COMPREHINSIVE RESERVE
INVITATION TO BID (ITB) #2022-008570

RESER STADIUM EAST LOGE RENOVATION

ISSUE DATE: April 21, 2022

MANDATORY PRE-BID CONFERENCE AND SITE VISIT:
April 29, 2022 at 1:00 PM Pacific Time (PT) in the East Loge (Second floor, 221; accessed at Gate C) at Reser Stadium at 700 SW 26th Street, Corvallis, OR 97331

BID DUE DATE/TIME: May 19, 2022 at 1:00 pm
Via electronic submission to bids@oregonstate.edu

QUESTION DEADLINE: May 4, 2022 at 10:00 am

PROJECT NUMBER: 2362-22

CONTRACT ADMINISTRATOR:
Shoshana Shabazz, Purchasing Analyst
Construction Contracts Administration
Oregon State University
Corvallis, OR 97330
644 SW 13th St.
Phone: 541-737-0922
Email: ConstructionContracts@oregonstate.edu

AWARD DECISION APPEALS:
Hanna Emerson, Construction Contracts Manager
Construction Contracts Administration
Oregon State University
644 SW 13th St.
Corvallis, OR 97333
Phone: (541) 737-7694
Email: hanna.emerson@oregonstate.edu

It is the Bidder's responsibility to continue to monitor the OSU Business and Bid Opportunities website for Addenda. Failure to acknowledge any Addenda on the Bid Form may cause your Bid to be considered non-responsive.

OSU standards and policies govern this solicitation (Procurement Thresholds and Methods, Procurement Solicitations and Contracts) unless otherwise referenced or stated.

1.0 INTRODUCTION

1.1 Oregon State University ("**OSU**" and/or "**Owner**") is conducting a competitive Invitation to Bid (ITB) process to retain one (1) firms to provide a renovation to the East Loge, of Founders Loge, at Reser Stadium located on the OSU campus in Corvallis, OR (the "**Project**").

OSU is seeking Bids only from firms accepted into OSU's 2019-2023 Construction Related Services Reserve Contracting Program. Firms not currently in the Reserve Program can apply for entry into the program by responding to the RFQ contained at the following link: https://bid.oregonstate.edu/

OSU WILL ONLY BE ACCEPTING SEALED BIDS ELECTRONICALLY - Bids are to be submitted to bids@oregonstate.edu by the Due Date/Time.

MANDATORY SITE-VISITS – Mandatory -Visits shall take place April 29, 2022 at 1:00 PM in the East Loge (Second floor, 221; accessed at Gate C) at Reser Stadium at 700 SW 26th Street, Corvallis, OR 97331. Parking and building location information can be found at www.oregonstate.edu. Campus Safety Policies for Face Covering and Physical Distancing requirements related to Covid-19 are located at https://covid.oregonstate.edu/safety-policies.

All questions shall be submitted via e-mail to constructioncontracts@oregonstate.edu by the Question Deadline in order to be addressed. The email subject line should contain the Solicitation Number/Name and Firm Name.

1.2 Background. Oregon State University in Corvallis, OR is located within the traditional homelands of the Mary's River or Ampinefu Band of Kalapuya. Following the Willamette Valley Treaty of 1855 (Kalapuya etc. Treaty), Kalapuya people were forcibly removed to reservations in Western Oregon. Today, living descendants of these people are a part of the Confederated Tribes of Grand Ronde Community of Oregon (https://www.grandronde.org) and the Confederated Tribes of the Siletz Indians (https://ctsi.nsn.us).

Founded in 1868 as Oregon's land grant institution, OSU serves the state, the nation and the world as a premier 21st-century research university. OSU is committed to exceptional research, discovery, innovation and engagement — and to integrating its research and engagement mission with the delivery of a high-quality, globally relevant and affordable education for the people of Oregon and beyond. OSU is one of only two land, sea, space and sun grant universities in the U.S. and is the only university in Oregon to have earned both Carnegie Classifications for Very High Research Activity and Community Engagement.

The university's 570-acre main campus is located in the city of Corvallis, a vibrant college town of nearly 58,000 in the heart of Western Oregon's Willamette Valley. Corvallis consistently ranks among the safest, most highly educated and greenest small cities in the nation.

