IN THE WORK

D.1 CHANGES IN WORK

D.1.1 The terms of this Contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever, without prior written agreement and then only after any necessary approvals have been obtained. A Supplement or Amendment is required, which shall not be effective until its execution by the parties to this Contract and all approvals required by public contracting laws have been obtained.

D.1.2 It is mutually agreed that changes in Plans, quantities, or details of construction are inherent in the nature of construction and may be necessary or desirable during the course of construction. Within the general scope of this Contract, the Owner may at any time, without notice to the sureties and without impairing the Contract, require changes consistent with this Section D.1. All changes to the Work shall be documented and Amendments shall be executed under the conditions of the Contract Documents. Such changes may include, but are not limited to:

- (a) Modification of specifications and design.
- (b) Increases or decreases in quantities.
- (c) Increases or decreases to the amount of Work.
- (d) Addition or elimination of any Work item.
- (e) Change in the duration of the project.
- (f) Acceleration or delay in performance of Work.
- (g) Deductive changes.

Deductive changes are those that reduce the scope of the Work, and shall be made by mutual agreement whenever feasible. In cases of suspension or partial termination under Section J, Owner reserves the right to unilaterally impose a deductive change and to self perform such Work, for which the provisions of B.13 (Owner's Right to Do Work) shall then apply. Adjustments in compensation shall be made under the provisions of D.1.3, in which costs for deductive changes shall be based upon a Direct Costs adjustment together with the related

percentage markup specified for profit, Overhead and other indirect costs, unless otherwise agreed to by Owner.

D.1.3 The Owner and Contractor agree that adjustments to or deletions from the Work shall be administered and compensated according to the following:

- (a) Unit pricing may be utilized at the Owner's option when unit prices or solicitation alternates were provided that established the cost for adjustments to Work, and a binding obligation exists under the Contract on the parties covering the terms and conditions of the adjustment to Work.
- (b) If the Owner elects not to utilize unit pricing, or in the event that unit pricing is not available or appropriate, fixed pricing may be used for adjustments to or deletions from the Work. In fixed pricing the basis of payments or total price shall be agreed upon in writing between the parties to the Contract, and shall be established before the Work is done whenever feasible. Notwithstanding the foregoing, the mark-ups set forth in D.1.3(c) shall be utilized in establishing fixed pricing, and such mark-ups shall not be exceeded. Cost and price data relating to adjustments to or deletions from the Work shall be supplied by Contractor to Owner upon request, but Owner shall be under no obligation to make such requests.
- (c) In the event that unit pricing and fixed pricing are not utilized, then adjustments to or deletions from the Work shall be performed on a cost reimbursement basis for Direct Costs. Such Work shall be compensated on the basis of the actual, reasonable and allowable cost of labor, equipment, and material furnished on the Work performed. In addition, the following markups shall be added to the Contractor's or Subcontractor's Direct Costs as full compensation for profit, Overhead and other indirect costs for Work directly performed with the Contractor's or Subcontractor's own forces:

On Labor.....	15%
On Equipment.....	10%
On Materials.....	10%

(d) When adjustments to or deletions from the Work under D.1.3(c) are invoiced by an authorized Subcontractor at any level, each ascending tier Subcontractor or Contractor will be allowed a supplemental mark-up on each piece of subcontract Work covered by a an Amendment as follows:

\$0.00 - \$5,000.00	10%, and then
Over \$5,000.00	5%

Payments made to the Contractor shall be complete compensation for Overhead, profit, and all costs that were incurred by the Contractor or by other forces furnished by the Contractor, including Subcontractors, for adjustments to or deletions from the Work pursuant to a Supplement Amendment. Owner may establish a maximum cost for additional Work under this Section D.1.3, which shall not be exceeded for reimbursement without additional written authorization from Owner in the form of a Supplement Amendment. Contractor shall not be required to complete such additional Work without additional authorization.

D.1.4 Any necessary adjustment of Contract Time that may be required as a result of adjustments to or deletions from the Work must be agreed upon by the parties before the start of the revised Work unless Owner authorizes Contractor to start the revised Work before agreement on Contract Time adjustment. Contractor shall submit any request for additional compensation (and additional Contract Time if Contractor was authorized to start Work before an adjustment of Contract Time was

approved) as soon as possible but no later than thirty (30) Days after receipt of Owner's request for additional Work. If Contractor's request for additional compensation or adjustment of Contract Time is not made within the thirty (30) Day time limit, Contractor's requests pertaining to that additional Work shall be barred. The thirty (30) Day time limit for making requests shall not be extended for any reason, including without limitation Contractor's claimed inability to determine the amount of additional compensation or adjustment of Contract Time, unless an extension is granted in writing by Owner. If the Owner denies Contractor's request for additional compensation or adjustment of Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process. No other reimbursement, compensation, or payment will be made, except as provided in Section D.1.5 for impact claims.

D.1.5 If any adjustment to Work under Section D.1.3 causes an increase or decrease in the Contractor's cost of, or the Contract Time required for the performance of any other part of the Work under this Contract, Contractor shall submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt of Owner's request for adjustments to or deletions from the Work by Contractor.

The thirty (30) Day time limit applies to claims of Subcontractors, suppliers, or manufacturers who may be affected by Owner's request for adjustments to or deletions from the Work and who request additional compensation or an extension of Contract Time to perform; Contractor has responsibility for contacting its Subcontractors, suppliers, or manufacturers within the thirty (30) Day time limit, and including their requests with Contractor's requests. If the request involves Work to be completed by Subcontractors, or materials to be furnished by suppliers or manufacturers, such requests shall be submitted to the Contractor in writing with full analysis and justification for the adjustments to compensation and Contract Time requested. The Contractor shall analyze and evaluate the merits of the requests submitted by Subcontractors, suppliers, and manufacturers to Contractor prior to including those requests and Contractor's analysis and evaluation of those requests with Contractor's requests for adjustments to compensation or Contract Time that Contractor submits to the Owner. Failure of Subcontractors, suppliers, manufacturers or others to submit their requests to Contractor for inclusion with Contractor's requests submitted to Owner within the time period and by the means described in this section shall constitute a waiver of these Subcontractor claims. The Owner will not consider direct requests or claims from Subcontractors, suppliers, manufacturers or others not a party to this Contract. The consideration of such requests and claims under this section does not give any Person, not a party to the Contract the right to bring a claim against Owner, whether in this claims process, in litigation, or in any dispute resolution process.

If the Owner denies the Contractor's request for adjustment to compensation or Contract Time, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

D.1.6 No request or Claim by the Contractor for additional costs or an adjustment of Contract Time shall be allowed if made after receipt of final payment application under this Contract. Final payment application must be made by Contractor within the time required under Section E.6.4.

D.1.7 It is understood that changes in the Work are inherent in construction of this type. The number of changes, the scope of those changes, and the effect they have on the progress of the original Work cannot be defined at this time. The Contractor is notified that numerous changes may be required and that there will be no compensation made, unless and only to the extent otherwise provided in the Contract Documents, to the Contractor

directly related to the number of changes. Each change will be evaluated for extension of Contract Time and increase or decrease in compensation based on its own merit.

D.2 DELAYS

D.2.1 Delays in construction include "Avoidable Delays", which are defined in Section D.2.1.1, and "Unavoidable Delays", which are defined in Section D.2.1.2. The effect of Avoidable Delays is described in Section D.2.2 and the effect of Unavoidable Delays is described in Section D.2.3.

D.2.1.1 Avoidable Delays include any delays other than Unavoidable Delays, and include delays that otherwise would be considered Unavoidable Delays but that:

- (a) Could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its Subcontractors.
- (b) Affect only a portion of the Work and do not necessarily prevent or delay the prosecution of neither other parts of the Work nor the completion of the whole Work within the Contract Time.
- (c) Do not impact activities on the accepted critical path schedule.
- (d) Are associated with the reasonable interference of other contractors employed by the Owner that do not necessarily prevent the completion of the whole Work within the Contract Time.

D.2.1.2 Unavoidable Delays include delays other than Avoidable Delays that are:

- (a) To the extent caused by any actions of the Owner, or any other employee or agent of the Owner, or by separate contractor employed by the Owner.
- (b) To the extent caused by any site conditions which differ materially from what was represented in the Contract Documents or from conditions that would normally be expected to exist and be inherent to the construction activities defined in the Contract Documents. The Contractor shall notify the Owner immediately of differing site conditions before the area has been disturbed. The Owner will investigate the area and make a determination as to whether or not the conditions differ materially from either the conditions stated in the Contract Documents or those which could reasonably be expected in execution of this particular Contract. If Contractor and the Owner agree that a differing site condition exists, any adjustment to compensation or Contract Time will be determined based on the process set forth in Section D.1.5 for adjustments to or deletions from Work. If the Owner disagrees that a differing site condition exists and denies Contractor's request for additional compensation or Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process.
- (c) To the extent caused by Force Majeure acts, events or occurrences that could not have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its Subcontractors.
- (d) To the extent caused by adverse weather conditions. Any adverse weather conditions must be substantiated by documentary evidence that weather conditions were abnormal for the specific time period claimed, could not have been anticipated by the Contractor, and adversely impacted the project in a manner that could not be avoided by rescheduling the Work or by implementing measures to

protect against the weather so that the Work could proceed. A rain, windstorm, high water, or other natural phenomenon for the specific locality of the Work, which might reasonably have been anticipated from the previous 10-year historical records of the general locality of the Work, shall not be construed as abnormal. The parties agree that rainfall greater than the following levels cannot be reasonably anticipated:

- (i) Daily rainfall equal to, or greater than, 0.50 inch during a month when the monthly rainfall exceeds the normal monthly average by twenty-five percent (25 %) or more.
- (ii) daily rainfall equal to, or greater than, 0.75 inch at any time.

The Office of the Environmental Data Service of the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce nearest the project site shall be considered the official agency of record for weather information.

D.2.2 Contractor shall not be entitled to additional compensation or additional Contract Time for Avoidable Delays.

D.2.3 In the event of Unavoidable Delays, based on principles of equitable adjustment, Contractor may be entitled to the following:

- (a) Contractor may be entitled to additional compensation or additional Contract Time, or both, for Unavoidable Delays described in Section D.2.1.2 (a) and (b).
- (b) Contractor may be entitled to additional Contract Time for Unavoidable Delays described in Section D.2.1.2(c) and (d).

In the event of any requests for additional compensation or additional Contract Time, or both, as applicable, arising under this Section D.2.3 for Unavoidable Delays, other than requests for additional compensation or additional Contract Time for differing site conditions for which a review process is established under Section D.2.1.2 (b), Contractor shall submit a written notification of the delay to the Owner within two (2) Days of the occurrence of the cause of the delay. This written notification shall state the cause of the potential delay, the project components impacted by the delay, and the anticipated additional Contract Time extension or the additional compensation, or both, as applicable, resulting from the delay. Within seven (7) Days after the cause of the delay has been mitigated, or in no case more than thirty (30) Days after the initial written notification, the Contractor shall submit to the Owner, a complete and detailed request for additional compensation or additional Contract Time, or both, as applicable, resulting from the delay. If the Owner denies Contractor's request for additional compensation or adjustment of Contract Time, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

If Contractor does not timely submit the notices required under this Section D.2, then unless otherwise prohibited by law, Contractor's Claim shall be barred.

D.3 CLAIMS REVIEW PROCESS

D.3.1 All Contractor Claims shall be referred to the Owner for review. Contractor's Claims, including Claims for adjustments to compensation or Contract Time, shall be submitted in writing by Contractor to the Owner within five (5) Days after a denial of Contractor's initial request for an adjustment of Contract terms, payment of money, extension of Contract Time or other relief, provided that such initial request has been submitted in accordance with the requirements and within the time limits

established in these OUS Retainer General Conditions. Within thirty (30) Days after the initial Claim, Contractor shall submit to the Owner a complete and detailed description of the Claim (the "Detailed Notice") that includes all information required by Section D.3.2. Unless the Claim is made in accordance with these time requirements, it shall be waived by Contractor.

- D.3.2 The Detailed Notice of the Claim shall be submitted in writing by Contractor and shall include a detailed, factual statement of the basis of the Claim, pertinent dates, Contract provisions which support or allow the Claim, reference to or copies of any documents which support the Claim, the dollar value of the Claim, and the Contract Time adjustment requested for the Claim. If the Claim involves Work to be completed by Subcontractors, the Contractor will analyze and evaluate the merits of the Subcontractor claim prior to forwarding it and that analysis and evaluation to the Owner. The Owner will not consider direct claims from Subcontractors, suppliers, manufacturers, or others not a party to this Contract. Contractor agrees that it will make no agreement, covenant, or assignment, nor will it commit any other act that will permit or assist any Subcontractor, supplier, manufacturer, or other to directly or indirectly make a claim against Owner.
- D.3.3 The Owner will review all Claims and take one or more of the following preliminary actions within ten (10) Days of receipt of the Detailed Notice of a Claim: (1) request additional supporting information from the Contractor; (2) inform the Contractor and Owner in writing of the time required for adequate review and response; (3) reject the Claim in whole or in part and identify the reasons for rejection; (4) based on principles of equitable adjustment, recommend approval of all or part of the Claim; or (5) propose an alternate resolution.
- D.3.4 The Owner's decision shall be final and binding on the Contractor unless appealed by written notice to the Owner within fifteen (15) Days of receipt of the decision. The Contractor must present written documentation supporting the Claim within fifteen (15) Days of the notice of appeal. After receiving the appeal documentation, the Owner shall review the materials and render a decision within thirty (30) Days after receiving the appeal documents.
- D.3.5 The decision of the Owner shall be final and binding unless the Contractor delivers to the Owner its request for mediation, which shall be a non-binding process, within fifteen (15) Days of the date of the Owner's decision. The mediation process will be considered to have commenced as of the date the Contractor delivers the request. Both parties acknowledge and agree that participation in mediation is a prerequisite to commencement of litigation of any disputes relating to the Contract. Both parties further agree to exercise their best efforts in good faith to resolve all disputes within sixty (60) Days of the commencement of the mediation through the mediation process set forth herein.
- In the event that a lawsuit must be filed within this sixty (60) Day period in order to preserve a cause of action, the parties agree that, notwithstanding the filing, they shall proceed diligently with the mediation to its conclusion prior to actively prosecuting the lawsuit, and shall seek from the Court in which the lawsuit is pending such stays or extensions, including the filing of an answer, as may be necessary to facilitate the mediation process. Further, in the event settlements are reached on any issues through mediation, the plaintiff shall promptly cause to be entered by the Court a stipulated general judgment of dismissal with prejudice, or other appropriate order limiting the scope of litigation as provided in the settlement.
- D.3.6 Should the parties arrive at an impasse regarding any Claims or disputed Claims, it is agreed that the parties shall participate in mediation as specified in Section D.3.5. The mediation process will be considered to have been commenced as of the date one

party delivers to the other its request in writing to mediate. The mediator shall be an individual mutually acceptable to both parties, but in the absence of agreement each party shall select a temporary mediator and the temporary mediators shall jointly select the permanent mediator. Each party shall pay its own costs for the time and effort involved in mediation. The cost of the mediator shall be split equally between the two parties. Both parties agree to exercise their best effort in good faith to resolve all disputes in mediation. Participation in mediation is a mandatory requirement of both the Owner and the Contractor. The schedule, time and place for mediation will be mutually acceptable, or, failing mutual agreement, shall be as established by the mediator. The parties agree to comply with Owner's administrative rules governing the confidentiality of mediation, if any, and shall execute all necessary documents to give effect to such confidentiality rules. In any event, the parties shall not subpoena the mediator or otherwise require the mediator to produce records, notes or work product, or to testify in any future proceedings as to information disclosed or representations made in the course of mediation, except to the extent disclosure is required by law.

- D.3.7 Unless otherwise directed by Owner, Contractor shall proceed with the Work while any Claim, or mediation or litigation arising from a Claim, is pending. Regardless of the review period or the final decision of the Owner, the Contractor shall continue to diligently pursue the Work as identified in the Contract Documents. In no case is the Contractor justified or allowed to cease or Delay Work, in whole or in part, without a written stop work order from the Owner.

SECTION E PAYMENTS

E.1 SCHEDULE OF VALUES

The Contractor shall submit, at least ten (10) Days prior to submission of its first application for progress payment, a schedule of values ("Schedule of Values") for the contracted Work. This schedule shall provide a breakdown of values for the contracted Work and will be the basis for progress payments. The breakdown shall demonstrate reasonable, identifiable, and measurable components of the Work. Unless objected to by the Owner, this schedule shall be used as the basis for reviewing Contractor's applications for payment. If objected to by Owner, Contractor shall revise the schedule of values and resubmit the same for approval of Owner.

E.2 APPLICATIONS FOR PAYMENT

E.2.1 Owner shall make progress payments on the Contract monthly as Work progresses, in accordance with the requirements of this Section E.2. Applications for payment shall be based upon estimates of Work completed and the Schedule of Values. As a condition precedent to Owner's obligation to pay, all applications for payment shall be approved by the Owner. A progress payment shall not be considered acceptance or approval of any Work or waiver of any defects therein. Owner shall pay to Contractor interest for overdue invoices at the rate of two-thirds of one percent per month on the progress payment, not including retainage, due the Contractor. Overdue invoices will be those that have not been paid within forty five (45) days from the latest of:

- (a) The date of the receipt of the accurate invoice;
- (b) The date Owner receives the correct application for payment if no invoice is received;
- (c) The date all goods and services have been received; or
- (d) The date a Claim is made certain by agreement of the parties or by operation of law.

Notwithstanding the foregoing, in instances when an application for payment is filled out incorrectly, or when there is any defect or impropriety in any submitted application or when there is a good faith dispute, Owner shall so notify the Contractor within fifteen (15) Days stating the reason or reasons the application for payment is defective or improper or the reasons for the dispute. A defective or improper application for payment, if corrected by the Contractor within seven (7) Days of being notified by the Owner, shall not cause a payment to be made later than specified in this section unless interest is also paid. Payment of interest will be postponed when payment on the principal is delayed because of disagreement between the Owner and the Contractor.

Owner reserves the right, instead of requiring the Contractor to correct or resubmit a defective or improper application for payment, to reject the defective or improper portion of the application for payment and pay the remainder of the application for such amounts which are correct and proper.

Owner, upon written notice to the Contractor, may elect to make payments to the Contractor only by means of Electronic Funds Transfers (EFT) through Automated Clearing House (ACH) payments. If Owner makes this election, the Contractor shall arrange for receipt of the EFT/ACH payments.

E.2.2 Contractor shall submit to the Owner an application for each payment and, if required, receipts or other vouchers showing payments for materials and labor including payments to Subcontractors. Contractor shall include in its application for payment a schedule of the percentages of the various parts of the Work completed, based on the Schedule of Values which shall aggregate to the payment application total, and shall include, on the face of each copy thereof, a certificate in substantially the following form:

"I, the undersigned, hereby certify that the above bill is true and correct, and the payment therefore, has not been received.

Signed: _____
Dated: _____"

E.2.3 Generally, applications for payment will be accepted only for materials that have been installed. Under special conditions, applications for payment for stored materials will be accepted at Owner's sole discretion. Such a payment, if made, will be subject to the following conditions:

(a) The request for stored material shall be submitted at least thirty (30) Days in advance of the application for payment on which it appears. Applications for payment shall be entertained for major equipment, components or expenditures only.

(b) The Contractor shall submit applications for payment showing the quantity and cost of the material stored.

(c) The material shall be stored in a bonded warehouse and Owner shall be granted the right to access the material for the purpose of removal or inspection at any time during the Contract Period.

(d) The Contractor shall name the Owner as co-insured on the insurance policy covering the full value of the property while in the care and custody of the Contractor until it is installed. A certificate noting this coverage shall be issued to the Owner.

(e) Payments shall be made for materials and equipment only. The submitted amount in the application for payment shall be reduced by the cost of transportation from the storage site to the project site and for the cost of an inspector to verify delivery and condition of the goods at the storage site. The cost of storage and inspection shall be borne solely by the Contractor.

(f) Within sixty (60) Days of the application for payment, the Contractor shall submit evidence of payment covering the material and/or equipment stored and of payment for the storage site.

(g) Payment for stored materials and/or equipment shall in no way indicate acceptance of the materials and/or equipment or waive any rights under this Contract for the rejection of the Work or materials and/or equipment not in conformance with the Contract Documents.

(h) All required documentation shall be submitted with the respective application for payment.

E.2.4 The Owner reserves the right to withhold all or part of a payment, or may nullify in whole or part any payment previously made, to such extent as may be necessary in the Owner's opinion to protect the Owner from loss because of:

(a) Work that is defective and not remedied, or that has been demonstrated or identified as failing to conform with Applicable Laws or the Contract Documents,

(b) third party claims filed or evidence reasonably indicating that such claims will likely be filed unless security acceptable to the Owner is provided by the Contractor;

(c) failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment (in which case Owner may issue checks made payable jointly to Contractor and such unpaid Persons under this provision, or directly to Subcontractors and suppliers at any level under Section C.3.2.1);

(d) reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;

(e) damage to the Work, Owner or another contractor;

(f) reasonable evidence that the Work will not be completed within the Contract Time required by the Contract, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

(g) failure to carry out the Work in accordance with the Contract Documents; or

(h) assessment of liquidated damages, when withholding is made for offset purposes.

E.2.5 Subject to the provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

(a) Take that portion of the Contract Price properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the total Contract Price allocated to that portion of the Work in the Schedule of Values, less retainage as provided in Section E.5. Pending final determination of cost to the Owner of changes in the Work, no amounts for changes in the Work can be included in applications for payment until the Contract Price has been adjusted by a Supplement Amendment;

(b) Add that portion of the Contract Price 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 the Owner pursuant to Section E.2.3, suitably stored off the site at a location agreed upon in writing), less retainage as provided in Section E.5;

(c) Subtract the aggregate of previous payments made by the Owner; and

(d) Subtract any amounts for which the Owner has withheld or nullified payment as provided in the Contract Documents.

E.2.6 Contractor's applications for payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier.

E.2.7 The Contractor warrants to Owner that title to all Work covered by an application for payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an application for payment all Work for which payments are received from the Owner shall be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided financing, labor, materials and equipment relating to the Work.

E.2.8 If Contractor disputes any determination by Owner with regard to any application for payment, Contractor nevertheless shall continue to expeditiously perform the Work. No payment made hereunder shall be or be construed to be final acceptance or approval of that portion of the Work to which such partial payment relates or shall relieve Contractor of any of its obligations hereunder.

E.2.9 Contractor shall submit its initial MWESB Report within ten (10) Days of Contractor's execution of the Contract. Contractor shall submit annual MWESB Reports on June 30 of each year the Contract is active. Contracts - first executed by Contractor within ninety (90) Days before June 30 of the year of execution by Contractor may at the discretion of Owner be exempt from submitting the annual MWESB Report otherwise due on that June 30. The final MWESB Report shall be filed with the application for final payment. Timely receipt of MWESB Reports by Owner shall be a condition precedent to Owner's obligation to pay any progress payments or final payment otherwise due.

E.3 PAYROLL CERTIFICATION REQUIREMENT

Owner's receipt of payroll certification pursuant to Section C.2 of this Contract shall be a condition precedent to Owner's obligation to pay any progress payments or final payment otherwise due.

E.4 DUAL PAYMENT SOURCES

Contractor shall not be compensated for Work performed under this Contract from any state agency other than the agency that is a party to this Contract.

E.5 RETAINAGE

E.5.1 Retainage shall be withheld and released in accordance with the requirements set forth in OAR 580-063-0045.

E.5.1.1 Owner may reserve as retainage from any progress payment an amount not to exceed five percent of the payment. As Work progresses, Owner may reduce the amount of retainage on or may eliminate retainage on any remaining monthly Contract payments after 50 percent of the Work under the Contract is completed if, in the Owner's discretion, such Work is progressing satisfactorily. Elimination or reduction of retainage shall be allowed only upon written application by the Contractor, which application shall include written approval of Contractor's surety; except that when the Work is 97-1/2 percent completed the Owner may, at its discretion and without application by the Contractor, reduce the retained amount to 100 percent of the value of the Work remaining to be done. Upon receipt of written application by the

Contractor, Owner shall respond in writing within a reasonable time.

E.5.1.2 Contractor may request in writing:

(a) to be paid amounts which would otherwise have been retained from progress payments where Contractor has deposited acceptable bonds and securities of equal value with Owner or in a custodial account or other mutually-agreed account satisfactory to Owner, with an approved bank or trust company to be held in lieu of the cash retainage for the benefit of Owner;

(b) for construction projects over \$1,000,000, that retainage be deposited in an interest bearing account, established through the State Treasurer for state agencies, in a bank, savings bank, trust company or savings association for the benefit of Owner, with earnings from such account accruing to the Contractor; or

(c) that the Owner allow Contractor to deposit a surety bond for the benefit of Owner, in a form acceptable to Owner, in lieu of all or a portion of funds retained, or to be retained. Such bond and any proceeds therefrom shall be made subject to all claims in the manner and priority as set forth for retainage.

When the Owner has accepted the Contractor's election of option (a) or (b), Owner may recover from Contractor any additional costs incurred through such election by reducing Contractor's final payment. Where the Owner has agreed to Contractor's request for option (c), Contractor shall accept like bonds from Subcontractors and suppliers on the project from which Contractor has required retainages.

E.5.1.3 The retainage held by Owner shall be included in and paid to the Contractor as part of the final payment of the Contract Price. The Owner shall pay to Contractor interest at the rate of two-thirds of one percent per month on the final payment due Contractor, interest to commence forty five (45) Days after the date which Owner receives Contractor's final approved application for payment and Work under the Contract has been completed and accepted and to run until the date when final payment is tendered to Contractor. The Contractor shall notify Owner in writing when the Contractor considers the Work complete and deliver to Owner its final application for payment and Owner shall, within fifteen (15) Days after receiving the written notice and the application for payment, either accept the Work or notify the Contractor of Work yet to be performed on the Contract. If Owner does not within the time allowed notify the Contractor of Work yet to be performed to fulfill contractual obligations, the interest provided by this subsection shall commence to run forty five (45) Days after the end of the 15-Day period.

E.5.1.4 Owner will reduce the amount of the retainage if the Contractor notifies the Owner that the Contractor has deposited in an escrow account with a bank or trust company, in a manner authorized by the Owner, bonds and securities of equal value of a kind approved by the Owner and such bonds and securities have in fact been deposited.

E.5.1.5 Contractor agrees that if Contractor elects to reserve a retainage from any progress payment due to any Subcontractor or supplier, such retainage shall not exceed five percent of the payment, and such retainage withheld from Subcontractors and suppliers shall be subject to the same terms and conditions stated in Subsection E.5 as apply to Owner's retainage from any progress payment due to Contractor.

E.6 FINAL PAYMENT

- E.6.1 Upon completion of all the Work under this Contract, the Contractor shall notify the Owner, in writing, that Contractor has completed Contractor's obligations under the Contract and shall prepare its application requesting final payment. Upon receipt of such notice and application for payment, the Owner will inspect the Work, and, if acceptable, submit to Contractor a recommendation as to acceptance of the completed Work and the final estimate of the amount due the Contractor. If the Work is not acceptable, Owner will notify Contractor within fifteen (15) Days of Contractor's request for final payment. Upon approval of this final application for payment by the Owner and compliance by the Contractor with provisions in Section K, and Contractor's satisfaction of other provisions of the Contract Documents as may be applicable, the Owner shall pay to the Contractor all monies due under the provisions of these Contract Documents.
- E.6.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner (1) a certificate 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 thirty (30) Days' prior written notice has been given to the Owner, (2) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (3) consent of surety, if any, to final payment and (4), if required by the 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 the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.
- E.6.3 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final application for payment.
- E.6.4 Contractor agrees to submit its final payment application within ninety (90) Days after Substantial Completion, unless written extension is granted by Owner. Contractor shall not delay final payment application for any reason, including without limitation nonpayment of Subcontractors, suppliers, manufacturers or others not a party to this Contract, or lack of resolution of a dispute with Owner or any other person of matters arising out of or relating to the Contract. If Contractor fails to submit its final payment application within ninety (90) Days after Substantial Completion, and Contractor has not obtained written extension by Owner, all requests or Claims for additional costs or an extension of Contract Time shall be waived.

SECTION F JOB SITE CONDITIONS

F.1 USE OF PREMISES

Contractor shall confine equipment, storage of materials and operation of Work to the limits indicated by Contract Documents, Applicable Laws, permits or directions of the Owner. Contractor shall follow the Owner's instructions regarding use of premises, if any.

F.2 PROTECTION OF WORKERS, PROPERTY AND THE PUBLIC

- F.2.1 Contractor shall maintain continuous and adequate protection of all of the Work from damage and shall protect the Owner, workers and property from injury or loss arising in connection with this Contract. Contractor shall remedy acceptably to the Owner any damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by authorized representatives or personnel of the Owner. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents.
- F.2.2 Contractor shall take all necessary precautions for the safety of all personnel on the job site or otherwise engaged in the undertaking of the Work and shall comply with the Contract Documents, best practices and all applicable provisions of federal, state and municipal safety laws and building and fire codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed. Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for protection of workers and the public against any hazards created by construction. Contractor shall designate a responsible employee or associate on the Work site, whose duty shall be the prevention of accidents. The name and position of the person designated shall be reported to the Owner. The Owner has no responsibility for Work site safety. Work site safety shall be the responsibility of the Contractor.
- F.2.3 Contractor shall not enter upon private property without first obtaining permission from the property owner or its duly authorized representative. Contractor shall be responsible for the preservation of all public and private property along and adjacent to the Work contemplated under the Contract and shall use every precaution necessary to prevent damage thereto. In the event the Contractor damages any property, the Contractor shall at once notify the property owner and make, or arrange to make, full restitution. Contractor shall, immediately and in writing, report to the Owner, all pertinent facts relating to such property damage and the ultimate disposition of the claim for damage.
- F.2.4 Contractor shall be responsible for protection of adjacent work areas including impacts brought about by activities, equipment, labor, utilities, vehicles and materials on the site.
- F.2.5 Contractor shall at all times direct its activities in such a manner as to minimize adverse effects on the environment. Handling of all materials shall be conducted so no release will occur that may pollute or become hazardous.
- F.2.6 In an emergency affecting the safety of life or limb or of the Work or of adjoining property, the Contractor, without special instruction or authorization from the Owner, shall act reasonably to prevent threatened loss or injury, and shall so act, without appeal, if instructed by the Owner. Any compensation claimed by the Contractor on account of emergency work shall be determined in accordance with section D.

F.3 CUTTING AND PATCHING

- F.3.1 Contractor shall be responsible for coordinating all cutting, fitting, or patching of the Work to make its several parts come together properly and fit to receive or be received by work of other contractors or Subcontractors shown upon, or reasonably implied by, the Contract Documents.
- F.3.2 Contractor shall be responsible for restoring all cut, fitted, or patched surfaces to an original condition; provided, however, that if a different condition is specified in the Contract Documents, then Contractor shall be responsible for restoring such surfaces to the condition specified in the Contract Documents.

F.4 CLEANING UP

From time to time as may be prudent or ordered by the Owner and, in any event, immediately after completion of the Work, the Contractor shall, at its own expense, clean up and remove all refuse and unused materials of any kind resulting from the Work. If Contractor fails to do so within twenty-four hours after notification by the Owner the work may be done by others and the cost charged to the Contractor and deducted from payment due the Contractor.

F.5 ENVIRONMENTAL CONTAMINATION

F.5.1. Contractor shall be held responsible for and shall indemnify, defend (with counsel of Owner's choice), and hold harmless Owner from and against any costs, expenses, damages, claims, and causes of action, (including attorney fees), or any of them, resulting from all spills, releases, discharges, leaks and disposal of environmental pollution, including storage, transportation, and handling during the performance of the Work or Contractor's obligations under the Contract which occur as a result of, or are contributed by, the negligence or actions of Contractor or its personnel, agents, or Subcontractors or any failure to perform in accordance with the Contract Documents (except to the extent otherwise void under ORS 30.140). Nothing in this section F.5.1 shall limit Contractor's responsibility for obtaining insurance coverages required under Section G.3 of this Contract, and Contractor shall take no action that would void or impair such coverages.

F.5.1.1 Contractor agrees to promptly dispose of such spills, releases, discharge or leaks to the satisfaction of Owner and regulatory agencies having jurisdiction in a manner that complies with Applicable Laws. Cleanup shall be at no cost to the Owner and shall be performed by properly qualified and, if applicable, licensed personnel.

F.5.1.2 Contractor shall obtain the Owner's written consent prior to bringing onto the Work site any (i) environmental pollutants or (ii) hazardous substances or materials, as the same or reasonably similar terms are used in any Applicable Laws. Notwithstanding such written consent from the Owner, the Contractor, at all times, shall:

- (a) properly handle, use and dispose of all environmental pollutants and hazardous substances or materials brought onto the Work site, in accordance with all Applicable Laws;
- (b) be responsible for any and all spills, releases, discharges, or leaks of (or from) environmental pollutants or hazardous substances or materials which Contractor has brought onto the Work site; and
- (c) promptly clean up and remediate, without cost to the Owner, such spills, releases, discharges, or leaks to the Owner's satisfaction and in compliance with all Applicable Laws.

F.5.2 Contractor shall report all reportable quantity releases, as such releases are defined in Applicable Laws, including but not limited to 40 CFR Part 302, Table 302.4 and in OAR 340-142-0050, to applicable federal, state, and local regulatory and emergency response agencies. Upon discovery, regardless of quantity, Contractor must telephonically report all releases to the Owner. A written follow-up report shall be submitted to Owner within 48 hours of the telephonic report. Such written report shall contain, as a minimum:

- (a) Description of items released (identity, quantity, manifest numbers, and any and all other documentation required by law.)

- (b) Whether amount of items released is EPA/DEQ reportable, and, if so, when reported.
- (c) Exact time and location of release, including a description of the area involved.
- (d) Containment procedures initiated.
- (e) Summary of communications about the release between Contractor and members of the press or State, local or federal officials other than Owner.
- (f) Description of cleanup procedures employed or to be employed at the site, including disposal location of spill residue.
- (g) Personal injuries, if any, resulting from, or aggravated by, the release.

F.6 ENVIRONMENTAL CLEAN-UP

F.6.1 Unless disposition of environmental pollution is specifically a part of this Contract, or was caused by the Contractor (reference F.5 Environmental Contamination), Contractor shall immediately notify Owner of any hazardous substance(s) which Contractor discovers or encounters during performance of the Work required by this Contract. "Hazardous substance(s)" means any hazardous, toxic and radioactive materials and those substances defined as "hazardous substances," "hazardous materials," "hazardous wastes," "toxic substances," or other similar designations in any federal, state, or local law, regulation, or ordinance, including without limitation asbestos, polychlorinated biphenyl (PCB), or petroleum, and any substances, materials or wastes regulated by 40 CFR, Part 261 and defined as hazardous in 40 CFR S 261.3. In addition to notifying Owner of any hazardous substance(s) discovered or encountered, Contractor shall immediately cease working in any particular area of the project where a hazardous substance(s) has been discovered or encountered if continued work in such area would present a risk or danger to the health or well being of Contractor's or any Subcontractor's work force, property or the environment.

F.6.2 Upon being notified by Contractor of the presence of hazardous substance(s) on the project site, Owner shall arrange for the proper disposition of such hazardous substance(s).

F.7 FORCE MAJEURE

A party to this Contract shall not be held responsible for delay or default due to Force Majeure acts, events or occurrences unless they could have been avoided by the exercise of reasonable care, prudence, foresight, and diligence by that party. The Owner may terminate this Contract upon written notice after determining that delay or default caused by Force Majeure acts, events or occurrences will reasonably prevent successful performance of the Contract.

SECTION G INDEMNITY, BONDING, AND INSURANCE

G.1 RESPONSIBILITY FOR DAMAGES / INDEMNITY

G.1.1 Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under this Contract, or from any act, omission or neglect of the Contractor, its Subcontractors, employees, guests, visitors, invitees and agents.

G.1.2 To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel approved by Owner) and hold harmless the Owner, Architect/Engineer, Architect/Engineer's

consultants, and their respective officers, directors, agents, employees, partners, members, stockholders and affiliated companies (collectively "Indemnitees") from and against all liabilities, damages, losses, claims, expenses (including reasonable attorney fees), demands and actions of any nature whatsoever which arise out of, result from or are related to, (a) any damage, injury, loss, expense, inconvenience or delay described in this Section G.1., (b) any accident or occurrence which happens or is alleged to have happened in or about the project site or any place where the Work is being performed, or in the vicinity of either, at any time prior to the time the Work is fully completed in all respects, (c) any failure of the Contractor to observe or perform any duty or obligation under the Contract Documents which is to be observed or performed by the Contractor, or any breach of any agreement, representation or warranty of the Contractor contained in the Contract Documents or in any subcontract, (d) the negligent acts or omissions of the Contractor, a Subcontractor or anyone directly or indirectly employed by them or any one of them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder (except to the extent otherwise void under ORS 30.140), and (e) any lien filed upon the project or bond claim in connection with the Work. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section G.1.2.

G.1.3 In claims against any person or entity indemnified under Section G.1.2 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section G.1.2 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

G.2 PERFORMANCE AND PAYMENT SECURITY; PUBLIC WORKS BOND

G.2.1 When the Contract Price is \$100,000 or more (or \$50,000 or more in the case of Contracts for highways, bridges and other transportation projects), the Contractor shall furnish and maintain in effect at all times during the Contract Period a performance bond in a sum equal to the Contract Price and a separate payment bond also in a sum equal to the Contract Price. Contractor shall furnish such bonds even if the Contract Price is less than the above thresholds if otherwise required by the Contract Documents.

G.2.2 Bond forms furnished by the Owner and notarized by awarded Contractor's surety company authorized to do business in Oregon are the only acceptable forms of performance and payment security, unless otherwise specified in the Contract Documents.

G.2.3 Before execution of the Contract the Contractor shall file with the Construction Contractors Board, and maintain in full force and effect, the separate public works bond required by Oregon Laws 2005, Chapter 360, and OAR 839-025-0015, unless otherwise exempt under those provisions. The Contractor shall also include in every subcontract a provision requiring the Subcontractor to have a public works bond filed with the Construction Contractors Board before starting Work, unless otherwise exempt, and shall verify that the Subcontractor has filed a public works bond before permitting any Subcontractor to start Work.

G.3 INSURANCE

G.3.1 Primary Coverage: Insurance carried by Contractor under this Contract shall be the primary coverage. The coverages indicated are minimums unless otherwise specified in the Contract Documents.

G.3.2 Workers' Compensation: All employers, including Contractor, that employ subject workers who work under this Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. This shall include Employer's Liability Insurance with coverage limits of not less than the minimum amount required by statute for each accident. Contractors who perform the Work without the assistance or labor of any employee need not obtain such coverage if the Contractor certifies so in writing. Contractor shall ensure that each of its Subcontractors complies with these requirements. The Contractor shall require proof of such Workers' Compensation coverage by receiving and keeping on file a certificate of insurance from each Subcontractor or anyone else directly employed by either the Contractor or its Subcontractors.

G.3.3 Builder's Risk Insurance:

G.3.3.1 Builder's Risk: During the term of this Contract, for new construction the Contractor shall obtain and keep in effect Builder's Risk insurance on an all risk forms, including earthquake and flood, for an amount equal to the full amount of the Contract, plus any changes in values due to modifications, Change Orders and loss of materials added. Such Builder's Risk shall include, in addition to earthquake and flood, theft, vandalism, mischief, collapse, transit, debris removal, and architect's fees ("soft costs") associated with delay of project due to insured peril. Any deductible shall not exceed \$50,000 for each loss, except the earthquake and flood deductible which shall not exceed 2 percent of each loss or \$50,000, whichever is greater. The deductible shall be paid by Contractor if Contractor is negligent. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear.

G.3.3.2 Builder's Risk Installation Floater: For Work other than new construction, Contractor shall obtain and keep in effect during the term of this Contract, a Builder's Risk Installation Floater for coverage of the Contractor's labor, materials and equipment to be used for completion of the Work performed under this Contract. The minimum amount of coverage to be carried shall be equal to the full amount of the Contract. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear. Owner may waive this requirement at its sole and absolute discretion.

G.3.3.3 Such insurance shall be maintained until Owner has occupied the facility.

G.3.3.4 A loss insured under the Builder's Risk insurance shall be adjusted by the Owner and made payable to the Owner as loss payee. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner. The Owner shall have power to adjust and settle a loss with insurers.

G.3.4 General Liability Insurance:

G.3.4.1 Commercial General Liability: Upon issuance of a Supplement, Contractor shall obtain, and keep in effect at Contractor's expense for the term of the Supplement, Commercial General Liability Insurance covering bodily injury and property damage in the amount of \$1,000,000 per claim and \$2,000,000 per occurrence in a form satisfactory to Owner. This insurance shall include personal injury liability, products and completed operations, and contractual liability coverage for the

indemnities provided under this Contract (to the extent contractual liability coverage for the indemnity is available in the marketplace), and shall be issued on an occurrence basis.

G.3.4.2 Automobile Liability: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Automobile Liability Insurance covering owned, and/or hired vehicles, as applicable. The coverage may be written in combination with the Commercial General Liability Insurance. Contractor shall provide proof of insurance of not less than \$1,000,000 per claim and \$2,000,000 per occurrence. Contractor and its Subcontractors shall be responsible for ensuring that all non-owned vehicles maintain adequate Automobile Liability insurance while on site.

G.3.4.3 Owner may adjust the insurance amounts required in Section G.3.4.1 and G.3.4.2 based upon institution specific risk assessments through the issuance of Supplemental General Conditions and a Supplement.

G.3.4.4 "Tail" Coverage: If any of the required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of this Contract for a duration of 36 months or the maximum time period available in the marketplace if less than 36 months. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 36 months following Final Completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this Contract. Owner's receipt of the policy endorsement evidencing such coverage shall be a condition precedent to Owner's obligation to make final payment and to Owner's final acceptance of Work or services and related warranty (if any).

G.3.4.5: Umbrella Liability (if required by Owner through issuance of Supplemental General Conditions): Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Umbrella liability Insurance over and above the general liability, automobile liability and workers' compensation coverage if required by Owner in specified limits at time of requirement.

G.3.4.6 Pollution Liability (if required by Owner through issuance of Supplemental General Conditions): Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Pollution liability Insurance in minimum amounts of \$3,000,000 naming Owner as "additional insured," as noted in the "additional insured section below.

G.3.5 Additional Insured: The general liability insurance coverage, professional liability, umbrella, and pollution liability if required, shall include the Owner as additional insureds but only with respect to the Contractor's activities to be performed under this Contract.