1.3 Location. Reser Stadium. Specific building information may be available here: https://guides.library.oregonstate.edu/buildings

1.4 Summary of Work. Renovation to the East Loge, of Founders Loge, at Reser Stadium.

1.5 Scope of Work.

Work consists of replacing most finishes except existing wood; replacing some materials at the bar and fireplace as noted in the drawing set. Lighting is replaced or relamped, but ceiling tile and soffits are to remain. There are some additional finishes that include a centrally located wood slat ceiling treatment, built in banquettes and attachments to the partitions in the exterior viewing boxes.

2.0 SCHEDULE

Issue Date	April 21, 2022
Mandatory	April 29, 2022 at 1:00 PM Pacific Time (PT) in the East Loge (Second floor, 221; accessed at Gate C) at Reser Stadium at 700 SW 26th Street, Corvallis, OR 97331
Question Deadline	May 4, 2022 at 10:00 am
Final Addendum Issuance (if necessary)	May 11, 2022
Bid Due Date/Time	May 19, 2022 at 1:00 pm

The following dates are tentative and subject to change without notice:

Notice of Intent to Award	May 23, 2022
Estimated Contract execution	June 6, 2022
Estimated Notice to Proceed	June 8, 2022
Estimated Substantial Completion	August 1, 2022
Estimated Final Completion	September 1, 2022

OSU will make every effort to adhere to the above schedule. It is however, subject to change.

3.0 QUESTIONS, SOLICITATION REVISION REQUESTS, CHANGE OR MODIFICATION, APPEALS

3.1 Questions.

3.1.1 All questions and contacts with OSU regarding any information in this ITB must be addressed in writing via email to constructioncontracts@oregonstate.edu no later than the **Question Deadline** as stated in Section 2.0.

3.2 Solicitation Process Revision Requests.

3.2.1 Bidders may submit a written request for change of particular solicitation provisions and/or contract terms and conditions to the **Construction Contracts Manager** at the address or email listed in this document. Such requests for change shall be received no later than the **Question Deadline** listed above.

3.2.2 Such requests for change shall include the reasons for the request and any proposed changes to the solicitation provisions, specifications and/or contract terms and conditions.

3.3 Change or Modification.

3.3.1 Any change or modification provided by OSU for this ITB or the documents included as exhibits to this ITB shall be made by a duly issued Addendum made available to all firms on the **OSU Business and Bid Opportunities** website. It is the responsibility of each firm to visit the website and download any addenda to this ITB. No information received in any manner different than as described herein shall serve to change the ITB in any way, regardless of the source of the information.

3.4. Appeals.

3.4.1 Appeals related to the OSU solicitation process and award decisions and actions shall be pursuant to OSU Standards ***(Procurement Thresholds and Methods, Procurement Solicitations and Contracts).*** All written appeals must be delivered to the **Construction Contracts Manager**, at the address given in this ITB.

4.0 PUBLIC RECORD

4.1 Owner will retain this ITB and one copy of each bid received, together with copies of all documents pertaining to the award of a contract. These documents will be made a part of a file or record, which shall be open to public inspection after Owner has announced its intent to award a contract. If a bid contains any information that is considered a trade secret under ORS 192.345(2), you must mark each trade secret with the following legend: **"This data constitutes a trade secret under ORS 192.345(2), and shall not be disclosed except in accordance with the Oregon Public Records Law, ORS Chapter 192."**

4.2 The Oregon Public Records Law exempts from disclosure only bona fide trade secrets, and the exemption from disclosure applies only "unless the public interest requires disclosure in the particular instance."

4.2.1 Therefore, non-disclosure of documents or any portion of a document submitted as part of a proposal may depend upon official or judicial determination made pursuant to the Public Records Law.

4.3 In order to facilitate public inspection of the non-confidential portion of the proposal, material designated as confidential shall accompany the proposal, but shall be readily separable from it. Prices, makes, model or catalog numbers of items offered, scheduled delivery dates, and terms of payment shall be publicly available regardless of any designation to the contrary. Any proposal marked as a trade secret in its entirety shall be considered non-responsive and shall be rejected.

5.0 FORM OF AGREEMENT

A sample copy of the standard Reserve Supplement is included as an exhibit and contains contract terms and conditions applicable to the work. The sample contract may contain certain notes or alternative provisions. Those alternative provisions will be included at the sole discretion of the Owner.