If Contractor cannot obtain an insurer to name the Owner as additional insureds, Contractor shall obtain at Contractor's expense, and keep in effect during the term of this Contract, Owners and Contractors Protective Liability Insurance, naming the Owner as additional insureds with not less than a \$2,000,000 limit per occurrence. This policy must be kept in effect for 36 months following Final Completion. As evidence of coverage, Contractor shall furnish the actual policy to Owner prior to execution of the Contract.

G.3.6 Notice of Cancellation or Change: If the Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify Owner by fax within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is

no longer in compliance. When notified by Owner, the Contractor agrees to stop Work pursuant to this Contract, unless all required insurance remains in effect. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverages provided to the Owner and its institutions, divisions, officers, and employees.

Owner shall have the right, but not the obligation, of prohibiting Contractor from entering the Work site until a new certificate(s) of insurance is provided to Owner evidencing the replacement coverage. The Contractor acknowledges and agrees that Owner reserves the right to withhold payment to Contractor until evidence of reinstated or replacement coverage is provided to Owner.

G.3.7 Certificate(s) of Insurance: As evidence of the insurance coverage required by this Contract, the Contractor shall furnish certificate(s) of insurance to the Owner prior to execution of the Contract. The certificate(s) will specify all of the parties who are additional insureds or loss payees for this contract. Insurance coverage required under this Contract shall be obtained from insurance companies or entities acceptable to the Owner and that are eligible to provide such insurance under Oregon law. Eligible insurers include admitted insurers that have been issued a certificate of authority from the Oregon Department of Consumer and Business Services authorizing them to conduct an insurance business and issue policies of insurance in the state of Oregon, and certain non-admitted surplus lines insurers that satisfy the requirements of applicable Oregon law and which are subject to approval by the Owner. The Contractor shall be financially responsible for all deductibles, self-insured retentions and/or self-insurance included hereunder. Any deductible, self-insured retention and/or self-insurance in excess of \$50,000 shall be subject to approval by the Owner in writing and shall be a condition precedent to the effectiveness of any Supplement.

G.3.8 Retainer Contract Program: For the OUS Retainer Contract Program the term "Contract" as used in this Section G in the phrases "keep in effect during the term of this Contract" and "prior to execution of the Contract" shall mean each Retainer Contract Supplement issued under the Retainer Contract.

SECTION H SCHEDULE OF WORK

H.1 CONTRACT PERIOD

H.1.1 Time is of the essence. The Contractor shall at all times carry on the Work diligently, without delay and punctually fulfill all requirements herein. If required by the Contract Documents, Contractor shall commence Work on the site within fifteen (15) Days of Notice to Proceed, unless directed otherwise.

H.1.2 Unless specifically extended by Supplement Amendment, all Work shall be complete by the date contained in the Contract Documents. The Owner shall have the right to accelerate the completion date of the Work, which may require the use of overtime. Such accelerated Work schedule shall be an acceleration in performance of Work under Section D.1.2 (f) and shall be subject to the provisions of Section D.1.

H.1.3 The Owner shall not waive any rights under the Contract by permitting the Contractor to continue or complete in whole or in part the Work after the date described in Section H.1.2 above.

H.2 SCHEDULE

H.2.1 Contractor shall provide, by or before the pre-construction conference, the initial as-planned schedule for review and acceptance by the Owner. The submitted schedule must illustrate Work by project components, with labor trades, and long lead items broken down by

building and/or floor where applicable. If Owner shall so elect, Contractor shall provide the schedule in CPM format showing the graphical network of planned activities, including i) a reasonably detailed list of all activities required to complete the Work; ii) the time and duration that each activity will take to completion; and iii) the dependencies between the activities. Schedules lacking adequate detail, or unreasonably detailed, will be rejected. The schedule shall include the following: Notice to Proceed or the date the Work commences, if no Notice to Proceed is issued by Owner, Substantial Completion, and Final Completion. Schedules shall be updated monthly, unless otherwise required by the Contract Documents, and submitted with the monthly application for payment. Acceptance of the Schedule by the Owner does not constitute agreement by the Owner as to the Contractor's sequencing, means, methods, or durations. Any positive difference between the Contractor's scheduled completion and the Contract completion date is float owned by the Owner. Owner reserves the right to negotiate the float if it is deemed to be in Owner's best interest to do so. In no case shall the Contractor make a claim for delays if the Work is completed within the Contract Time but after Contractor's scheduled completion. **H.3 PARTIAL OCCUPANCY OR USE**

H.3.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage, provided such occupancy or use is consented to by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have reasonably accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, insurance or self-insurance, maintenance, heat, utilities, and damage to the Work, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents with respect to such portion of the Work. Approval by the Contractor to partial occupancy or use shall not be unreasonably withheld. Immediately prior to such partial occupancy or use, the Owner and Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work. Partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

SECTION I CORRECTION OF WORK

I.1 CORRECTION OF WORK BEFORE FINAL PAYMENT

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects, and that the Work will conform to the requirements of the Contract Documents. Work failing to conform to these requirements shall be deemed defective. Contractor shall promptly remove from the premises and replace all defective materials and equipment as determined by the Owner, whether incorporated in the Work or not. Removal and replacement shall be without loss or expense to the Owner, and Contractor shall bear the cost of repairing all Work destroyed or damaged by such removal or replacement. Contractor shall be allowed a period of no longer than thirty (30) Days after Substantial Completion for completion of defective (Punch List) work. At the end of the thirty-day period, or earlier if requested by the Contractor, Owner shall arrange for inspection of the Work by the Architect/Engineer. Should the work not be complete, and all corrections made, the costs for all subsequent reinspections shall be borne by the Contractor. If Contractor fails to complete the Punch List work within the thirty (30) Day period, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand without affecting Contractor's obligations.

I.2 WARRANTY WORK

1.2.1 Neither the final certificate of payment nor any provision of the Contract Documents shall relieve the Contractor from responsibility for defective Work and, unless a longer period is specified, Contractor shall correct all defects that appear in the Work within a period of one year from the date of issuance of the written notice of Substantial Completion by the Owner except for latent defects which will be remedied by the Contractor at any time they become apparent. The Owner shall give Contractor notice of defects with reasonable promptness. Contractor shall perform such warranty work within a reasonable time after Owner's demand. If Contractor fails to complete the warranty work within such period as Owner determines reasonable, or at any time in the event of warranty work consisting of emergency repairs, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand, without affecting Contractor's obligations. The Contractor shall perform the warranty Work by correcting defects within twenty-four (24) hours of notification by Owner, unless otherwise specified in the Contract Documents. Should the Contractor fail to respond within the specified response time, the Owner may, at its option, complete the necessary repairs using another contractor or its own forces. If Owner completes the repairs using Owner's own forces, Contractor shall pay Owner at the rate of one and one-half (1½) times the standard hourly rate of Owner's forces, plus related overhead and any direct non-salary costs. If Owner completes the repairs using another contractor, Contractor shall pay Owner the amount of Owner's direct costs billed by the other contractor for the work, plus the direct salary costs and related overhead and direct non-salary expenses of Owner's forces who are required to monitor that contractor's work. Work performed by Owner using Owner's own forces or those of another contractor shall not affect the Contractor's contractual duties under these provisions, including warranty provisions.

1.2.2 Nothing in this Section I.2 shall negate guarantees or warranties for periods longer than one year including, without limitation, such guarantees or warranties required by other sections of the Contract Documents for specific installations, materials, processes, equipment or fixtures.

1.2.3 In addition to Contractor's warranty, manufacturer's warranties shall pass to the Owner and shall not take effect until such portion of the Work covered by the applicable warranty has been accepted in writing by the Owner.

1.2.4 The one-year period for correction of Work shall be extended with respect to portions of Work performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work, and shall be extended by corrective Work performed by the Contractor pursuant to this Section, as to the Work corrected. The Contractor shall remove from the site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

1.2.5 Nothing contained in this Section I.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the period for correction of Work as described in this Section I.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

1.2.6 If the Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Price will be reduced as appropriate and

equitable. Such adjustment shall be effected whether or not final payment has been made.

estate fails to assume the Contract within a reasonable time;

SECTION J

SUSPENSION AND/OR TERMINATION OF THE WORK

J.1 OWNER'S RIGHT TO SUSPEND THE WORK

J.1.1 The Owner has the authority to suspend portions or all of the Work due to the following causes:

- (a) Failure of the Contractor to correct unsafe conditions;
- (b) Failure of the Contractor to carry out any provision of the Contract;
- (c) Failure of the Contractor to carry out orders;
- (d) Conditions, in the opinion of the Owner, which are unsuitable for performing the Work;
- (e) Time required to investigate differing site conditions;
- (f) Any reason considered to be in the public interest.

J.1.2 The Owner shall notify Contractor and the Contractor's Surety in writing of the effective date and time of the suspension, and Owner shall notify Contractor and Contractor's surety in writing to resume Work.

J.2 CONTRACTOR'S RESPONSIBILITIES

J.2.1 During the period of the suspension, Contractor is responsible to continue maintenance at the project just as if the Work were in progress. This includes, but is not limited to, protection of completed Work, maintenance of access, protection of stored materials, temporary facilities, and clean-up.

J.2.2 When the Work is recommenced after the suspension, the Contractor shall replace or renew any Work damaged during the suspension, remove any materials or facilities used as part of temporary maintenance, and complete the Work in every respect as though its prosecution had been continuous and without suspension.

J.3 COMPENSATION FOR SUSPENSION

J.3.1 Depending on the reason for suspension of the Work, the Contractor or the Owner may be due compensation by the other party. If the suspension was required due to acts or omissions of Contractor, the Owner may assess the Contractor actual costs of the suspension in terms of administration, remedial work by the Owner's forces or another contractor to correct the problem associated with the suspension, rent of temporary facilities, and other actual costs related to the suspension. If the suspension was caused by acts or omissions of the Owner, the Contractor may be due compensation which shall be defined using Section D, Changes in Work. If the suspension was required through no fault of the Contractor or the Owner, neither party shall owe the other for the impact.

J.4 OWNER'S RIGHT TO TERMINATE CONTRACT

J.4.1 The Owner may, without prejudice to any other right or remedy, and after giving Contractor seven (7) Days' written notice and an opportunity to cure, terminate the Contract in whole or in part under the following conditions:

- (a) If Contractor should, voluntarily or involuntarily, seek protection under the United States Bankruptcy Code and Contractor as debtor-in-possession or the Trustee for the

(b) If Contractor should make a general assignment for the benefit of Contractor's creditors;

(c) If a receiver should be appointed on account of Contractor's insolvency;

(d) If Contractor should repeatedly refuse or fail to supply an adequate number of skilled workers or proper materials to carry on the Work as required by the Contract Documents, or otherwise fail to perform the Work in a timely manner;

(e) If Contractor should repeatedly fail to make prompt payment to Subcontractors or for material or labor, or should disregard laws, ordinances or the instructions of the Owner; or

(f) If Contractor is otherwise in breach of any part of the Contract.

(g) If Contractor is in violation of Applicable Laws, either in the conduct of its business or in its performance of the Work.

J.4.2 At any time that any of the above occurs, Owner may exercise all rights and remedies available to Owner at law or in equity, and, in addition, Owner may take possession of the premises and of all materials and appliances and finish the Work by whatever method it may deem expedient. In such case, the Contractor shall not be entitled to receive further payment until the Work is completed. If the Owner's cost of finishing the Work exceeds the unpaid balance of the Contract Price, Contractor shall pay the difference to the Owner.

J.5 TERMINATION FOR CONVENIENCE

J.5.1 Owner may terminate the Contract in whole or in part whenever Owner determines that termination of the Contract is in the best interest of Owner or the public.

J.5.2 The Owner shall provide the Contractor with seven (7) Days prior written notice of a termination for Owner's or for public convenience. After such notice, the Contractor shall provide the Owner with immediate and peaceful possession of the premises and materials located on and off the premises for which the Contractor received progress payment under Section E. Compensation for Work terminated by the Owner under this provision will be according to Section E. In no circumstance shall Contractor be entitled to lost profits for Work not performed due to termination.

J.6 ACTION UPON TERMINATION

J.6.1 Upon receiving a notice of termination, and except as directed otherwise by the Owner, Contractor shall immediately cease placing further subcontracts or orders for materials, services, or facilities. In addition, Contractor shall terminate all subcontracts or orders to the extent they relate to the Work terminated and, with the prior written approval of the Owner, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts and orders.

J.6.2 As directed by the Owner, Contractor shall, upon termination, transfer title and deliver to the Owner all Record Documents, information, and other property that, if the Contract had been completed, would have been required to be furnished to the Owner.

I.6.3 Upon Owner's notice of termination pursuant to either Section J.4 or J.5, if Owner shall so elect, Contractor shall assign to the Owner such subcontracts and orders as Owner shall specify. In

the event Owner elects to take assignment of any such subcontract or order, Contractor shall take such action and shall execute such documents as Owner shall reasonably require for the effectiveness of such assignment and Contractor shall ensure that no contractual arrangement between it and its subcontractors or suppliers of any tier or sub-tier shall prevent such assignment.

SECTION K CONTRACT CLOSE OUT

K.1 RECORD DOCUMENTS

As a condition of final payment (and subject to the provisions of section E.6), Contractor shall comply with the following: Contractor shall provide Record Documents for the entire project to Owner. Record Documents shall depict the project as constructed and shall reflect each and every change, modification, and deletion made during the construction. Record Documents are part of the Work and shall be provided prior to the Owner's issuance of final payment. Record Documents include all modifications to the Contract Documents, unless otherwise directed, and accurate MWESB Reports.

K.2 OPERATION AND MAINTENANCE MANUALS

As part of the Work, Contractor shall submit two completed operation and maintenance manuals ("O & M Manuals") for review by the Owner prior to submission of any pay request for more than 75% of the Work. Owner's receipt of the O & M Manuals shall be a condition precedent to any payment thereafter due. The O & M Manuals shall contain a complete set of all submittals, all product data as required by the specifications, training information, telephone list and contact information for all consultants, manufacturers, installer and suppliers, manufacturer's printed data, record and shop drawings, schematic diagrams of systems, appropriate equipment indices, warranties and bonds. The Owner shall review and return one O & M Manual for any modifications or adjustments required. Prior to submission of its final pay request, Contractor shall deliver three (3) complete and approved sets of O & M Manuals to the Owner and Owner's receipt of the O & M Manuals shall be a condition precedent to Owner's obligation to make final payment.

K.3 COMPLETION NOTICES

K.3.1 Contractor shall provide Owner written notice of both Substantial and Final Completion. The certificate of Substantial Completion shall state the date of Substantial Completion, the responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and the time within which the Contractor shall finish all items on the Punch List accompanying the Certificate. Both completion notices must be signed by the Contractor and the Owner to be valid. The Owner shall provide the final signature on the approved notices. The notices shall take effect on the date they are signed by the Owner.

K.3.2 Substantial Completion of a facility with operating systems (e.g., mechanical, electrical, HVAC) shall be that degree of completion that has provided a minimum of thirty (30) continuous Days of successful, trouble-free operation, which period shall begin after all performance and acceptance testing has been successfully demonstrated to the Owner. All equipment contained in the Work, plus all other components necessary to enable the Owner to operate the facility in the manner that was intended, shall be complete on the Substantial Completion date. The Contractor may request that a Punch List be prepared by the Owner with submission of the request for the Substantial Completion notice.

K.4 TRAINING

As part of the Work, and prior to submission of the final application for payment, the Contractor shall schedule with the Owner training sessions for all equipment and systems as required by the

Contract Documents. Contractor shall schedule training sessions at least two weeks in advance of the date of training to allow Owner to provide its personnel with adequate notice. The O & M Manual shall be used as a basis for training. Training shall be a formal session conducted at the Work site after the equipment and/or system is completely installed and operational in its normal operating environment.

K.5 EXTRA MATERIALS

As part of the Work, Contractor shall provide spare parts, extra maintenance materials, and other materials or products in the quantities specified in the Contract Documents prior to final payment. Delivery point for extra materials shall be designated by the Owner.

K.6 ENVIRONMENTAL CLEAN-UP

As part of the Final Completion notice, or as a separate written notice submitted with or before the notice of Final Completion, the Contractor shall notify the Owner that all environmental and pollution clean-up, remediation and closure have been completed in accordance with all Applicable Laws and pursuant to the authority of all agencies having jurisdiction, and Contractor shall provide Owner with any and all documentation related to the same, including but not limited to directives, orders, letters, certificates and permits related to or arising from such environmental pollution. The notice shall reaffirm the indemnification given under Section F.5.1 above. Contractor's completion of its obligations under this Section K.6 and Owner's receipt of documents evidencing such completion shall be a condition precedent to Owner's obligation to make final payment.

K.7 CERTIFICATE OF OCCUPANCY

Owner's receipt of an unconditioned certificate of occupancy from the appropriate state and/or local building officials shall be a condition precedent to Owner's obligation to make final payment, except to the extent failure to obtain an unconditional certificate of occupancy is due to the fault or neglect of Owner.

K.8 OTHER CONTRACTOR RESPONSIBILITIES

The Contractor shall be responsible for returning to the Owner all property of Owner issued to Contractor during construction such as keys, security passes, site admittance badges, and all other pertinent items. Upon notice from Owner, Contractor shall be responsible for notifying the appropriate utility companies to transfer utility charges from the Contractor to the Owner. The utility transfer date shall not be before Substantial Completion and may not be until Final Completion, if the Owner does not take beneficial use of the facility and the Contractor's forces continue with the Work.

K.9 SURVIVAL

All warranty and indemnification provisions of this Contract, and all of Contractor's other obligations under this Contract that are not fully performed by the time of Final Completion or termination, shall survive Final Completion or any termination of the Contract.

OREGON UNIVERSITY SYSTEM
STANDARD PUBLIC IMPROVEMENT CONTRACT
PERFORMANCE BOND

Bond No. _____
Solicitation _____
Project Name _____

_____ (Surety #1)	Bond Amount No. 1:	\$ _____
_____ (Surety #2)*	Bond Amount No. 2:*	\$ _____
<i>* If using multiple sureties</i>	Total Penal Sum of Bond:	\$ _____

We, _____ as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto the State of Oregon, acting by and through the State Board of Higher Education, on behalf of the OUS (OUS), the sum of (Total Penal Sum of Bond)

(Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into a contract with the OUS, the plans, specifications, terms and conditions of which are contained in the above-referenced Solicitation;

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Performance Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and all authorized modifications of the Contract which increase the amount of the work, the amount of the Contract, or constitute an authorized extension of the time for performance, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things undertaken by Contractor to be performed under the Contract, upon the terms set forth therein,

and within the time prescribed therein, or as extended as provided in the Contract, with or without notice to the Sureties, and shall indemnify and save harmless the OUS, and _____ (name of institution and any other Owner agency), and members thereof, its officers, employees and agents, against any direct or indirect damages or claim of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Principal or its subcontractors, and shall in all respects perform said contract according to law, then this obligation is to be void; otherwise, it shall remain in full force and effect.

Nonpayment of the bond premium will not invalidate this bond, nor shall the State of Oregon or the OUS, be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 351, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this _____ day of _____, 20__.

PRINCIPAL: _____

By _____

Signature

Official Capacity

Attest: _____

Corporation Secretary

SURETY: _____

[Add signatures for each surety if using multiple bonds]

BY ATTORNEY-IN-FACT:

[Power-of-Attorney must accompany each surety bond]

Name

Signature

Address

City State Zip

Phone Fax

OREGON UNIVERSITY SYSTEM
STANDARD PUBLIC IMPROVEMENT CONTRACT
PAYMENT BOND

Bond No. _____
Solicitation _____
Project Name _____

_____ (Surety #1)	Bond Amount No. 1:	\$ _____
_____ (Surety #2)*	Bond Amount No. 2:*	\$ _____
	Total Penal Sum of Bond:	\$ _____

* *If using multiple sureties*

We, _____, as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto the State of Oregon, acting by and through the State Board of Higher education, on behalf of the Oregon University System (OUS), the sum of (Total Penal Sum of Bond) _____

(Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into a contract with the OUS, the plans, specifications, terms and conditions of which are contained in above-referenced Solicitation;

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Payment Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and schedule of contract prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things by it undertaken to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided in the Contract, with or without notice to the Sureties, and shall indemnify and save harmless the OUS and _____ (name of institution and any other Owner agency), and members thereof, its officers, employees and agents, against any claim for direct or indirect damages of every kind and description that shall be suffered or

claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, and shall promptly pay all persons supplying labor, materials or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; and shall promptly pay all contributions due the State Industrial Accident Fund and the State Unemployment Compensation Fund from the Principal or its subcontractors in connection with the performance of the Contract; and shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167, and shall permit no lien nor claim to be filed or prosecuted against the State on account of any labor or materials furnished; and shall do all things required of the Principal by the laws of this State, then this obligation shall be void; otherwise, it shall remain in full force and effect.

Nonpayment of the bond premium will not invalidate this bond, nor shall the State of Oregon, or the OUS be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 351, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES:

Dated this _____ day of _____, 20__.

PRINCIPAL: _____

By _____
Signature

Official Capacity

Attest: _____
Corporation Secretary

SURETY: _____

[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:

[Power-of-Attorney must accompany each bond]

Name

Signature

Address

City State Zip

Phone Fax

**RETAINER CONTRACT SUPPLEMENT
OUS RETAINER CONTRACT FOR CONSTRUCTION
RELATED SERVICES**

Supplement No.
Project Name
Owner's Project
Manager

This Retainer Contract Supplement dated _____ (the "Supplement") is entered into between:

"Contractor":

Federal Tax ID No.

and "Owner": The State of Oregon, acting by and through the State
Board of Higher Education, on behalf of:

(collectively, the "Parties") pursuant to the Retainer Contract for Construction Related Services between the Parties terminating June 30, 2014 (the "Retainer Contract"). Capitalized terms have the meaning defined in the OUS Retainer General Conditions unless otherwise defined in the Retainer Contract or herein.

- 1. DESCRIPTION OF THE PROJECT.** The project to which this Supplement pertains is described as follows: _____ (the "Project").
- 2. WORK TO BE PERFORMED.** Contractor shall perform the following work on the Project : _____ (the "Work"). Contractor will perform the Work according to the terms and conditions of this Supplement and the Contract Documents, which are incorporated herein by this reference.
- 3. SCHEDULE.** Contractor shall perform the Work according to the following schedule: _____ (the "Schedule").
- 4. COMPENSATION.** Owner shall compensate Contractor for Work (a) in the firm, fixed-price amount of \$ _____; or (b) on a time and materials basis subject to a maximum not-to-exceed price of \$ _____; in accordance with the requirements of the OUS Retainer General Conditions. If the Work is performed on a time and materials basis, Contractor's listing of wage rates, material unit costs and overhead charges for the Work is attached to this Supplement.

The cost of the Work under this Supplement, even if this Supplement is later amended to include additional work, must not exceed the greater of \$1,000,000 or the maximum allowable under

OAR 580-063-0030.

5. TERM. This Supplement is effective on the date it has been signed by every Party hereto and all approvals required by Applicable Law have been obtained (the "Effective Date"). No Work shall be performed or payment made prior to the Effective Date. Contractor shall perform its obligations in accordance with the Contract Documents, unless this Supplement is earlier terminated or suspended.

6. PERFORMANCE AND PAYMENT BONDS. The performance and payment bond requirements for this Project are as follows (check one of the following):

As a condition precedent to the effectiveness of this Supplement and to Owner's obligation to make payment for the Work, Contractor shall provide the Owner with a performance bond and a separate payment bond in a sum equal to the Contract Price stated in Section 4 of this Supplement.

This Project has a Contract price of \$100,000 or less, and Owner has determined that performance and payment bonds will not be required for this Project.

7. MINIMUM WAGE RATES.

Prevailing Wage Rates requirements do not apply to this Project because the maximum compensation for all Owner-contracted Work does not exceed \$50,000.

Prevailing Wage Rates requirements apply to this Project because the maximum compensation for all Owner-contracted Work is more than \$50,000. Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates and the required public works bond, as outlined in Sections C.1, C.2 and G.2.3 of the OUS Retainer General Conditions. The Bureau of Labor and Industries (BOLI) wage rates and requirements set forth in the following BOLI booklet (and any listed amendments to that booklet), which are incorporated herein by reference, apply to the Work authorized under this Supplement:

PREVAILING WAGE RATES for Public Works Contracts in Oregon, _____, 20____, as amended _____, 20____ [~~delete "as amended _____, 20____" if there have been no amendments since last rate change~~], which can be downloaded at the following web address:

[http://www.boli.state.or.us/BOLI/WHI/PWR/pwr_book.shtml]

The Work will take place in _____ County, Oregon.

8. TAX COMPLIANCE CERTIFICATION. Contractor hereby certifies and affirms, under penalty of perjury as provided in ORS 305.385(6), that, to the best of Contractor's knowledge, Contractor is not in violation of any of the tax laws described in ORS 305.380(4). For purposes of this certification, "tax laws" means a state tax imposed by ORS 320.005 to 320.150 and 403.200 to 403.250, ORS Chapters 118, 314, 316, 317, 318, 321 and 323; the elderly rental assistance program under ORS 310.630 to 310.706; and local taxes administered by the Oregon Department of Revenue under ORS 305.620.

9. INSURANCE REQUIREMENTS.

Contractor shall comply with and obtain the insurance coverage amounts stated in the OUS Retainer General Conditions.

The Owner has determined that the Contractor shall obtain insurance in the amount described in the Retainer Supplemental General Conditions, attached hereto.

10. KEY PERSONS. If checked here, the following provision is incorporated into this Supplement:

The Parties agree that certain Contractor personnel are specifically valuable to the Project (“Key Persons”). Key Persons shall not be replaced during the Project without the written consent of Owner, which shall not be unreasonably withheld. If Contractor intends to substitute personnel, Owner shall receive the request at least 15 days prior to the effective date of substitution. When replacements have been approved by Owner, Contractor shall provide a transition period of at least 10 working days during which the original and replacement personnel shall be working on the Project concurrently. Upon authorization for the replacement of a Key Person, all subsequent substitutions of that Key Person shall require Owner’s written consent in accordance with this Section. The Key Persons for this Project are the following:

Project Executive: _____ shall be Contractor’s Project Executive, and will provide oversight and guidance throughout the Project term.

Project Manager: _____ shall be Contractor’s Project Manager and will participate in all meetings throughout the Project term.

Job Superintendent: _____ shall be Contractor’s on-site Job Superintendent throughout the Project term.

Project Engineer: _____ shall be Contractor’s Project Engineer, providing assistance to the Project Manager, and subcontractor and supplier coordination throughout the Project term.

11. OTHER TERMS. Except as specifically modified by this Supplement, all terms of the Retainer Contract remain unchanged.

12. EXECUTION AND COUNTERPARTS. This Supplement may be executed in several counterparts, each of which shall be an original, all of which shall constitute but one and the same instrument.

Contractor hereby confirms and certifies that the representations, warranties, and certifications contained in the Retainer Contract remain true and correct as of the Effective Date of this Supplement.

IN WITNESS HEREOF, the Parties have duly executed this Supplement as of the dates indicated below.

, Contractor

The State of Oregon, acting by and through

the State Board of Higher Education, on
behalf of _____, Owner

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

**RETAINER CONTRACT SUPPLEMENT AMENDMENT
OUS RETAINER CONTRACT FOR CONSTRUCTION
RELATED SERVICES**

Supplement No.:
Amendment No.:
Project Name:

This Amendment dated _____ to the Retainer Contract Supplement is entered into between:

“Contractor”:

Federal Tax ID No.

and “Owner”: The State of Oregon, acting by and through the State
Board of Higher Education, on behalf of:

(collectively the “Parties”) pursuant to the Retainer Contract for Construction Related Services between the Parties expiring June 30, 2014 (the “Retainer Contract”). Capitalized terms have the meaning defined in the OUS Retainer General Conditions unless otherwise defined in the Contract Documents.

1. SERVICES: The Work described in the Retainer Contract Supplement is being amended as follows:

2. SCHEDULE. The schedule contained in Section 3 of the Retainer Contract Supplement is hereby replaced in its entirety with the following schedule:

3. COMPENSATION. Section 4 of the Retainer Contract Supplement, is hereby replaced in its entirety with the following:

“Owner will compensate Contractor for Work (a) in the firm, fixed-price amount of \$ _____ ;
or (b) on a time and materials basis subject to a maximum not-to-exceed price of
\$ _____ ; in accordance with the requirements of the OUS Retainer General Conditions.
If the Project is done on a time and materials basis, Contractor’s listing of wage rates, material
unit costs and overhead charges for the Work is attached to this Supplement.

The total cost of Work including the original amount contemplated in the Supplement and the additional amount contemplated in this Amendment, must not exceed the greater of \$1,000,000 or the maximum allowable under OAR 580-063-0030.”

4. **TERM.** This Amendment is effective on the date it has been executed by the Parties and all required approvals have been obtained (the "Effective Date"). No Work will be performed or payment made prior to the Effective Date.

5. **TAX COMPLIANCE CERTIFICATION.** Contractor hereby certifies and affirms, under penalty of perjury as provided in ORS 305.385(6), that, to the best of Contractor's knowledge, Contractor is not in violation of any of the tax laws described in ORS 305.380(4). For purposes of this certification, "tax laws" means a state tax imposed by ORS 320.005 to 320.150 and 403.200 to 403.250, ORS Chapters 118, 314, 316, 317, 318, 321 and 323; the elderly rental assistance program under ORS 310.630 to 310.706; and local taxes administered by the Oregon Department of Revenue under ORS 305.620.

6. **EXECUTION AND COUNTERPARTS.** This Amendment may be executed in several counterparts, each of which shall be an original, all of which shall constitute but one and the same instrument.

Contractor hereby confirms and certifies that the representations, warranties and certifications contained in the Retainer Contract and the Retainer Contract Supplement remain true and correct as of the Effective Date of this Amendment.

IN WITNESS HEREOF, the Parties have duly executed this Amendment as of the dates indicated below.

_____, Contractor

The State of Oregon, acting by and through
the State Board of Higher Education, on
behalf of _____, Owner

By: _____

By: _____

Title: _____

Title: _____

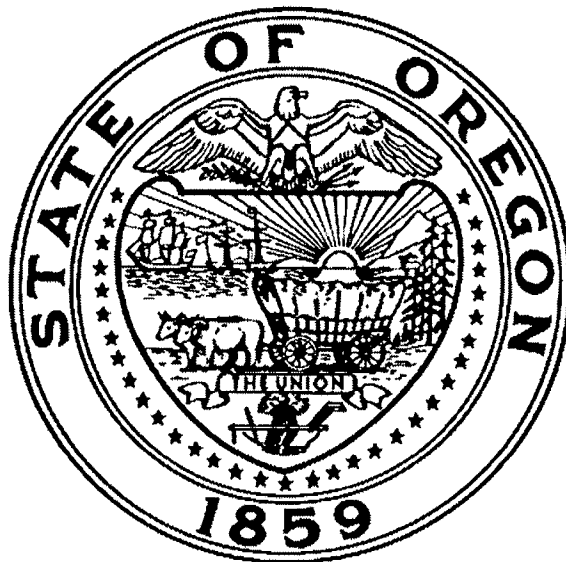
Date: _____

Date: _____

PREVAILING WAGE RATES

for

Public Works Contracts in Oregon



OREGON BUREAU OF LABOR AND INDUSTRIES

**Brad Avakian
Commissioner
Bureau of Labor and Industries**

Effective: January 1, 2013

http://www.oregon.gov/boli/WHD/PWR/Pages/January_2013_Index.aspx

CapCon MWESB Subcontractor Report

REPORT BEING SUBMITTED	
-------------------------------	--

OVERALL PROJECT DATA

Reporting Period	2011
Campus	
General Contractor's Name	
Contract Number	
Project Name	
Contract Execution Date (Date Contract was Signed by the Owner)	
Date of Final Payment Application	
Initial Total Contract Value	
Total Contract Value billed within the fiscal year (July 1 - June 30)	
Final Total Contract Value	
Total Number of Subcontractors Used on Project	
Total Number of First-Tier Subcontractors Used on Project	
Number of First-Tier MWESB Subcontractors	

CALCULATED REPORTING DATA (Self Calculating - No Data Entry)

Number of MWESB Subcontractors	0
% MWESB Subcontractors	
% First-Tier MWESB Subcontractors	
CERTIFIED MWESB TOTALS	
Value Awarded to MWESB Contractors	\$0.00
% Value Awarded to MWESB Contractors	
Value - minority-owned MWESB subcontractors	\$0.00
% - minority-owned MWESB subcontractors	
Value - women-owned MWESB subcontractors	\$0.00
% - women-owned MWESB subcontractors	
Value - emerging small business MWESB subcontractors	\$0.00
% - emerging small business MWESB subcontractors	
SELF-IDENTIFIED or OTHER CERTIFIED MWESB TOTALS	
Value - self-identified or other certified subcontractors	\$0.00
% - self-identified or other certified subcontractors	
OVERALL PROJECT CONTRACT HISTORY	
% Value Awarded to MWESB Contractors at Initial Contract	#DIV/0!
% Value Awarded to MWESB Contractors at Final Contract	#DIV/0!
FOR OFFICIAL USE ONLY:	
Date Received by the Campus	
Initials of Campus staff who checked the document	

Created: September 15, 2011/Updated 4/3/12

Purpose of File:

Each Fiscal year, the OUS campuses are required to report data to the State Legislature on Minority, Women and Emerging Small Business Contractors and Sub-Contractors who provide goods and services. Various statistics are calculated, based on the data input being provided by the contractors. This file is for the collection of the data for each project by contract. Each University will compile statistics associated with all of their contracts during each fiscal year. Once consolidated at the University level, the information is sent to OUS who in turn consolidates all of the information from the seven institutions and reports it to the Legislature.

General Information on how to use the file:

You will fill this form out at least twice for your project. Small projects that do NOT span over the end of a fiscal year (June 30 – July 1) will require two submittals (An Initial and a Final). Any project spanning over the end of a fiscal year will require three submittals (Initial, Year-End and Final). For larger projects that span over multiple fiscal years, the Year-End report will need to be submitted multiple times.

The first Submittal will always be the “Initial” report which is due within 10 days of the execution of the contract or in the case of a CM/GC contract, the establishment of an Early Work Amendment or Guaranteed Maximum Price Amendment.

At the end of every fiscal year, you are required to submit a “Year-End” report.

At the completion of the project you are required to submit a “Final” report.

- 2) The areas shaded in gray in the OVERALL PROJECT DATA section are for input by the Contractor. The gray portion of the “Individual Contractor/Sub-Contractor Data Entry Matrix” is also an area intended for Contractor input.
- 3) For some items, a drop-down box is provided. This is to maintain the consistency of data used to sort information.
- 4) For other items, simply type in the information. If the type of information typed in is incorrect, you will get an error message or your results may look incorrect. For example, when you enter a date, simply type it: 8/17/11. You do not need to spell out the month.

Saving your file:

- 1) **FILE NAMING CONVENTION** – All files submitted to the campus shall be named as defined by the following naming convention: (filename = FYXX_ContractNumber_SubmissionStatus)

FYXX = XX refers to the two digit extension of the year. Example “FY12” for Fiscal Year 2012.

Include an underscore between the FYXX and the Contract Number. There should be no blanks in the filename.

ContractNumber = Insert the number that is established on the front of your contract with the campus.

Include an underscore between the Contract Number and the Submission Status. There should be no blanks in the filename.2)

SubmissionStatus = “I” for Initial; “Y” for Year end; “F” for Final. This should correspond with what you select at the top of the report as explained in item 1 of “Filling Out the Form” below.

Filling Out the Form:

- 1) Use the drop-down box adjacent to the REPORT BEING SUBMITTED heading to pick the corresponding report you are submitting for your project. This will establish highlighted headings (in light green) in the “Individual C/S-C Data Entry Matrix” & OPERALL PROJECT DATA sections that define for you which columns or rows should be completely filled out prior to submission.

- 2) Next, fill in the information in the OVERALL PROJECT DATA section. Again, rows highlighted in green will tell you which cells to fill in based upon the type of report being submitted. Only fill in the cells that are highlighted. The top 5 cells should remain the same for the duration of the reporting on the project. Cell B-11 should also remain unchanged after the initial submittal. Cells B-14 thru B-16 may change over the life of the project if you add additional sub-contractors as the project progresses.
- 3) Once you have completed the OVERALL PROJECT DATA section, begin entering each sub-contractor in the "Individual C/S-C Data Entry Matrix table. Columns F, J, K & L are drop-down selections in the table area. Just pick the appropriate response for these columns. There are "notes" that pop up as you select cells in the columns that helps explain what information is needed for each column.
- 4) **IMPORTANT:** Use the tab key to move across the columns. This is necessary in order to avoid generating false information in the cells so that calculations occur appropriately.
- 5) The first two rows of the Matrix are formatted to receive information. They will be identified in bright red when you make the selection of the type of form you are submitting (Cell B-1). To add another row that is properly formatted (like the rows above it), simply press the tab key when you get to the last column in the row you just filled in.
- 6) To change information in a cell, simply type over it or press the Delete key on your keyboard. Using other methods to change data can cause unwanted results. For example, copy and paste can add unwanted data. Using the spacebar to delete information actually leaves behind a space—which is a character—which will cause math errors.
- 7) You must have a State of Oregon Certification Number OR indicate that a contractor is self-identifying as a MWESB. If you have not filled in one of these, then the Name of the Contractor will remain bright red (which is an error symbol).
- 8) All cells in the CALCULATED REPORTING DATA section are automatically generated formulas and cannot be changed.
- 9) Columns to be completed are as follows:
 - Name of MWESB General/ Subcontractor:** List each MWESB used on the project (all tiers). If you as the General, are an MWESB contractor, submit your information in the first row.
 - State of Oregon MWESB Certification Number:** This is the number provided when a contractor or subcontractor applies for and receives this certification. Enter this number.
 - Self-Identified or Other Certified:** If a sub-contractor indicates that they are a women, minority or emerging small business, but doesn't have certification, indicate here by identifying with a "Yes" by picking it from the drop-down box.
 - Initial Sub-Contract Value:** This is the value of the subcontract-with the specific contractor listed, not to be confused with the value of the overall construction contract between the Contractor and the Owner. Once this number is entered, it should not change on subsequent submittals of the form.
 - Sub-Contract value billed within the fiscal year (July 1-June 30):** This is the value for work performed during the year being reported. If your reporting requirements span multiple years due to the size of your project, this information may be replaced by new information for subsequent years.
 - Final Sub-Contract Value:** This is the final value of the sub-contract, including any additions or deductions that occur over the course of the project.

MORE THAN ONE OF THE FOLLOWING CATEGORIES CAN BE SELECTED:

 - Minority-Owned:** Certified by the State of Oregon or self-identifying; select Yes from the drop-down if it applies or leave blank if it does not.
 - Women-Owned:** Certified by the State of Oregon or self-identifying; select Yes from the drop-down if it applies or leave blank if it does not.
 - Emerging Small Business:** Certified by the State of Oregon or self-identifying; select Yes from the drop-down if it applies or leave blank if it does not apply.
- 10) Check your work prior to submitting the document to make sure that all cells in (light green) highlighted rows or columns are completed. If you do not have light green highlights showing up on your document, please return to #1 in this section and follow the directions given. REMEMBER TO SAVE YOUR FILE AGAIN NOW.

Submitting your Form:

Follow the directions as provided by the campus you are contracted with to submit this document. Typically you should be given an E-mail address within your contract transmittal or cover letter for which to submit the file.



Engineering +
Environmental

Asbestos Survey Report

Hendricks Hall

Prepared for:

University of Oregon

General Information.....	1.1
Inspection Summary.....	1.2
Asbestos Survey Drawings	2.1
Sample Inventories.....	3.1
Laboratory Data.....	Not Numbered
AHERA Certificates	Not Numbered

February 2011

Project No.: 51565.007 Phase No.: 0005

2645 Willamette Street #A, Eugene, OR 97405

541.686.8684 Main

541.686.4602 Fax

888.248.1939 Toll-Free

www.pbsenv.com


PART 1 GENERAL INFORMATION**BUILDING DATA**Hendricks Hall
1408 University Street
Eugene, Oregon 97403**CLIENT DATA**University of Oregon
Environmental Health & Safety
5224 University of Oregon
Eugene, Oregon 97403**Year Built:** 1918**Square Footage:** 28,567**Construction Information:** Three story structure on concrete foundation. The building consists of wood and brick-and-mortar structure with a gambrel style wood and transite shingle roof.**1.01 SURVEY SCOPE**

PBS Engineering + Environmental (PBS) has performed a general asbestos survey of accessible building areas within Hendricks Hall in accordance with OSHA in 29 CFR 1910.1001 and assembled a report with the following information:

- The type, location, and approximate quantity of suspect asbestos-containing materials
- Bulk sampling of selected suspect building materials
- Laboratory analytical data of bulk materials sampled

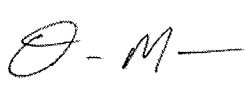
PBS endeavored to locate all of the known and suspect asbestos-containing materials within the building; however, suspect asbestos-containing materials may be present concealed within wall, ceiling, or floor spaces. If suspect materials are uncovered during demolition activities that are not identified in this report, testing should be performed prior to impact unless prior project documentation or specifications for installation of the material can prove that it is not asbestos-containing.

PBS has conducted a physical inspection of Hendricks Hall, 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.

PART 2 CERTIFICATIONAdam S. Jones
Project Manager
Accreditation IMR-10-4640A

 2011.02.25
14:23:14 -08'00'

Signature

Date

Danny McCabe
Prime Inspector
Accreditation IR-10-8635A

 2011.02.25
12:20:32 -08'00'

Signature

Date

PART 3 INSPECTION SUMMARY

DATES	SURVEYED BY	ACTIVITY
December 2009	Adam Jones	Materials inventory and bulk sample collection.
January 2010	Danny McCabe	
	DJ Burrows	

PBS Engineering + Environmental has investigated accessible areas inside of Hendricks Hall to locate suspect asbestos-containing building materials (ACBM). Suspect materials may be present in concealed areas (e.g. behind walls and under carpet). The findings are listed below.

3.01 BACKGROUND:

PBS performed an asbestos survey of accessible areas within Hendricks Hall, including mechanical rooms, attic spaces, crawlspaces, and general building areas. The survey scope included an inventory of all accessible suspect asbestos-containing materials, and limited investigation for concealed materials. Limited investigation was performed beneath carpets and above ceilings in representative locations. Limited demolition was not performed, and asbestos-containing materials may be present concealed within walls, above ceilings, and within floor spaces.

3.02 ASBESTOS MATERIALS

The following materials either tested positive, or, based on the experience of PBS field personnel, were not tested and should be considered asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled may contain asbestos and should be tested to verify asbestos content prior to impact through demolition, renovation, etc.

(+) Tested Positive, (M) Mixed Results, (<1%) One Percent or Less, (P) Presumed Positive, (T) Previously Tested Positive.

Result	Material (type)	Location	Approx. Quantity
(+)	Glued-on Ceiling Tile, 12"x12" Stippled and Scarred / Mastic, Brown	Room 247 and hallway H247. <i>* Refer to Figure 2.3 for specific material locations. The ceiling tiles do not contain asbestos but are contaminated with asbestos-containing mastic.</i>	320 SF
(+)	Floor Tile, 9"x9" Grey with Cream and Black Spatter / Mastic, Black / Tarpaper	Exposed within room 156. Beneath carpet in room 158. <i>* Refer to Figure 2.2 for specific material locations.</i>	120 SF 120 SF
(+)	Stair Risers, 6" Light Grey / Mastic, Tan / Remnant Mastic, Brown	Within Stairwells S1, and S101. <i>* Refer to Figures 2.1 and 2.2 for specific material locations. The stair risers and tan mastic do not contain asbestos but are contaminated with asbestos-containing remnant mastic.</i>	Unknown

3.02 ASBESTOS MATERIALS

The following materials either tested positive, or, based on the experience of PBS field personnel, were not tested and should be considered asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled may contain asbestos and should be tested to verify asbestos content prior to impact through demolition, renovation, etc.

(+) Tested Positive, (M) Mixed Results, (<1%) One Percent or Less, (P) Presumed Positive, (T) Previously Tested Positive.

<u>Result</u>	<u>Material (type)</u>	<u>Location</u>	<u>Approx. Quantity</u>
(+)	Sink Undercoat, Pink	On underside of sink within room 28. <i>* Refer to Figure 2.1 for specific material location.</i>	1 EA
(+)	Sealant, Green and White	Observed behind flashings on roof.	Unknown
(M)	Joint Compound	Applied at joints in gypsum board wall systems throughout surveyed areas. This material has tested positive with mixed results and when observed, should be sampled before impact.	Unknown
(T)	Pipe Fitting Insulation	Observed on fiberglass-insulated piping straight runs in rooms 1, 1B, 4, 6, 6B, 6C, 8, 13, 21, 26D, 131, 133, 238, 322, 330, and Vestibule V26. <i>* Refer to Figures 2.1-2.4 for specific pipe fitting insulation locations and approximate quantities by room.</i>	110 EA
(T)	Pipe Insulation	Observed on piping straight runs in the crawlspace, in rooms 6, 13, 26, 26A, 26C, 26D, 26E, and in hallway H26. <i>* Refer to Figure 2.1 for specific pipe insulation locations and approximate quantities by room.</i>	540 LF
(T)	Transite Roofing Shingles	Observed throughout the building's mansard roof sections. <i>* Refer to Figure 2.6 for specific locations of transite shingles on the roof.</i>	1475 SF

3.03 MATERIALS PRESUMED TO CONTAIN ASBESTOS / MATERIALS NOT SAMPLED

Bulk sampling of suspect asbestos-containing materials was conducted within the building. Samples were collected of materials that had not been previously sampled, or where results of previously collected samples were unclear or incomplete. In some cases, materials were not sampled based on the amount of damage caused by bulk sampling, limited accessibility, or that were recently installed. Materials not sampled should be presumed to contain asbestos and should be sampled prior to impact. A listing of materials not sampled is as follows:

(1) – Recently installed finish, (2) – Sampling will damage the material, (3) – Inaccessible material

<u>Material</u>	<u>Location / Reason for Presumption</u>
Duct Joint Tape	On air units and associated ductwork throughout the attic space. ⁽²⁾
Mechanical Isolation Cloth	On air units throughout the attic space. ⁽²⁾
Nailed-On Wood Paneling, Various Heights Painted Multi-Colors	Walls within stairwells S1 and S101, and rooms 4 and 6C. ⁽²⁾
Hardwood Flooring / Vapor Barrier	Hallway H100 and rooms 100, 101, 104, and 132. ⁽²⁾
Ceramic Tile, 4" x 4" Red / Grout / Mastic	Within restrooms 124, 126, 224, 227, 324, 327, and restroom vestibule V126. ⁽²⁾
Ceramic Base, 6" Red / Grout / Mastic	Within restrooms 124, 126, 224, 227, 324, 327, and restroom vestibule V126. ⁽²⁾
Glue Down Carpet Squares / Mastic, Clear	Room 158. ⁽¹⁾
Wood Paneling / Mastic	Room 235. ⁽²⁾

3.04 MATERIALS WHICH TESTED NEGATIVE FOR ASBESTOS

The following materials tested negative based on ASHARA sampling minimums and testing by NVLAP participating laboratories. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact through demolition, renovation, etc.

<u>Material (type)</u>	<u>Location</u>
Plaster, Light Sandy Texture on Lath or Gypsum Board	Wall and ceiling materials building-wide.
Vinyl Floor Tile, White / Mastic, Orange	Room 128.
Formica Backsplash, Tan / Mastic, Clear / Mastic, Brown	Rooms 226 and 326
Plaster, Sandy Texture on Lath or Gypsum Board	Wall and ceiling materials building-wide.
Plaster, Smooth on Lath or Gypsum Board	Wall and ceiling materials building-wide.

3.04 MATERIALS WHICH TESTED NEGATIVE FOR ASBESTOS

The following materials tested negative based on ASHARA sampling minimums and testing by NVLAP participating laboratories. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact through demolition, renovation, etc.

<u>Material (type)</u>	<u>Location</u>
Vinyl Floor Tile, 9" X 9" Salmon / Mastic, Orange	Beneath glued-down carpet in stairwell S102 and rooms 121, 121A, 121B, 128.
Glued-on Ceiling Tiles, 12" x 12" Stippled / Mastic, Brown	Ceiling materials in hallway H20, and rooms 21, 25. On both ceiling and walls in room 26C.
Fiberboard Panels	Ceiling material in rooms 26A, 26D, 26E, 26, and vestibule V26. On both ceiling and walls in rooms 28, 29, and hallway H26.
Glued-on Ceiling Tiles, 12" x 12" Perforated / Mastic, Brown	Ceiling material in hallway H100 and in rooms 100-109, 113, 115, and 158.
Lay-in Ceiling Tiles, 2' x 4' Stippled and Scarred	Room 111.
Wallpaper, Cream with Tan Splatter / Mastic, White	Room 230.
Plaster, Splatter Texture / Lath or Gypsum Board	Walls and ceiling in room 247A.
Vinyl Floor Tile, 12" x 12" Grey with Dark Grey and White Splatter / Mastic, Yellow / Mastic, Brown	Rooms 1, 1A, 1B, 4, 6, 26A, 26C-E, 26, and vestibule V26.
Rubber Flooring, Light Grey Circular Design / Mastic, Cream / Remnant Mastic, Brown	In stairwells S001, and S101.
Glue Down Carpet, Multi-Colors / Mastic, Yellow	Various areas throughout building.
Glue Down Carpet, Multi-Colors / Mastic, Orange	Within rooms 121A, 121B, 121, and 128, stairwell S3, and lobby L19.
Vinyl Floor Tile, 12" x 12" Cream with Brown and Black Splatter / Mastic, Yellow	Lobby L13.
Rubber Flooring, Brown Circular Design / Mastic, Yellow	Within the elevator.
Sheet Vinyl Flooring, Smokey Grey Pattern / Mastic, Brown	Hallway H100, and rooms 107-111 and 113.
Vinyl Floor Tile, 12" x 12" Cream Dimpled / Mastic, Yellow	In rooms 125, 147D, 225, 226, 325, 326, and observed beneath carpet in room 331A.

3.04 MATERIALS WHICH TESTED NEGATIVE FOR ASBESTOS

The following materials tested negative based on ASHARA sampling minimums and testing by NVLAP participating laboratories. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact through demolition, renovation, etc.

<u>Material (type)</u>	<u>Location</u>
Glue Down Carpet, Multi-Colors / Backing, Black / Mastic, Yellow	Room 130.
Sheet Vinyl Flooring, Reddish Brown / Mastic, Brown	Beneath glued-down carpet in stairwell S103, in rooms 130, 134, 140, 147, 147A-C, and also in hallways H120, H128, H130, H135, H140, and H147.
Sheet Vinyl Flooring, Green with Multi-Color Splatter / Mastic, Yellow	Room 223.
Covebase, 4" Grey / Mastic, Cream / Mastic, Brown	Observed in rooms 1, 1A, 1B, 4, 6C, 26A, 26C-E, 26, 106, 113, 121A, 121, vestibule V26, and lobby L319.
Covebase, 6" Light Grey / Mastic, Cream	Stairwells S1 and S101.
Covebase, 4" Black / Mastic, White	Rooms 12, 12A, 21, 100, 101, 104, 107, 109, 110, 147, 147A-C, and hallway H100.
Covebase, 4" Tan / Mastic, Brown	Lobby L19 and rooms 21, 102, 108, 125, 128, 147D, 225, 226, 325, and 326.
Covebase, 4" Dark Grey / Mastic, Yellow	Room 158.
Covebase, 4" Light Blue / Mastic, Yellow / Mastic, Cream	Rooms 13, 103, and 105.
Covebase, 4" Brown / Mastic, Cream	Rooms 111 and 115.
Concrete Board	4' high, on walls in rooms 1 and 1A
Sealant, Cream	Along the counter backsplash in room 28.
Vapor Barrier, Black	Above the wood structure ceiling in hallway H2 and within rooms 6 and 8.
Sealant, Grey	Building exterior, between the brick façade and window or door framing.
Window Glazing, White	Building exterior, between window framing and window glass building-wide.
Sealant, Grey-Beige	Building exterior, beneath all exterior door units.
Sealant, Silver	Building exterior, at seams in the roof gutters.
Vinyl Floor Tile, 9" X 9" Green / Mastic, Black	Beneath glued-down carpets within rooms 131 and 133.

3.05 ASBESTOS-CONTAINING MATERIALS WITH MIXED RESULTS

The following materials were sampled by PBS and the results were mixed. These materials are listed in the Inspection Summary as asbestos-containing materials and indicated as Type (M). Material with mixed results should be considered asbestos-containing. Additional sampling beyond the scope of this investigation may further delineate the asbestos-containing materials.

<u>Material</u>	<u>Location / Reason for Presumption</u>
Joint Compound	Applied at joints in gypsum board wall systems throughout the building. Results from bulk sampling have been inconsistent.

3.06 ATTIC INSPECTION

The attic spaces above the third floor were accessed and inspected. Presumed asbestos-containing mechanical isolation cloth and duct joint tape was observed on various air units and ductwork. Asbestos-containing gypsum board and joint compound walls associated with the elevator shaft were observed.

3.07 CRAWLSPACE INSPECTION

The crawlspace adjacent to stairway 3 was accessed and inspected. Asbestos-containing pipe insulation was observed throughout.

BASEMENT	
PLAN	
PROJECT:	515665.007
DATE:	FEBRUARY 2011

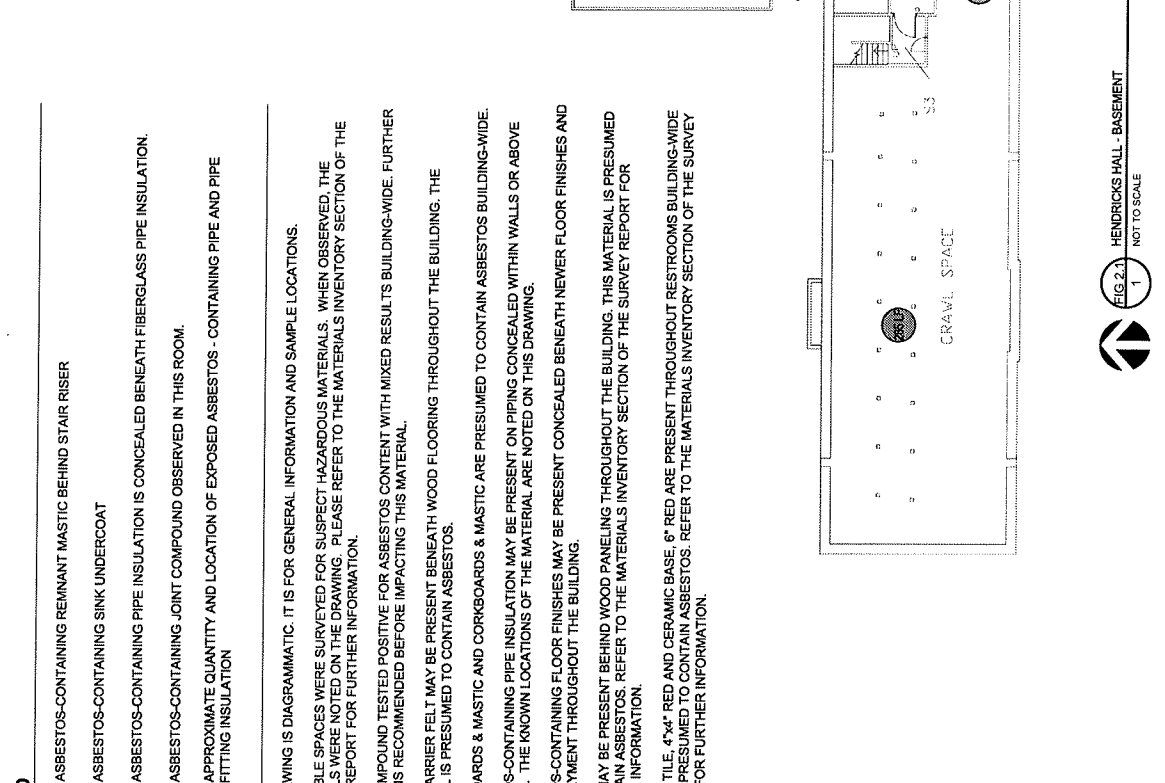
FIGURE
2.1

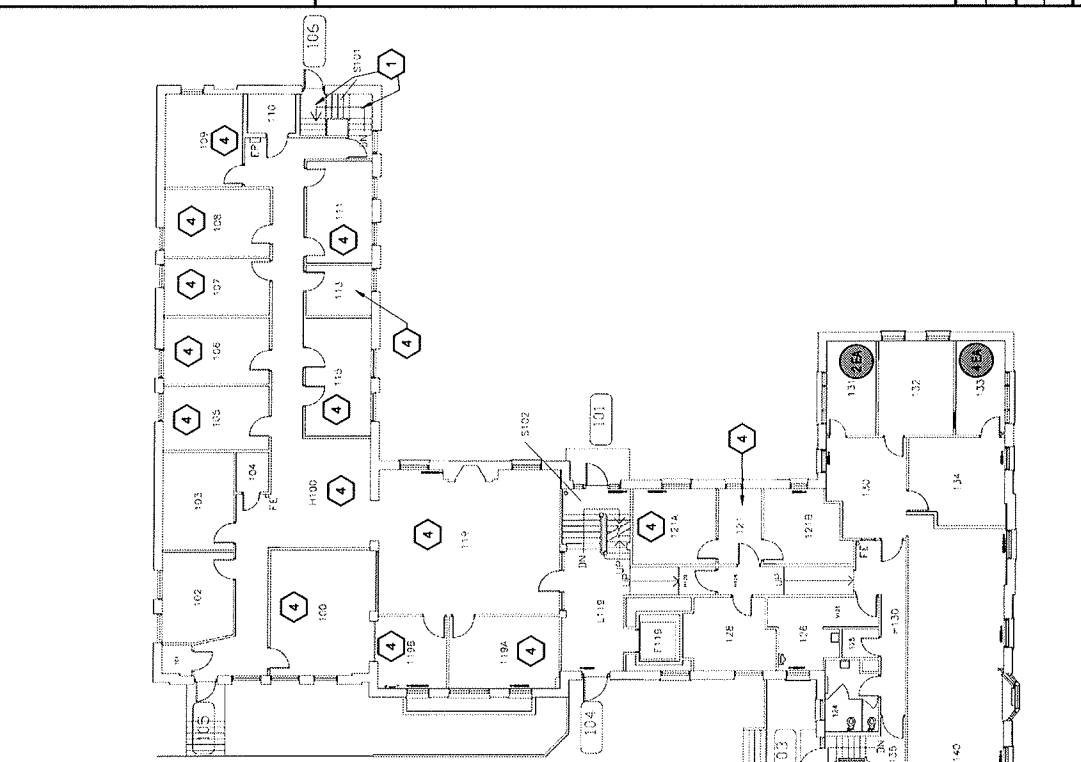
LEGEND

- 1 ASBESTOS-CONTAINING REMNANT MASTIC BEHIND STAIR RISER
- 2 ASBESTOS-CONTAINING SINK UNDERCOAT
- 3 ASBESTOS-CONTAINING PIPE INSULATION IS CONCEALED BENEATH FIBERGLASS PIPE INSULATION.
- 4 ASBESTOS-CONTAINING JOINT COMPOUND OBSERVED IN THIS ROOM.
- 5 APPROXIMATE QUANTITY AND LOCATION OF EXPOSED ASBESTOS - CONTAINING PIPE AND PIPE FITTING INSULATION

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING. PLEASE REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.
3. JOINT COMPOUND TESTED POSITIVE FOR ASBESTOS CONTENT WITH MIXED RESULTS BUILDING-WIDE. FURTHER TESTING IS RECOMMENDED BEFORE IMPACTING THIS MATERIAL.
4. VAPOR BARRIER FELT MAY BE PRESENT BENEATH WOOD FLOORING THROUGHOUT THE BUILDING. THE MATERIAL IS PRESUMED TO CONTAIN ASBESTOS.
5. CHALKBOARDS & MASTIC AND CORKBOARDS & MASTIC ARE PRESUMED TO CONTAIN ASBESTOS BUILDING-WIDE.
6. ASBESTOS-CONTAINING PIPE INSULATION MAY BE PRESENT ON PIPING CONCEALED WITHIN WALLS OR ABOVE CEILINGS. THE KNOWN LOCATIONS OF THE MATERIAL ARE NOTED ON THIS DRAWING.
7. ASBESTOS-CONTAINING FLOOR FINISHES MAY BE PRESENT CONCEALED BENEATH NEWER FLOOR FINISHES AND UNDERLAYMENT THROUGHOUT THE BUILDING.
8. MASTIC MAY BE PRESENT BEHIND WOOD PANELING THROUGHOUT THE BUILDING. THIS MATERIAL IS PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.
9. CERAMIC TILE, 4"x4" RED AND CERAMIC BASE, 6" RED ARE PRESENT THROUGHOUT RESTROOMS BUILDING-WIDE AND ARE PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.

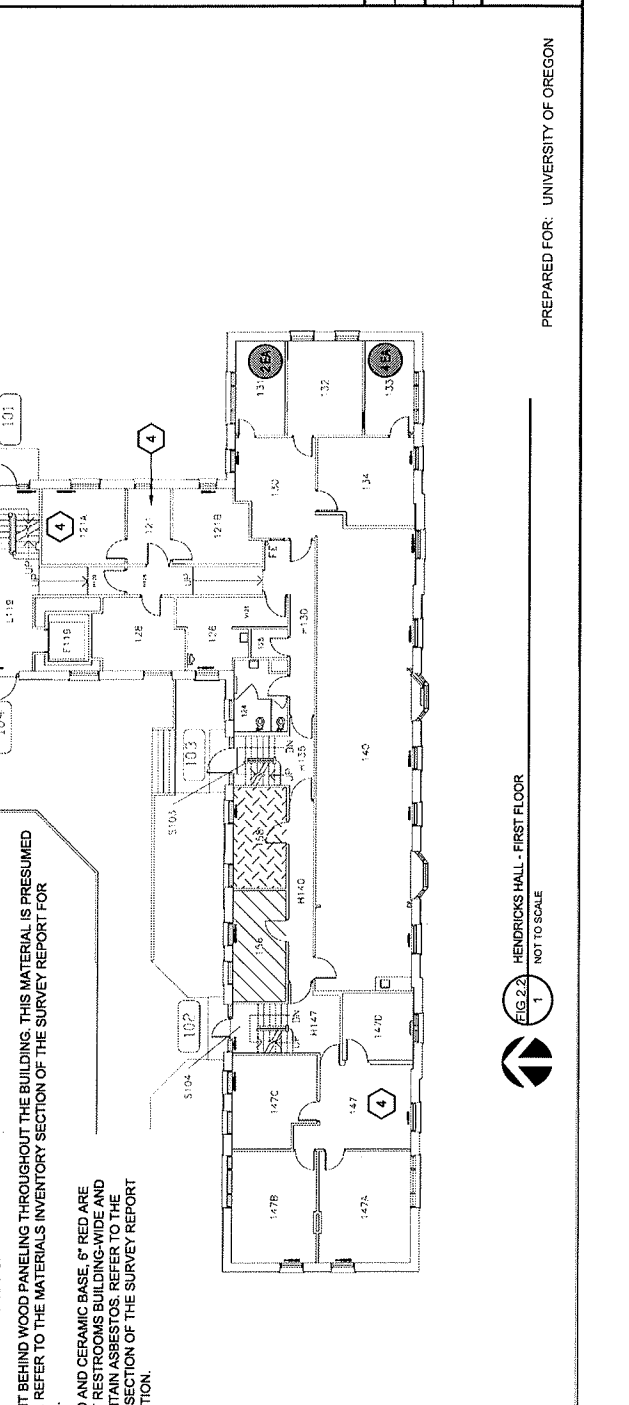




- LEGEND**
- ASBESTOS-CONTAINING FLOOR TILE AND MASTIC
 - ASBESTOS-CONTAINING FLOOR TILE AND MASTIC BENEATH GLUED-DOWN CARPET
 - ASBESTOS-CONTAINING REMNANT MASTIC BEHIND STAIR RISER
 - ASBESTOS-CONTAINING JOINT COMPOUND OBSERVED IN THIS ROOM.
 - APPROXIMATE QUANTITY AND LOCATION OF EXPOSED ASBESTOS - CONTAINING PIPE AND PIPE FITTING INSULATION

NOTES

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3. JOINT COMPOUND, TESTED POSITIVE FOR ASBESTOS, CONTENT WITH MIXED RESULTS BUILDING-WIDE. FURTHER TESTING IS RECOMMENDED BEFORE IMPACTING THIS MATERIAL.
4. VAPOR BARRIER FELT MAY BE PRESENT BENEATH WOOD FLOORING THROUGHOUT THE BUILDING. THE MATERIAL IS PRESUMED TO CONTAIN ASBESTOS.
5. CHALKBOARDS & MASTIC AND CORKBOARDS & MASTIC ARE PRESUMED TO CONTAIN ASBESTOS BUILDING-WIDE.
6. ASBESTOS-CONTAINING PIPE INSULATION MAY BE PRESENT ON PIPING CONCEALED WITHIN WALLS OR ABOVE CEILINGS. THE KNOWN LOCATIONS OF THE MATERIAL ARE NOTED ON THIS DRAWING.
7. ASBESTOS-CONTAINING FLOOR FINISHES MAY BE PRESENT CONCEALED BENEATH NEWER FLOOR FINISHES AND UNDERLAYMENT THROUGHOUT THE BUILDING.
8. MASTIC MAY BE PRESENT BEHIND WOOD PANELING THROUGHOUT THE BUILDING. THIS MATERIAL IS PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.
9. CERAMIC TILE, 4"x4" RED AND CERAMIC BASE, 6" RED ARE PRESENT THROUGHOUT RESTROOMS BUILDING-WIDE AND ARE PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.



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FIG 2.2 HENDRICKS HALL - FIRST FLOOR
 NOT TO SCALE



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UNIVERSITY OF OREGON - HENDRICKS HALL
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EUGENE, OREGON

SECOND FLOOR

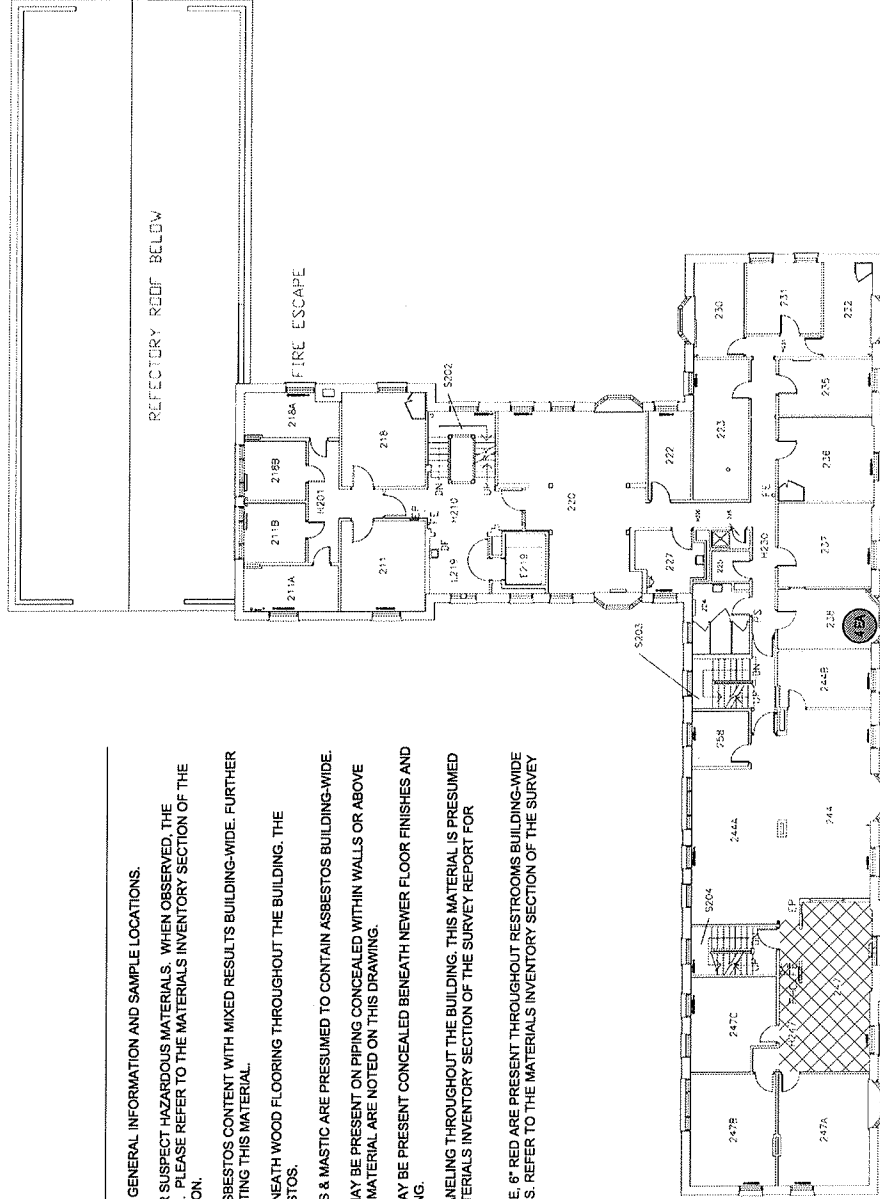
PLAN

PROJECT: 51565.007



DATE: FEBRUARY 2011

FIGURE:

2.3



LEGEND

-  ASBESTOS-CONTAINING REMNANT MASTIC BEHIND STAIR RISER
-  APPROXIMATE QUANTITY AND LOCATION OF EXPOSED ASBESTOS - CONTAINING PIPE AND PIPE FITTING INSULATION

NOTES



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3. JOINT COMPOUND TESTED POSITIVE FOR ASBESTOS CONTENT WITH MIXED RESULTS BUILDING-WIDE. FURTHER TESTING IS RECOMMENDED BEFORE IMPACTING THIS MATERIAL.
4. VAPOR BARRIER FELT MAY BE PRESENT BENEATH WOOD FLOORING THROUGHOUT THE BUILDING. THE MATERIAL IS PRESUMED TO CONTAIN ASBESTOS.
5. CHALKBOARDS & MASTIC AND CORKBORDS & MASTIC ARE PRESUMED TO CONTAIN ASBESTOS BUILDING-WIDE.
6. ASBESTOS-CONTAINING PIPE INSULATION MAY BE PRESENT ON PIPING CONCEALED WITHIN WALLS OR ABOVE CEILINGS. THE KNOWN LOCATIONS OF THE MATERIAL ARE NOTED ON THIS DRAWING.
7. ASBESTOS-CONTAINING FLOOR FINISHES MAY BE PRESENT CONCEALED BENEATH NEWER FLOOR FINISHES AND UNDERLAYMENT THROUGHOUT THE BUILDING.
8. MASTIC MAY BE PRESENT BEHIND WOOD PANELING THROUGHOUT THE BUILDING. THIS MATERIAL IS PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.
9. CERAMIC TILE, 4"x4" RED AND CERAMIC BASE 6" RED ARE PRESENT THROUGHOUT RESTROOMS BUILDING-WIDE AND ARE PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.



FIG. 2.3 - HENDRICKS HALL - SECOND FLOOR
1 - NOT TO SCALE

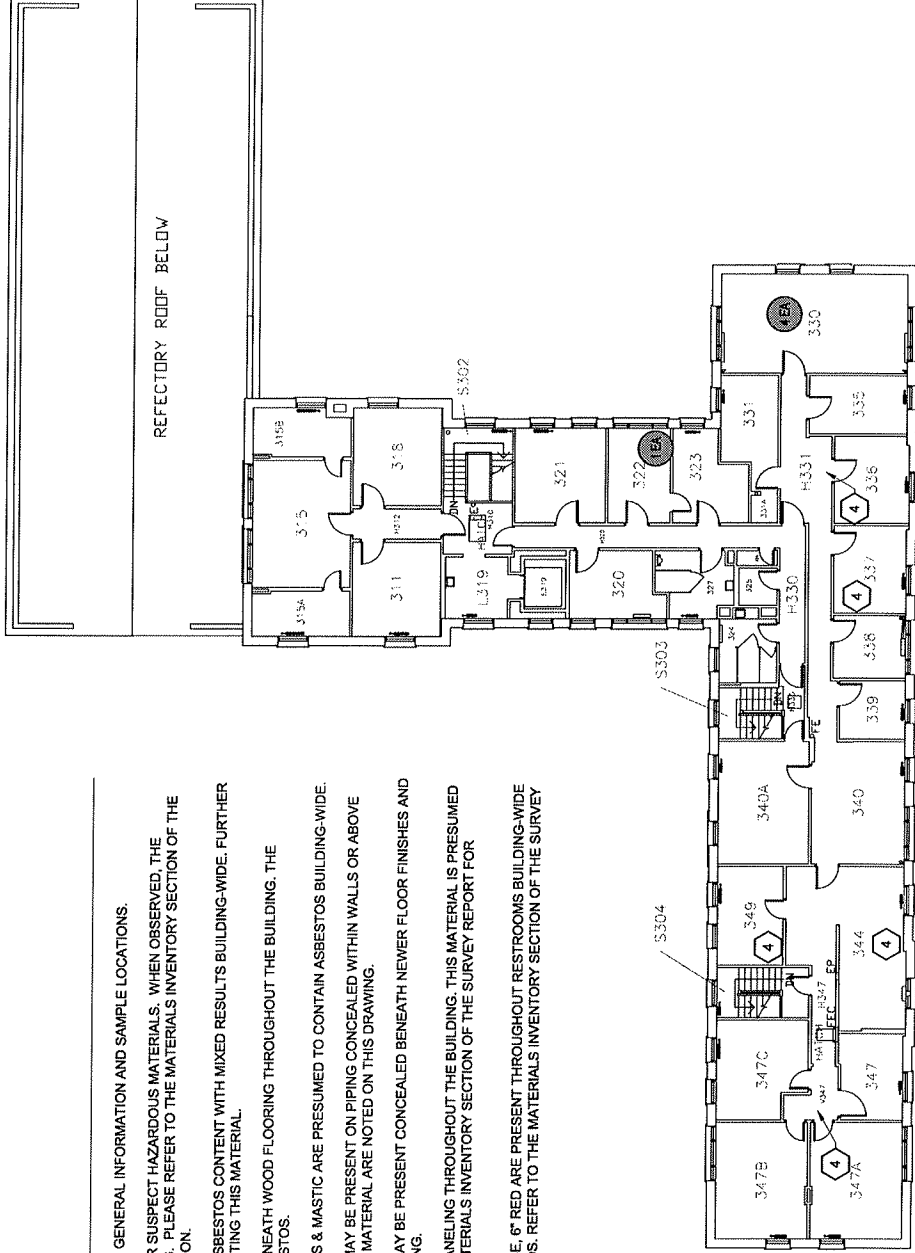
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LEGEND

-  APPROXIMATE QUANTITY AND LOCATION OF EXPOSED ASBESTOS - CONTAINING PIPE AND PIPE FITTING INSULATION
-  ASBESTOS-CONTAINING JOINT COMPOUND OBSERVED IN THIS ROOM.

NOTES

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3. JOINT COMPOUND TESTED POSITIVE FOR ASBESTOS CONTENT WITH MIXED RESULTS BUILDING-WIDE. FURTHER TESTING IS RECOMMENDED BEFORE IMPACTING THIS MATERIAL.
4. VAPOR BARRIER FELT MAY BE PRESENT BENEATH WOOD FLOORING THROUGHOUT THE BUILDING. THE MATERIAL IS PRESUMED TO CONTAIN ASBESTOS.
5. CHALKBOARDS & MASTIC AND CORKBOARDS & MASTIC ARE PRESUMED TO CONTAIN ASBESTOS BUILDING-WIDE.
6. ASBESTOS-CONTAINING PIPE INSULATION MAY BE PRESENT ON PIPING CONCEALED WITHIN WALLS OR ABOVE CEILINGS. THE KNOWN LOCATIONS OF THE MATERIAL ARE NOTED ON THIS DRAWING.
7. ASBESTOS-CONTAINING FLOOR FINISHES MAY BE PRESENT CONCEALED BENEATH NEWER FLOOR FINISHES AND UNDERLAYMENT THROUGHOUT THE BUILDING.
8. MASTIC MAY BE PRESENT BEHIND WOOD PANELING THROUGHOUT THE BUILDING. THIS MATERIAL IS PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.
9. CERAMIC TILE, 4"x4" RED AND CERAMIC BASE, 6" RED ARE PRESENT THROUGHOUT RESTROOMS BUILDING-WIDE AND ARE PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.



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UNIVERSITY OF OREGON - HENDRICKS HALL
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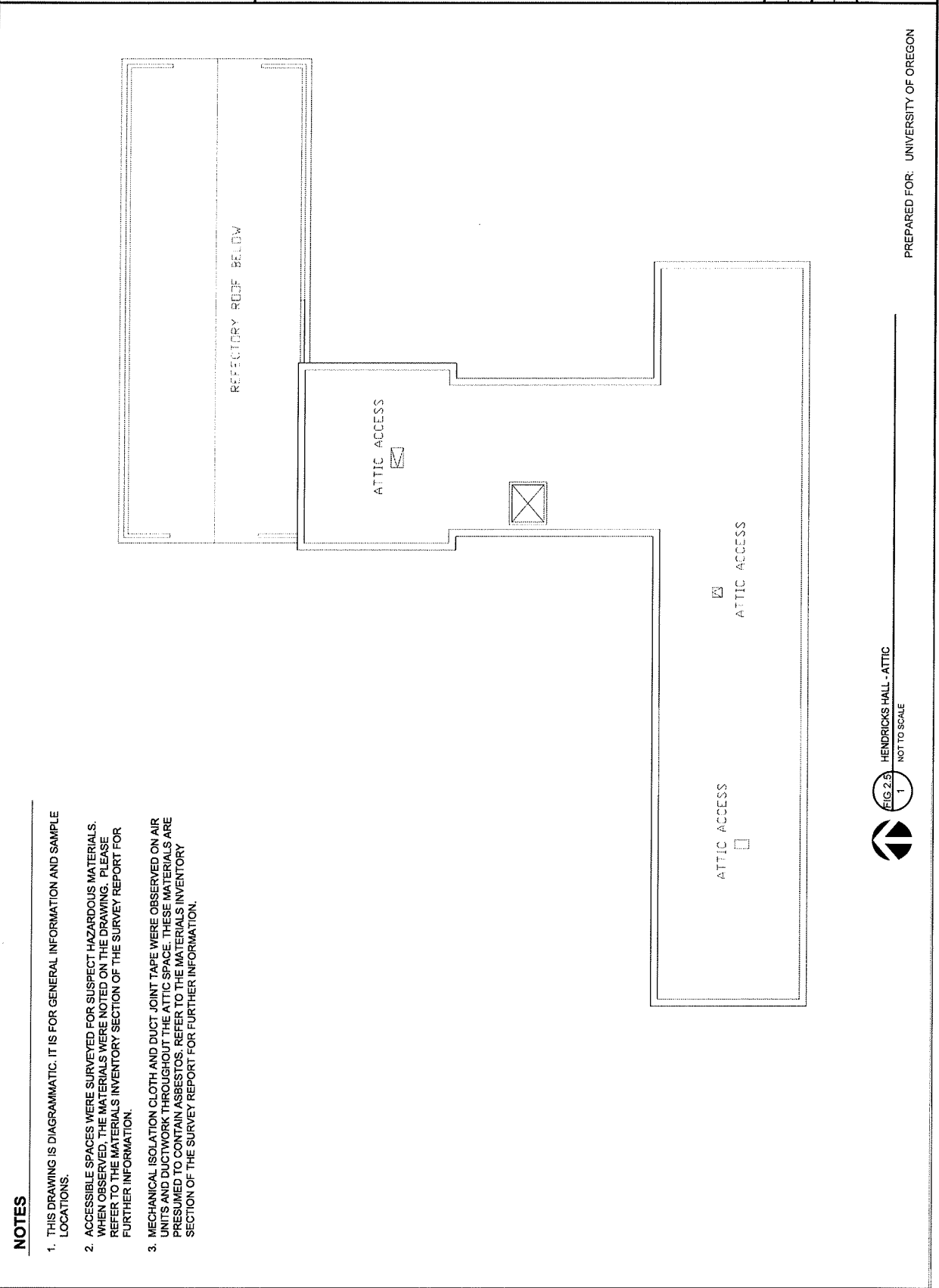
THIRD FLOOR
PLAN
PROJECT: 51565.007
DATE: FEBRUARY 2011
FIGURE:

2.4



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FIG. 2.4
1
HENDRICKS HALL - THIRD FLOOR
NOT TO SCALE



- NOTES**
1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATIONS.
 2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING. PLEASE REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.
 3. MECHANICAL ISOLATION CLOTH AND DUCT JOINT TAPE WERE OBSERVED ON AIR UNITS AND DUCTWORK THROUGHOUT THE ATTIC SPACE. THESE MATERIALS ARE PRESUMED TO CONTAIN ASBESTOS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.



HENDRICKS HALL - ATTIC
 NOT TO SCALE

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LEGEND

----- ASBESTOS - CONTAINING TRANSITE ROOFING SHINGLES ARE LOCATED THROUGHOUT MANSARD ROOF SECTIONS AS SHOWN

NOTES

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2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT HAZARDOUS MATERIALS. WHEN OBSERVED, THE MATERIALS WERE NOTED ON THE DRAWING. PLEASE REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.
3. ASBESTOS-CONTAINING SEALANTS ARE LOCATED BENEATH ROOFING FLASHINGS. REFER TO THE MATERIALS INVENTORY SECTION OF THE SURVEY REPORT FOR FURTHER INFORMATION.

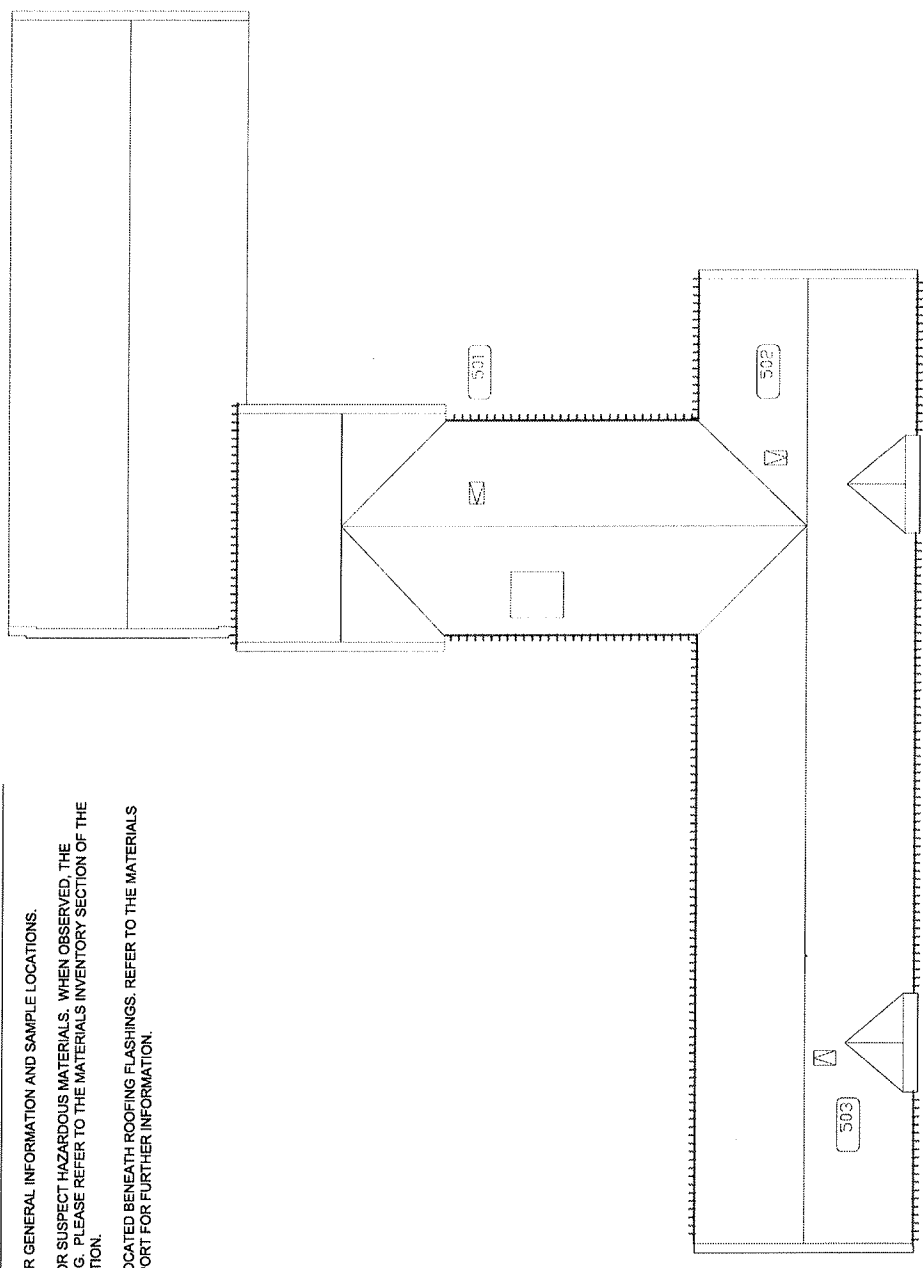


FIG 2.6
 1
 HENDRICKS HALL - ROOF
 NOT TO SCALE

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Sample Number	Material	Sample Location	Layer	Result	Lab
51565.007-5001	Gypsum Board / Joint Compound / Spiral Sandy Texture	Basement - room 1A wall center of north wall behind the electrical outlet.	Layer 1	Gypsum Board / Joint Compound / Texture: No Asbestos Detected	Labor Portland, Inc.
51565.007-5002	Gypsum Board / Joint Compound / Spiral Sandy Texture	First floor - room 131 ceiling in the northwest corner.	Layer 1	Gypsum Board / Joint Compound / Texture: No Asbestos Detected	Labor Portland, Inc.
51565.007-5003	Gypsum Board / Joint Compound / Spiral Sandy Texture	Third floor - H331 south wall outside room 337.	Layer 1 Layer 2 Layer 3	Texture: No Asbestos Detected Joint Tape: No Asbestos Detected Gypsum Board: No Asbestos Detected	Labor Portland, Inc.
51565.007-5004	Plaster, Light Sandy Texture / Gypsum Board	Basement - room 1A ceiling southwest corner of the ceiling.	Layer 1 Layer 2	Plaster: No Asbestos Detected Gypsum Board: No Asbestos Detected	Labor Portland, Inc.
51565.007-5005	Plaster, Light Sandy Texture / Lath	Basement - room 12 wall center of the west wall.	Layer 1	Plaster: No Asbestos Detected	Labor Portland, Inc.
51565.007-5006	Plaster, Light Sandy Texture / Lath	First floor - room S101 wall in the northwest corner of the stairway landing.	Layer 1 Layer 2	Skimcoat: No Asbestos Detected Plaster: No Asbestos Detected	Labor Portland, Inc.
51565.007-5007	Plaster, Light Sandy Texture / Lath	First floor - room 125 wall southeast corner over door.	Layer 1	Plaster: No Asbestos Detected	Labor Portland, Inc.
51565.007-5008	Plaster, Light Sandy Texture / Lath	Second floor - room 244A wall in the northwest corner.	Layer 1	Plaster: No Asbestos Detected	Labor Portland, Inc.
51565.007-5009	Plaster, Light Sandy Texture / Lath	Third floor - room 320 ceiling near the north window.	Layer 1	Plaster: No Asbestos Detected	Labor Portland, Inc.
51565.007-5010	Plaster, Light Sandy Texture / Lath	Third floor - room 344 wall in the southeast corner.	Layer 1 Layer 2	Skimcoat: No Asbestos Detected Plaster: No Asbestos Detected	Labor Portland, Inc.
51565.007-5011	Vinyl Floor Tile, White / Mastic, Orange	First floor - room 128 beneath carpet by the doorway.	Layer 1 Layer 2	Floor Tile: No Asbestos Detected Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5012	Gypsum Board / Joint Compound / Light Sandy Texture	Basement - room 26D wall by the doorway.	Layer 1 Layer 2	Joint Compound: 2% Chrysotile Gypsum Board: No Asbestos Detected	Labor Portland, Inc.
51565.007-5013	Gypsum Board / Joint Compound / Light Sandy Texture	First floor - room 103 wall in the southwest corner.	Layer 1 Layer 2	Joint Compound: 3% Chrysotile Gypsum Board: No Asbestos Detected	Labor Portland, Inc.

Sample Number	Material	Sample Location	Layer	Result	Lab
51565.007-	Gypsum Board / Joint Compound / Light Sandy Texture	First floor - room 115 wall in the southeast corner.	Layer 1	Joint Compound: 3% Chrysotile	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
51565.007-	Formica Backsplash, Tan / Mastic, Clear / Mastic, Brown	Third floor - room 326 wall	Layer 1	Formica: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
51565.007-	Plaster, Sandy Texture / Lath	Basement - room 6B ceiling southeast corner of the room.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
51565.007-	Plaster, Sandy Texture / Gypsum Board	First floor - L119 center of the north wall behind an electrical outlet.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
51565.007-	Plaster, Sandy Texture / Gypsum Board	First floor - room 125 wall southwest corner.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Plaster: No Asbestos Detected	
			Layer 3	Gypsum Board: No Asbestos Detected	
51565.007-	Plaster, Sandy Texture / Gypsum Board	Second floor - room 220 wall in the northeast corner.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Joint Tape: No Asbestos Detected	
			Layer 3	Joint Tape: No Asbestos Detected	
			Layer 4	Gypsum Board: No Asbestos Detected	
51565.007-	Plaster, Sandy Texture / Gypsum Board	Second floor - S202 wall, southeast corner of landing between first and second floors.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
51565.007-	Plaster, Sandy Texture / Gypsum Board	Third floor - room 325 wall in the southwest corner.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
51565.007-	Plaster, Sandy Texture / Gypsum Board	Third floor - room 326 ceiling by pipe penetration.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
51565.007-	Plaster, Smooth / Gypsum Board	Basement - L13 wall in the northwest corner.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
			Layer 3	Plaster: No Asbestos Detected	
51565.007-	Plaster, Smooth / Gypsum Board	First floor - room 124 wall southeast corner.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
			Layer 3	Plaster: No Asbestos Detected	
51565.007-	Plaster, Smooth / Gypsum Board	First floor - room 126 center of the east corner of the ceiling.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	

Sample Number	Material	Sample Location	Layer	Result	Lab
51565.007-5026	Plaster, Smooth / Lath	Second floor - room 227 wall behind the switch cover.	Layer 1 Layer 2	Plaster: No Asbestos Detected Skimcoat: No Asbestos Detected	Labor Portland, Inc.
51565.007-5027	Plaster, Smooth / Gypsum Board	Third floor - H310, center of south wall.	Layer 1 Layer 2 Layer 3 Layer 4	Plaster: No Asbestos Detected Plaster: No Asbestos Detected Gypsum Board: No Asbestos Detected Plaster: No Asbestos Detected	Labor Portland, Inc.
51565.007-5028	Vinyl Floor Tile, Beige / Mastic, Orange Vinyl Floor Tile, 9" X 9" Salmon / Mastic, Orange	First floor - room 128 beneath the carpet by the doorway - bottom layer.	Layer 1 Layer 2 Layer 3 Layer 4	Floor Tile, White: No Asbestos Detected Mastic: No Asbestos Detected Floor Tile, Salmon / Mastic: No Asbestos Detected Wood: No Asbestos Detected	Labor Portland, Inc.
51565.007-5029	Gypsum Board / Joint Compound / Sandy Texture	First floor - room 104 wall in the southwest corner.	Layer 1 Layer 2	Joint Compound / Texture: No Asbestos Detected Gypsum Board: No Asbestos Detected	Labor Portland, Inc.
51565.007-5030	Gypsum Board / Joint Compound / Sandy Texture	Basement - S3 ceiling	Layer 1 Layer 2	Joint Compound / Texture: No Asbestos Detected Gypsum Board: No Asbestos Detected	Labor Portland, Inc.
51565.007-5031	Glued-on Ceiling Tiles, 12" x 12" Stippled / Mastic, Brown	Basement - room 26C in the center of the ceiling.	Layer 1 Layer 2	Ceiling Tile: No Asbestos Detected Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5032	Fiberboard Panels	Basement - room 28 ceiling	Layer 1	Fiberboard: No Asbestos Detected	Labor Portland, Inc.
51565.007-5033	Glued-on Ceiling Tiles, 12" x 12" Perforated / Mastic, Brown	First floor - above the doorway to room 101 in the northwest corner.	Layer 1 Layer 2	Ceiling Tile: No Asbestos Detected Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5034	Glued-on Ceiling Tiles, 12" x 12" Perforated / Mastic, Brown	First floor - room 104 above the doorway from the ceiling.	Layer 1 Layer 2	Ceiling Tile: No Asbestos Detected Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5035	Lay-in Ceiling Tiles, 2' x 4' Stippled and Scarred	First floor - room 111 in the northwest corner of the ceiling.	Layer 1	Ceiling Tile: No Asbestos Detected	Labor Portland, Inc.
51565.007-5036	Gypsum Board / Joint Compound / Smooth Texture	Third floor - room 344 east wall in the southeast corner.	Layer 1 Layer 2	Joint Compound: <1% Chrysotile Gypsum Board: No Asbestos Detected	Labor Portland, Inc.

Sample Number	Material	Sample Location	Layer	Result	Lab
51565.007-	Gypsum Board / Joint Compound / Smooth Texture	Basement - V26 wall in the southeast corner.	Layer 1	Joint Compound: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Gypsum Board: No Asbestos Detected	
51565.007-	Wallpaper, Cream with Tan Splatter / Mastic, White	Second floor - room 230, center of north wall beneath radiator.	Layer 1	Wallpaper / Mastic: No Asbestos Detected	Labcor Portland, Inc.
51565.007-	Plaster, Smooth / Lath	Second floor - room 225 ceiling in the northeast corner.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
51565.007-	Plaster, Splatter Texture / Lath or Gypsum Board	Second floor - room 247A west wall above the window wall	Layer 1	Plaster / Texture: No Asbestos Detected	Labcor Portland, Inc.
51565.007-	Plaster, Splatter Texture / Lath or Gypsum Board	Second floor - room 247 A ceiling on the north wall in the center.	Layer 1	Texture: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Plaster: No Asbestos Detected	
51565.007-	Glued-on Wall Tiles, 12" x 12" Stippled / Mastic, Brown	Basement - room 26C behind the door on the northwest wall.	Layer 1	Wall Tiles: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
51565.007-	Plaster, Smooth / Lath	Third floor - room 325 ceiling on north wall in center.	Layer 1	Plaster: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Skimcoat: No Asbestos Detected	
51565.007-	Glued-on Ceiling Tiles, 12" x 12" Stippled and Scarred / Mastic, Brown	Second floor - H247 above the doorway leading to S204.	Layer 1	Wall Tiles: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: 2% Chrysotile	
51565.007-	Vinyl Floor Tile, 12" x 12" Grey with Dark Grey and White Splatter / Mastic, Yellow / Mastic, Brown	Basement - room 26C, center of east wall.	Layer 1	Floor Tile: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
			Layer 3	Paint: No Asbestos Detected	
51565.007-	Rubber Flooring, Light Grey Circular Design / Mastic, Cream / Remnant Mastic, Brown	First floor - S101 northwest corner of the stairway landing behind the doorway.	Layer 1	Flooring: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
			Layer 3	Wood: No Asbestos Detected	
51565.007-	Glue Down Carpet, Multi-Colors / Mastic, Yellow	First floor - room 105 in the southwest corner.	Layer 1	Carpet Mastic: No Asbestos Detected	Labcor Portland, Inc.
51565.007-	Glue Down Carpet, Multi-Colors / Mastic, Yellow	Second floor - room 218B in the southwest corner of the room by the doorway.	Layer 1	Carpet Mastic: No Asbestos Detected	Labcor Portland, Inc.

Sample Number	Material	Sample Location	Layer	Result	Lab
51565.007-5049	Glue Down Carpet, Multi-Colors / Mastic, Yellow	Third floor - room 337, northeast corner behind door.	Layer 1	Carpet Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5050	Glue Down Carpet, Multi-Colors / Mastic, Orange	Basement - S3, along east wall of basement level stairs.	Layer 1	Carpet Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5051	Vinyl Floor Tile, 12" x 12" Cream with Brown and Black Splatter / Mastic, Yellow	Basement - L13 in the northwest corner.	Layer 1 Layer 2 Layer 3 Layer 4	Carpet Mastic: No Asbestos Detected Floor Tile: No Asbestos Detected Mastic: No Asbestos Detected Leveling Compound: No Asbestos Detected	Labor Portland, Inc.
51565.007-5052	Rubber Flooring, Brown Circular Design / Mastic, Yellow	Elevator E119.	Layer 1 Layer 2 Layer 3	Flooring: No Asbestos Detected Mastic: No Asbestos Detected Leveling Compound: No Asbestos Detected	Labor Portland, Inc.
51565.007-5053	Sheet Vinyl Flooring, Smokey Grey Pattern / Mastic, Brown	First floor - room 110 in the northwest corner.	Layer 1 Layer 2 Layer 3	Sheet Vinyl: No Asbestos Detected Backing: No Asbestos Detected Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5054	Vinyl Floor Tile, 12" x 12" Cream Dimpled / Mastic, Yellow	Second floor - room 225, southwest corner behind door.	Layer 1 Layer 2 Layer 3	Floor Tile: No Asbestos Detected Mastic: No Asbestos Detected Wood: No Asbestos Detected	Labor Portland, Inc.
51565.007-5055	Glue Down Carpet, Multi-Colors / Backing, Black / Mastic, Yellow	First floor - room 130, southeast corner.	Layer 1 Layer 2 Layer 3	Carpet Backing: No Asbestos Detected Carpet Mastic: No Asbestos Detected Sheet Vinyl Backing / Mastic: No Asbestos Detected	Labor Portland, Inc.
	Sheet Vinyl Flooring, Reddish Brown / Mastic, Brown		Layer 4	Sheet Vinyl: No Asbestos Detected	
51565.007-5056	Sheet Vinyl Flooring, Reddish Brown / Mastic, Brown	First floor - room 140, northwest corner, by northwest door.	Layer 1 Layer 2	Sheet Vinyl: No Asbestos Detected Backing: No Asbestos Detected	Labor Portland, Inc.
51565.007-5057	Vinyl Floor Tiles, 9" x 9" Grey with Cream and Black Splatter / Mastic, Black / Tarpaper	First floor - room 156 in the southeast corner.	Layer 1 Layer 2 Layer 3	Floor Tile: 7% Chrysotile Mastic: 2% Chrysotile Tarpaper: No Asbestos Detected	Labor Portland, Inc.
51565.007-5058	Sheet Vinyl Flooring, Green with Multi-Color Splatter / Mastic, Yellow	Second floor - room 223, along center of north wall.	Layer 1 Layer 2 Layer 3	Sheet Vinyl: No Asbestos Detected Backing: No Asbestos Detected Mastic: No Asbestos Detected	Labor Portland, Inc.

Sample Number	Material	Sample Location	Layer	Result	Lab
51565.007-	Covebase, 4" Grey / Mastic, Cream / Mastic, Brown	Basement - room 1A in the northeast corner of the room.	Layer 1	Covebase: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic, Cream: No Asbestos Detected	
			Layer 3	Mastic: Brown: No Asbestos Detected	
51565.007-	Stair Riser, 6" Light Grey / Mastic, Tan / Remnant Mastic, Brown	First floor - S101 on the stairway at the southwest corner.	Layer 1	Stair Riser: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic, Tan: No Asbestos Detected	
			Layer 3	Mastic: Brown: <1% Chrysotile	
51565.007-	Covebase, 6" Light Grey / Mastic, Cream	Basement - S1 northwest corner of the stairway landing by the exterior door.	Layer 1	Covebase: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
51565.007-	Covebase, 4" Black / Mastic, White	First floor - room 147 in the southeast corner.	Layer 1	Covebase: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
51565.007-	Covebase, 4" Tan / Mastic, Brown	Second floor - room 226, southeast corner.	Layer 1	Covebase: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
			Layer 3	Plaster: No Asbestos Detected	
51565.007-	Covebase, 4" Dark Grey / Mastic, Yellow	First floor - room 158 in the southeast corner.	Layer 1	Covebase: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
51565.007-	Covebase, 4" Light Blue / Mastic, Yellow / Mastic, Cream	Basement - room 13 in the northeast corner below step.	Layer 1	Covebase: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic, Cream: No Asbestos Detected	
			Layer 3	Fibrous Backing: No Asbestos Detected	
			Layer 4	Mastic, Yellow: No Asbestos Detected	
			Layer 5	Plaster: No Asbestos Detected	
51565.007-	Covebase, 4" Brown / Mastic, Cream	First floor - room 111 in the northwest corner.	Layer 1	Covebase: No Asbestos Detected	Labcor Portland, Inc.
			Layer 2	Mastic: No Asbestos Detected	
51565.007-	Concrete Board	Basement - room 1A center of the south wall.	Layer 1	Concrete Board: No Asbestos Detected	Labcor Portland, Inc.
51565.007-	Sink Undercoat, Pink	Basement - room 28 on the underside of the sink.	Layer 1	Sink Undercoat: 6% Chrysotile	Labcor Portland, Inc.
51565.007-	Sealant, Cream	Basement - room 28 northwest corner of the room along the countertop backsplash.	Layer 1	Sealant: No Asbestos Detected	Labcor Portland, Inc.
51565.007-	Vapor Barrier, Black	Basement - room 8 center of the ceiling.	Layer 1	Tarpaper: No Asbestos Detected	Labcor Portland, Inc.

Sample Number	Material	Sample Location	Layer	Result	Lab
51565.007-5071	Sealant, Grey	Exterior - Between door frame and brickwork to the right of door 101.	Layer 1	Sealant: No Asbestos Detected	Labor Portland, Inc.
51565.007-5072	Sealant, Grey	Exterior - Between frame and brickwork on window on landing of stairwell S103.	Layer 1	Sealant: No Asbestos Detected	Labor Portland, Inc.
51565.007-5073	Window Glazing, White	Exterior - Between window and frame on south window of room 21.	Layer 1	Glazing: No Asbestos Detected	Labor Portland, Inc.
51565.007-5074	Window Glazing, White	Exterior - Between window and frame on first window immediately south of door 104.	Layer 1	Glazing: No Asbestos Detected	Labor Portland, Inc.
51565.007-5075	Window Glazing, White	Exterior - Between window and frame on north window of L319.	Layer 1	Glazing: No Asbestos Detected	Labor Portland, Inc.
51565.007-5076	Sealant, Grey-Beige	Exterior - Beneath door assembly on door 102.	Layer 1	Sealant: No Asbestos Detected	Labor Portland, Inc.
51565.007-5077	Sealant, Green and White	Exterior - Behind flashing outside window of L319.	Layer 1	Sealant: 3% Chrysotile	Labor Portland, Inc.
51565.007-5078	Sealant, Silver	Exterior - On gutter seam outside L319.	Layer 1	Sealant: No Asbestos Detected	Labor Portland, Inc.
51565.007-5079	Vinyl Floor Tile, 9" X 9" Salmon / Mastic, Orange	First floor - room 121 beneath carpet by the door to the hallway.	Layer 1 Layer 2 Layer 3 Layer 4	Floor Tile: No Asbestos Detected Mastic: No Asbestos Detected Carpet Fibers: No Asbestos Detected Wood: No Asbestos Detected	Labor Portland, Inc.
51565.007-5080	Vinyl Floor Tile, 9" X 9" Green / Mastic, Black	First floor - room 131 beneath carpet in the northwest corner.	Layer 1 Layer 2	Floor Tile: No Asbestos Detected Mastic: No Asbestos Detected	Labor Portland, Inc.
51565.007-5081	Sheet Vinyl Flooring, Smokey Grey Pattern / Mastic, Brown	First floor - room 107 beneath carpet by the door to the hallway.	Layer 1 Layer 2 Layer 3 Layer 4	Sheet Vinyl: No Asbestos Detected Mastic: No Asbestos Detected Backing: No Asbestos Detected Wood: No Asbestos Detected	Labor Portland, Inc.

Client: PBS Engineering + Environmental
2645 Willamette Street, Suite A
Eugene, OR 97405

Report Number: 092300R01
Report Date: 12/21/2009

P.O. No: n/a

Job Number: 092300

Project Name:

Project Number: 51565.007 Phase 0005

Project Notes:

Client Sample ID: 51565.007-5001	Sample ID: S1	Date Analyzed: 12/18/2009
Client Sample Description:		Analyst: Stephanie Golden
Asbestos Mineral Fibers	Percent of Sample: Chrysotile Amosite Crocidolite	Percent Asbestos:
Homogeneous		
fine compact powder w/ paint, white/green	100 % - - -	NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other Matrix	
	- - - - - -	100 %

Client Sample ID: 51565.007-5002	Sample ID: S2	Date Analyzed: 12/18/2009
Client Sample Description:		Analyst: Stephanie Golden
Asbestos Mineral Fibers	Percent of Sample: Chrysotile Amosite Crocidolite	Percent Asbestos:
Homogeneous		
coarse cementitious material, gray	100 % - - -	NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other Matrix	
	- 1 % - - - -	99 %

Client Sample ID: 51565.007-5003	Sample ID: S3	Date Analyzed: 12/18/2009
Client Sample Description:		Analyst: Stephanie Golden
Asbestos Mineral Fibers	Percent of Sample: Chrysotile Amosite Crocidolite	Percent Asbestos:
Layer 01		
fine compact powder w/ paint, white	20 % - - -	NAD
Layer 02		
interwoven fibers, white	10 % - - -	NAD
Layer 03		
compact chalky material with paper, white	70 % - - -	NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other Matrix	
Layer 01	4 % 2 % - - - -	94 %
Layer 02	100 % - - - - -	0 %
Layer 03	5 % 1 % - - - -	94 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5004	Sample ID: S4	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
coarse cementitious material, white	70 %	-	-
			NAD
Layer 02			
compact chalky material with paper, white	30 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
Layer 01	2 %	1 %	-
			-
			97 %
Layer 02	-	2 %	-
			-
			98 %

Client Sample ID: 51565.007-5005	Sample ID: S5	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Homogeneous			
coarse cementitious material w/ paint, gray/tan	100 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
	-	2 %	-
			-
			98 %

Client Sample ID: 51565.007-5006	Sample ID: S6	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
fine compact powder w/ paint, offwhite	10 %	-	-
			NAD
Layer 02			
coarse cementitious material w/ paint, gray/tan	90 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
Layer 01	-	1 %	-
			-
			99 %
Layer 02	-	3 %	-
			-
			97 %

Client Sample ID: 51565.007-5007	Sample ID: S7	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Homogeneous			
fine cementitious material w/ paint, white	100 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
	-	1 %	-
			-
			99 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5008		Sample ID: S8			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:	
Homogeneous						
coarse cementitious material w/ paint, gray/tan	100%	-	-	-	NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	2%	-	-	-	-
						98 %

Client Sample ID: 51565.007-5009		Sample ID: S9			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:	
Homogeneous						
coarse cementitious material w/ paint, gray/tan	100%	-	-	-	NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	2%	-	-	-	-
						98 %

Client Sample ID: 51565.007-5010		Sample ID: S10			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:	
Layer 01						
fine compact powder w/ paint, white	10%	-	-	-	NAD	
Layer 02						
coarse cementitious material, gray/tan	90%	-	-	-	NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	1%	-	-	-	-
Layer 02	-	2%	-	-	-	-
						99 %
						98 %

Client Sample ID: 51565.007-5011		Sample ID: S11			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:	
Layer 01						
vinyl, white	98%	-	-	-	NAD	
Layer 02						
mastic, yellow	2%	-	-	-	NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	-
Layer 02	-	4%	-	-	-	-
						100 %
						96 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5012	Sample ID: S12	Date Analyzed: 12/18/2009
Client Sample Description:		Analyst: Stephanie Golden
Asbestos Mineral Fibers	Percent of Sample: Chrysotile Amosite Crocidolite	Percent Asbestos:
Layer 01		
fine compact powder w/ paint, white	25 % 2 % - -	2 %
Layer 02		
compact chalky powderl with paper, white	75 % - - -	NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other Matrix	
Layer 01	- 4 % - - - -	94 %
Layer 02	- 6 % - - - -	94 %

Client Sample ID: 51565.007-5013	Sample ID: S13	Date Analyzed: 12/18/2009
Client Sample Description:		Analyst: Stephanie Golden
Asbestos Mineral Fibers	Percent of Sample: Chrysotile Amosite Crocidolite	Percent Asbestos:
Layer 01		
fine compact powder w/ paint, white	25 % 3 % - -	3 %
Layer 02		
compact chalky powder with paper, white	75 % - - -	NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other Matrix	
Layer 01	- 3 % - - - -	94 %
Layer 02	- 7 % - - - -	93 %

Client Sample ID: 51565.007-5014	Sample ID: S14	Date Analyzed: 12/18/2009
Client Sample Description:		Analyst: Stephanie Golden
Asbestos Mineral Fibers	Percent of Sample: Chrysotile Amosite Crocidolite	Percent Asbestos:
Layer 01		
fine compact powder w/ paint, white	25 % 3 % - -	3 %
Layer 02		
compact chalky powder with paper, white	75 % - - -	NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other Matrix	
Layer 01	- 4 % - - - -	93 %
Layer 02	- 6 % - - - -	94 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5015	Sample ID: S15	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
hard vinyl w/ coating, brown	75 %	-	-
			NAD
Layer 02			
mastic, brown	25 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic
			Other
			Matrix
Layer 01	-	90 %	-
Layer 02	-	1 %	-
			10 %
			99 %

Client Sample ID: 51565.007-5016	Sample ID: S16	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Homogeneous			
coarse cementitious material, white	100 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic
			Other
			Matrix
	-	-	-
			100 %

Client Sample ID: 51565.007-5017	Sample ID: S17	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
fine compact powder w/ paint, white	10 %	-	-
			NAD
Layer 02			
compact chalky powder w/ paper, white	90 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic
			Other
			Matrix
Layer 01	-	8 %	-
Layer 02	2 %	6 %	-
			92 %
			92 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5018		Sample ID: S18			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
coarse cementitious material w/ paint, white	40%	-	-	-		NAD
Layer 02						
fine cementitious material, offwhite	25%	-	-	-		NAD
Layer 03						
coarse cementitious material w/ paper, white	35%	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	1 %	-	-	-	99 %
Layer 03	-	2 %	-	-	-	98 %

Client Sample ID: 51565.007-5019		Sample ID: S19			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
fine cementitious material w/ paint, white	20%	-	-	-		NAD
Layer 02						
fibrous backing, gray	5%	-	-	-		NAD
Layer 03						
interwoven fibers, white	5%	-	-	-		NAD
Layer 04						
compact chalky powder with paper, white	70%	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	100 %	-	-	-	0 %
Layer 03	50 %	50 %	-	-	-	0 %
Layer 04	-	6 %	-	-	-	94 %

Client Sample ID: 51565.007-5020		Sample ID: S20			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
fine cementitious material w/ paint, white	25%	-	-	-		NAD
Layer 02						
compact chalky powder with paper, white	75%	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	2 %	6 %	-	-	-	92 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5021		Sample ID: S21			Date Analyzed: 12/18/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Layer 01							
fine cementitious material w/ paint/paper	30%	-	-	-			NAD
Layer 02							
compact chalky powder with paper, white	70%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	2%	-	-	-	-	98%
Layer 02	-	6%	-	-	-	-	94%

Client Sample ID: 51565.007-5022		Sample ID: S22			Date Analyzed: 12/18/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Layer 01							
fine cementitious material, white	25%	-	-	-			NAD
Layer 02							
compact chalky powder with paper, white	75%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	2%	-	-	-	-	98%
Layer 02	2%	5%	-	-	-	-	93%

Client Sample ID: 51565.007-5023		Sample ID: S23			Date Analyzed: 12/18/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Layer 01							
fine compact powder w/ paint, white	15%	-	-	-			NAD
Layer 02							
compact chalky powder with paper, offwhite	40%	-	-	-			NAD
Layer 03							
loose chalky powder, offwhite	45%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	3%	-	-	-	-	97%
Layer 02	2%	6%	-	-	-	-	92%
Layer 03	1%	4%	-	-	-	-	95%

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5024		Sample ID: S24			Date Analyzed: 12/18/2009		
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:	
Layer 01							
fine compact powder w/ paint, white	10 %	-	-	-		NAD	
Layer 02							
compact chalky powder with paper, white	75 %	-	-	-		NAD	
Layer 03							
hard compact powder, white	15 %	-	-	-		NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	4 %	-	-	-	-	96 %
Layer 02	3 %	5 %	-	-	-	-	92 %
Layer 03	-	2 %	-	-	-	-	98 %

Client Sample ID: 51565.007-5025		Sample ID: S25			Date Analyzed: 12/18/2009		
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:	
Layer 01							
fine cementitious material w/ paint, white	35 %	-	-	-		NAD	
Layer 02							
compact chalky powder with paper, white	65 %	-	-	-		NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	1 %	-	-	-	-	99 %
Layer 02	2 %	4 %	-	-	-	-	94 %

Client Sample ID: 51565.007-5026		Sample ID: S26			Date Analyzed: 12/18/2009		
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:	
Layer 01							
porous cement, gray	60 %	-	-	-		NAD	
Layer 02							
hard compact powder, white	40 %	-	-	-		NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	1 %	-	-	-	-	99 %
Layer 02	-	-	-	-	-	-	100 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5027		Sample ID: S27			Date Analyzed: 12/18/2009		
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:	
Layer 01							
fine compact powder w/ paint, white	10%	-	-	-		NAD	
Layer 02							
fine cementitious material, white	10%	-	-	-		NAD	
Layer 03							
compact chalky powder with paper, white	40%	-	-	-		NAD	
Layer 04							
loose chalky powder, white	40%	-	-	-		NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	3%	-	-	-	-	97%
Layer 02	-	-	-	-	-	-	100%
Layer 03	2%	6%	-	-	-	-	92%
Layer 04	1%	3%	-	-	-	-	96%

Client Sample ID: 51565.007-5028		Sample ID: S28			Date Analyzed: 12/18/2009		
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:	
Layer 01							
vinyl, white	35%	-	-	-		NAD	
Layer 02							
mastic, yellow	5%	-	-	-		NAD	
Layer 03							
vinyl, tan	55%	-	-	-		NAD	
Layer 04							
woody fibers, light brown	5%	-	-	-		NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100%
Layer 02	-	5%	-	-	-	-	95%
Layer 03	-	10%	-	-	-	-	90%
Layer 04	-	100%	-	-	-	-	0%

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

<u>Client Sample ID:</u> 51565.007-5029		<u>Sample ID:</u> S29		<u>Date Analyzed:</u> 12/18/2009			
<u>Client Sample Description:</u>				<u>Analyst:</u> Stephanie Golden			
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>
Layer 01							
fine compact powder w/ paint, white	15%	-	-	-			NAD
Layer 02							
compact chalky powder with paper, white	85%	-	-	-			NAD
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	3%	-	-	-	-	97%
Layer 02	-	6%	-	-	-	-	94%

<u>Client Sample ID:</u> 51565.007-5030		<u>Sample ID:</u> S30		<u>Date Analyzed:</u> 12/18/2009			
<u>Client Sample Description:</u>				<u>Analyst:</u> Stephanie Golden			
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>
Layer 01							
fine cementitious material w/ paint, white	15%	-	-	-			NAD
Layer 02							
compact chalky powder with paper, white	85%	-	-	-			NAD
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100%
Layer 02	2%	6%	-	-	-	-	92%

<u>Client Sample ID:</u> 51565.007-5031		<u>Sample ID:</u> S31		<u>Date Analyzed:</u> 12/18/2009			
<u>Client Sample Description:</u>				<u>Analyst:</u> Stephanie Golden			
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>
Layer 01							
compact fibers, light brown	75%	-	-	-			NAD
Layer 02							
mastic, brown	25%	-	-	-			NAD
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	100%	-	-	-	-	0%
Layer 02	-	-	-	-	Talc 5%	-	95%

<u>Client Sample ID:</u> 51565.007-5032		<u>Sample ID:</u> S32		<u>Date Analyzed:</u> 12/18/2009			
<u>Client Sample Description:</u>				<u>Analyst:</u> Stephanie Golden			
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>
Homogeneous							
compact fibers w/ paint, brown	100%	-	-	-			NAD
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	100%	-	-	-	-	0%

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Client Sample ID: 51565.007-5033		Sample ID: S33			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
Layer 01							
compact fibers, brown	90 %	-	-	-			NAD
Layer 02							
mastic, brown	10 %	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	Trace	100 %	-	-	-	-	0 %
Layer 02	-	2 %	-	-	-	-	98 %

Client Sample ID: 51565.007-5034		Sample ID: S34			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
Layer 01							
compact fibers, brown	95 %	-	-	-			NAD
Layer 02							
mastic, brown	5 %	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	100 %	-	-	-	-	0 %
Layer 02	-	3 %	-	-	-	-	97 %

Client Sample ID: 51565.007-5035		Sample ID: S35			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
Homogeneous							
compact fibrous material, gray	100 %	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	15 %	-	-	-	-	85 %

Client Sample ID: 51565.007-5036		Sample ID: S36			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
Layer 01							
fine compact powder w/ paint, offwhite	30 %	Trace	-	-			< 1 %
Layer 02							
compact chalky material with paper, white	70 %	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	3 %	-	-	-	-	97 %
Layer 02	-	8 %	-	-	-	-	92 %

Job Number: 092300

Report Number: 092300R01

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Client Sample ID: 51565.007-5037		Sample ID: S37			Date Analyzed: 12/18/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Layer 01							
fine compact powder w/ paint, white	15%	-	-	-			NAD
Layer 02							
compact chalky powder with paper, white	85%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	4%	-	-	-	-	96%
Layer 02	-	7%	-	-	-	-	93%

Client Sample ID: 51565.007-5038		Sample ID: S38			Date Analyzed: 12/18/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Homogeneous							
tape, white	100%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	15%	-	-	-	-	85%

Client Sample ID: 51565.007-5039		Sample ID: S39			Date Analyzed: 12/18/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Homogeneous							
fine cementitious material, white	100%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	-	-	-	-	-	100%

Client Sample ID: 51565.007-5040		Sample ID: S40			Date Analyzed: 12/18/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Homogeneous							
coarse cementitious material, gray	100%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
	-	3%	-	-	-	-	97%

Job Number: 092300

Report Number: 092300R01

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Client Sample ID: 51565.007-5041		Sample ID: S41			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
Layer 01							
fine cementitious material w/ paint, white	30%	-	-	-			NAD
Layer 02							
coarse cementitious material, gray	70%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100 %
Layer 02	-	1 %	-	-	-	-	99 %

Client Sample ID: 51565.007-5042		Sample ID: S42			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
Layer 01							
compact fibers, light brown	85%	-	-	-			NAD
Layer 02							
mastic, brown	15%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	100 %	-	-	-	-	0 %
Layer 02	-	1 %	-	-	-	-	99 %

Client Sample ID: 51565.007-5043		Sample ID: S43			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:		Analyst: Stephanie Golden					
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			
Layer 01							
fine compact powder w/ paint, white	40%	-	-	-			NAD
Layer 02							
loose chalky powder, white	60%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100 %
Layer 02	-	4 %	-	-	-	-	96 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5044		Sample ID: S44			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
compact fibers, brown	80 %	-	-	-		NAD
Layer 02						
mastic, brown	20 %	2 %	-	-		2 %
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	100 %	-	-	-	0 %
Layer 02	-	-	-	-	-	98 %

Client Sample ID: 51565.007-5045		Sample ID: S45			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
vinyl, gray	85 %	-	-	-		NAD
Layer 02						
mastic, yellow	5 %	-	-	-		NAD
Layer 03						
layers of paint, red/brown	10 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	100 %
Layer 03	-	-	-	-	-	100 %

Client Sample ID: 51565.007-5046		Sample ID: S46			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
rubbery material, gray	90 %	-	-	-		NAD
Layer 02						
mastic, offwhite	5 %	-	-	-		NAD
Layer 03						
woody fibers, brown	5 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	3 %	-	-	-	97 %
Layer 03	-	100 %	-	-	-	0 %

Client Sample ID: 51565.007-5047		Sample ID: S47			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Homogeneous						
mastic, yellow	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	2 %	-	-	-	98 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5048	Sample ID: S48			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:				Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		
Homogeneous						
mastic w/ woody fibers, yellow	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	6 %	-	-	-	94 %

Client Sample ID: 51565.007-5049	Sample ID: S49			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:				Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		
Homogeneous						
mastic, yellow	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	7 %	-	-	-	93 %

Client Sample ID: 51565.007-5050	Sample ID: S50			Date Analyzed: 12/18/2009		Percent Asbestos:
Client Sample Description:				Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		
Homogeneous						
mastic, yellow	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	9 %	-	-	-	91 %

Client Sample ID: 51565.007-5051	Sample ID: S51			Date Analyzed: 12/17/2009		Percent Asbestos:
Client Sample Description:				Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		
Layer 01						
mastic, yellow	3 %	-	-	-		NAD
Layer 02						
vinyl, white	79 %	-	-	-		NAD
Layer 03						
mastic yellow	8 %	-	-	-		NAD
Layer 04						
fine compact powder, white	10 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	4 %	-	-	-	96 %
Layer 02	-	-	-	-	-	100 %
Layer 03	-	5 %	-	-	-	95 %
Layer 04	-	7 %	-	-	-	93 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5052	Sample ID: S52	Date Analyzed: 12/17/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
rubbery material, brown	75 %	-	-
			NAD
Layer 02			
mastic, yellow	5 %	-	-
			NAD
Layer 03			
fine compact powder, white	20 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
Layer 01	-	-	-
			100 %
Layer 02	-	-	-
			100 %
Layer 03	-	2 %	-
			98 %

Client Sample ID: 51565.007-5053	Sample ID: S53	Date Analyzed: 12/17/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
vinyl, gray	80 %	-	-
			NAD
Layer 02			
interwoven fibers, brown	19 %	-	-
			NAD
Layer 03			
mastic, brown	1 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
Layer 01	-	35 %	-
			65 %
Layer 02	-	100 %	-
			0 %
Layer 03	-	2 %	-
			98 %

Client Sample ID: 51565.007-5054	Sample ID: S54	Date Analyzed: 12/17/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
vinyl, white	90 %	-	-
			NAD
Layer 02			
mastic, yellow	2 %	-	-
			NAD
Layer 03			
woody fibers, brown	8 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
Layer 01	-	-	-
			100 %
Layer 02	-	2 %	-
			98 %
Layer 03	-	100 %	-
			0 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5055		Sample ID: S55			Date Analyzed: 12/17/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Layer 01							
porous foam material, black	50%	-	-	-			NAD
Layer 02							
mastic, yellow	2%	-	-	-			NAD
Layer 02							
interwoven fibers, brown	13%	-	-	-			NAD
Layer 03							
vinyl, brown	35%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	-	-	-	-	-	100 %
Layer 02	-	1 %	-	-	-	-	99 %
Layer 02	-	100 %	-	-	-	-	0 %
Layer 03	-	45 %	-	-	-	-	55 %

Client Sample ID: 51565.007-5056		Sample ID: S56			Date Analyzed: 12/17/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Layer 01							
vinyl, brown	70%	-	-	-			NAD
Layer 02							
tinewoven fibers, brown	30%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	45 %	-	-	-	-	55 %
Layer 02	-	100 %	-	-	-	-	0 %

Client Sample ID: 51565.007-5057		Sample ID: S57			Date Analyzed: 12/17/2009		
Client Sample Description:					Analyst: Stephanie Golden		
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite			Percent Asbestos:
Layer 01							
vinyl, gray	50%	7%	-	-			7 %
Layer 02							
mastic, black	5%	2%	-	-			2 %
Layer 03							
fibrous backing, black	45%	-	-	-			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix	
Layer 01	-	3 %	-	-	-	-	90 %
Layer 02	-	3 %	-	-	-	-	95 %
Layer 03	-	75 %	-	-	-	-	25 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5058		Sample ID: S58			Date Analyzed: 12/17/2009	
Client Sample Description:					Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:	
Layer 01						
vinyl sheet, blue/green	30 %	-	-	-	NAD	
Layer 02						
fibrous backing, gray	65 %	-	-	-	NAD	
Layer 03						
mastic, yellow	5 %	-	-	-	NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	80 %	-	-	-	20 %
Layer 03	-	6 %	-	-	-	94 %

Client Sample ID: 51565.007-5059		Sample ID: S59			Date Analyzed: 12/17/2009	
Client Sample Description:					Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:	
Layer 01						
rubbery material, gray	80 %	-	-	-	NAD	
Layer 02						
mastic, offwhite	15 %	-	-	-	NAD	
Layer 03						
mastic, brown	5 %	-	-	-	NAD	
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	100 %
Layer 03	-	1 %	-	-	Wollastonite 3 %	96 %

Client Sample ID: 51565.007-5060		Sample ID: S60			Date Analyzed: 12/17/2009	
Client Sample Description:					Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:	
Layer 01						
rubbery material, gray	90 %	-	-	-	NAD	
Layer 02						
mastic, offwhite	5 %	-	-	-	NAD	
Layer 03						
mastic, brown	%	-	-	-	Anthophyllite- Trace	< 1 %
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	100 %
Layer 03	-	-	-	-	Wollastonite 4 % Talc 3 %	93 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

<u>Client Sample ID:</u> 51565.007-5061		<u>Sample ID:</u> S61			<u>Date Analyzed:</u> 12/18/2009			
<u>Client Sample Description:</u>					<u>Analyst:</u> Stephanie Golden			
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>	
Layer 01								
rubbery material, gray	80%	-	-	-			NAD	
Layer 02								
hard mastic, offwhite	20%	-	-	-			NAD	
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix		
Layer 01	-	-	-	-	-	-	100 %	
Layer 02	-	1 %	-	-	-	-	99 %	

<u>Client Sample ID:</u> 51565.007-5062		<u>Sample ID:</u> S62			<u>Date Analyzed:</u> 12/18/2009			
<u>Client Sample Description:</u>					<u>Analyst:</u> Stephanie Golden			
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>	
Layer 01								
rubbery material, black	90%	-	-	-			NAD	
Layer 02								
mastic w/ paint, offwhite	%	-	-	-			NAD	
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix		
Layer 01	-	-	-	-	-	-	100 %	
Layer 02	-	-	-	-	-	-	100 %	

<u>Client Sample ID:</u> 51565.007-5063		<u>Sample ID:</u> S63			<u>Date Analyzed:</u> 12/18/2009			
<u>Client Sample Description:</u>					<u>Analyst:</u> Stephanie Golden			
<u>Asbestos Mineral Fibers</u>	Percent of Sample:	Chrysotile	Amosite	Crocidolite			<u>Percent Asbestos:</u>	
Layer 01								
rubbery material, tan	90%	-	-	-			NAD	
Layer 02								
mastic, brown	5%	-	-	-			NAD	
Layer 02								
fine compact powder, white	5%	-	-	-			NAD	
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix		
Layer 01	-	-	-	-	-	-	100 %	
Layer 02	-	-	-	-	-	-	100 %	
Layer 02	-	-	-	-	-	-	100 %	

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5064		Sample ID: S64			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
rubbery material, gray	98 %	-	-	-		NAD
Layer 02						
sticky mastic, yellow	2 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	100 %

Client Sample ID: 51565.007-5065		Sample ID: S65			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
rubbery material, blue	75 %	-	-	-		NAD
Layer 02						
mastic, offwhite	5 %	-	-	-		NAD
Layer 03						
fibrous backing, brown	5 %	-	-	-		NAD
Layer 04						
soft mastic, yellow	10 %	-	-	-		NAD
Layer 05						
fine compact powder	5 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	100 %
Layer 03	-	80 %	-	-	-	20 %
Layer 04	-	2 %	-	-	-	98 %
Layer 05	-	3 %	-	-	-	97 %

Client Sample ID: 51565.007-5066		Sample ID: S66			Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden				
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite		Percent Asbestos:
Layer 01						
rubbery material, brown	95 %	-	-	-		NAD
Layer 02						
mastic, offwhite	5 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
Layer 01	-	-	-	-	-	100 %
Layer 02	-	-	-	-	-	100 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5067	Sample ID: S67			Date Analyzed: 12/18/2009	
Client Sample Description:				Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:
Homogeneous					
porous cement, gray	100 %	-	-	-	NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	-	-	-	100 %

Client Sample ID: 51565.007-5068	Sample ID: S68			Date Analyzed: 12/18/2009	
Client Sample Description:				Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:
Homogeneous					
vinyl, pink	100 %	6 %	-	-	6 %
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	-	-	-	94 %

Client Sample ID: 51565.007-5069	Sample ID: S69			Date Analyzed: 12/18/2009	
Client Sample Description:				Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:
Homogeneous					
soft caulking material, white	100 %	-	-	-	NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	-	-	-	100 %

Client Sample ID: 51565.007-5070	Sample ID: S70			Date Analyzed: 12/18/2009	
Client Sample Description:				Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:
Homogeneous					
fibrous tarry backing, black	100 %	-	-	-	NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	75 %	-	-	25 %

Client Sample ID: 51565.007-5071	Sample ID: S71			Date Analyzed: 12/18/2009	
Client Sample Description:				Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:
Homogeneous					
soft caulking material, gray	100 %	-	-	-	NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic Other	Matrix
	-	-	-	-	100 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5072 **Sample ID:** S72 **Date Analyzed:** 12/18/2009
Client Sample Description: **Analyst:** Stephanie Golden
Asbestos Mineral Fibers Percent of Sample: Chrysotile Amosite Crocidolite **Percent Asbestos:**

Homogeneous
soft caulking material, 100 % - - - **NAD**
gray

Other Fibers Fibrous Mineral Matrix
Glass Cellulose Wool Synthetic Other
- - - - - - 100 %

Client Sample ID: 51565.007-5073 **Sample ID:** S73 **Date Analyzed:** 12/18/2009
Client Sample Description: **Analyst:** Stephanie Golden
Asbestos Mineral Fibers Percent of Sample: Chrysotile Amosite Crocidolite **Percent Asbestos:**

Homogeneous
brittle caulking material, 100 % - - - **NAD**
white

Other Fibers Fibrous Mineral Matrix
Glass Cellulose Wool Synthetic Other
- 1 % - - - - 99 %

Client Sample ID: 51565.007-5074 **Sample ID:** S74 **Date Analyzed:** 12/18/2009
Client Sample Description: **Analyst:** Stephanie Golden
Asbestos Mineral Fibers Percent of Sample: Chrysotile Amosite Crocidolite **Percent Asbestos:**

Homogeneous
hard caulking material, 100 % - - - **NAD**
light gray

Other Fibers Fibrous Mineral Matrix
Glass Cellulose Wool Synthetic Other
- - - - - - 100 %

Client Sample ID: 51565.007-5075 **Sample ID:** S75 **Date Analyzed:** 12/18/2009
Client Sample Description: **Analyst:** Stephanie Golden
Asbestos Mineral Fibers Percent of Sample: Chrysotile Amosite Crocidolite **Percent Asbestos:**

Homogeneous
hard caulking material, 100 % - - - **NAD**
white

Other Fibers Fibrous Mineral Matrix
Glass Cellulose Wool Synthetic Other
- 1 % - - - - 99 %

Client Sample ID: 51565.007-5076 **Sample ID:** S76 **Date Analyzed:** 12/18/2009
Client Sample Description: **Analyst:** Stephanie Golden
Asbestos Mineral Fibers Percent of Sample: Chrysotile Amosite Crocidolite **Percent Asbestos:**

Homogeneous
soft caulking material, 100 % - - - **NAD**
gray

Other Fibers Fibrous Mineral Matrix
Glass Cellulose Wool Synthetic Other
- - - - - - 100 %

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5077	Sample ID: S77	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Homogeneous			
compact powder w/ coating, tan/dark green	100%	3%	-
			3%
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
	1%	-	-
			96%

Client Sample ID: 51565.007-5078	Sample ID: S78	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Homogeneous			
paint, silver	100%	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
	-	-	-
			100%

Client Sample ID: 51565.007-5079	Sample ID: S79	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
vinyl, red	80%	-	-
			NAD
Layer 02			
mastic, yellow	5%	-	-
			NAD
Layer 03			
loose fibers, white/blue	5%	-	-
			NAD
Layer 04			
woody fibers, brown	10%	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
Layer 01	-	-	-
			100%
Layer 02	-	3%	-
			97%
Layer 03	-	-	100%
			0%
Layer 04	-	100%	-
			0%

Client Sample ID: 51565.007-5080	Sample ID: S80	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
		Crocidolite	Percent Asbestos:
Layer 01			
vinyl, green	95%	-	-
			NAD
Layer 02			
mastic, yellow	5%	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic Other
			Matrix
Layer 01	-	2%	-
			98%
Layer 02	-	1%	-
			99%

Job Number: 092300

Report Number: 092300R01

Report Date: 12/21/2009

Client Sample ID: 51565.007-5081	Sample ID: S81	Date Analyzed: 12/18/2009	
Client Sample Description:		Analyst: Stephanie Golden	
Asbestos Mineral Fibers	Percent of Sample:	Chrysotile	Amosite
			Crocidolite
			Percent Asbestos:
Layer 01			
vinyl, gray	85 %	-	-
Layer 02			
mastic, yellow	5 %	-	-
Layer 03			
interwoven fibers, light brown	5 %	-	-
Layer 04			
wood chips, light brown	5 %	-	-
Other Fibers	Fibrous	Mineral	
	Glass	Cellulose	Wool
			Synthetic
			Other
			Matrix
Layer 01	-	40 %	-
Layer 02	-	3 %	-
Layer 03	-	100 %	-
Layer 04	-	100 %	-
			60 %
			97 %
			0 %
			0 %

This laboratory participates in the National Voluntary Laboratory Accreditation Program (NVLAP).
Testing method is per 40 CFR 763 Subpart F, Appendix A, PLM.

Layered samples are considered non-homogeneous. "Misc" is miscellaneous. "NAD" is No Asbestos Detected.
Asbestos consists of the following minerals: chrysotile, amosite, crocidolite, tremolite, actinolite, anthophyllite.
Small diameter fibers such as those found in vinyl floor tiles, may not be detected by PLM.
Asbestos detection interferences may result from material binders.
Qualitative and quantitative TEM analysis may be recommended for difficult samples.
Quantitative analysis by PLM point count or TEM is recommended for samples testing at < or = to 1% asbestos.
The following estimate of error for this method by visual estimation of asbestos percent are as follows:
1% asbestos: 0-3% error, 5% asbestos: 1-9% error, 10% asbestos: 5-15% error, 20% asbestos: 10-30% error.
This report pertains only to the samples listed on the report. Report considered valid only when signed by analyst.

Reviewed by:



Stephanie Golden
Analyst

THIS IS TO CERTIFY THAT

ADAM JONES

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

**ASBESTOS INSPECTOR REFRESHER AND
MANAGEMENT PLANNER**

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 04/22/2010

Course Location: Eugene, OR

Certificate: IMR-10-4640A

Engineering +
Environmental

Expiration Date: 04/22/2011

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, Director of Training

THIS IS TO CERTIFY THAT

DANNY MCCABE

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: 04/22/2010

Course Location: Eugene, OR

Certificate: IR-10-8635A



Engineering +
Environmental

Expiration Date: 04/22/2011

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

01 11 00 – SUMMARY OF WORK**PART 1 GENERAL****1.1 WORK COVERED BY THE PROJECT MANUAL AND DRAWINGS**

- A. Work covered by the Project Manual and Drawings consists of, but is not limited to:

Hendricks Hall Exterior Restoration will include carpentry, masonry and concrete repairs, wood shingle and single-ply roof membrane replacement, sheet metal, wood window and door trim repair, window glazing replacement, sealant replacement, paint scraping and painting. Asbestos abatement and lead paint disposal shall be performed by others under separate contract with the owner.

- B. The Work may commence upon execution of the Agreement and after an acceptable certificate of insurance has been received by the Owner, Substantial Completion shall occur on or before **September 20, 2013**. Physical on site work cannot begin until **June 20, 2013**.

1.2 CONTRACTORS USE OF PREMISES

- A. Contractor shall limit use of the premises for Work and storage to allow for:
1. Owner occupancy, day and night.
 2. Public use, day and night.
 3. Security
 4. Safe entry and exit for vehicles and pedestrians.
- B. Coordinate all operations with the Owner's Representative and separate Abatement contractor during the construction period.
- C. Submit to the Owner for approval, a schedule for the Work to be performed; schedule shall include building name, when the Work is to begin, and estimated duration of the Work. Schedule to be provided to Owner at pre-construction meeting.
- D. Access through the interior of the building shall be coordinated with the Owner's Representative. The Owner will arrange for any required keys subject to a refundable deposit. The contractor will be responsible for any and all costs as a result of lost keys.
- E. The Contractor will be responsible for purchase their own UO parking hang-tag, non-designated parking permits valid for the scheduled duration of the project. The Contractor is responsible for all parking meters and regulations. Additional parking permits may be obtained through the Department of Public Safety. Refer to

http://parking.uoregon.edu/sites/all/files/docs/parking_rules.pdf

for additional information.

Any costs, directly or indirectly incurred by the Contractor and related to the availability of parking permits are the responsibility of the Contractor. Any disputes or claims related to parking are subject to the appeals process of the Department of Public Safety.

1.3 PROTECTIONS

- A. Protect sidewalks, asphalt paving, concrete, trees, shrubs, and lawn areas at all times in carrying out the Work. Contractor to provide two (2) layers of 3/4" plywood protection over all lawn or planting areas used for vehicle access or Contractor equipment. Photographs will be taken before and after specified Work, to insure proper maintenance of University grounds by the Contractor. Prevent materials from clogging catch basins, yard and roof drains; maintain drains clean and in proper working conditions. Owner to re-seed lawn areas that were protected during the course of work.
- B. Care shall be used to prevent repair materials, paint, coatings and other materials from getting on any painted or stained surfaces, brick walls, sidewalks, lawns, shrubs, etc., and the Contractor shall be responsible for the cleaning of any such accidents.
- C. Clean, repair, resurface, or restore existing surfaces to their original, or better, condition, or completely replace such surfaces to match existing, where damaged by construction operations.
- D. The Contractor shall be responsible for and held liable for any and all damages caused by the Contractor's negligence in protecting existing buildings, sidewalks, paving, concrete, shrubs, lawn areas, trees, and equipment.
- E. The Owner will not be responsible for protection of materials or equipment from vandalism or theft. Security is the responsibility of the Contractor.
- F. Debris shall not be allowed to remain around the building during performance of Work, but shall be disposed of as rapidly as it accumulates. Debris shall be removed from the area of work on a daily basis. On completion of Work, the building and grounds shall be left in a condition that is equal or better than original condition. In case of failure to do so, the Owner may remove rubbish and charge the cost to the Contractor. Contractor to provide their own dumpster during the work; coordinate the location with Owner's PM.
- G. The Contractor shall manage a safe job environment for both the safety of all the people around the Work site as well as the safety of the Owner's and general public's property.
- H. Do not store materials where they will interfere with operations of Owner. Storage areas must be approved by the Owner's Representative prior to start of project.
- I. Do not walk over existing planting areas adjacent to the Work. Protect from damage.

1.4 OWNER OCCUPANCY

- A. The Owner will occupy the premises during the entire period of construction for the conduct of normal operations. Cooperate with Owner's Representative in construction operations to minimize conflict and to facilitate the Owner's usage especially in the following areas:
 - 1. Restricted access and parking.
 - 2. Temporary storage space availability.
 - 3. Access to and egress from building exits.
- B. Conduct operations in such a way to ensure the least inconvenience to the general public,

including:

1. Limitations and easements.
2. Emergency vehicle access.
3. Building access to the public, day and night.
4. No smoking is allowed in or on University buildings.

1.5 LOCATION AND COSTS FOR TEMPORARY UTILITIES

- A. Electrical service for the project limited to 20 amp 120 v circuits will be paid for by the Owner. Connection to the service shall be the responsibility of the Contractor, with the Owner's approval. Coordinate with the Owner's Representative.
- B. Water service for the project will be paid for by the Owner. Connection to the service shall be the responsibility of the Contractor, with the Owner's approval. Coordinate with the Owner's Representative.
- C. The workers may use the Owner's rest room facilities.
- D. Do not interrupt any existing service. Ten (10) days written notice and approval from the Owner's is required prior to any utility shutdown required by the Work. Contractor employees shall not shut down utilities.

1.6 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accordance with construction schedules; coordinate to avoid conflict with the Work and conditions at the Site.
- B. Deliver products in undamaged condition in Manufacturer's original containers or packaging with identifying labels intact and legible.
- C. Inspect shipments to assure compliance with requirements of Contract Documents and reviewed submittals, and that products are undamaged.
- D. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.7 STORAGE

- A. Materials shall be stored off site to insure the preservation of their quality and delivered to the job as needed.
- B. Temporary construction storage areas shall be limited to the areas designated by the Owner's Representative and are intended to allow for daily access of materials and equipment only. Security shall be the responsibility of the Contractor.
- C. Public safety at temporary storage and access areas shall be the responsibility of the Contractor. Provide temporary means to limit access and ensure safety as required.
- D. Interior Storage:
 1. Store with seals and labels intact and legible in weathertight enclosure when

subject to damage by the elements.

2. Maintain required temperature and humidity ranges as recommended by manufacturer.
- E. Exterior Storage: Store fabricated products above the ground on blocking or skids to prevent soiling or staining. Cover products with impervious breathable sheet coverings when they are subject to deterioration by the elements; provide adequate ventilation to avoid condensation.
- F. Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove when no longer needed.

1.8 SALVAGE

- A. All material indicated to be removed shall become the property of the Contractor unless otherwise noted.

1.9 SCAFFOLDING

- A. General Contractor is to coordinate with the Owner PM prior to erecting the scaffolding so the existing landscaping can be pruned and protected.
- B. Verify locations sprinkler heads with Owner's PM prior to erecting the scaffolding.

1.10 PRECONSTRUCTION CONFERENCE

- A. A pre-construction conference shall predate the start of Work and shall include in the agenda: contract management, work schedule, daily reports, recycling, emergency phone numbers, traffic control, parking, hazardous materials, storage areas, and other subjects of interest desired by the Contractor, the Owner's Representative, the Manufacturer's Representative, and other participants.

1.11 PERMITS

- A. The Owner shall pay for plan check and permit fees. The Contractor shall pick up all necessary permits, schedule inspections, and finalize acceptance. The Contractor shall obtain all official licenses for the construction of the Work, for temporary obstructions, enclosures, opening of streets for pipes, walls, etc., as mentioned in the specifications. The Contractor shall be responsible for all violations of the law for any cause in connection with the construction of the Work or caused by obstructing streets, or sidewalks or otherwise and shall give all requisite notices to public authorities. Permit Drawings and Specifications are to be returned to the Owner's Representative at the Completion of the Project.

1.12 RESIDENT PROJECT OBSERVER

- A. The Owner's PM will provide on-site observation during construction.

1.12 DAILY REPORTS

- A. The Contractor shall maintain a written daily record of the project. Each daily report shall contain at a minimum the name of the Project, date of the report, the number of Contractor's employees and their major activities, and a list of Subcontractors on site and their major activities. Copies of the reports for a specific period shall be provided to the Owner's PM on a weekly basis.

PART 2 PRODUCTS

2.1 REUSE OF EXISTING MATERIAL

- A. Except as specifically indicated or specified, materials and equipment removed from existing construction shall not be used in the completed Work.
- B. For material and equipment specifically indicated or specified to be reused in the Work:
- C. Use special care in removal, handling, storage, and reinstallation to assure proper function in the completed Work.
- D. Arrange for transportation, storage, and handling of products which require off site storage, restoration or renovation. Pay all costs for such Work.

2.2 MATERIALS AND EQUIPMENT

- A. Unless otherwise specified, all material and equipment shall be new, free from defects impairing strength, durability and appearance, and of current Manufacturer. Items specified shall be considered minimum as to quality, function, capacity, and suitability for application intended.
- B. Items incorporated into the Work shall conform to applicable specifications and standards designated, and shall be of size, make, type, and quality specified, unless otherwise approved.

2.3 MANUFACTURED AND FABRICATED PRODUCTS

- A. Design, fabricate, and assemble in accordance with current best engineering, industry, and shop practices. Manufacture like parts of duplicate units to standard sizes and gauges to make them interchangeable.
- B. Two or more items of the same kind shall be identical and made by the same Manufacturer.

2.4 FIRE SUPPRESSION EQUIPMENT

- A. Provide equipment of adequate capacity to extinguish minor fires in combustible material on the job site.
- B. Maintain equipment in working condition with current inspection certificate attached to each.

- C. Contractor's personnel are to abide by all rules and regulations regarding smoking and all other fire prevention regulations in force where the Work is to be performed.

2.05 RECYCLING

- A. The University requires that the Contractor consider the recycling of materials and that the Contractor employs recycling and waste reduction when practicably possible. Contractor will submit for review, prior to the start of work, a written document describing a proposal of what materials are to be recycled. These should include, but are not necessarily limited to, wood, roofing, ferrous metals and nonferrous metals.

PART 3 EXECUTION

3.1 PREPARATION

- A. Inspect existing conditions, project requirements and the Contract Documents. Verify that materials and equipment being furnished meet requirements specified.

3.2 MATERIAL HANDLING

- A. If, in the opinion of the Contractor, backhoes, cranes, or other equipment is necessary for the proper and efficient movement of materials, comply with these requirements:
 1. Use only experienced personnel.
 2. Remove equipment as soon as possible after task is ended.
 3. Coordinate the placement of such equipment with the Owner's Representative to insure that utility tunnels, utilities, and surfaces are not damaged.
 4. Obtain required permits and meet the requirements of governing authorities regarding street and sidewalk closures, safety, noise, and other applicable regulations.

3.3 AIR CONDITIONING AND VENTILATION

- A. General Contractor is responsible for providing appropriate air conditioning and proper ventilation in the occupied office spaces during the course of work where the window opening are inoperable by covered protective barrier. Barrier is to prevent paint chips and dust particles from entering into the building.
 1. Windows will be inoperable/ covered up by barrier during:
 - a. Lead based paint scraping.
 - b. Painting of windows
 2. AC units to provide ambient temp. between 65 degrees to 80 degrees.

3.4 DRAINAGE

- A. Cover all catch basins, foundation drains, etc. to prevent materials and debris from clogging drains. Open only as weather conditions dictate and at completion of job. Do not flush materials down drains.
- B. All drains shall be maintained in a clean and proper working condition.

3.5 NOTIFICATION

- A. If the substrate is found defective, the Contractor shall notify the Architect in writing of areas not approved for project application. Proceeding with the work constitutes full acceptance of the substrate.

3.6 WORKMANSHIP

- A. Unless otherwise specified, perform the Work using workers skilled in the particular type of Work involved.
- B. Should the Owner or the Architect, in writing, deem anyone on the Work incompetent or unfit for the assigned duties, dismiss the worker immediately or reassign him or her to a different task requiring a lesser degree of competence.
- C. Workmanship shall be first class in every respect and all Work performed shall be according to the best trade practices.
- D. The Contractor shall maintain effective supervision on the project at all times work is being performed. The Superintendent shall be the same person throughout the course of the restoration project, and shall attend the preconstruction conference.

3.7 MAINTENANCE

- A. Keep facilities well maintained.

3.8 TEMPORARY FACILITIES

- A. Relocate temporary facilities as required as the Work progresses and remove at completion of Work. Restore disturbed areas to a condition equal or better than original condition.

3.9 TESTING

- A. The Owner reserves the right to perform any testing as may be required to determine compliance with the Project Manual and Drawings. Costs for such testing will be the Owner's responsibility unless testing indicates noncompliance. Costs for such testing indicating noncompliance shall be borne by the Contractor. Non-complying Work shall be corrected and testing will be repeated until the Work complies with the Project Manual and Drawings. Contractor will pay costs for retesting non-complying Work.
- B. The Contractor shall cooperate in every respect with the activities of the testing agency.

END OF SECTION

01 15 20 – APPLICATIONS FOR PAYMENT**PART 1 GENERAL**

1.01 DESCRIPTION

- A. Work of this Section includes forms and procedures for progress payments.

PART 2 PRODUCTS

2.01 APPLICATION FORMS

- A. For applications for payment, use AIA Document G702, Application and Certificate for Payment, supported by AIA Document G702a, Continuation Sheet.
- B. Prepare the schedule of values in such a manner that each major item of Work and each subcontracted item of Work is shown as a line item broken down in terms of material and labor costs on AIA Document G702a, Application and Certification for Payment, Continuation Sheet. The sample Continuation Sheet shall be the minimum schedule of values breakdown.
- C. Submit Stimulus Package Project Reporting Form with applications for payment.

PART 3 EXECUTION

3.01 PAYMENTS

- A. The Owner will make progress payments on account of the Contract once a month, based on the value of work accomplished or materials on the job site, as stated in the schedule of values on the Application and Certificate for Payment. Complete and forward to the Architect on or about the 20th day of each month.
- B. Submit five (5) copies of forms requesting payment to the Architect. Payments will be made on protected materials on hand at the job site properly stored, protected, and insured. Estimated quantities shall be subject to the Architect's review and judgment.

3.02 EARLY PURCHASE AND PAYMENT OF MATERIALS AND EQUIPMENT

- A. Order materials and equipment requiring a long lead or waiting time early so as not to delay progress of the Work.
- B. The Contractor will be reimbursed for early order materials or items upon receipt and verification of quality and quantity against submittals and shipping documents by the Owner's Representative. Materials may be stored at the Contractor's insured and secure premises. Contractor must furnish a certificate of insurance on the contents of premises where materials are stored, and allow the Owner's inspector to verify quantity of material and that proper storage conditions are maintained.

END OF SECTION

01 22 00 - UNIT PRICES**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. Provide Unit Prices for Work described in the Base Bid Tabulation on the Bid Form.

1.2 QUALITY ASSURANCE

- A. Coordinate Work of various trades involved, and modify surrounding Work as required to complete Project as intended.
- B. Include incidental costs as required to complete project.
- C. Determine unit quantities of labor and materials required to execute Work in accordance with requirements of Project Manual and Drawings.
- D. Quantities described elsewhere are estimated quantities and are included in Base Bid for purpose of award of Contract.
- E. Actual quantities required to execute Unit Price items of Work will be determined during construction as agreed to by the Owner's Representative.
- F. Notify both Architect and Owner's Representative prior to any execution of Unit Price Work.

1.3 GENERAL

- A. Applicable Sections of Specifications apply to Work under each Unit Price item.

1.4 MEASUREMENT AND PAYMENT

- A. Complete demolition and replacement of existing deteriorated mortar on any surface area to match approved mortar mixture as required.
1. Basis of Measurement: By the square foot.
 2. Basis of Payment: Includes removing and replacing existing deteriorated mortar with new mortar of approved mixture.
- B. Complete demolition and replacement of existing spalled or broken brick on any surface to match existing as required:
1. Basis of Measurement: By the square foot.
 2. Basis of Payment: Includes removing and replacing existing spalled or broken brick and mortar with new material of same size, color, texture, and mixture.
- C. Complete demolition and replacement of existing spalled or broken concrete on any surface to match existing as required:
1. Basis of Measurement: By the square foot.
 2. Basis of Payment: Includes removing and replacing existing spalled or broken concrete with new concrete of same consistency, color, and texture.

- D. Complete demolition and replacement of existing deteriorated 1/2" plywood roof decking to match existing as required:
1. Basis of Measurement: By the square foot.
 2. Basis of Payment: Includes removing and replacing existing deteriorated plywood roof decking with new plywood roof decking of same thickness.
- E. Complete demolition and replacement of existing deteriorated or missing wood at wood cornice, eaves, rakes, and trim to match existing as required:
1. Basis of Measurement: By the board feet.
 2. Basis of Payment: Includes removing and replacing existing deteriorated wood with new wood of same species and profile.
- F. Complete demolition and replacement of existing deteriorated or missing wood at wood window sash, frame and sill to match existing as required:
1. Basis of Measurement: By the board feet.
 2. Basis of Payment: Includes removing and replacing existing deteriorated wood with new wood of same species and profile.
- G. Complete demolition and replacement of existing loose and damaged glazing compound from exterior windows and doors with new glazing compound as required:
1. Basis of Measurement: By the linear foot.
 2. Basis of Payment: Includes removing and replacing existing loose or damaged glazing compound with new glazing compound.
- H. Complete demolition and replacement of existing broken window hardware to match existing as required:
1. Basis of Measurement: By the Per Set.
 2. Basis of Payment: Includes removing and replacing existing broken hardware: ropes, counterweights, and latches with new to match existing.
- I. Complete demolition and replacement of existing broken window panes to match existing as required:
1. Basis of Measurement: By the Per Pane.
 2. Basis of Payment: Includes removing and replacing existing broken glass with new glass and replacement of glazing compound to match existing.

1.5 UNIT PRICE SCHEDULE

- A. See Base Bid Tabulation table located on the Bid Form.

END OF SECTION

01 23 00 - ALTERNATES**PART 1 GENERAL**

1.01 DESCRIPTION

- A. The Alternate described in this Section may be exercised at the option of the Owner with the execution of the Owner/Contractor Agreement.
- B. In determining the lowest bidder, the Owner reserves the right to take into consideration any or all authorized base bids as well as alternates indicated in the bid.
- C. Contract Bid award will be based on the Base Bid and authorized Alternates.

1.02 QUALITY ASSURANCE

- A. For each Alternate which is accepted, coordinate the work of the various trades involved, and modify surrounding work as required to complete the Project as intended.
- B. In the change-in-price figure for each Alternate, include incidental costs which are attributable to adjustments in the work of other trades which may be required to achieve the contemplated final conditions.
- C. If there is a question regarding the extent, scope, nature or intent of the Alternates, contact the Architect for clarification. Failure on the part of the Contractor to clarify any unclear items shall not relieve the Contractor of the responsibility for performing the selected Alternates in accordance with the intent and requirements of the Project Manual and Drawings.
- D. The description of Alternates hereinafter is qualitative and not quantitative. The Contractor shall determine the quantities of labor and materials and the extent of same required to execute the selected Alternates in accordance with the intent and requirements of the Project Manual and Drawings.

PART 2 PRODUCTS

- A. The applicable Sections of the Specifications apply to the work under each Alternate.

PART 3 EXECUTION

3.01 EXECUTION

- A. Add alternate no.1: Repoint only the brick on the garden wall, steps and patio between Hendricks and Susan Campbell per percentages indicated on drawing sheet A2. Do no work on cast concrete cap, balustrades, sill and decorative balls.
- B. Add alternate no. 2: Complete demolition of west porch staircase and footings. Install new concrete footings, metal deck and metal stairs with concrete fill, wood shelter with wood cornice and single-ply roof membrane, gutter and downspouts, metal hand and guardrails and reconfigured sprinkler system per drawing sheets A39 – A49 and structural drawings.
- C. Add alternate no.3: Remove and dispose of existing lamp pole, footing, and adjacent J-Box. Protect existing wiring at J-Box for new lamp posts. Install three (3) new lamp post; one (1) at existing location and two (2) adjacent to ramp. Provide all appropriate materials as noted in the specification. Refer to drawing sheet A1 for locations and specification for shop drawings.
- D. Add alternate no.4: Remove and dispose of existing west entry wood door. Salvage all existing door hardware for re-use. Install new solid core wood door to match existing size, profile, species, new weather stripping, and re-install existing door hardware. See drawing sheets A5 and A9.

END OF SECTION

01 25 00 – SUBSTITUTIONS & PRODUCT OPTIONS**PART 1 - GENERAL**

1.01 DESCRIPTION

- A. This Section specifies need to align with OUS contract form B-2 article 4 and OUS General Conditions form B-8 article B.19 for the work in relation to substitutions and product options.

1.02 REQUESTS FOR SUBSTITUTIONS

- A. Requests for substitution of products in place of those specified shall be in accordance with Instructions to Bidders, Division B, and as specified herein.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Investigate proposed products and determine that they are equal or superior in all respects to products specified.
- B. Provide same guarantee for accepted substitutions as for products specified.
- C. Coordinate installation of accepted substitutions into the Work, making such changes as may be required for the Work to be complete in all respects.
- D. Waive all claims for additional costs related to substitutions which consequently become apparent.

PART 2 - PRODUCTS

2.01 SUBSTITUTION REQUIREMENTS DURING THE BIDDING PERIOD

- A. Submit two (2) copies of the following information with each request to the Architect:
 - 1. CSI substitution request form.
 - 2. Itemized comparison of proposed substitution with product or method specified.
 - 3. Complete data on each material and system for this project only, substantiating compliance of proposed substitution with the Contract Documents.
 - 4. Complete evidence including test numbers and supporting reports indicating compliance with referenced standards.
 - 5. A statement from the materials Manufacturers stating that warrantee requirements specified are acceptable and that such a warrantee shall be issued upon successful completion of the project.

6. A set of Details for these projects clearly indicating specific deviations proposed for the substitution. Copies of the Drawings and Details within this Project Manual shall be used for this purpose. Any and all deviations shall be indicated.
 7. Copies of related Specification Sections within the Project Manual clearly marked to indicate all deviations in materials, products, and methods specified. Any and all deviations shall be indicated.
 8. Samples of all materials and products including accessories, anchors, and similar items.
- B. All substitutions request shall be received in the Architects' office on less than three (3) calendar days before Bid Opening. Requests received after this date will not be considered.

2.02 SUBSTITUTIONS REQUESTED AFTER AWARD OF CONTRACT

- A. Substitutions will normally not be considered after date of Contract, except when required, due to unforeseen circumstances. Within a period of thirty (30) days after date of Contract, the Owner may, at its option, consider formal written requests for substitution of products in place of those specified, when submitted in accordance with the requirements stipulated herein. To receive consideration, one or more of the following conditions must be documented in any such request.
1. The substitution is required for compliance with final interpretation of code requirements or insurance regulations.
 2. The substitution is required due to unavailability of a specified product, through no fault of the Contractor.
 3. The substitution is required because subsequent information disclosed the inability of the specified product to perform properly or to fit in the designated space.
 4. The substitution is required because it has become clearly evident, in the judgment of the Owner, that a substitute would be substantially in the best interest of the Owner in terms of cost, time, or other considerations.

2.03 SUBSTITUTIONS NOT PERMITTED

- A. They are indicated or implied on shop drawings or product data submitted without first requesting approval thereof in accordance with requirements of this Section.
- B. Acceptance will require substantial revision of the Contract Documents, except as allowed by Paragraph 2.02, above.

2.04 PRODUCT OPTIONS

- A. For products specified only by referenced standards, provide products by any Manufacturer meeting standards specified.
- B. For products specified by naming one or more products, provide any product named. If certain conditional requirements are stipulated, each product must comply with those requirements. Products not specifically named must be approved prior to bidding. Requests for approval of substitutions are subject to meeting requirements stipulated above.
- C. For products specified by naming a product to match existing products or systems, provide product of the same name. There is no option and no substitution will be allowed.

PART 3 - EXECUTION

Not Used

END OF SECTION



SUBSTITUTION REQUEST (During the Bidding Phase)

Project: _____ Substitution Request Number: _____

 From: _____
 To: _____ Date: _____

 A/E Project Number: _____
 Re: _____ Contract For: _____

Specification Title: _____ Description: _____
 Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____
 Manufacturer: _____ Address: _____ Phone: _____
 Trade Name: _____ Model No.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: _____
 Signed by: _____
 Firm: _____
 Address: _____
 Telephone: _____

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01330.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

01 30 00 - ADMINISTRATIVE REQUIREMENTS**PART 1 GENERAL**

1.01 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Progress meetings.
- C. Construction progress schedule.
- D. Submittals for review, information, and project closeout.
- E. Submittal procedures.

1.02 RELATED REQUIREMENTS

- A. Section 01 78 00 - Closeout Submittals: Project record documents.

1.03 PROJECT COORDINATION

- A. Project Coordinator: Owner's Representative.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices, for construction access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
- F. Coordinate field engineering and layout work under instructions of the Project Coordinator.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION**

3.01 PRECONSTRUCTION MEETING

- A. Owner will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.

3. Contractor.
4. Subcontractors.

C. Agenda:

1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
3. Distribution of Contract Documents.
4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
5. Designation of personnel representing the parties to Contract, Owner and Architect.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.
8. Use of premises by Owner and Contractor.
9. Survey and site layout.
10. Security and housekeeping procedures.
11. Schedules.
12. Application for payment procedures.
13. Procedures for testing.
14. Procedures for maintaining record documents.

D. The General Contractor is to record minutes and distribute copies within two days after meeting to participants; one copy to the Architect, Owner, participants, and those affected by decisions made.

3.02 PROGRESS MEETINGS

- A. The General Contractor is to schedule and administer meetings throughout progress of the Work at maximum weekly intervals.
- B. The General Contractor is to make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Architect, as appropriate to agenda topics for each meeting.

D. Agenda:

1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems that impede, or will impede, planned progress.
5. Review of submittals schedule and status of submittals.
6. Maintenance of progress schedule.
7. Corrective measures to regain projected schedules.

8. Planned progress during succeeding work period.
9. Maintenance of quality and work standards.
10. Effect of proposed changes on progress schedule and coordination.
11. Other business relating to Work.

E. The General Contractor is to record minutes and distribute copies within two days after meeting to participants; one copy to the Architect, Owner, participants, and those affected by decisions made.

3.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Within 10 days after date of the Agreement, submit preliminary schedule for Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.

3.04 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 1. Product data.
 - a. Manufacturer's catalog sheets, brochures, diagrams, illustrations, and other descriptive data.
 - b. Clearly mark each to identify pertinent product or models.
 2. Shop drawings.
 - a. Identify details by reference to sheet and detail number.
 3. Samples for selection.
 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 - CLOSEOUT SUBMITTALS.

3.05 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:

1. Design data.
2. Certificates.
3. Test reports.
4. Inspection reports.
5. Manufacturer's instructions.
6. Manufacturer's field reports.
7. Other types indicated.

B. Submit for Architect's knowledge as contract administrator or for Owner.

3.06 SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:

1. Project record documents.
2. Operation and maintenance data.
3. Warranties.
4. Bonds.
5. Other types as indicated.

B. Submit for Owner's benefit during and after project completion.

3.07 NUMBER OF COPIES OF SUBMITTALS

A. Documents for Review:

1. Small Size Sheets, Not Larger Than 8-1/2 x 11 inches: Submit the number of copies that Contractor requires, plus two copies that will be retained by Architect.
2. Larger Sheets, Not Larger Than 36 x 48 inches: Submit the number of opaque reproductions that Contractor requires, plus two copies that will be retained by Architect.

B. Documents for Information: Submit two copies.

C. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.

1. After review, produce duplicates.
2. Retained samples will not be returned to Contractor unless specifically so stated.

3.08 SUBMITTAL PROCEDURES

A. Transmit each submittal with approved form including the project name, Contractor's name, number of items, specification section, and other pertinent data.

- B. Keep one copy of each submittal on the job site at all times.
- C. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- D. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- E. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- F. Deliver submittals to Architect at business address.
- G. Schedule submittals to expedite the Project, and coordinate submission of related items.
- H. For each submittal for review, allow 14 days excluding delivery time to and from the Contractor.
- I. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- J. Applicable standards such as ASTM number or Federal specification.
- K. Provide space for Contractor and Landscape Architect review stamps.
- L. When revised for resubmission, identify all changes made since previous submission.
- M. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- N. Submittals not requested will not be recognized or processed.
- O. Submittals not meeting the requirements listed above may be returned without review.

3.09 ARCHITECT REVIEW

- A. Submittals which have been reviewed will be marked as follows:
 - 1. "No Exception Taken," which means fabrication, manufacture and/or installation may proceed.
 - 2. "Make Revisions Noted," which means fabrication, manufacturing, and/or installation may proceed with revisions as noted; resubmittal not required.
 - 3. "Revise and Resubmit," which means that fabrication, manufacture, and/or installation may not proceed.
 - 4. "Rejected," which means do not proceed; make arrangements for the re-review of the proposed Work with the Owner as soon as possible.

END OF SECTION

01 33 23 – SHOP DRAWINGS, PRODUCT DATA, SAMPLES**PART 1 - GENERAL**

1.01 DESCRIPTION

- A. Submit to the Architect shop drawings, samples, and product data (such as Manufacturer's standard schematic drawings and other literature) when required by individual Specification Sections.
- B. Related Work Specified Elsewhere:
 - 1. Instructions to Bidders.
 - 2. General Conditions of the Contract.
 - 3. Supplementary Conditions.

1.02 QUALITY ASSURANCE

- A. Process submittals in ample time for review, as applicable, so as to not delay the Work. All submittals shall be received by the Architect within ten (10) days after pre-construction conference.

1.03 DEFINITIONS

- A. The Architect will perform in accordance with the General Conditions except revise text by replacing the word "approval" or "approved" (relating to the Architect) with the word "review" or "reviewed."
- B. The Architect will mark reviewed materials as follows:
 - 1. "No Exception Taken," which means fabrication, manufacture and/or installation may proceed.
 - 2. "Make Revisions Noted," which means fabrication, manufacture and/or installation may proceed with revisions as noted.
 - 3. "Revise and Resubmit," which means that fabrication, manufacture and/or installation may not proceed.
 - 4. "Rejected," which means do not proceed; make arrangements for the re-review of the proposed Work with the Architect as soon as possible.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Review submittals, make necessary corrections, and become familiar with the content of the submittals prior to turning the material over to the Architect. Mark each item with a stamp or by some other means to indicate that such is the case.

- B. Accompany submittals with a transmittal letter bearing the Project name, Contractor's name, number of items, and other pertinent data.
- C. Mark or tag each submittal to show the date and the names of the Project, Architect, Contractor, origination subcontractor, Manufacturer or supplier, and separate detailer, if pertinent. Also, identify the Specification Section where the particular item is specified in the Project Manual.
- D. Keep one copy of each reviewed submittal on the job site at all times.

3.02 SPECIFIC REQUIREMENTS, SHOP DRAWINGS

- A. Identify shop drawing details by reference to sheet and detail numbers shown on the Drawings.
- B. Unless otherwise specified in an individual Specification Section, submit one reproducible transparency, and two prints of each shop drawing.
- C. Be responsible for obtaining and distributing prints of shop drawings to the various suppliers, the Owner and the Architect, once approval is obtained. Make prints of reviewed shop drawings only from transparencies which carry the Architect's appropriate stamp and endorsement.

3.03 SPECIFIC REQUIREMENTS, SAMPLES

- A. Insure that samples are of sufficient size to indicate the general visual effect or color. Where samples must show a range of color, texture, finish, graining or other property, submit sets of pairs illustrating the full scope of this range.
- B. One (1) sample or one (1) set of approved samples will be retained by the Architect; final Work will be measured against approved samples.

3.04 SPECIFIC REQUIREMENTS, PRODUCT DATA

- A. Modify standard product data to delete information which is not applicable to this project. Supply additional data, if required to show clearly what is intended.
- B. Modify Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data to show the specific product application intended for the Project.
- C. Unless otherwise specified in an individual Specification Section, submit four (4) copies of each submittal item.

END OF SECTION

01 40 00 - QUALITY REQUIREMENTS**PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes:
 - 1. Quality Assurance and Control of Installation.
 - 2. Tolerances
 - 3. References.
 - 4. Field samples.
 - 5. Mock-ups.
 - 6. Testing Laboratory Services.
 - 7. Manufacturers' Field Services and Reports.
 - 8. Examination
 - 9. Preparation

1.2 QUALITY ASSURANCE AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as minimum quality for Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

- A. Conform to reference standard by date of issue current on date of Contract Documents.

- B. Should specified reference standards conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- C. Contractual relationship of parties to Contract shall not be altered from Contract Documents by mention or inference otherwise in any reference document.

1.5 FIELD SAMPLES

- A. Install field samples at Site as required by individual specifications Sections for review.
- B. Acceptable samples represent quality level for Work.
- C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Architect/Engineer.

1.6 MOCK-UPS

- A. Specific requirements for mock-ups are included in individual sections of these Specifications.
- B. Tests will be performed under provisions identified in this section.
- C. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals, and finishes.

1.7 TESTING LABORATORY SERVICES

- A. References:
 - 1. ANSI/ASTM D3740 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - 2. ANSI/ASTM E329 - Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials Used on Construction.
 - 3. Laboratory Qualifications: Independent laboratory as approved by Architect and meeting "Recommended Requirements for Independent Laboratory Qualifications," latest edition, published by American Council of Independent Laboratories, 1725 K Street NW, Washington D.C., 20036.
- B. Selection and Payment:
 - 1. Owner will employ and pay for services of independent testing laboratory to perform specified inspection and testing.
 - 2. Inspections and testing costs required by defective Work or improperly-timed notices shall be paid by Contractor.
 - 3. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Laboratory Responsibilities:
 - 1. Test samples of mixes submitted by Contractor.

2. Provide qualified personnel at site. Cooperate with Architect/Engineer and Contractor in performance of services.
3. Perform specified inspection, sampling, and testing of Products in accordance with specified standards.
4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
5. Promptly notify Architect/Engineer and Contractor of observed irregularities or non-conformance of Work or Products.
6. Perform additional inspections and tests required by Architect/Engineer.
7. Attend pre-construction conferences and progress meetings as directed by Architect/Engineer or Owner.
8. Comply with and coordinate requirements with City of Eugene Special Inspection requirements.
9. Submit final reports to Owner and Architect, and, as required, to City of Eugene.

D. Laboratory Reports:

1. Testing Equipment: Calibrated at reasonable intervals with devices of accuracy traceable to either National Bureau of Standards (NBS) Standards or accepted values of natural physical constants.
2. After each inspection and test, promptly submit two copies of laboratory report to Architect/Engineer, and to Contractor.
3. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector, testing laboratory name and address.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and Specifications Section.
 - f. Location in Project.
 - g. Type of inspection or test.
 - h. Date of test.
 - i. Results of tests.
 - j. Conformance with Contract Documents.
4. When requested by Architect/Engineer, provide interpretation of test results.

E. Limits on Testing Laboratory Authority:

1. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Laboratory may not approve or accept any portion of Work.
3. Laboratory may not assume any duties of Contractor.
4. Laboratory has no authority to stop Work.

F. Contractor Responsibilities:

1. Deliver to laboratory at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
2. Cooperate with laboratory personnel, and provide access to Work.
3. Provide incidental labor and facilities to provide access to Work to be tested, to obtain and handle samples at the Site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.

4. Notify Architect/Engineer and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.

1.8 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. Submit qualifications of observer to Architect/Engineer 30 days in advance of required observations. Observer subject to approval of Architect/Engineer and Owner.
- B. When specified in individual specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment and as applicable, and to initiate instructions when necessary.
- C. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Submit report in duplicate within 30 days of observation to Architect/Engineer for review. Refer to Section 01 33 23 – SHOP DRAWINGS, PRODUCT DATA, SAMPLES

PART 2 PRODUCTS - *Not Used*

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

01 50 00 - TEMPORARY FACILITIES AND CONTROLS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Temporary utilities.
- B. Temporary telephone service.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.
- H. Project identification sign.
- I. Field offices.

1.02 TEMPORARY UTILITIES

- A. Electrical service for the project is and limited to 20 amp 120 v circuits will be paid for by the Owner. Connection to the service shall be the responsibility of the Contractor, with the Owner's approval. Coordinate with the Owner's Representative.
- B. Provide and pay for all heating and cooling, and ventilation required for construction purposes.
- C. Water service for the project will be paid for by the Owner.
- D. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.03 TELEPHONE SERVICE

- A. Provide, maintain, and pay for cellular telephone service to field office at time of project mobilization.
- B. Provide, maintain and pay for e-fax facsimile service to field office at time of project mobilization.

1.04 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is not permitted.
- C. Maintain daily in clean and sanitary condition.

1.05 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for Owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- E. Provide protection for glazing and existing finished areas adjacent to the work. Contractor will be responsible to repair and/ or replace any glazing or existing finishes that may be damaged due to Contractor's operations during course of work.
- F. Provide the appropriate level of barrier protection as required to prevent damage to the existing property and personnel around the site.

1.06 FENCING

- A. Construction: Commercial grade chain link fence.
- B. Provide a high fence, no lower than 6 foot (1.8 m), around construction trailer, dumpsters and material staging. The fencing height may vary due to security material a property as well as for protecting pedestrians from falling debris.

1.07 INTERIOR ENCLOSURES

- A. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces.

1.08 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.09 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.10 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.11 PROJECT IDENTIFICATION

- A. No signs are allowed without Owner permission except those required by law.

1.12 FIELD OFFICES

- A. Office: Weather tight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.
- C. Locate offices a minimum distance of 30 feet (10 m) from existing and new structures. Coordinate exact location with Owner's Project Manager.
- D. Construction trailer and staging to be located on North side of site next north wing no larger than 50'x50' of fenced off area.

1.13 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.
- E. Restore new permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION - NOT USED****END OF SECTION**

01 60 00 - PRODUCT REQUIREMENTS**PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Substitution Procedures

1.2 PRODUCTS

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- C. Furnish interchangeable components from same manufacturer for components being replaced.
- D. Bidders including manufacturers approved by Addendum certify that products meet the requirements of the specifications and agree to the terms of the substitution request and approvals.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

- D. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- G. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- H. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: products of one of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for any manufacturer not named in accordance with the following article.

1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. Architect will consider requests for Substitutions only on items identified in individual specification sections.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. A request constitutes a representation that Bidder:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - 2. Will provide same warranty for Substitution as for specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
 - 5. Will reimburse Owner and Architect for review or redesign services associated with re-approval by authorities having jurisdiction.
- D. Substitutions will not be considered after the Construction Contract Date unless there is a clear benefit to the Owner or the specified product becomes unavailable.
- E. Substitutions will not be allowed when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.

- F. Substitution Submittal Procedure:
 - 1. See Section 01 25 00 – Substitution Procedures

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used.

END OF SECTION

01 78 00 – CONTRACT CLOSEOUT**PART 1 - GENERAL**

1.01 DESCRIPTION

- A. The requirements specified in this Section relate to all Contractors individually performing under these Contract Documents:
 - 1. Project Record Documents
 - 2. Final Review and Payment
- B. Related Work Specified Elsewhere:
 - 1. Division G, General Conditions
 - 2. Section 01 33 23 - Shop Drawings, Product Data and Samples

1.02 PROJECT RECORD DOCUMENTS

- A. Submit three (3) complete sets of Project Record Documents.
- B. The Project Record Documents shall be organized to include the following information:
 - 1. Table of Contents
 - 2. Project Team List
 - 3. Specifications
 - 4. Drawings (marked up prints showing as-built conditions)
 - 5. Inspection Reports, as applicable
 - 6. Daily Reports
 - 7. Recycling Report
 - 8. Warranty(ies), applicable
 - 9. Building Department's Certificate of Final Inspection
 - 10. Maintenance Instructions
 - 11. Building Permit Drawings indicating all inspections are complete. (1 copy only)
- C. The Project Record Documents shall be bound in a black, hard cover, three ring binder with each Section clearly indexed with tabbed divider pages.
- D. The project team list shall include the company name, address, and phone number of the Owner, Architect, Contractor, inspector, subcontractors, and the materials Manufacturers.
- E. Legibly mark each Specification Section to indicate actual as-built conditions. The as-built Specifications shall clearly indicate changes in the Work made by Addenda or Change Order, actual materials used and actual Manufacturer(s) used.
- F. Legibly mark the Drawings to indicate actual as-built conditions. The Drawings shall clearly indicate changes in the Work made by Addenda or Change Order. Redraw or provide new drawings as required for a complete as-built set of drawings.
- G. Include inspection reports, if applicable, and Architect's field reports, if applicable.

- H. Include a copy of the Warranty clearly marked to identify the Owner's responsibilities under the terms of the Warranty.
- I. Include maintenance instructions complete with technical information and name, address and phone number of the Contractor(s) and Manufacturer(s) of each material and product.

1.03 RECORD DOCUMENTS

- A. A sample set of Record Documents is available for the Contractor's review in the Architect's office.

1.04 MANUFACTURER'S TECHNICAL SERVICES INSPECTION REPORT

- A. After all Work has been completed by the Contractor, if required by individual specification sections, technical service representatives of certain Manufacturers of materials shall inspect the installation of those materials and give final approval in writing.

1.05 FINAL REVIEW AND PAYMENT

- A. Prior to completion, the Contractor shall inspect the Work and make a "punch list" noting all items that are incomplete and/or incorrect.
- B. The Contractor shall notify all Subcontractors in writing of incomplete and/or incorrect items. Notify far enough in advance of the Completion Date that the Work can be completed on schedule. Said Work shall be immediately corrected.
- C. Should conditions prevail which prohibit some elements of the Work from being accomplished, but the work-in-place will perform the primary function (i.e., prevailing cold temperatures will not allow final painting touch-up) the Contractor shall record the reason with this "punch list" item requesting temporary delay in completion from the Architect in writing.
- D. Notify the Architect in writing that all items are completed and ready for final review or else that the Work product is fully usable, but some listed deficiencies remain to be completed. Submit all record documents at this time.
- E. The Architect will review all documents. When the documents include a Contractor's request for delay in completion, the Architect will review all Work which is certified as complete to the best knowledge of the Contractor. The Architect will also review the listed incomplete Work and assign a value to such uncompleted Work.
- F. The Architect will review the Work for conformance. If the Work is found to be in nonconformance, the Architect will notify the Owner of the nonconforming items. Nonconforming items not affecting the weather protection capabilities of the roof and

having no effect on the roofing Manufacturer's warranty will enable the Architect to recommend Owner "Occupancy," which indicates completed Work elements will be accepted but requiring retainage of monies and a Contract Change Order to ensure the Contractor will complete all Work by a specific date as stated on the Change Order.

- G. The Contractor shall make the required corrections to the Work expeditiously. Upon Owner Occupancy, sufficient retainage monies will be held to pay for uncompleted Work, should the Contractor fail to perform. A letter will be addressed to the Contractor informing the Contractor of the project status and the monies available for a semi-final payment upon receipt of billing. The Contractor may be back-charged for reviews of the work that is requested, but discovered to be in non-conformance.
- H. When Contract closeout procedures are completed and all punch listed deficiencies have been corrected, final acceptance by the Owner will be documented. The Contractor will receive written notice of acceptance of the Work and notification that final payment may be billed and released.
- I. All guarantees shall commence and become effective beginning on the date of Final Acceptance by the Owner.
- J. All keys belonging to the Owner must be returned prior to the release of the Final Payment. The Contractor is responsible for replacement costs of keys and door hardware required to re-establish building security due to lost or missing keys.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

02 71 12 – FOUNDATION DRAINAGE SYSTEM**PART 1 GENERAL**

1.01 SECTION INCLUDES

- A. Building perimeter weep drainage system.
- B. Filter aggregate and fabric and bedding.
- C. Connections to existing system and manholes, as required.

1.02 REFERENCES

- A. ASTM D2729 - Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.

1.03 DEFINITIONS

- A. Bedding: Fill placed under, beside and directly over pipe, prior to subsequent backfill operations.

1.04 SUBMITTALS

- A. Product Data: Provide data on pipe and accessories.

1.05 PROJECT RECORD DOCUMENTS

- A. Submit documents under provisions of Section 01700.
- B. Record location of pipe runs, connections, cleanouts and principal invert elevations.

1.06 REGULATORY REQUIREMENTS

- A. Conform to applicable code for materials and installation of the work of this section.

1.07 FIELD MEASUREMENTS

- A. Verify that field measurements and elevations are as indicated.

1.08 COORDINATION

- A. Coordinate the Work with connection to municipal sewer utility service and trenching.

PART 2 PRODUCTS

2.01 PIPE MATERIALS

- A. PVC Pipe: Schedule 40, perforated type; with required fittings; sizes 4 inch diameter or as required to connect to existing systems.

- B. Plastic Pipe: ASTM D3034, Type PSM, Poly (Vinyl Chloride) (PVC) material; bell and spigot style rubber gasket joint end. 4 inch diameter or as required to connect to existing systems.

2.02 FILTER AGGREGATE AND BEDDING

- A. Filter Aggregate Materials: Crushed Rock: Free draining, angular, washed natural stone; maximum size of 3/4 inch with not more than 2 percent passing a No. 200 sieve.

2.03 ACCESSORIES

- A. Pipe Coupling: Solid plastic.
- B. Pipe Joints: Mechanical clamp ring type, stainless steel expanding and contracting sleeve, neoprene ribbed gasket for positive seal.
- C. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, reducers, traps and other configurations required.
- D. Identification: Plastic underground warning tape or metallic-lined plastic underground warning type; solid green color.
- E. Sleeve: Type for foundation wall.
- F. Geo Textile Fabric: Mirafi "140N," or approved around between filter aggregate to earth and around perforated pipe.
- F. Geo Textile Fabric: Mirafi "500-X," or approved below asphalt sidewalk

2.04 METAL FOUNDATION VENT WELLS

- A. Product:
 - 1. Marshall Stamping Co. (Via Sears)
 - 2. Model: AWFV
 - a. Round Type - 22 GA., G-60 Galvanized Coated Foundation Vent
 - b. Width 18" – Projections 9" – 12" Height
 - 3. Substitutions per section 01 25 00

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that excavated base is ready to receive work and excavations, dimensions, and elevations are as indicated on Drawings.
- B. Identify required lines, levels, contours, and datum.
- C. Identify known underground, above ground, and aerial utilities. Stake and flag locations.
- D. Notify utility company to remove and relocate utilities.
- E. Protect above and below grade utilities which are to remain.

- F. Protect plant life and other features remaining as a portion of final landscaping.
- G. Protect bench marks and fences from excavation equipment and vehicular traffic.
- H. Install protection for existing storm drainage system to prevent silt laden water from entering the system. Provide in accordance with requirements of the City of Eugene, and as shown.

3.02 EXCAVATION

- A. Underpin adjacent structures which may be damaged by excavation work, including utilities and pipe chases.
- B. Excavate subsoil required to accommodate new perimeter foundation drain.
- C. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- C. Stockpile excavated material in area designated on site, and remove from site excess material not being reused.

3.03 PREPARATION

- A. Hand trim excavations to required elevations. Correct over excavation with Type B aggregate.
- B. Remove large stones or other hard matter which could damage drainage piping or impede consistent backfilling or compaction.

3.04 INSTALLATION

- A. Install pipe and pipe fittings in accordance with pipe manufacturer's instructions.
- B. Place pipe with perforations facing down. Mechanically join pipe ends.
- C. Place drainage pipe on minimum 1-1/2 inch deep bed of filter aggregate.
- D. Lay pipe to even downward slope with maximum variation from true slope of 1/8 inch in 10 feet.
- E. Install filter aggregate at sides, over joint covers and top of pipe. Provide top cover compacted thickness of 6 inches maximum loose lifts to total thickness as shown on Drawings.
- F. Wrap entire aggregate installation including bottom with geotextile fabric.

3.05 FILLING AND BACKFILLING

- A. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
- B. Place geotextile fabric as scheduled, as shown.
- C. Place and compact fill materials in continuous layers.

- D. Employ a placement method that does not disturb or damage utilities in trenches.
- E. Match existing grade, otherwise slope grade away from building minimum 2 inches in 10 feet, unless noted otherwise.
- F. Make grade changes gradual. Blend slope into level areas.
- G. Leave fill material stockpile areas completely free of excess fill materials.

3.06 FIELD QUALITY CONTROL

- A. Request inspection prior to and immediately after placing aggregate cover over pipe.

3.07 AGGREGATE PLACEMENT FOR ASPHALTIC AND PORTLAND CEMENT CONCRETE PAVING

- A. Place coarse aggregate in 3 inch layers and compact to 95 percent of its maximum dry density in accordance with ASTM D1557.
- B. Level and contour surfaces to elevations and gradients indicated.
- C. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.
- D. Use mechanical vibrating tamping in areas inaccessible to compaction equipment.

3.08 PROTECTION

- A. Protect pipe and aggregate cover from damage or displacement until backfilling operation begins.
- B. Protect excavations by methods required to prevent cave-in or loose soil from falling into excavation.
- C. Protect site surfaces with granular working pads for operation of earthwork and other construction equipment during wet months of the year.
- D. Protect bottom of soil adjacent to and beneath foundation from surface water accumulation and freezing.
- E. Recompact fills subjected to vehicular traffic.

END OF SECTION

02 74 10 - HOT-MIX ASPHALT PATCHING**PART 1 - GENERAL**

1.1 SUMMARY

- A. This Section includes hot-mix asphalt patching.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
- B. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.
- C. Material certificates.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with Oregon Standard Specifications for Construction for asphalt paving work.
- B. Asphalt-Paving Publication: Comply with AI MS-22, "Construction of Hot Mix Asphalt Pavements," unless more stringent requirements are indicated.

1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp or if the following conditions are not met:
 - 1. Tack Coat: Minimum surface temperature of 60 deg F.
 - 2. Asphalt Base Course: Minimum surface temperature of 60 deg F and rising at time of placement.
 - 3. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

PART 2 - PRODUCTS

2.1 MIXES

- A. Hot-Mix Asphalt: One or more courses of dense, hot-laid, hot-mix asphalt plant mixes complying with the requirements of the Oregon Standard Specifications for Construction for asphalt concrete pavement and the following:
 - 1. Base Course: Level 2, 3/4 inch dense, HMA.
 - 2. Surface Course: Level 2, 1/2 inch dense, HMA.

PART 3 - EXECUTION**3.1 PATCHING**

- A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.
- B. Tack Coat: Apply uniformly to vertical surfaces abutting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd..
- C. Patching: Fill excavated pavements with hot-mix asphalt base mix and, while still hot, compact flush with adjacent surface.

3.2 SURFACE PREPARATION

- A. Proof-compact subbase using heavy, vibratory-plate compactor to locate areas that are unstable or that require further compaction.
- B. Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
 - 1. Sweep loose granular particles from surface of unbound-aggregate base course. Do not dislodge or disturb aggregate embedded in compacted surface of base course.
- C. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.
- D. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd..
 - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.3 HOT-MIX ASPHALT PLACING

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
 - 1. Spread mix at minimum temperature of 250 deg F.
 - 2. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.

- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.4 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
 - 1. Complete all compaction activities before mix temperature cools to 185 deg F.
- B. Breakdown compaction: Complete breakdown or initial compaction immediately after rolling joints and outside edge. Examine surface immediately after breakdown compaction for indicated crown, grade, and smoothness. Correct laydown and compaction operations to comply with requirements.
- C. Intermediate Compaction: Begin intermediate compaction immediately after breakdown compaction while hot-mix asphalt is still hot enough to achieve specified density. Continue compaction until hot-mix asphalt course has been uniformly compacted to the following density:
 - 1. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.
- D. Finish Compaction: Finish compaction paved surfaces to remove compaction marks while hot-mix asphalt is still above minimum temperature for compaction.
- E. Protection: After final compaction, do not traffic on pavement until it has cooled and hardened.
- F. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.5 INSTALLATION TOLERANCES

- A. Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 - 1. Base Course: Plus 1/2 inch or minus 1/4 inch.
 - 2. Surface Course: Plus 1/4 inch, no minus.
- B. Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
 - 1. Base Course: 1/4 inch.
 - 2. Surface Course: 1/8 inch.
 - 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.

3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and to prepare test reports.

- B. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- C. Remove and replace hot-mix asphalt, at the Contractor's expense, where test results or measurements indicate that it does not comply with specified requirements.

3.7 DISPOSAL

- A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.

END OF SECTION

03 01 30 – CONCRETE RESTORATION AND CLEANING**PART 1 GENERAL****1.01 WORK INCLUDED**

- A. Removal of all organic material and environmental pollutants from the exterior concrete surfaces.

1.02 RELATED WORK

- A. Section 04 01 20 – Masonry Restoration and Cleaning
- B. Section 07 90 00 – Joint Protection

1.03 SUBMITTALS

- A. Submit material safety data sheets and other product data under provisions of Section 01 33 23.
- B. Provide field test panel of cleaning samples for Architect's approval at location he designates. Provide Architect with 48 hours notice for review of test panel.
 - 1. Field test remover, hot water rinse, and restoration cleaner where directed by Architect. Adjust dwell time or repeat application as necessary to achieve satisfactory results.
 - 2. Field test water repellent coating on existing "cleaned" concrete surfaces where directed by Architect.
 - 3. Verify compatibility of water repellent coating with "cleaned" substrate.

1.04 QUALITY ASSURANCE

- A. Restorer: Company with five years documented experience in masonry restoration.
- B. Submit Contractor's one (1) year warranty for all workmanship and material of the Section.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Do not wash down or wet surfaces when temperature may drop below 40 degrees F (4 degrees C) within twenty-four hours.
- B. Protect adjacent buildings, landscaping, and walkways.
- C. Do not apply coating with ambient temperature is lower than 40 degrees F or higher than 100 degrees F.
- D. General contractor is responsible for providing a water collection trough to collect the brick and concrete cleaner and sealer runoff applied to the brick and concrete. GC is to provide an adequate storage tank to neutralize collected runoff and coordinate with and dispose of at the City of Eugene wastewater treatment facility. GC is to comply with UO brick wash guidelines and City of Eugene regulations.

1.06 SPECIAL WARRANTIES

- A. Manufacturer shall stand behind installed system for period of five (5) years from Date of Substantial Completion against all the conditions indicated below. When notified in writing from Owner, Manufacturer shall, promptly and without inconvenience and cost to Owner correct said deficiencies.
1. Loss of water repellency:
 - a. Concrete: 1.0 mil/20 minutes or greater (80 mph wind driven rain equivalent).

PART 2 PRODUCTS**2.01 GENERAL CLEANING MATERIALS**

- A. Biowash by ProSoCo, or non-ionic detergents by Union Carbide, Rohm and Haas, or GAF.
- B. Light Duty Concrete Cleaner by ProSoCo, Inc., or substitutions under provisions of Section 01 25 00.
- C. Paint Stripper: 509 Stripper by ProSoCo, Inc., or substitutions under provisions of Section 01 25 00.
- D. Masking Material: "Sure-Klean" Acid Stop by ProSoCo., or substitutions under provisions of Section 01 25 00.

2.02 CONCRETE SPAWL AND CRACK REPAIR

- A. Patching Material:
 1. Sika Top 121, 122, or 123 (as conditions dictate) by Sika Corporation.
 2. Renderoc HBA or Renderoc SD (as conditions dictate) by Fosroc, Inc.
 3. Thoropatch or Thorite (as conditions dictate) by Thorosystems Products.
 4. Substitutions to be submitted for approval.
- B. Bonding Agent:
 1. Nitobond Epoxy by Fosroc, Inc.
 2. Sikadur 32, Hi-Mod by Sika Corp.
 3. Substitutions to be submitted for approval.
- C. Embedded Steel Primer:
 1. Nitoprime Zinc Rich by Fosroc.
 2. Substitutions to be submitted for approval.
- D. Non-Ionic Detergents:
 1. Stand Off Detergent by Prosoco, Inc. or Tergitol by Union Carbide or Triton by Rohm and Haas or Igepal by GAF.
- E. Injection Resin:
 1. Microcapsule Engineering by Tonkai Sansho Trading Co., Ltd.
 2. Sikadur 35 Hi-Mod LV by Sika Corporation.

3. Substitutions to be submitted for approval.

2.03 WATER REPELLENT COATINGS

- A. Water Repellent: For use on vertical surfaces and as shown. Coating shall be a colorless water-based alkyl-alkoxysilane with biocide
- B. Products
 - a. Weather Seal Siloxane PD Water Repellent by ProSoCo. Inc.
 - b. Chem-Trete 40 VOC by Protectosil
 - c. Substitutions per section 01 25 00

2.04 ANIT-GRAFFITI COATING

- A. Products:
 1. Protectosil AnitGraffiti by Evonik Industries.
 2. Substitutions per section 01 25 00

PART 3 EXECUTION

3.01 EXAMINATION AND PROTECTION

- A. Verify that surfaces to be cleaned and restored are ready for work of this Section.
- B. Thoroughly mask, cover, or block off from direct contact with any surfaces that may be damaged by cleaning. Provide protective coverings for all adjacent landscaping, walkways, drives, etc. Allow for access to the building via both main and side entries at all times.
- C. Apply acid stop masking agent to any glass or metal likely to come in contact with cleaning solutions, any surfaces that may be damaged by cleaning solutions. Provide protective coverings for all adjacent landscaping, walkways, streets, vehicles, etc.
- D. All open joints shall be temporarily sealed to prevent intrusion of water into the building.
 - c. Perform test panels of cleaning in locations selected by the Architect. Arrange for Architect and Owner's Representative to view test panels prior to beginning cleaning operations. Repeat test procedures as directed by the Architect until an acceptable method is achieved.
 - d. Provide a water runoff collection trough to collect the concrete cleaner and sealer. Provide an adequate storage tank to neutralize collected runoff and coordinate with and dispose of at the City of Eugene wastewater treatment facility. Comply with UO brick wash guidelines and City of Eugene regulations.

3.02 GENERAL CLEANING

- A. All areas of concrete cleaning shall utilize one of the following two techniques as determined by field testing to provide satisfactory results.
 - 1. Water Pressure Wash Cleaning: Pre-wet surfaces with clean water. Brush clean all surfaces with pressurized water, per field-testing requirements.
 - 2. Concrete Cleaner: Pre-wash surfaces with pressurized water. Spray or brush apply light-duty concrete cleaner in concentration determined by field testing. Let stand or dwell, as determined by preliminary testing. A second application of concrete cleaner shall follow as required.
- B. Rinse coated areas with 400 to 800 psi clean water from bottom to top with minimum 6 gallons per minute.
- C. Caution shall be taken to dilute cleaner if tests indicate etching results. Agitate cleaning solution with a soft bristle if required to obtain satisfactory results.

3.03 PREPARATION – CEMENTITIOUS PATCHING MATERIAL

- A. Wash all concrete surfaces of dirt, laitance, corrosion, organic materials or other contamination with pressurized water. Brush clean all surfaces. Use non-ionic detergent cleaning agent at spot locations only as required.
- B. Remove spalled concrete down to structurally sound material. Remove concrete from behind exposed reinforcing steel to permit steel to be set back into substrate and patched over flush. Loose concrete and rust on steel shall be removed by sandblasting, chisel, and hammer or wire brush. Prepare perimeter of patch area to have vertical rather than feather edges. Remove concrete from around any exposed rebar within patch cavity. Apply embedded steel primer to rebar within patch cavity per Manufacturer's recommendations. Heavy particles of concrete shall be removed by air or electric hammer. Wash clean with water from hose.
- C. Mix cementitious patching materials in accordance with Manufacturer's instructions for purpose intended.

3.04 APPLICATION OF PATCHING COMPOUND

- A. Remove all loose material from area to be patched.
- B. Saturate with water all areas to receive patching materials. Remove any standing water.
- C. Apply bonding agent in accordance with Manufacturer's instructions.
- D. Apply patching compound in layers not to exceed ½" at a time. Finish to match existing concrete finish.

3.05 CURING AND PROTECTION

- A. Cure per ACI recommendations for Portland Cement Concrete.

- B. Protect freshly applied mortar against direct sunlight, wind, frost and rain.

3.06 PREPARATION – EPOXY ADHESIVE RESIN INJECTION

- A. Clean concrete surfaces of dirt, laitance, corrosion, or other contamination: wire brush using water: rinse surface and allow drying.
- B. Provide temporary entry ports spaced to accomplish movement of fluids between ports and as recommended by Manufacturer. Provide temporary seal at concrete front and back surfaces to arrest extrusion of adhesive.

3.07 EPOXY RESIN ADHESIVE INJECTION

- A. Inject adhesive into prepared ports under pressure using equipment appropriate for particular application per Manufacturer's instructions.
- B. Allow sufficient cure time before removing temporary seal and excess adhesive.
- C. Clean surface adjacent to repair.

3.08 WATER REPELLANT COATING

- A. Apply water repellent coating on all vertical concrete as indicated on drawings and as recommended by Manufacturer.
- B. Take necessary precautions to protect surroundings, as recommended by Manufacturer.

3.09 ANITGRAFFITI COATING

- A. Apply specified anti-graffiti coating to all the exterior concrete on the vertical surface up to the top of the second-level minimum at rate recommended by manufacturer. Follow manufacturer's application instructions.

END OF SECTION

04 01 20 – MASONRY RESTORATION AND CLEANING**PART 1 GENERAL****1.0 SUMMARY**

- A. Removal of all organic materials and environmental pollutants from the exterior brick masonry and cast stone surface.
- B. General cleaning of all exterior masonry surfaces.
- C. Restoration cleaning at preapproved locations only. These areas will be determined by the architect following the general cleaning. Areas of stains remaining after general cleaning to receive restoration cleaning. Total area for restoration cleaning not to exceed 10% of the building skin.
- D. Replacement of spalled or cracked brick units. (Some ground floor level location are indicated on drawings)
- E. Repointing of brick mortar joints. (Percentages of joint Work per drawings)
- F. Replace damaged and missing mortar overlay at window ledges and horizontal wash surfaces, as indicated on Drawings.
- G. Providing temporary protection of existing landscaping, walkways, and entries.

1.1 RELATED WORK

- A. Section 01 22 00 – Unit Pricing
- B. Section 07 90 00 – Joint Protection

1.2 SUBMITTALS

- A. Submit material safety data sheets and other product data.
- B. Provide three (3) field test panels (30"x30") of cleaning samples for Architect's approval at approved location. Provide Architect with seventy-two (72) hour notice for review of test panel. Repeat testing until acceptable result is obtained.
- C. Provide three (3) test panels (18"x18") of mortar removal method (cut mortar joints to insure that masonry units will not be damaged). Provide Architect with seventy-two (72) hour notice for review of test panel. Repeat until acceptable method is obtained.
- D. Provide three (3) test panels (18" x 18") of each color and type of proposed mortar replacement material (in place on building) for Architect's approval. Match existing mortar strength and chemical composition. Provide Architect with seventy-two (72) hour notice for review of test panel. Repeat testing until acceptable result and mortar match is obtained. Remove samples that are not accepted and replace with accepted mortar.

- E. Provide one field test panel each (30" x 30") of water repellent coating on both brick and cast stone for Architects approval. Provide Architect with seventy-two (72) hour notice for review of test panel.

1.3 QUALITY ASSURANCE

- A. Restorer: Company with minimum five (5) years documented experience in masonry restoration.

1.4 ENVIRONMENTAL REQUIREMENTS

- A. Do not lay masonry, repoint, wash down or wet surfaces when temperature may drop below 40 degrees F (4 degrees C) within twenty-four hours.
- B. Protect adjacent buildings, landscaping, and walkways. Utilize lawn soaker hoses to provide a slow but steady mist of water to wet adjacent landscape.
- C. Provide a water runoff collection trough to collect the brick cleaner and sealer. Provide an adequate storage tank to neutralize collected runoff and coordinate with and dispose of at the City of Eugene wastewater treatment facility. Comply with UO brick wash guidelines and City of Eugene regulations.

1.06 SPECIAL WARRANTIES

- A. Manufacturer shall stand behind installed system for period of five (5) years from Date of Substantial Completion against all the conditions indicated below. When notified in writing from Owner, Manufacturer shall, promptly and without inconvenience and cost to Owner correct said deficiencies.
 - 1. Loss of water repellency:
 - a. Brick Masonry: 1.0 mil/20 minutes or greater (80 mph wind driven rain equivalent).

PART 2 PRODUCTS

2.1 GENERAL CLEANING MATERIALS

- A. Biowash by ProSoCo, or non-ionic detergents by Union Carbide, Rohm and Haas, or GAF.
- B. Restoration Cleaner: "Sure-Klean" Restoration Cleaner by ProSoCo, Inc. or "Restoration Cleaner" by Shield Chemical Co.
- C. Masking Material (if required): "Sure-Klean" Acid Stop by ProSoCo, Inc.
- D. Substitutions: Under provisions of Section 01 25 00.

2.2 POINTING MORTAR: Designed to match existing adjacent mortar, match identical mortar or as closely as possible in color, texture, strength and chemical composition. See test results provided by owner.

- A. Portland Cement: ASTM C150-92, Type I.

- B. Masonry Cement: ASTM C91-93.
- C. Lime: ASTM C207-91, Type S.
- D. Lime Putty: Stiff mixture of lime and water.
- E. Quicklime: ASTM C5-79, slaked in accordance with manufacturer's recommendations.
- F. Aggregates: ASTM C144-93.
- G. Water: Clean and potable.
- H. Color: For exposed work, match existing. Obtain color from sand. Pigment is not permitted.

2.3 SEALANTS

- A. One part liquid polyurethane polymer base, low modulus Type II, Class A, as manufactured by Mameco Vulkem, PRC, Tremco, Sonneborn Con-tech, General Electric, Pecora, Woodmount or approved. Provide backer rods, bond breaker, primers, and cleaning agents as recommended by Manufacturer.
- B. Color: To match adjacent mortar or as selected.

2.4 WATER REPELLANT COATING

- A. Products:
 - 1. Weather Seal Siloxane PD Water Repellent by ProSoco Inc.
 - 2. Chem-Trete 40 VOC by Protectosil
 - 3. Substitutions per section 01.25 00

2.4 ANIT-GRAFFITI COATING

- B. Products:
 - 1. Protectosil AnitGraffiti by Evonik Industries.
 - 2. Substitutions per section 01 25 00

PART 3 EXECUTION

3.1 EXAMINATION AND PROTECTION

- A. Verify that surfaces to be cleaned and restored are ready for work of this Section. Test all masonry surfaces for the presence of existing sealants. Test compatibility of water repellent coating on existing brick and cast stone.
- B. Thoroughly mask, cover, or block off from direct contact with cleaning solutions any surfaces that may be damaged by cleaning solutions. Provide protective coverings for all adjacent landscaping, walkways, drives, etc. Allow for access to the building via all entries

at all times.

- C. Apply acid stop masking agent as required to protect any glass or metal likely to come in contact with etching cleaning solutions.
- D. Utilize lawn soaker hoses to mist wall areas below the area being cleaned when using acidic cleaning materials.
- E. All open joints shall be temporarily sealed to prevent intrusion of water into the wall and building.
- F. Provide test panels of cleaned brick and cast stone. Adjust technique and repeat testing if necessary. Detergent cleaning will be acceptable for all but the heaviest stained masonry areas. All masonry surfaces will be cleaned with detergent first and a second cleaning with restoration cleaner will be required on a maximum of 10% of the building surface area. This shall include areas with the worst stains at a minimum.
- G. Provide a water runoff collection trough to collect the brick cleaner and sealer. Provide an adequate storage tank to neutralize collected runoff and coordinate with and dispose of at the City of Eugene wastewater treatment facility. Comply with UO brick wash guidelines and City of Eugene regulations.

3.2 GENERAL CLEANING

- A. Detergent Cleaning: Pre-wet masonry surfaces with clean water. Brush clean all exterior masonry surfaces with low pressurized water (not to exceed 300 psi), natural bristle brushes, and non-ionic detergent cleaning agent, per Manufacturer's instructions and field testing requirements. Rinse thoroughly.

3.3 RESTORATION CLEANING

- A. Restoration Cleaning: Pre-wash surfaces with pressurized water. Spray or brush apply restoration cleaner in concentration determined by field testing. Let stand two or three minutes, or as determined by preliminary testing. A second application of restoration cleaner shall follow as required.
- B. Rinse coated areas with 400 to 600 psi clean water from a flat spray nozzle, working bottom to top with minimum 6 gallons per minute.
- C. Caution shall be taken to dilute cleaner if tests indicate etching results. Agitate cleaning solution with a soft bristle brush if required to obtain a satisfactory result.

3.4 REPOINTING

- A. Provide test panel of mortar removal method (cut mortar joints) to insure that masonry is not being damaged. Repeat mortar removal. Cut out loose and deteriorated mortar from joints in brick and cast stone to approximately one inch deep.
- B. Use power tools only after test cuts indicate no masonry unit damage will result.

- C. Remove dust and loose material from joint.
- D. Pre-moisten joint and apply approved mortar. Pack mortar in max ¼" lifts. Finish joints to match original in kind with a smooth compact surface.
- E. Moist cure pointing mortar 48 hours.
- F. Rod out weep holes after pointing.

3.5 MASONRY REPLACEMENT

- A. Replace all spalled, cracked and missing bricks with salvaged or new bricks to match existing size, texture, and color. Replace surrounding mortar with new mortar to match existing. Install new brick so orientation and face depth matches original.

3.6 JOINT SEALING

- A. Inspect all existing joints when cleaned. Install new polyethylene backing rod where required.
- B. Prime bond surfaces.
- C. Provide polyethylene bond breaker tape at non-bond surfaces where there is insufficient depth for new backing rod.
- D. Install sealants in depth to width proportions as recommended in the sealant Manufacturer's published instructions.
- E. Tool sealants to compress sealant against sides of joint. Joints shall drain.
- F. Clean off excess sealant from adjacent surfaces.
- G. Protect sealants until cured.

3.7 SEALING BRICK AND CAST STONE

- A. Apply specified water repellent coating to all exterior brick and cast stone at rate recommended by manufacturer. Follow manufacturer's application instructions.
- B. Apply specified anti-graffiti coating to all the exterior brick and cast stone up to the top of the second-level minimum at rate recommended by manufacturer. Follow manufacturer's application instructions.

END OF SECTION

05 50 00 - METAL FABRICATIONS**PART 1 GENERAL****1.1 SUMMARY**

- A. Section includes shop fabricated metal items.
 - 1. Steel Steps and Landing
 - 2. Stairs Handrail and guardrails.
 - 3. Miscellaneous supports and attachments as shown on drawings.
- B. Related Sections:
 - 1. General Conditions of the Contract.
 - 2. Division 1 - General Requirements.
 - 3. Section 09 90 00 - Paints and Coatings: Field applied paint finish.

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 2. ASTM A167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
 - 3. ASTM A276 - Standard Specification for Stainless Steel Bars and Shapes.
 - 4. ASTM A283/283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.
- B. American Welding Society:
 - 1. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination.
 - 2. AWS D1.1 - Structural Welding Code - Steel.
 - 3. AWS D1.6 - Structural Welding Code - Stainless Steel.
- C. National Ornamental & Miscellaneous Metals Association:
 - 1. NOMMA Guideline 1 - Joint Finishes.
- D. SSPC: The Society for Protective Coatings:
 - 1. SSPC SP 1 - Solvent Cleaning.
 - 2. SSPC SP 10 - Near-White Blast Cleaning.
 - 3. SSPC Paint 20 - Zinc-Rich Primers (Type I - Inorganic and Type II - Organic).

1.3 SUBMITTALS

- A. Section 01 33 23 – Shop Drawings, Products Data, Samples: Submittal requirements.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable. Indicate welded connections using standard AWS A2.0 welding symbols. Indicate net weld lengths.

- C. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within previous 12 months.

1.4 QUALITY ASSURANCE

- A. Finish joints in accordance with NOMMA Guideline 1, type 1.
- B. Maintain copy of each document on site.

1.5 QUALIFICATIONS

- A. Design components under the direct supervision of Professional Engineer experienced in design of this Work and licensed in State of Oregon.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Accept metal fabrications on site in labeled shipments. Inspect for damage.
- B. Protect metal fabrications from damage by exposure to weather.

1.7 FIELD MEASUREMENTS

- A. Verify field measurements are as indicated on shop drawings and as instructed by manufacturer.

PART 2 PRODUCTS

2.1 MATERIALS - STEEL

- A. Steel Plate: ASTM A36/A36M.
- B. Steel Pipe: ASTM A53/A53M, Grade B
- C. Sheet Steel: ASTM A653/A653M, Grade 33 Structural Quality with galvanized coating.
- D. Wire Mesh: 1/2"x1/2" 20 gauge welded wire mesh screening.
 - 1. Finish: Mechanically galvanized.
- E. Bolts: ASTM A325; Type 1
 - 1. Finish: Mechanically galvanized.
- F. Nuts: ASTM A563 heavy hex type.
 - 1. Finish: Mechanically galvanized.
- G. Washers: ASTM F436; Type 1.
 - 1. Finish: Mechanically galvanized.
- H. Welding Materials: AWS D1.1; type required for materials being welded.
- I. Bolts, Nuts, and Washers: ASTM A354.
- J. Welding Materials: AWS D1.6; type required for materials being welded.

2.2 STRUCTURAL SUPPORTS

- A. Structural Supports: Steel sections, shape and size as required to support applied loads per code requirements. Finish Hot dipped Galvanized and painted.

2.3 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Continuously seal joined members by continuous welds.
- D. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- E. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- F. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.4 FACTORY APPLIED FINISHES - STEEL

- A. Prime Paint for Exposed Exterior Steel: Tnemec 90-97 Tnene-Zinc, 63% solids by volume, 82% zinc in cured film, 23 pounds per gallon, class B coating with mean slip of not less than 0.5. Coordinate with Section 07810: Applied Fireproofing.
- B. Powder coat for Exposed Exterior Steel: un-galvanized, 2 to 5 mils thickness, ASTM D3451
- C. Galvanizing: ASTM A123/A123M; minimum 2.0 oz/sq ft coating thickness; galvanize after fabrication.
- D. Galvanizing for Fasteners, Connectors, and Anchors:
 - 1. Hot-Dipped Galvanizing: ASTM A153/A153M.
 - 2. Mechanical Galvanizing: ASTM B695; Class 50 minimum.

2.5 FACTORY APPLIED FINISHES - STAINLESS STEEL

- A. Satin Polished Finish: Number 4, satin directional polish parallel with long dimension of finished face.

2.6 FABRICATION TOLERANCES

- A. Squareness: 1/8 inch maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch.
- C. Maximum Misalignment of Adjacent Members: 1/16 inch.

- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.
- B. Verify field conditions are acceptable and are ready to receive Work.

3.2 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Supply steel items required to be cast into concrete or embedded in masonry with setting templates to appropriate sections.

3.3 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Make provisions for erection stresses. Install temporary bracing to maintain alignment, until permanent bracing and attachments are installed.
- C. Field weld components indicated.
- D. Perform field welding in accordance with AWS D1.1.
- E. Obtain approval of Architect/Engineer prior to site cutting or making adjustments not scheduled.
- F. After erection, touch up welds, abrasions, and damaged finishes with prime paint or galvanizing repair paint to match shop finishes.

3.4 ERECTION TOLERANCES

- A. Maximum Offset From Alignment: 1/8 inch.
- B. Maximum Out-of-Position: 1/8 inch.

END OF SECTION

06 10 00 – ROUGH CARPENTRY**PART 1 - GENERAL****1.01 SECTION INCLUDES**

- A. Catalog, mark and document with photos, all existing wood elements and their location and condition within the area of work.
- B. Remove and replace all designated and deteriorated wood elements including: Panels, brackets, soffits, blocking, furring, fascia, siding and trim to match existing patterns.
- C. Remove deteriorated sections of existing wood elements to remain and patch with 2 part epoxy wood filler.
- D. Remove all wood stringers, treads and rails back to first post; remove all wood rails at deck at exterior staircase.
- E. Remove and dispose of all scuttle and raised curbs back to roof deck.
- F. Provide wood materials, seismic anchors, and miscellaneous hardware items in sizes and configurations indicated on Drawings and as specified herein.
- G. Finish new wood elements per Section 09 90 00- Painting.
- H. Related Work specified elsewhere:
 - 1. Section 01 11 00 – Summary of Work
 - 2. Section 01 20 00 – Allowances
 - 3. Section 07 31 29.13 – Wood Shingles
 - 4. Section 07 62 00 – Sheet Metal Flashing and Trim
 - 5. Section 08 10 52 – Wood Windows and Doors Restoration

1.02 QUALITY ASSURANCE

- 1. APA, American Plywood Association
- 2. West coast Lumber Inspection Bureau: Standard Grading Rules
- 3. WWPA, Western Wood Products Association
- 4. AWWA, American Wood Preservers' Association: Book of Standards

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver wood at specified moisture content and protect wood from moisture absorption during transportation and storage. Store above ground or slab. Cover with breathable tarps or other suitable covers.

PART 2 - PRODUCTS

2.01 GRADING

- A. Provide structural wood materials with grade stamps of WCLIB, WWPA, as required and as modified herein. Lumber shall be free of noticeable warp or twist with less than 5% showing "very light" warp, twist, bow cup or crook per WCLIB Rule 16. Seal end grain of material prior to delivery to job site.
- B. Exposed finish trim, panels, facia, and soffit material shall be clean, C and better, vertical grain, kiln dried Douglas Fir; S4S, or Western Red Cedar, S4S, (replace in kind) and should be custom milled to match existing profile.

2.02 MAXIMUM MOISTURE CONTENT

- A. Provide structural wood as air-dried material at maximum MC 19%.
- B. Finish lumber shall be kiln dried.

2.03 TREATED WOOD

- A. Provide new cant strips, nailers, furring, blocking, and insulation stops as required and where shown.
- B. Provide new stringer and treads at exterior staircase as required and as shown.
- C. Coast Region Douglas Fir, WCLIB construction or No. 2, KD, S4S, pressure treated per Federal Specification TT-W-571.

2.04 SOLID ROOF SHEATHING

- A. Exterior Grade Plywood: APA rated Grade C-X, Exposure 1
 1. For use in on Mansard as Sheathing.
 2. For use in, on hipped roof areas as sheathing.
 3. Species: Douglas-fir or Western Larch.

2.05 NAILS

- A. Finish nails shall be Stainless Steel NO. 304.
- B. FF-N-101 common wire and spiral or deck screw type stainless steel at concealed exterior locations.

2.06 EXPANSION ANCHORS

- A. Rawl-Drive size as indicated for proper anchorage to concrete or masonry. Minimum penetration 1¼ inches, or as existing deck thickness allows. Verify thickness prior to beginning Work.

2.07 FRAMING CONNECTORS, CLIPS, AND HANGERS

- A. Simpson - RBC Boundary Clip; Type of Connection #1a; Install per manufacturer's requirements.
- B. Simpson – A34 Framing Connector; Type of Connection #1; Install per manufacturer's requirements.
- C. Simpson – A35 Framing Connector; Type of Connection #4; Install per manufacturer's requirements.
- D. Simpson – U26 Face Mount Hanger; 16 GA.; Install per manufacturer's requirements.
- E. Simpson – A34 Framing Connector at scuttle raised curbs; Install per manufacturer's requirements.

2.08 WOOD FILLER

- A. Non-shrink, sandable plastic wood filler – Abatron wood epoxy.
(262) 653-200
<http://www.abatron.com/cms/>

2.09 MISCELLANEOUS

- A. Provide all miscellaneous rough hardware and material items required for the complete and proper fabrication and installation of the Work.
- B. Add framing clips as required.

PART 3 - EXECUTION**3.01 EXAMINATION**

- A. Field survey all exterior wood elements, including but not limited to, facias, soffits, soffit brackets, siding, and gable/dormer wood trim for rot and deterioration.
- B. Catalog and mark all existing wood exterior parts and pieces in the area of Work. Mark all wood members to be replaced after conferring with owner. Mark all areas on existing wood members to be repaired. Review plan for repair and replacement with owner prior to starting work.
- C. Install wood materials.
- D. Remove surface deterioration and fill with wood filler. Sand Work smooth.

3.02 FABRICATION

- A. Fabricate and/or cut all wood replacement molding, trim, blocking, structure, and others to match size and profile of existing. Exceptions must be approved by architect and owners representative prior to fabrication and installation.

3.03 FITTING

- A. Cuts shall be square to bearings and connections and closely fitted and shall be plumb, square and true to required lines.
- B. All connections shall be rigid and securely anchored in conformance with applicable standards and the requirements of the Work.

3.04 FINISHING

- A. Set exposed fasteners and fill indentations with wood filler. Sand Work smooth.
- B. Clean up Work and leave site in clean, finished condition.

END OF SECTION

07 01 50.23 – ROOF REMOVAL**PART 1 - GENERAL**

1.1 DESCRIPTION

- A. The extent of demolition Work is shown on the Drawings; including, but not limited to; Removal of existing cedar shingles, underlayment, single-ply membrane, base flashings, flashings and counterflashings and miscellaneous materials as indicated on the drawings. Demolition includes complete breaking up and removal of materials and legally disposing of demolished materials off the site.

1.2 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with applicable codes and ordinances concerning demolition operations. Meet requirements of local health department, utility company, and OSHA Safety and Health Standards.

1.3 SUBMITTALS

- A. Time schedule of demolition operations for review prior to start of Work. Indicate coordination with other site Work and with Work under separate contracts.
- B. Detailed sequence of demolition and removal of materials to ensure uninterrupted progress of the Work.
- C. Permits and notices authorizing demolition.
- D. Permit for transport and disposal of debris.

1.4 JOB CONDITIONS

- A. Public Access:
 - 1. Conduct demolition operations and removal of debris to ensure minimum interference with roads, streets, walks, driveways, and other facilities, both public and private; adjacent to the Work.
 - 2. Do not close or obstruct streets, walks, or other public facilities without permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed trafficways where required by governing authorities.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Do demolition Work in a safe and responsible manner. Maintain a reasonable degree of quietness throughout progress of the Work so as to not disturb classes in session or annoy residents of the neighborhood. Rotary machines and tools must operate below OSHA noise and fume standards.

3.2 POLLUTION CONTROLS

- A. Dust: Use water sprinkling and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

3.3 REMOVAL OF WASTE MATERIALS

- A. Remove unwanted material and debris from site daily. Dampen debris with water to keep dust down.
- B. Transport materials off the site in covered vehicles, or properly secure and dampen loads to prevent flying dust or loss of materials.
- C. Do not allow debris of any kind to fall from trucks leaving the site and to litter streets on way to disposal area.
- D. Comply with local regulations regarding hauling and disposal. Haul waste material to established disposal sites.
- E. No burial of demolished materials, debris, or rubbish is permitted on the site.

3.4 CLEANING UP

- A. Remove excess materials from site. Clear construction area of all debris resulting from operations under this Section.
- B. Clean existing concrete paving of all accumulations of dirt and debris upon completion of the Work.

END OF SECTION

07 21 26 – BLOW-IN INSULATION**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Pneumatically blown insulation into attic space as indicated on drawings

1.2 REFERENCE STANDARDS

- A. ASTM C 764 - Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation.
- B. ASTM C 1015 - Standard Practice for Installation of Cellulosic and Mineral Fiber Loose-Fill Thermal Insulation.

1.3 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance criteria, limitations.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Blown Insulation:
 - 1. CertainTeed Corporation: www.certainteed.com.
 - 2. Johns Manville Corporation: www.jm.com.
 - 3. Substitutions: See Section 01 25 00 – Substitution Procedures

2.2 MATERIALS

- A. Loose Fill Insulation: ASTM C 764, glass fiber type, bulk for pneumatic placement.
 - 1. Installed Thickness: Six inches (6”), unless noted otherwise.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation are dry and ready to receive insulation.
- B. Verify that light fixtures have thermal cut-out device to restrict over-heating in soffit or ceiling spaces.
- C. Verify spaces are unobstructed to allow placement of insulation.
- D. Baffle may be need to around mechanical equipment.

3.2 INSTALLATION

- A. Install insulation in accordance with ASTM C 1015 and manufacturer's instructions.
- B. Place insulation pneumatically to completely fill joist spaces.
- C. Completely fill intended spaces. Leave no gaps or voids.

3.3 SCHEDULES

A. Attic Spaces:

1. Original 3 story Dormitory – Six inches (6”).
2. Refectory Addition – Six inches (6”).

END OF SECTION

SECTION 07 31 29.13 – WOOD SHINGLES**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Cedar shingle roofing.
- B. Moisture shedding felt underlayment, eave, valley, and ridge protection.
- C. Installation or coordination of install of sheet metal flashings.

1.2 RELATED SECTIONS

- A. Section 06 10 00 – Carpentry
- B. Section 07 60 00 – Sheet Metal Flashing and Trim

1.3 REFERENCES

- A. ANSI/ASTM D226 – Asphalt-Saturated Organic Felt used in Roofing and Waterproofing.
- B. ANSI/ASTM D2178 – Asphalt Impregnated Glass (Felt) Mat used in Roofing and Waterproofing.
- C. ASTM E84 – Test Method for Surface Burning Characteristics of Building Materials.
- D. NRCA – Steep Roofing Manual.
- E. CSSB – Grading Rules for Red Cedar Shingles and Handsplit Shakes and Application Manuals.
- F. UL 580 – Tests for Wind Uplift Resistance of Roof Assemblies.
- G. UL 790 – Tests for Fire Resistance of Roof Covering Materials.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 23 – Shop Drawings, Product Data, Samples
- B. Product Data: Provide data indicating material characteristics, performance criteria, and limitations.
- C. Manufacturer's Installation Instructions: Indicate preparation required and installation procedures.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Steep Roofing Manual.
- B. Perform Work in accordance with Cedar Shingle and Shake Bureau's (CSSB) Application Manuals.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable UBC code for ASTM E84 flame spread, UL 580 wind uplift, UL 790 fire resistance on single types required.

1.7 EXTRA MATERIALS

- A. Furnish under provisions of Section 01 78 00 – Closeout Submittals.
- B. Provide 100 SF of extra shingles of each shape utilized on the work. Coordinate delivery of extra material with UO's PM.

1.8 WARRANTY

- A. Provide a five (5) year workmanship warranty on the wood shingle system effective from date of substantial completion.

PART 2 - PRODUCTS**2.1 SHINGLES**

- A. 18" length, 7/16" thick or 5 shingles stacked is 2-1/4" thick, Manufactured from #1 Grade Western Red Cedar (Blue Label), Clear heartwood, 100% edge grain shingle, No defects, A minimum 4" width and 14" maximum width, 4 bundles per square, One square is 100 sq. ft. of installed coverage at the maximum 6" exposure.

Roof areas indicated as "Shingles Roofs" in drawings and dormer side walls as indicated on drawings to be fire-retardant-treated-shingles produced from number 1 grade western red cedar complying with U.B.C. Standard 15-4 impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and have been qualified by U.B.C. Standard 15-2 for use on Class B roofs, and which comply with ICBO-ES Acceptance Criteria Subject AC09. Each bundle of treated wood shingles shall bear labels from ICBO accredited quality control agency identifying their roof-covering classification and indicate that the product complies with ICBO-ES Subject AC09.

2.2 SHEET MATERIALS

- A. Self Adhered Elastic Sheet Membrane: SBS modified bitumen sheet, self-adhering, minimum 40 mils thick; ice and water shield, as manufactured by W. R. Grace and Co., or approved.
- B. Underlayment Felt: Grace Tri-Flex 30: polypropylene coated-based roofing underlayment, or equivalent.

2.3 ACCESSORIES

- A. Nails: Standard round wire shingle type, hot dipped zinc coated steel of sufficient length to penetrate through roof sheathing, as recommended by shingle Manufacturer.
- B. Lap Cement: Fibrated cutback asphalt type, recommended for use in application of underlayment, free of toxic solvents; as recommended by shingle roofing Manufacturer.

2.4 FLASHING MATERIALS

- A. Refer to Section 07 60 00, Sheet Metal Flashing and Trim.

2.5 FALL PROTECTION

- C. Fall Protection Anchors: Ridge-It Anchor by Guardian
<http://www.guardianfall.com/page.php?id=193>

Anchor spaced 10'-0" O.C. max at ridge, 10'-0" max. in from end. Use (8) 14 - 10 x 3 Stainless Steel or Galvanized screws anchored to rafter or ridge joist.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. In general, install as per Manufacturer's recommendation and in conformance with Cedar Shingle and Shake Bureau.
- B. Verify existing deck conditions are ready to start work.
- C. Verify roof openings are correctly framed prior to installing Work of this Section.
- D. Verify deck surfaces are dry, free of ridges, warps, or voids.

3.2 PREPARATION

- A. Broom clean deck surfaces.

3.3 INSTALLATION – VALLEY PROTECTION

- A. Place one ply of self adhered elastic sheet membrane at valley, minimum 36 inches wide, centered over valleys. Weather lap joints minimum 2 inches. Nail in place minimum 18 inches O.C., one inch from edges.
- B. Place one layer of copper flashing, minimum 24 inches wide, centered over open valleys and crimped to guide water. Weather lap joints minimum 4 inches. Nail in place minimum 18 inches O.C., one inch from edges.

3.4 PROTECTIVE UNDERLAYMENT INSTALLATION

- A. Place one ply of underlayment in shingle fashion over area not protected by eaves membrane, with ends and edges weather-lapped minimum 6 inches. Stagger end laps of each consecutive layer. Nail protective underlayment to hold in place.
- B. Install protective underlayment perpendicular to slope of roof.
- C. Weather lap underlayment minimum 6 inches over eaves membrane.

3.5 INSTALLATION – METAL FLASHING

- A. Install flashings in accordance with CSSB requirements.
- B. Weather lap joints minimum 2 inches and seal weather tight with plastic cement.
- C. Secure in place with nails.

3.6 INSTALLATION – SHINGLES

- A. Install shingles in accordance with Manufacturer's instructions.

3.7 PROTECTION OF FINISHED WORK

- A. Protect finished Work.
- B. Do not permit traffic over finished roof surface.

END OF SECTION

07 41 13 – METAL ROOF PANELS**PART 1 GENERAL**

1.1 SUMMARY

- A. Provide standing factory finished steel roofing, flashings, sheet metal as specified herein and as shown on Drawings.
 - 1. Provide 24 gage exterior downspouts, flashings, and copings.
 - 2. Provide 24 gage standing seam panels on slip sheet over specified felt or SBS modified bitumen membrane. Use double lock seams minimum 1" high (finished) and install panels per SMACNA Manual (6th Edition), Figure 6-5, and as stated herein.
 - 3. Provide hanging gutter similar to (SMACNA Manual 6th Edition, Figure 1-16B).

1.2 QUALITY ASSURANCE

- A. Standards:
 - 1. "Architectural Sheet Metal Manual," 6th Edition, (ASMM) by Sheet Metal and Air Conditioning Contractor's Association (SMACNA).
 - 2. UL 580 tested and approved.
 - 3. UL 90 wind uplift requirements.
 - 4. UL-790 Fire Classification.
 - 5. Roofing shall be installed per NRCA guidelines Class A fire rating.
- B. Installer of roofing and gutter system shall have successfully completed at least five installations of this type.

1.3 SUBMITTALS

- A. Provide color samples of panel of roof system.
- B. Shop drawings including roof plans clearly indicating details.

1.4 PROTECTION

- A. Opened Roofing and Flashing: Provide tarps or plastic sheeting, as required, to adequately protect opened roofs and flashings and to prevent entrance of moisture or rain water into the existing structure until new materials have been applied and roof is in a watertight condition. Do not open up anymore roof surface at one time than can be adequately covered and protected in the event of sudden unexpected rainfall. Have necessary waterproof canvas or plastic sheeting handy in case of emergency. Contractor will be held liable for any damage to building interior due to his/her negligence.
- B. Material Handling: Contractor shall not allow any roofing materials or debris to free fall from the roof. Debris shall be removed from the roof in containers or closed hoses to containers on the ground. Chutes or conveyors may be approved upon inspection by the Owner; however, their use may be denied if they are unstable or if excessive dust and debris blows out from them.

- C. Roof Drainage: Inspect all storm drains to insure that they are in proper working order prior to starting Work. Cover all leader boxes, roof drains, etc., to prevent materials and debris from clogging interior drains and downspouts. Open only as weather conditions dictate and at completion of job. Do not flush materials down drains. All drains shall be left in a clean and proper working condition.

1.5 WARRANTY

1. The Contractor shall provide a written warranty guaranteeing all roofing, roof insulation and flashing against defects of workmanship and materials for a period of two (2) years from the date of Final Acceptance and shall maintain the reroofed areas in watertight condition during this period. The warranty shall be delivered to the Owner prior to final acceptance of the Work.
2. The Roofing Manufacturer shall provide a written twenty (20) year warranty signed by a corporate officer for an unlimited sum guarantee covering both installation and materials as approved by the Manufacturer. The warranty shall include all related materials damaged due to failure of the metal roofing system.

PART 2 PRODUCTS

2.1 PANELS:

- A. Span Seam 180 degree seams , by AEP Span.
- B. CB-2000 with 180 degree seams by Custom-Bilt Metals
- C. ZEE Lock 180 degree seams , by Berrage.
- D. S2500, 2" 180 degree seams , by Englert.
- E. Substitutions per Section 01 25 00.

2.2 ACCESSORIES:

1. Lead Sheet: 16 oz, flat, cold rolled, wt 4 lbs per sq ft minimum.
2. Screws, bolts, other fasteners and accessories all in galvanized steel in sizes as required for a complete and proper installation.
3. Cleats: Minimum 2-inches wide x sufficient length to provide 1/2-inch interlock with seam or fold and allow sufficient metal to fold over nail heads at other end, cold rolled copper same gauge as metal being fastened but not heavier than 16-ounce unless called for on Drawings.
4. Sealants: One part liquid polyurethane polymer base, low modulus Type II, Class A, as manufactured by Mameco Vulkem, PRC, Tremco, Sonneborn Con-tech, General Electric, Pecora, Woodmount or approved. Provide backer rods, bond breaker, primers, and cleaning agents as recommended by Manufacturer.
5. Lead Wedges: As required.
6. Asphalt-saturated Roofing Felt: ASTM D-226-68, approximate weight 30 pounds per 100 square feet, organic, unperforated, 36 inches wide.

7. Slip Sheet (Separation Sheet):
 - a. Grace Tri-Flex 30: polypropylene coated-based roofing underlayment, or equivalent
 - b. Substitutions per Section 01 25 00.
8. Self Adhesive Membrane: SBS modified bitumen sheet, self-adhering, minimum 40 mils thick; Ice and Water Shield as manufactured by W.R. Grace & Co., or approved.
9. Drain Strainers: Reinstall existing.

2.3 FACTORY FINISHING:

1. Galvalume or Zinalume sheet, minimum 24 GA., ASTM AZ50 made of 55% aluminum, 1.6% silicon and the balance zinc as described in ASTM specification A792.
2. Exterior Finish: PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2604 AAMA 2605; multiple coat, thermally cured fluoropolymer finish system; color as scheduled.
3. Primer Coat: Finish concealed side of metal sheets with primer compatible with finish system, as recommended by finish system manufacturer.

PART 3 EXECUTION

3.1 PREPARATION

- A. All surfaces to be covered with sheet metal shall be smooth and free from defects. All such surface shall be cleaned of dirt, rubbish and other foreign materials before the sheet metal work is started. Commencement of work by this contractor indicates acceptance of substrate surfaces prepared by others.

3.2 FABRICATION

- A. The roof panels are to be formed on a bending brake. Shaping, trimming and hand seaming are to be done on the bench as far as practicable, with the proper sheet metal working tools. The angle of the bends and the folds for interlocking the metal shall be made with full regard for expansion and contraction to avoid buckling or fullness in the metal after it is in service.
- B. Joining Without Solder: The metal, already partly formed, is to be put in place and fastened to the structure by means of cleats. The dry lock joints, with sealant, are to be closed tight, but not dented with the mallet, so as to permit slight adjustment of the sheets and yet to remain weather-tight. Cross folded loose seams, where metal is folded in one direction and then folded at right angles to the first fold, as for example the slip joints of base flashings, expansion joints and similar cross folded loose joints, the folded portion of the metal at the cross fold shall be slit and a patch of metal shall be set and sealed over the slit to avoid binding at the cross fold.

3.3 INSTALLATION

- A. Sheet metal Contractor shall install all base, counter, and other flashing associated with standing seam sheet metal roofing, elastic sheet roofing, coping and all other work shown and specified.
- B. Roofing - Pan Method: The roofing pans shall be formed of 20 inch wide sheets of 24 gage minimum. The lower end of each pan shall be folded under 3/4 inches. The fold shall be slit 1 inch away from the corner to form a tab where the pan turns up to make a standing seam. The upper end of each pan shall be folded over 2 inches. The 3/4 inch fold on the lower end of the upper pan is hooked into the 2 inch fold on the upper end of the underlying pan. When possible, pans shall span full width of roof without seams. Cleats shall be spaced 12 inches on centers in each standing seam. Each cleat shall be secured with two nails. Roofing pans shall be loose locked to valley flashing and edge strips at eave.
- C. Standing Seams: Standing seams shall finish 3/4" inch except on curved surfaces. One side edge shall be bent up 2 inches and the other 2-1/4 inches. The first fold shall be a single fold 1/4 inch wide and the second fold shall be 1/2 inch wide. The locked portion of the standing seam shall be five (5) piles in thickness. Lower ends of standing seams at eaves shall be folded over at an angle of about 45 degrees. Where standing seams terminate at ridge and hips they shall be turned down in a tapered fold. Spacing of standing seams should be 16-3/4 inches to use 20 inch widths of metal sheets without waste.
- D. Valleys: Valley sheets shall be 24 gage prepainted steel. The valley sheet shall extend under the roofing sheets on both sides not less than twelve (12) inches. At the valley line adjacent to the lower edge of the roofing sheets, a 3/4 inch double fold shall be made to engage a 3/4" single fold at the lower ends of the roofing sheets. The outer edges of the valley sheets shall be folded 1/2 inch for cleating and in these folds, cleats shall be installed on 18 inch centers.
- E. Flashing, trim and gutters: See Drawings and SMACNA ASMM Manual.
- F. Provide expansion joints per SMACNA ASMM manual.
- G. Where copings, and other flashings are secured by hooking metal work over a metal cleat, cleats shall be continuous.
- H. Coordinate sheet metal and roofing work with other work such as roofing at the flat roof areas and gutter.
- I. All work shall be watertight, plumb, straight and true, with fasteners designed and applied to prevent leakage and all joints properly sealed.

3.4 CLEAN-UP

- A. Remove all debris from the site and leave the site in a clean, finished condition.

END OF SECTION

07 53 23 - ETHYLENE-PROPYLENE-DIENE-MONOMER ROOFING**PART 1 GENERAL****1.1 SUMMARY**

- A. Work under this includes installation of fully adhered single ply roof membrane.
- B. Related Sections:
 - 1. Section 07 60 00 - Sheet Metal Flashing and Trim
 - 2. Section 07 90 00 – Joint Protections

1.2 SYSTEM DESCRIPTION

- A. New fully adhered single ply EPDM membrane. New membrane to be installed over 1-1/2" rigid insulation and 1/2" coverboard mechanically attached to wood deck.

1.3 QUALITY ASSURANCE

- B. Qualifications:
 - 1. All products shall be furnished by or approved by the Manufacturer for only portions of the roof depicted on the drawings for replacement.
 - 2. The applicator shall be approved by and certified in writing by the roofing Manufacturer prior to the date of these Contract Documents.
 - 3. The applicator shall have been in continuous business under the same name for the past three (3) years.
- C. Standards
 - 1. A Class A tested and listed rating by Underwriters Laboratories (or another testing laboratory approved by local and state agencies), when installed on non-combustible decks for the roof slopes and application shown. Provide documentation.
 - 2. The NRCA Roofing and Waterproofing Manual.
 - 3. Factory Mutual I 90 for wind uplift and fastening.
- D. Field Quality Control
 - 1. A technical representative of the materials Manufacturer shall periodically observe the Work in progress. The representative, as a minimum, shall be present to observe the deck preparation, general installation procedures and the final completion.
 - 2. The installer shall provide all personnel trained in the application of the materials and systems and shall maintain supervision as specified elsewhere.
 - 3. Notify the Owner at least twenty-four (24) hours prior to any roofing Work.
- E. Warranty:
 - 1. The Contractor shall provide a written warranty guaranteeing all roofing, roof insulation and flashing against defects of workmanship and materials for a period of two (2) years from the date of Final Acceptance and shall maintain the reroofed areas in watertight condition during this period. The warranty shall be delivered to the Owner prior to final acceptance of the Work.

2. The roofing materials Manufacturer shall provide a written fifteen (15) year warranty signed by a corporate officer for an unlimited sum guaranty covering both installation and materials approved by the membrane Manufacturer. The warranty shall include approved insulation, cover board, fasteners, plates and related materials damaged due to failure of the membrane. The warranty shall contain no exclusion for damage due to wind speeds to 90 mph.

F. Submittals:

1. Comply with Section 01 33 23.
2. Shop Drawings including roof plan, location and type of penetrations, perimeter and penetration details, special details, layout of fasteners and layout of seams.
3. Manufacturer's published specifications for the proposed materials and systems.
4. Evidence of UL approvals.
5. Copy of proposed warranty.

1.3 JOB CONDITIONS

- A. Do not work unless the temperature is 40° F (4.44° C) and rising unless otherwise approved by the Architect. Do not work during rainy weather or immediately thereafter until surfaces are sufficiently dry to receive new Work. Do not apply roofing membrane during inclement weather ambient temperatures below degrees F or above degrees F without proper weather protection.
- B. Do not allow smoking or use of any open flame device around or near cements and bonding adhesive containing petroleum distillates. Provide ample ventilation in confined areas during splicing operations. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- C. Refrain from roofing operations when the wind velocity is sufficiently high to lift the roofing membrane sheets and pose a danger to workers.

1.4 PROTECTIONS

- A. Provide tarps or plastic sheeting, as required, to adequately protect opened roofs and flashings and to prevent entrance of moisture or rain water into the existing structure until new materials have been applied and roof is in a watertight condition.
- B. Do not open up any more roof surface at one time than can be adequately covered and protected in the event of sudden, unexpected rainfall.
- C. Have necessary waterproof canvas or plastic sheeting handy in case of emergency. Contractor will be held liable for any damage to building interior due to negligence.

PART 2 PRODUCTS**2.1 SINGLE PLY ROOFING - FULLY ADHERED**

- A. Approved Manufacturers of adhered elastic sheet membrane systems as compatible with existing roof membrane.
 - 1. Carlisle Tire and Rubber Company, EPDM, Adhered Membrane System
 - 2. Firestone, EPDM, Adhered Membrane System
 - 3. John Manville, EPDM, Adhered Membrane System
 - 4. Substitutions: Section 01 25 00 - Substitution Procedures
- B. Membrane Material:
 - 1. EPDM (Ethylene Propylene Diene Monomer) compounded elastomer nonstaining black fire retardant sheet .060" thick (60 mils), with the elastic sheet in the largest sizes possible as determined by job conditions.
- C. Adhesive Materials:
 - 1. Cold Membrane Adhesives: As recommended by membrane manufacturer.
 - 2. Thinner and Cleaner: As recommended by adhesive manufacturer, compatible with sheet membrane.
- D. Formable Flashing; same thickness and color as field sheets.
- E. Cured Flashing; same thickness and color as field sheets.

2.2 RELATED MATERIALS

- A. Wood nailers and curbs: No 2 & better pressure preservative treated.
- B. Roofing Nails: Galvanized, hot dipped or non-ferrous type, size as required to suit application.
- C. Sealants: As recommended by membrane manufacturer.
- D. Strip Reglet Devices: Galvanized steel Extruded plastic; maximum possible lengths per location, with attachment flanges.
- E. Stack Boots: Flexible boots and collars for pipe stacks through membrane, manufacturer's standard with stainless steel pipe clamps.

2.3 INSULATION

- A. General: Provide preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated.
- B. Cover Board:
 - 1. Cellulosic-Fiber Board Insulation: ASTM C 208, Type II, Grade 1, High Density fibrous-felted wood fiber or other cellulosic-fiber and water-resistant binders, asphalt impregnated on all 6 sides, chemically treated for deterioration.
 - 2. Manufacturers:
 - a. Temple - Inland Inc.

- C. Thermal Insulation:
 - 1. Polyisocyanurate Board Insulation: Rigid, cellular polyisocyanurate thermal insulation with core formed by using HCFCs as blowing agents complying with ASTM C 1289, classified by facer type as follows:
 - a. Facer Type: Type II, black, non-asphaltic fiber reinforced felt on both major surfaces.

2.4 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify surfaces and site conditions are ready to receive Work.
- B. Confirm dry deck by moisture meter with percent moisture maximum. moisture content acceptable to roofing manufacturer.
- C. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, and wood cant strips wood nailing strips and reglets are in place.

3.2 PREPARATION

- A. Existing Membrane:
 - 1. Remove all existing membrane surfaces including vertical portions of flashing and prep substrate to receive new membrane per manufactures recommendations.

3.3 NOTIFICATION

- A. Notify the Owner three (3) days prior to installation of roofing system. Substrates shall be observed by both the Owner's Representative and the Manufacturer. Materials applied without such prior observation shall be subject to removal at the Contractor's expense if so requested by the Owner's Representative.

3.4 WORKMANSHIP

- A. Work shall be performed by experienced mechanics in type of roofing Work specified. Contractor shall be fully aware of Work involved and the requirements under this Contract, and shall direct workers in the proper application of materials specified. Supervision shall be maintained by the same person throughout the entire course of the installation of elastic sheet roofing and flashing materials.
- B. Work shall be performed in accordance with Manufacturer's directions and requirements specified herein.

- C. Finished Work shall be free from wrinkles, creases, bubbles, fish mouths, and similar defects. Laps shall be fully sealed. Entire surface shall be watertight.

3.5 INSTALLATION

- A. Membrane Application:
 1. Apply membrane and primer.
 2. Apply adhesive at rate required by manufacturer.
 3. Roll out membrane, free from air pockets, wrinkles, or tears. Firmly press sheet into place without stretching.
 4. Wait 30 minutes for membrane to relax and release tension before fastening or splicing which might have been induced by packaging and handling.
 5. Overlap edges minimum of 6 inches and adjacent ends laps minimum of 3 inches.
 6. Shingle joints on sloped substrate in direction of drainage.
 7. Apply bonding adhesive to underside of membrane and substrate per manufactures rate. Do not apply bonding adhesive to areas to receive joint tape.
 8. Let adhesive dry to so that it does not stick to touch, roll the membrane into adhesive and substrate.
 9. Apply joint tape and seal.
 10. Extend membrane up curbs a minimum of 6 inches onto vertical surfaces.
 11. Seal membrane around roof penetrations.\
- B. Flashings And Accessories:
 1. Apply flexible flashings to seal membrane to vertical elements.
 2. Secure to nailing strips at 4 inches oc and reglets.
 3. Fabricate roofing control and expansion joints to isolate roof into areas as indicated on Drawings. Make joints watertight.
 4. Coordinate installation of roof drains sumps and related flashings.
 5. Seal flashings and flanges of items penetrating membrane.

3.6 PROTECTION

- A. Protect the roofing membrane and flashing systems from damage during application until final acceptance by the Owner. Repair damaged areas prior to final acceptance of the Work.
- B. Distribute equipment and materials over girders or beams adjacent to columns so as not to overload the structure.

3.7 CLEANUP

- A. Remove masking, protection, equipment, tools, materials and debris from the Work and storage areas. Leave the Work undamaged, clean, and acceptable at Final Completion.

END OF SECTION

07 62 00 – SHEET METAL FLASHING AND TRIM**PART 1 GENERAL**

1.1 DESCRIPTION

- A. Work under this section.
 - 1. Provide all flashing and sheet metal as shown on drawings. Remove and/or revise and repair existing flashing, sheet metal, and related accessories, as shown on drawings.

1.2 RELATED SECTIONS

- A. Section 06 10 00 - Carpentry
- B. Section 07 31 29.13 – Wood Shingles
- C. Section 07 60 00 – Ethylene-Propylene-Diene-Monomer Roofing
- D. Section 07 90 00 - Joint Sealers.

1.3 REFERENCES

- A. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate.
- B. ASTM A792 - Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- C. ASTM B32 - Solder Metal.
- D. ASTM D226 - Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- E. ASTM D4586 - Plastic Roof Cement, Asbestos-Free.
- F. FS O-F-506 - Flux, Soldering, Paste and Liquid.
- G. SMACNA - Architectural Sheet Metal Manual.
- H. ASTM 240 - Type 304 Stainless Coated each side with Tin/Zinc Alloy.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 23
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA standard details and requirements.

- B. Provide Installers two (2) year warranty against defects in materials and workmanship. Installer is to maintain sheet metal and flashings in watertight condition for term of warranty.

1.6 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in sheet metal flashing work with three (3) years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01010.
- B. Stack preformed and prefinished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials which may cause discoloration or staining.

PART 2 PRODUCTS

2.1 SHEET MATERIALS

- A. Factory Finished Galvanized or Metallic Coated Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; minimum 24 gage thick base metal, shop pre-coated with modified silicone coating; *or* Factory Finished Galvalume or Zinalume sheet, minimum 24 GA., ASTM AZ50 made of 55% aluminum, 1.6% silicon and the balance zinc as described in ASTM specification A792.
 - 1. Exterior Finish: PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2604 AAMA 2605; multiple coat, thermally cured fluoropolymer finish system; color as scheduled.
 - 2. Primer Coat: Finish concealed side of metal sheets with primer compatible with finish system, as recommended by finish system manufacturer.
- B. Stainless Steel: ASTM A666, minimum .032 inches thick, type 304, smooth finish.

2.2 COPPER MATERIALS

- A. Copper Sheet Metal: ASTM 370, cold-rolled temper, 16 ounce, minimum. soft temper permitted for small flashing pieces installed without soldering and nailing.
- B. Nails: Large flat heads, (annular ring optional) minimum No. 12 gauge, min. 7/8" long cold formed from any of the following:
Alloy 110 copper, Alloy 230 brass, Alloy 510 Phosphor Bronze-A, Alloy 521 Phosphor Bronze-C, Alloy Phosphor Bronze-D, Alloy 651 Everdur.
- C. Screws, bolts, other fasteners, and accessories all in copper metal or alloys listed for nails in sizes as required for a complete and proper installation.

- D. Cleats: Minimum 2 inches wide x sufficient length to provide 1/2 inch interlock with seam or fold over nail heads at other end; cold-rolled copper same gauge as metal being fastened. Cleats shall be continuous at flashing and trim.
- E. Copper Ridge – Medium Plain Ridge, Vented -16 oz. copper
1. Old World Distributors
6101 West KL Avenue, #2 - Kalamazoo, MI 49009 - USA
Phone: 1 (269) 353-0726 - 1 (269) 372-3916 FAX: 1 (269) 372-9852
 2. Substitutions: Section 01 25 00 - Substitution Procedures
- F. Copper Rain Diverters
1. BendTek -20 oz. Copper Diverter
http://www.bendtek.com/Rain_Diverter.htm
 2. Custom Made 20oz. copper rain diverters to match existing
 3. Substitutions: Section 01 25 00 - Substitution Procedures
- G. Copper Chimney Cap
1. Woodland Direct - Gelco Multi-Flue Copper Chimney Cap
 2. Item # 1091330
 3. Width 17" x Length 29"

2.2 ACCESSORIES

- A. Felt Underlayment: ASTM D226, No. 15 asphalt saturated roofing felt.
- B. Slip Sheet (Separation Sheet):
1. Grace Tri-Flex 30: polypropylene coated-based roofing underlayment *or* equivalent.
 2. Substitutions: Section 01 25 00 - Substitution Procedures
- C. Sealant: Polyurethane type, specified in Section 07 90 00.
- D. Solder: Pure tin solder with rosin.
- E. Flux: Follansbee Speed Flux.
- F. Cleaner: Lacquer thinner.
- G. Adhered Elastic Sheet Membrane: SBS modified bitumen sheet, self-adhering, minimum 40 mils. thick, ice and water shield as manufactured by W.R. Grace and Co., or approved.

2.4 FASTENERS

- A. Stainless steel, as required to anchor to substrates, lead shield expansion anchors at concrete and masonry substrates. All exposed fasteners shall have dutchmen and shall otherwise be as shown on Drawings

PART 3 EXECUTION**3.1 FABRICATION**

- A. Fabricate each metal section in longest practical or 10 foot long sections. Provide expansion joints per SMACNA Manual; provide seam joints at all surfaces where shown on Drawings. Fabricate Work in accordance with current best industry standards and practices.
- B. Sheet Metal is to be formed on a bending brake. Shaping, trimming and hand seaming are to be done on the bench as far as is practical, with the proper sheet metal working tools. The angle of the bends and the folds for interlocking the metal shall be made with full regard for expansion and contraction to avoid buckling or fullness in the metal after it is in service.
- C. Tinning: The edges of all sheets of uncoated metal to be soldered shall be first cleaned with approved method and shall be tinned with solder on both sides for a width of not less than 1-1/2 inches.
- D. Soldering:
 - 1. Soldering shall be done with heavy soldering irons of blunt design, properly tinned before using. For flat seam, they shall weigh not less than 10 pounds per pair; except when gas heated soldering torch is used the copper itself shall not weigh less than 3 pounds.
 - 2. Seams are to be closed gently with a block of wood and mallet, then fluxed and filled with molten solder. The process is to be done with sufficient heat to induce the solder to flow into the seams by capillary, and thereby to make a joint that is secure and permanently watertight. Lap seams in 24 gauge sheet are to be at least 1 inch wide and correspondingly wider for heavier gauge metal. The soldered lap joints may be reinforced with 1 inch copper rivets spaced not more than 2 inches apart. Wherever possible, all soldering shall be done in a flat position.
 - 3. All soldered joints are to be wiped and washed clean to remove all traces of acid from the flux, immediately after the joints are made. When the metal work is completed it is to be washed with soap and hot water rinsed with cold water and wiped dry with a cloth.

3.2 PREPARATION

- A. Verify that surfaces which are to be covered with sheet metal are smooth and free from defects. Clean surfaces of moss, dirt, rubbish and other foreign materials before starting sheet metal Work. Coat dissimilar metals to isolate them from metal to metal contact with each other. Provide felt behind all copings roofing and wall metal.
- B. Install underlayment.
- C. Preparation for Joint Sealants:

1. Remove, complete, all existing material to substrates and thoroughly clean joint to be resealed.
2. Prime bond surfaces.
3. Provide bond breaker at non-bond surfaces.
4. Install sealants in depth to width proportions as recommended in the sealant Manufacturers published instructions.
5. Tool sealants to compress sealant against sides of joint. Joints shall drain.
6. Clean off excess sealant from adjacent surfaces.

3.3 INSTALLATION

- A. Install Work in accordance with Contract Documents, approved Shop Drawings, Manufacturer's printed instructions, SMACNA "Architectural Sheet Metal Manual," and current best industry standards and practices.
- B. If cross seams are required, they must be staggered in a uniform pattern.
- C. Cross seams must be fabricated per details in the SMACNA Architectural Manual.
- D. Install flashings plumb, straight, true and watertight. Connect units with specified joints and sealants. Fasten to surfaces, with concealed fasteners. Insulate dissimilar metal and incompatible surfaces with asphalt paint or brushable type, non-hardening butyl rubber base sealant of approved. Install panels in full lengths providing joints only where indicated on Drawings.

END OF SECTION

07 90 00 - JOINT SEALERS**PART 1 GENERAL****1.1 SUMMARY**

- A. Section includes sealants and joint backing, precompressed foam sealers, hollow gaskets, and accessories.
- B. Related Sections:
 - 1. General Conditions of the Contract
 - 2. Division 1: General Requirements
 - 3. Section 07 62 00 – Sheet Metal Flashings and Trim
 - 4. Section 08 80 00 – Glazing.
 - 5. Section 09 90 00 - Paints and Coatings

1.2 REFERENCES

- A. American Society for Testing and Materials:
 - 1. ASTM C834 - Standard Specification for Latex Sealants.
 - 2. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications.
 - 3. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
 - 4. ASTM C1193 - Standard Guide for Use of Joint Sealants.

1.3 SUBMITTALS

- A. Section 01 33 23 – Shop Drawings, Product Data, Samples : Submittal procedures.
- B. Products Data: Submit data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability and Manufacturer's technical data sheet (or MSDS) highlighting VOC content.
- C. Samples: Submit two samples, 6 inch in size illustrating sealant colors for selection.
- D. Manufacturer's Installation Instructions: Submit special procedures, surface preparation, and perimeter conditions requiring special attention.

1.4 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three (3) years documented experience.
- B. Applicator: Company specializing in performing Work of this section with minimum three (3) years documented experience, and approved by manufacturer.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by sealant manufacturer during and after installation.

PART 2 PRODUCTS

2.1 JOINT SEALERS

A. Manufacturers:

1. Dow Corning Corp.
2. GE Silicones
3. Mameco International Inc.
4. Pecora Corp.
5. Sika Corp.
6. Tremco
7. Substitutions: Section 01 25 00 – Substitution Procedures

B. Products Description:

1. High Performance General Purpose Exterior (Nontraffic) Sealant: Polyurethane; ASTM C920, Grade NS, Class 25, single or multi-component.
 - a. Colors: Colors as selected.
 - b. Applications: Use for:
 - 1) Control, expansion, and soft joints in masonry.
 - 2) Joints between concrete and other materials.
 - 3) Joints between metal frames and other materials.
2. Exterior Metal Lap Joint Sealant: Butyl or polyisobutylene, non-drying, non-skinning, non-curing.
 - a. Applications: Use for concealed sealant bead in sheet metal work and concealed sealant bead in siding overlaps.
3. Exterior Joint Sealant (compatible with Elastomeric Coating): Silicone; ASTM C 920, one-part, non-sagging.
 - a. Color: as selected.
 - b. Applications: Use for exterior wall control and expansion joints in existing CMU walls to receive elastomeric coating.
 - c. DOW corning 795, or approved.
4. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C834, single component, paintable.
 - a. Color: as selected.
 - b. Applications: Use for interior wall and ceiling control joints, joints between door and window frames and wall surfaces, and other interior joints for which no other type of sealant is indicated.
5. Tile Sealant: Silicone; ASTM C920, Uses M and A; single component, mildew resistant.
 - a. Applications: Use for joints between plumbing fixtures and floor and wall surfaces, and joints between counter tops and wall surfaces.
6. Acoustical Sealant: Butyl or acrylic sealant; ASTM C920, Grade NS, Class 12-1/2, Uses M and A; single component, solvent release curing, non-skinning.
 - a. Type: manufactured by.
 - b. Applications: Use for concealed locations only at acoustically rated construction.
 - 1) Provide sealant bead between top stud runner and structure and between bottom stud track and floor.

2.2 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: Round foam rod compatible with sealant; ASTM D1056, sponge or expanded rubber D1565, oversized 30 to 50 percent larger than joint width.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.
- B. Verify substrate surfaces and joint openings are ready to receive work.
- C. Verify joint backing and release tapes are compatible with sealant.

3.2 PREPARATION

- A. Remove loose materials and foreign matter impairing adhesion of sealant.
- B. Clean and prime joints.
- C. Perform preparation in accordance with ASTM C1193.

3.3 INSTALLATION

- A. Perform installation in accordance with ASTM C1193.
- B. Perform acoustical sealant application work in accordance with ASTM C919.
- C. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer,.
- D. Install bond breaker where joint backing is not used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- F. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- G. Tool joints concave.

3.4 CLEANING

- A. Final cleaning, Clean adjacent soiled surfaces.

3.5 PROTECTION OF INSTALLED CONSTRUCTION

- A. Protecting installed construction, Protect sealants until cured.

END OF SECTION

08 01 52 – WOOD WINDOWS AND DOORS RESTORATION/ REPLACEMENT**PART 1- GENERAL**

1.01 DESCRIPTION

- A. Contractor is responsible for pre-bid assessment of quantity of wood window / door repair and replacement work.
- B. Repairs include but are not limited to replacing deteriorated/broken elements including: wood window/ door parts, wood sills, and wood trim.
- C. Prep and paint all wood windows and doors. Existing paint is known to contain lead. All paint chips and associated debris is to be collected and turned over to the University for disposal. Scrape loose paint with windows closed to avoid debris and dust in building. Coordination with building occupants should be done through UO PM.
- D. General contractor to remove all loose or damaged glazing compound from exterior windows, collect and bag per quantity indicated on drawings. GC to dispose of collected material. Install new glazing compound.
- E. Finish new wood elements with two (2) coats primer prior to painting.

1.02 QUALITY ASSURANCE

- A. Standards:
 - 1. APA, American Plywood Association
 - 2. West Coast Lumber Inspection Bureau: Standard Grading Rules
 - 3. WWPA, Western Wood Products Association
 - 4. WPA, American Wood Preservers' Association: Book of Standards

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver wood at specified moisture content and protect wood from moisture absorption during transportation and storage. Store above ground or slab. Cover with breathable tarps or other suitable covers.

PART 2 - PRODUCTS

2.01 GRADING

- A. Finish trim, window, and sill material shall be clean, C and better, vertical grain, kiln dried Douglas Fir; S4S or custom milled to match existing pattern and profile.

2.02 MAXIMUM MOISTURE CONTENT

- A. Finish lumber shall be kiln dried.

2.03 NAILS

- A. Finish nails shall be Stainless Steel NO. 304 nails.
- B. FF-N-101 common wire and spiral or drive screw type galvanized at concealed exterior locations.

2.04 WOOD FILLER

- A. Non-shrink, sandable plastic wood filler –Abatron wood epoxy.

2.05 GLAZING COMPOUND

- A. Dap, Norton, Tremco
- B. Substitutions per section 01 25 00.

2.06 FLOAT GLASS

- A. Float Glass Manufacturers:
 - 1. Oldcastle Glass
 - 2. PPG Industries
 - 3. Viracon
 - 4. Substitutions: Section 01 25 00 - Substitution Procedures
- B. Clear Float Glass: Clear, annealed. Comply with ASTM C 1036, Type I, transparent flat, Class 1 clear, Quality Q3 (glazing select). Match existing size and thickness.

2.07 HARDWARE

- A. New sash fasteners and pulls to match existing hardware components. All new hardware to be solid brass material. (NO brass plating allowed.) Contractor may refurbish and reuse existing hardware, ONLY as approved by Architect and Owner.
- B. Finish hardware shall be furnished with all necessary screws, bolts, or other fastenings of suitable size and type to anchor the hardware for heavy use and long life.

2.08 WEATHERSTRIPPING

- A. Spring bronze seal, 1-1/8" wide by .007 ga. as manufactured by Macklanburg-Duncan or approved.
- B. To be installed at all sash bottom rails. Nailed in place.

2.09 MISCELLANEOUS

- A. Provide all miscellaneous rough hardware and material items required for the complete and proper fabrication and installation of the Work.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Field survey all exterior wood trim and wood sills for rot and deterioration. Those areas deteriorated are to be repaired.
- B. Remove surface deterioration and fill with wood filler. Scrape work smooth.
- C. Replace glazing compound where required. Finish surface compact and in true, even smooth planes. Remove excess material from glazing.
- D. Paint window unit upon completion of repairs, prep and reglazing.

3.02 REPAIR, REPLACEMENT AND FITTING

- A. Patch deteriorated and wood elements with plastic wood filler prior to priming and painting.
- B. Replace all wood members and trim that have deteriorated beyond reasonable repair and consult with owner before removal of damaged wood. Fabricate and/or cut all wood replacement molding, trim, blocking, structure, and others to match size and profile of existing. Exceptions must be approved by architect and owners representative prior to fabrication and installation. When replacing deteriorated wood materials with new, match adjacent surface and plane or scrape so replacement is inconspicuous.
- C. Cuts shall be square to bearings and connections and closely fitted and shall be plumb, square and true to required lines.
- D. All connections shall be rigid and securely anchored in conformance with applicable standards and the requirements of the Work.
- E. Remove and replace all broken and deteriorated hardware at all windows and exterior doors. Hardware is to include but not limited to: ropes and counterweights, and latch locks. The hardware is to match the existing construction and design.
- F. Remove and replace all broken or cracked glass at all windows and exterior doors. Glass is to match existing size, shape, and thickness to fit within existing opening.
- G. Weatherstripping to be installed to all sash windows at the bottom rail of lower sash.

3.02 FINISHING

- A. Set exposed fasteners and fill indentations with wood filler. Scrape work smooth.
- B. Clean up Work and leave site in clean, finished condition.

END OF SECTION

09 90 00 – PAINTING AND COATING**PART 1 - GENERAL**

1.01 DISCRIPTION

Work under this Section:

- A. Work includes exterior painting of both new and existing wood trim, wood window sash, and wood sills, wood cornice, grills, lattice, portico, doors, door frames, metal rails, decks, ladders and fire escapes as noted on Drawings.
- B. Related Work specified elsewhere:
 - 1. Section 06 10 00 - Carpentry.
 - 2. Section 08 61 00 – Wood Windows and Doors

1.02 QUALITY ASSURANCE

- A. Standards:
 - 1. “Painting Specification Guide for the Pacific Northwest” published by the Oregon Council, PDCA.
- B. Provide materials for each general purpose of same Manufacturer. Do not use materials of different Manufacturer over one another, except for shop prime coats applied under other Sections of these Specifications.
- C. Each product container shall bear Manufacturer’s legible label including: type of material, Manufacturer’s name, product number, batch number, color instructions for reducing where applicable.

1.03 SUBMITTALS

- A. Manufacturer’s published product data, color draw-downs, and application instructions for use and reference at the job site.

1.04 TESTING

- A. Samples will be subject to testing at the Owner’s option to determine material quality and compliance with Contract Documents. Pay all testing costs for materials that fail to meet specified requirements.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials to the job site in unopened, undamaged containers with Manufacturer’s labels intact and legible, and store within locked area. Protect area against fire hazard.

- B. Provide adequate ventilation for health safety and drying requirements. Do not apply in areas where dust is being generated. Protect from damage from other areas and/or operations.

1.06 ENVIRONMENTAL CONDITIONS

- A. Do no exterior Work on unprotected surfaces if it is raining, or if moisture from any other source is present, or if expected before paints can dry or attain proper cure without damage. Allow surfaces wetted by rain or other moisture source to dry and to attain temperatures and conditions specified before proceeding.
- B. Except as noted, do no painting Work when temperatures on the surface, or if the air in the vicinity of the painting Work is below 40 degrees F., or below those temperatures recommended by the Manufacturer for the material type used.
- C. Painting contractor is responsible for providing containment barrier on the interior side of window openings during the course of scraping off loose lead paint to prevent lead scraping and dust particles from entering the building. This could be Visqueen or painting masking plastic securely taped to the interior side of window, or other methods approved by University Project Manager.
- D. General Contractor is to provide portable A/C units with appropriate exhaust in spaces where the windows are inoperable due to containment barrier.
- E. When windows or doors must be opened to complete painting, Contractor must screen inside areas from dust and paint splattering infiltration with screening system such as Visqueen, or other methods approved by University Project Manager.

PART 2 - PRODUCTS

2.01 PAINTING MATERIAL

- A. The following Manufacturers are acceptable and need no further approval: ICI, or approved.
- B. All materials shall be Manufacturers' "top-of-the-line", best quality of generic type specified.

2.02 EXTERIOR PAINT SYSTEMS

- A. Semi-gloss finish to match existing for wood / door trim, window sash, and wood sills.

Prime Coat: Oil base exterior alkyd primer, thinned down 25% with Pentral.
 Note: eliminate prime coat if items have been previously painted or primed by others. Touch up as required.
 Note: All new wood to get two (2) coats of primer minimum.

Second Coat: Exterior acrylic enamel base coat (color to match existing)

Third Coat: Exterior acrylic enamel top coat (color to match existing) w/mildicide

B. Semi-gloss finish to match existing for P.T. wood stringer and treads.

Prime Coat: Oil base exterior alkyd primer sealer, stain killer and bond coat thinned down 10% with mineral spirits.

Note: eliminate prime coat if items have been previously painted or primed by others. Touch up as required.

Second Coat: Exterior polyurethane acrylic enamel base coat (color to match wood trim color), broadcast silica sand over treads and deck

Third Coat: Exterior polyurethane acrylic enamel base coat (color to match wood trim color), w/mildicide

C. Epoxy paint system for steel fire escape platforms and ladders.

Penetrating Sealer Coat: DEVOE Pre-Prime 167; or approved
Spot treat

Prime Coat: DEVOE Devran 201; or approved – two component epoxy primer.

Third Coat: DEVOE Devthane 379UVA – two component aliphatic Urethane Gloss Enamel Base Coat, color to match wood trim color.

Fourth Coat: DEVOE Devthane 379UVA – two component aliphatic Urethane Gloss Enamel Top Coat, color to match wood trim color.

2.03 ANTI-SLIP COATINGS

A. Anti-Slip Coating for wood stair treads and landing.

1. Tremco (Vulkem) 350NF/351NF Pedestrian application, total thickness of 40 wet mils base coat and 15 mils top coat not including aggregate. Aggregate: 40-50 mesh silica sand.
2. Substitutions: Section 01 25 00.

PART 3 - EXECUTION

3.01 PREPARATION FOR PAINTING

- A. One level of cosmetic finish quality will be utilized on this project:
No Sanding of any paint. Scrape only.
- B. General contractor is responsible for providing containment barrier on the interior side of window openings during the course of scraping off loose lead paint to prevent lead scraping and dust particles from entering the building. This could be Visqueen taped to the interior side of window, or other methods approved by University Project Manager.

- C. If there is any additional scraping that is required post abatement and lead paint scraping and containment; General Contractor is to provide a temporary interior protection containment barrier to prevent lead scrapings and dust particles for entering building.
- D. Paint scraping is to limited to the entire exterior surface and into the interior side of the opening to the interior sash stop or door stop.
- E. Prime all existing bare wood complete. Prime to be cut 25% with Penetral, to increase penetration.
- F. Use small hand tools and scrapers to prepare surfaces. Sanding and Sandblasting will not be allowed.
- G. In addition to deteriorated wood, contractor is to collect scrapped paint chips and bag; Owner will dispose of collect items.

3.02 PREPARATION FOR ANTI-CLIP COATINGS

- A. For previously painted wood, remove any loose or peeling paint. Wood surfaces must be primed with Vulkem Primer 171.
- B. New wood, ensure wood is clean and free of all foreign matter. Wood surfaces must be primed with Vulkem Primer 171.

3.03 INSTALLATION

- A. Apply as a minimum the specified number of coats of the specified material, but in all cases apply sufficient coats to produce the specified mil. Dry film thickness. Base and undercoats shall be tinted to allow visual distinction from successive and top-coat layers. The finished Work shall be free from runs, drips, sags and all other defects.
- B. Protect property and the Work of other trades and other parts of the buildings against damage caused by painting activity.
- C. Examine surfaces to receive coatings to assure that they are dry, clean, of uniform texture, free of bond inhibiting foreign substances or other conditions that would adversely affect adhesion, protective properties, or coating appearance. Proceeding with the Work shall imply acceptance of the substrate.
- D. Apply finish coats to surfaces under environmental conditions and within the limitations recommended by the material Manufacturer. Minimum ambient air and surface temperature 40 degrees F. for 24 hours before, during and after application, unless otherwise approved by Manufacturer.
- E. Provide masking tape, drop cloths, tarps, barricades, or other forms of protection necessary to safeguard Work of other trades and to preserve other surfaces from drips and spills. Post signs immediately following application of paint. Coordinate with General Contractor and other trades.

- F. Terminate anti-slip coating at stair treads cleanly with straight edge at the bottom edge of the vertical surfaces.

3.04 APPLICATION

- A. Apply paint and coating with suitable brushes or rollers. Paint application with spraying equipment will not be allowed without prior approval. Do not exceed coating Manufacturer's application rate. Comply with Manufacturer's recommended drying time between succeeding coats. Apply finish coats smooth, free of brush marks, streak laps, pile-up, and skipped or missed areas. Leave moldings and ornaments clean and true to detail without excessive coating build-up in corners and depressions. Where paint and coating abuts other materials or colors, cut paint edges clean and sharp with no overlap.
- B. Paint coating shall be so complete that additional coating will not change the color or texture of the painted surface.
- C. Broadcast aggregate to anti-slip coating per manufacturer's requirement method A.

3.05 COMPLETION

- A. After paint and coating Work has been completed, make a detailed inspection of paint finish and touch-up or refinish rejected Work. Carefully remove splatterings of paint materials from adjoining Work. Repair all damages that may be caused by such cleaning operations and other painting activities, at no extra cost to Owner. Remove all implements of service, materials, and debris created by painting activities, from the premises, and leave the entire project in a clean condition.
- B. Upon completion, if required by Owner and or Architect, Manufacturer's representative shall measure paint thickness with Tooke Dry Film Thickness System. Work not conforming to specified dry mil thickness shall be recoated until thickness is that specified herein.

END OF SECTION

26 00 00 - GENERAL ELECTRICAL PROVISIONS**PART 1 GENERAL**

1.01 DESCRIPTION

A. Work Included:

1. Includes all labor, materials, equipment, and services for all required equipment modifications and relocations. To temporarily relocate, replace, and rewire electrical fixtures and conduit in order to accomplish the reroofing Work. Electrical service to building shall not be interrupted without ten (10) days written notice and Owner's approval, and shall be resumed as soon as possible.
2. Cap existing electrical lines where abandoned. Pull wiring and conduit back to closest junction box and terminate.
3. Provide miscellaneous electrical materials as required in the reconnection of existing electrical fixtures to remain.

1.02 QUALITY ASSURANCE

- A. A qualified electrical Contractor shall be employed to accomplish any required modifications to the electrical system.
- B. Code requirements shall be considered a minimum guide for the Work and meet the requirements of National Electrical Code, National Electrical Safety Code, National Fire Protection Association, and regulations of the local serving utility.
- C. All materials to carry a UL label.

PART 2 PRODUCTS

2.01 EXTERIOR LAMPS

A. Manufacturer:

1. Progress Lighting (Type-A)
2. Progress Lighting (Type-B)
3. Visco Inc. (Type-C)
4. Substitutions: Section 01 25 00 - Substitution Procedures

B. Product Description: (Type-A) Adjacent to Door Fixture

1. Light Ashmore Outdoor Wall Mounted Lantern
2. Series: P-5652-31
3. Dimensions: Height – 26-1/4 inches/ Width-8-5/8 inches/ Projection – 12-3/8 inches
4. Number of lamps: 3
5. Lamp Type: Candelabra Base
6. Lamp Wattage: 60w
7. Finish: Texture Black

- C. Product Description: (Type-B) Above Door Fixture
1. Light Ashmore Outdoor Wall Mounted Lantern
 2. Series: P5854-31
 3. Dimensions: Height 15 inches/ Width 6-5/8 inches/ Projection 9-5/8"
 4. Number of lamps: 2
 5. Lamp Type: Candelabra Base
 6. Lamp Wattage: 60w
 7. Finish: Texture Black
 8. Motion Sensor
- D. Product Description: (Type-C) Site Lamp post
1. Post: Visco- Series A
 2. Fixture: Holophane UGV10DHMT6806
 3. Globe: Granville G-V-8N.
 4. Finish: Painted campus standard green.
 5. 12-ft poles, 150 watt metal halide.
 6. 120 volt or 208 volt power only.
 7. One tenon adapter per fixture/pole with a 1/4" 20 thread set screw to fasten the adapter to the tenon.
 8. See Specification Section 26 50 00 for basis of design cut sheets.

2.02 MATERIALS

- A. Provide all appropriate installation material as indicated in manufacturers installation instructions, such as but not limited to: connection to existing lighting controls, recessed mounting outlet box, wiring for power back to J-Box, wire nuts, and waterproofing.
- B. Supports: Provide supports for all electrical equipment designed for loads four (4) times that of the item supported. Conduit supports to be one hole malleable straps by Steel City or Appleton.
- C. Conduit: Above Grade - All wiring to be in approved rigid, galvanized, metal conduit; field painted.
- D. Conduit: Below Grade – Schedule 40, PVC Rigid Nonmetallic Conduit, Listed for underground applications encased in concrete or direct burial, Rated for use with 90°C conductors
1. Conduit: MC Cable – All steel sheathing of interlocking metal type continuous and closefitting with solid copper conductors of the same gauge as required for application.
 2. Wiring: All wiring to be a 750 C rated insulation, copper conductors and color coded.
- E. Provide all necessary miscellaneous items for a complete system.

PART 3 GENERAL

3.01 INSTALLATION

- A. A qualified electrical Contractor shall be employed to accomplish any required modifications to the electrical system.
- B. Connect new wiring to existing circuits. Provide necessary junction boxes and blank covers to provide a complete system.
- C. Cap and terminate existing wiring as required at items which are shown to be removed. .
- E. Coordinate Work with requirements of the new roofing system. Provide connections, as needed.
- F. Lighting placement must allow access to ballasts and lamps for the purpose of replacement and maintenance without damage to surrounding finishes, equipment, etc.
- G. Site placement of lamp poles and trenching for light poles is to be coordinated with tree locations and FS Exterior staff.
- H. Lamp poles junction boxes shall be installed adjacent to exterior post lights.
- I. Lamp pole bases are to be anchored to base footing.
- J. Lamp pole base may have an optional 120 volt receptacle with welded adapter. This receptacle access is to be either (1) a keyed cover, or (2) labeled with panel and circuit location to be turned on and off by appropriate personnel as needed.
- K. Outdoor wall mounted light fixtures to have outlet box recessed in mounting surface. Provide appropriate labor and material to recess outlet box.
- L. Outdoor wall mounted light fixtures to have existing wiring protect for new installation. If existing wiring is not sufficient for new light fixtures, pull new wiring back to J-Box and install new per manufacturers requirements.
- M. All outdoor wall mounted light fixtures must be properly sealed against water intrusion entering the outlet box behind the base plate. At all edges of the base plate connection to mounting surface, must be sealed with latex waterproof caulking.

END OF SECTION

Section 26 50 00 - Lighting continued

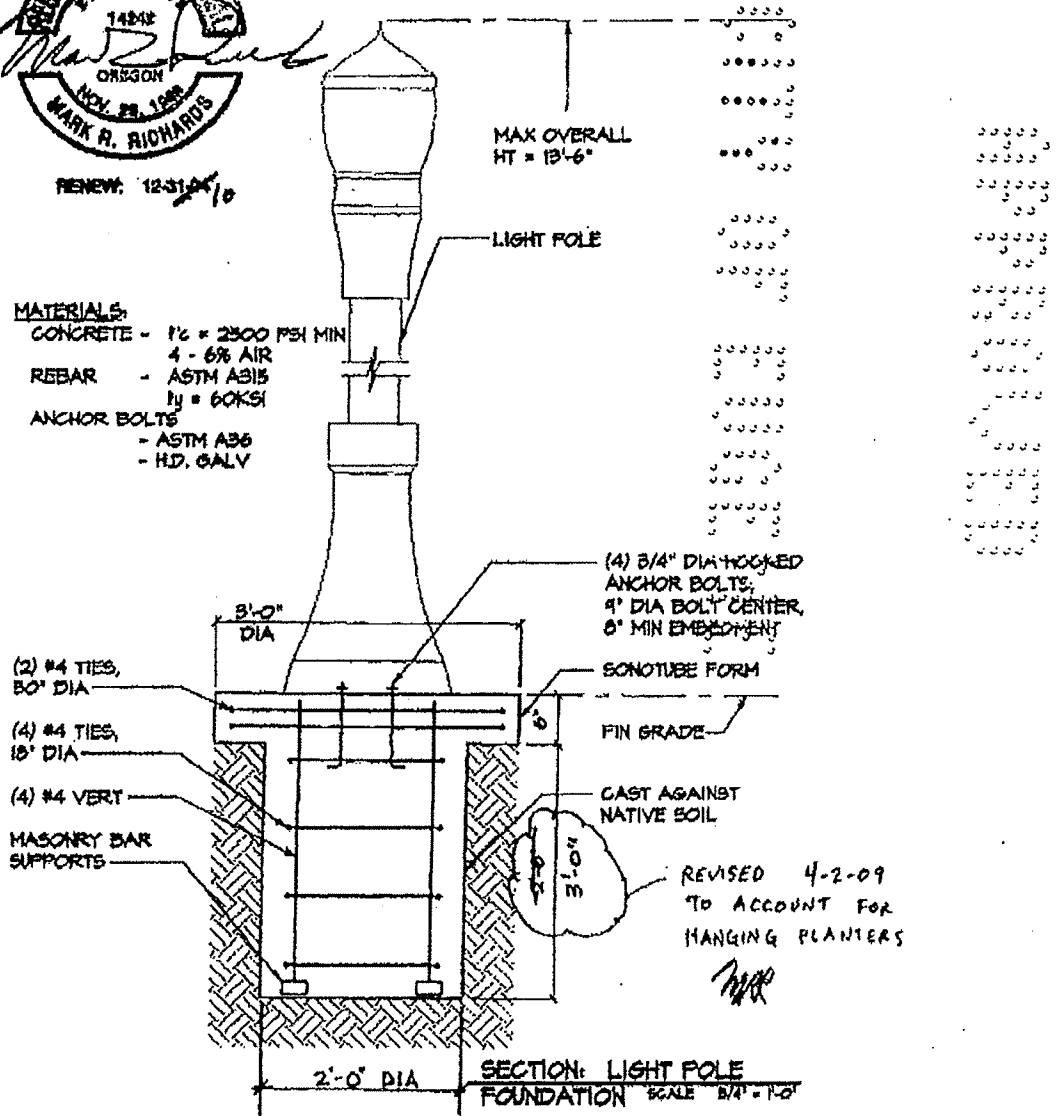
- Basis of design for light pole foundation; consultant review and detailing per project is still required: detail by M.R.Richards Engineering, revised 4-2-2009.

MRR
M. R. RICHARDS ENGINEERING INC
 99 WEST 10th AVENUE, SUITE 303, EUGENE, OR 97401
 541-327-0130 FAX 541-327-0133

PROJECT LIGHT POLE FOUNDATION
 UNIVERSITY OF OREGON
 CALCULATED BY MRR
 DATE 10-21-04 PAGE
 4-2-09 REVISED



MATERIALS:
 CONCRETE - 1/2" = 2500 PSI MIN
 4 - 6% AIR
 REBAR - ASTM A315
 fy = 60KSI
 ANCHOR BOLTS
 - ASTM A36
 - HD. GALV



Section 26 50 00 - Lighting continued

- Basis of design for light pole foundation; consultant review and calculation per project still required: structural calculations by M.R.Richards Engineering, revised 4-2-2009.

MRR
M. R. RICHARDS ENGINEERING INC
 25 WEST 10th AVENUE, SUITE 255 EUGENE OR 97401
 541-687-0128 FAX 541-687-0122

PROJECT LIGHT POLE FOUNDATION
 UNIVERSITY OF OREGON

CALCULATED BY MRR
 DATE 10-21-2009

Revised 4-2-09

LIGHT POLE FOUNDATION

POLE HT 12'-0"
 POLE DIA 6"
 GLOBE DIA 1'-6"
 POLE WT. 100 LBS
 GLOBE WT 100 LBS

WIND OVERTURNING AT 20 PSF WIND

$$M = .02 (.5 \times 12'^2 / 2 + .75 \times 2 \times \pi \times 12.75) = 1.17 \text{ FT-K}$$

$$V = .16 \text{ K}$$

SEISMIC OVERTURNING AT V = .5g

$$M = .5 (.1 \times 6 + .1 \times 12.75) = .94 \text{ FT-K}$$

$$V = .1 \text{ K}$$

WIND GOVERNS

POLE FOUNDATION, NONCONSTRAINED

2'-0" DIA
 3'-0" DEEP
 CLASS 5 SOL. 100 PCF LATERAL BEARING X 1.33 X 2 = 266 PCF

$$A = 2.34 \times .16 / .266 \times 2 = .851$$

$$d = .5 \times (.851) [1 + (1 + 4.36 \times 7.3 / .851)^2] = 2.74' < 3.0 \text{ FT} \therefore \text{OK}$$

ANCHOR BOLTS

3/4" DIA
 9" DIA BOLT CENTER

$$T = M/D = 1.17 \times 12 / 9 = 1.56 \text{ K}$$

3/4" BOLT O.K. FOR 2.7K W/ 5" EMB

(2) FLOWER BASKETS @ 9'-0" HT
 WT = 35 LBS EA
 A = 2.5 SF

$$M_{\text{wind}} = 1.17 + 2 \times \frac{2.5 \times 9'^2 \times .02}{2} = 2.07 \text{ K}$$

$$V_{\text{wind}} = .16 + 2 \times 2.5 \times .5 = 1.26 \text{ K}$$

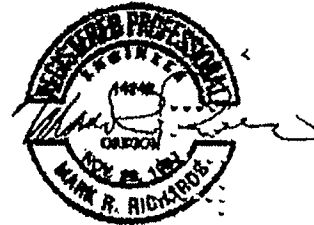
$$M_{\text{seismic}} = .94 + 2 \times \frac{.35 \times 5 \times 9'^2}{2} = 1.26 \text{ K}$$

$$V_{\text{seis}} = .1 + 2 \times 2.5 \times .5 = 1.35 \text{ K}$$

$$A = 2.34 \times 1.26 / .266 \times 2 = 1.14$$

$$d = .5 \times (1.14) [1 + (1 + (4.36 \times 7.96 / 1.14)^2)] = 3.30'$$

USE 3'-6" DEPTH



REVIEW 10-21-09

MRR

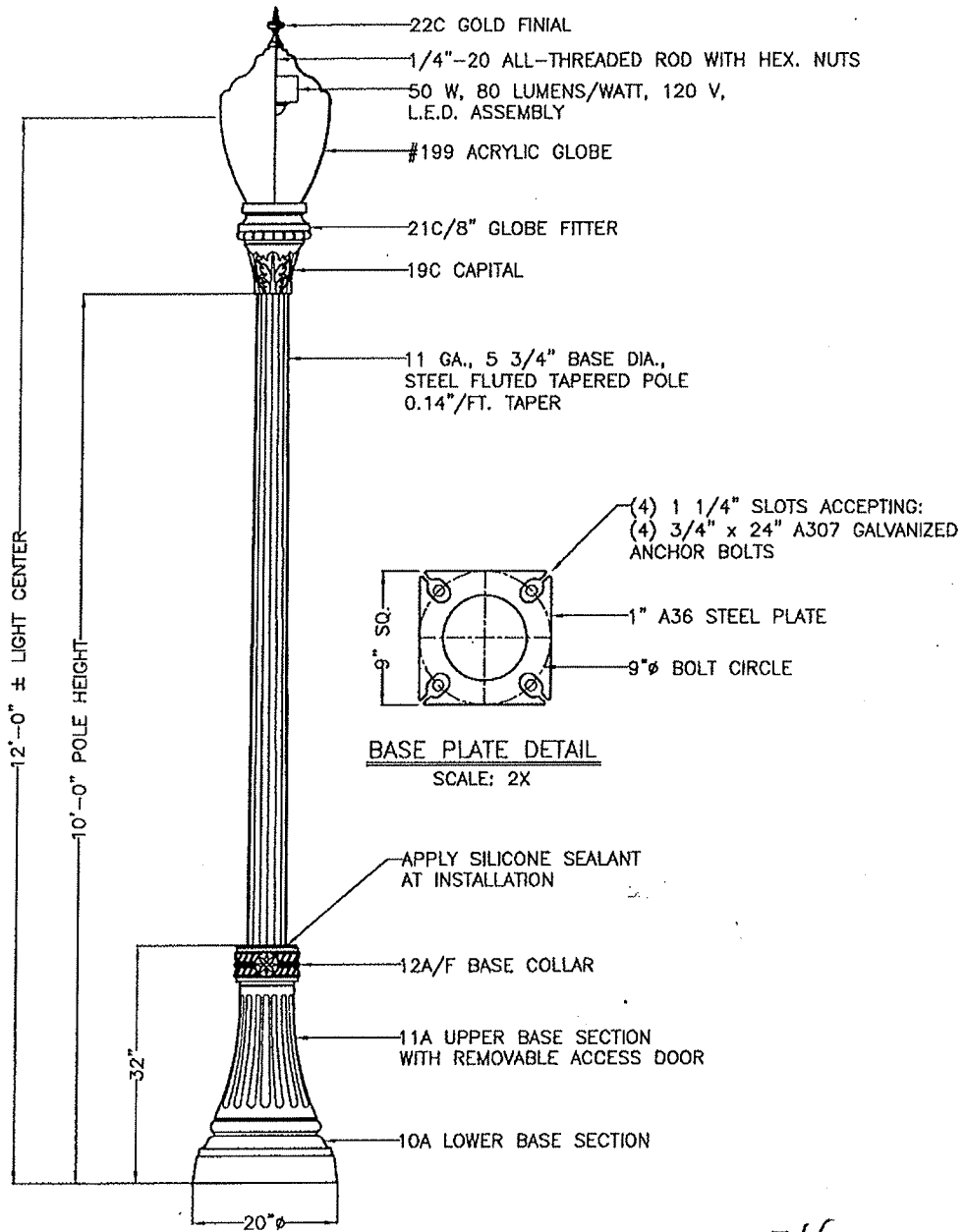
ADDED FLOWERS

End of Section

END OF DIVISION 26

PAINT SPECIFICATION


ALL CAST IRON AND STEEL LIGHT POLE PARTS ARE TO BE FACTORY POWDER COATED "U OF O GREEN RAL #6005".



BASE PLATE DETAIL
SCALE: 2X

VI-A-1-F/10'

10000 4516

PROJECT TITLE:	UNIVERSITY OF OREGON EUGENE, OREGON	
DISTRIBUTOR:		
CONTRACTOR:		
REPRESENTATIVE:		
	SPECIFIED BY:	
	SCALE: 1"=1'	DATE: 4/16/12
	JOB NO.:	CAD FILE: UOFO-42A
<small>29579 AMBREY LAKE EUGENE, OREGON 97402 PHONE (541) 868-7711 FAX (541) 461-0951</small>		

A B C D E F

1

2

3

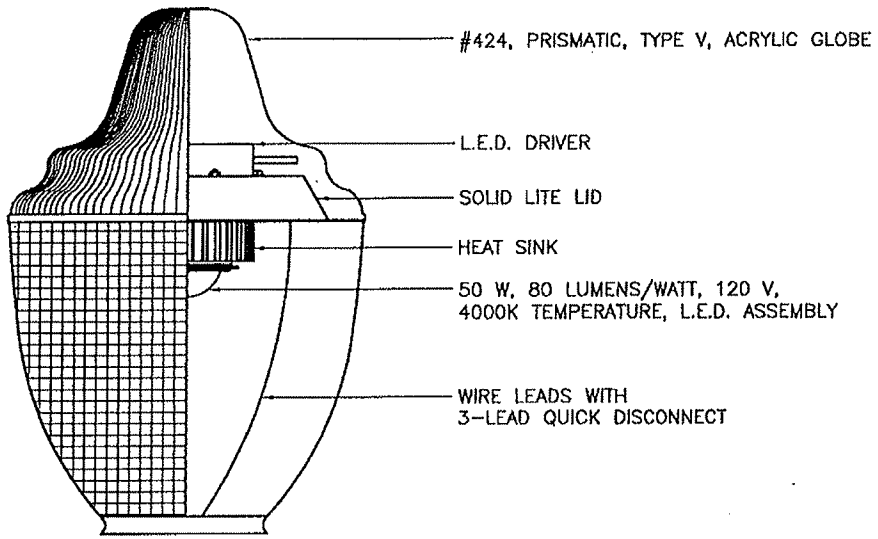
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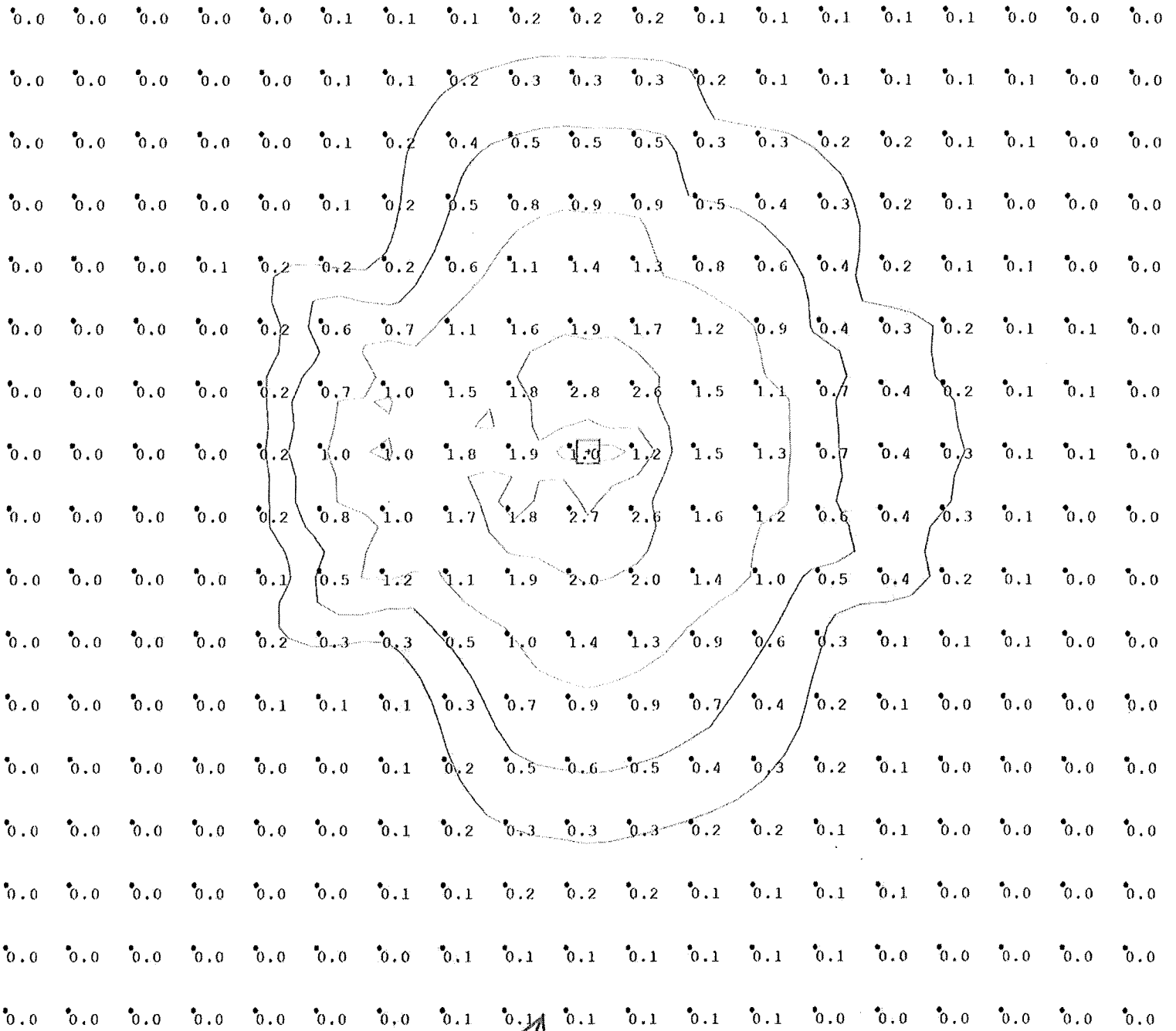
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L.E.D. LUMINAIRE ASSEMBLY

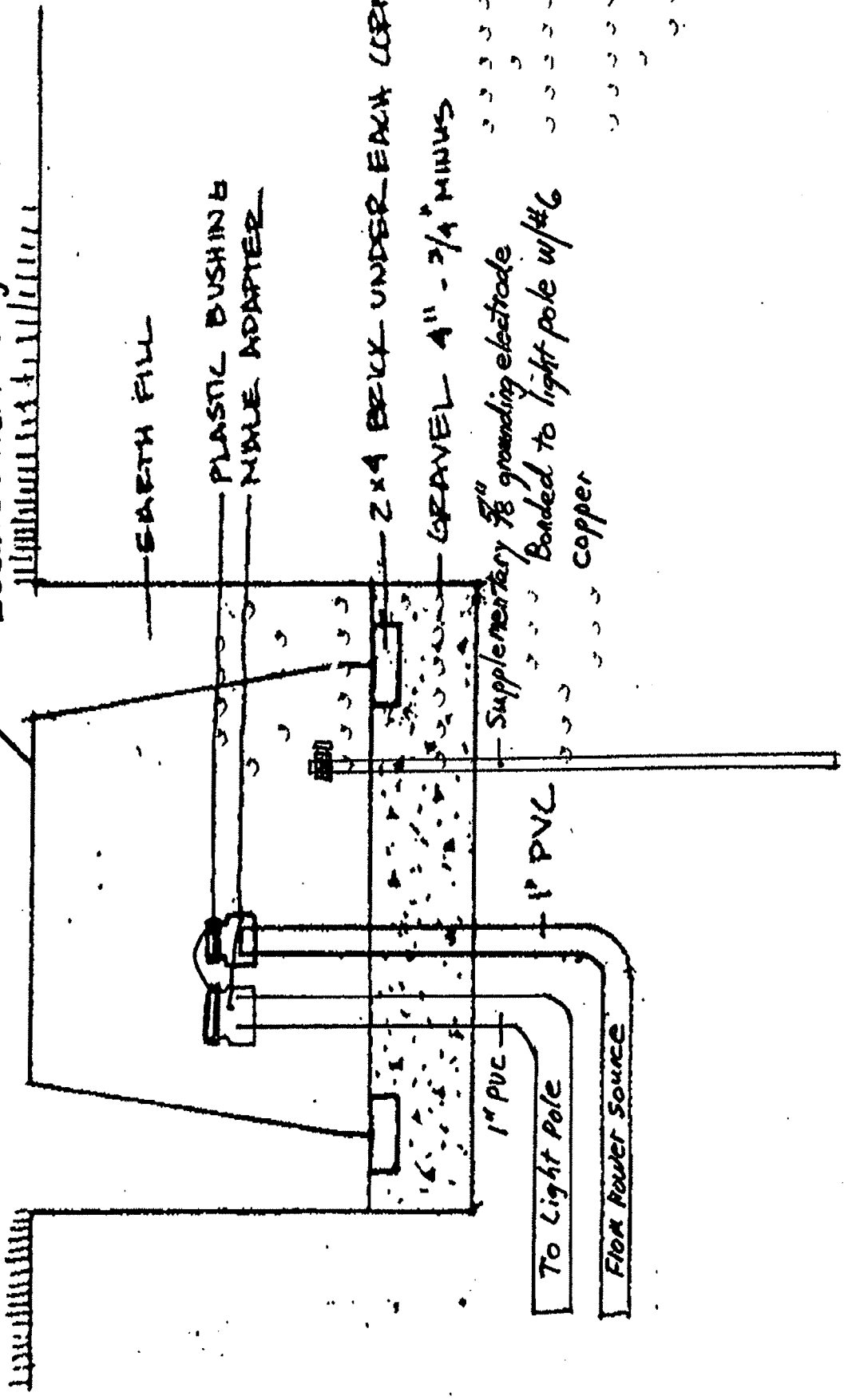
PROJECT TITLE:		UNIVERSITY OF OREGON EUGENE, OREGON	
DISTRIBUTOR:			
CONTRACTOR:			
REPRESENTATIVE:			
	SPECIFIED BY:		
	SCALE: 3"=1'	DATE: 4/16/12	
	JOB NO.:	CAD FILE: UOFO-42B	
29579 ARBORY LANE EUGENE, OREGON 97402 PHONE (541) 888-7741 FAX (541) 461-0931			

A B C D E F



5 feet between
measurements

J-BOX - CARSON #1419-12-4YE
Located next to light pole



EARTH FILL

PLASTIC BUSHING
NIPPLE ADAPTER

2x4 BRICK UNDER EACH CORNER

GRAVEL 4" - 3/4" MINUS

Supplementary #8 grounding electrode

Bonded to light pole w/#6

Copper

1" PVC

To Light Pole

Floor Power Source

STRUCTURAL CALCULATIONS



TM RIPPEY
CONSULTING ENGINEERS

7650 SW Beveland Street
Suite 100
Tigard, Oregon 97223

Phone: (503) 443-3900
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HENDRICK'S HALL EXTERIOR STAIR
Calculation Index
Project #10215
August 2010

SUBJECT

SHEET NUMBERS

Footings

F-1

Porch Framing

P-1

Roof Framing

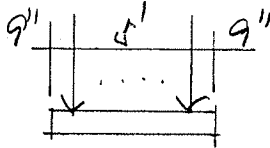
R-1



EXPIRES: 12-31-10

DESIGN FOOTINGS

Footings AT WSK



$$P: \text{Prop} = (.05 + .01) 2.5 (3.5) = .53$$

$$\text{Bent} = (.065 + .1) 2.5 (2.5) = 1.14$$

$$\underline{1.67}$$

$$\text{TOTAL A} \approx 1.67 (2) = 3.34$$

1 Post

$$L \approx 3.34 / .75 = 4.5' < 6.5'$$

$$\text{Min Post} = 1 (1.5) 5 \frac{2}{8} = 4.5 \text{ k} / \frac{16 \times 9}{12000} = 25$$

$$A \approx 4.7 / 16 (9.4) \times 1.6 = .09$$

Use 2-#3

Front Post Footings

$$P: \text{Prop} = .06 (2) 3.5 (3.5) = 1.02$$

$$\text{Bent} = .165 (2.5) 2.5 = 1.13$$

$$\text{atm} = .14 (2.5) 3 = 1.05$$

$$\frac{3.2}{1.5} = 2.13$$

1.65' ϕ

POUCH of STAIR FRAMING

Deck

5'-6" span

$$w: DL = .065 (1.2) = .078$$
$$L = .1 (1.6) = .16$$
$$.24$$

$$M_u = .24 (5.5)^2 / 8 = 1k$$

$$k_u \geq 1 / \frac{3.5^2}{1000} = 8.2$$

$$A_s \geq \frac{1}{3.5 (4.2)} \times 1.3 = .09 \#$$

#4 @ 12" oc

#3 @ 6" oc

BEAMS

6' ERG

$$w = .12 (3) = .36$$

$$M = .36 (6)^2 / 8 = 2.4 (12)$$
$$2.4 = 1.3$$

$$I \geq \frac{5 (.36) 6^4 12^3}{384 E 1360} = 3 \quad C6 \times 8.2$$

DESIGN ROOF FRAMING

JOISTS

$$W = (.05 + .01) 2 = .12 \text{ k/ft}$$

$$M = .12 (5.33)^2 / 8 = .43 \text{ k}$$

$$S = .5 (12) / (.9 (1.15)^2 1.3) = 4 \text{ in}^3$$

USE 2x6 DFC #2 @ 24" oc

BEAMS

FRONT HON

$$W = .06 (7) 3.5 = .4 \text{ k/ft}$$

$$M = .4 (5.5)^2 / 8 = 1.6 \text{ k (12)} / (.9 (1.15)^2 1.3) = 15 \text{ in}^3$$

4x6 DFC #2

DESIGN DRAWINGS