6.0 BUREAU OF LABOR AND INDUSTRIES (BOLI) PREVAILING WAGES

In compliance with Oregon Prevailing Wage Law, the following is incorporated into this ITB:

The Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates (PWR) as outlined in Sections C.1 and C.2 of the General Conditions. The resulting Contract is subject to the following BOLI PWR requirements, which are incorporated herein by reference:

- April 1, 2022 Prevailing Wage Apprenticeship Rates
- April 1, 2022 Prevailing Wage Rates Amendments
- January 1, 2022 Prevailing Wage Rates for Public Works Contracts in Oregon
- July 1, 2018 Definitions of Covered Occupations for Public Works Contracts in Oregon

These BOLI PWR are available on line at: https://www.oregon.gov/boli/employers/Pages/prevailing-wage-rates.aspx

7.0 INSTRUCTIONS TO BIDDERS

7.1 Summary of Work. The Work contemplated in this document shall be for the Owner in connection with the Project described in the Summary of Work in Section **1.0** of this document.

7.2 Pre Bid Conference and Site Visit.

7.2.1 The Bidder must attend the mandatory Pre-Bid Conference and Site Visit,. Bids will not be accepted from those firms who have not had a representative attend the Mandatory Pre-Bid Conference and Site Visit. Attendance will be documented by checking in with the **Contract Administrator** at the beginning of the Conference. Prime Bidders will be required to check in and provide their name, firm name, and email address to the **Contract Administrator** at the beginning of the Pre-Bid Conference and Site Visit. Attendance will be documented by OSU. Bidders who arrive more than five (5) minutes after the start time of the meeting (as stated in this ITB and by OSU's clock) or after the discussion portion of the meeting, (whichever comes first) will not have their attendance documents and will have their Bid rejected.

7.2.2 In any event, the Bidder shall examine the Work site to ascertain its physical condition. 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 and conditions of the Contract Documents.

7.2.3 The Bidder shall be responsible for being fully informed as to the quality, quantity and sources of supply of the materials listed within the documents included as exhibits to this ITB.

7.2.4 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.

7.2.5 No statement made by any officer, agent, or employee of the OSU in relation to the physical conditions pertaining to the Work site or quality, quantity, and supply of materials will be binding on the OSU, unless included in writing in the documents included as exhibits to this ITB or an Addendum.

7.2.3 Date and Time of the Pre-Bid Conference and Site Visit is located on the cover sheet of this ITB.

7.2.4 Should on campus site visits occur, Campus Safety Policies for Face Covering and Physical Distancing requirements related to COVID-19 are located here: https://covid.oregonstate.edu/safety-policies

7.3 Brand-Name Specification. To establish a basis of quality, certain processes, types of machinery and equipment or kinds of materials may be specified in the documents included as exhibits to this ITB 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 name, brand or item designation is 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.

7.4 Substitution Approval Process.

7.4.1 Prior to submitting a Bid that contains a Substitution, the Bidder must first seek approval of the Substitution from the Owner by submitting a written request to the **Contract Administrator** for approval prior to the deadline for questions as stated in this Solicitation.

7.4.2 Substitution requests shall be submitted in accordance with Division 01 requirements.

7.4.3 Only approved Substitution requests will be acknowledged via Addendum(a) to this ITB and shall become a part of the documents included as exhibits to this ITB. When approved, it is with the understanding that the substituted article or material is of equal or better value and utility than the one specified.

7.5 Execution of the Bid Form.

7.5.1 The Bid Form is hereby defined as the form furnished by Owner to be completed by Bidder.

7.5.2 The Bid Form relates to Bids on this ITB. Only the amounts and information asked for on the Bid Form 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 documents included as exhibits to this ITB. Bids that fail to address alternates set forth on the Bid Form may be considered non-responsive.

7.5.3 Each Bid Form must: 1) Be completed in accordance with these instructions; 2) Include the appropriate signatures as noted on the Bid Form; and 3) Include numbers pertaining to the Base Bid(s) stated both in writing and in figures.

7.5.4 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".

7.5.5 When Bidding on unit prices, quantities stated on the Bid Form are estimates and are included for the purpose of award of a Contract. In the event of a discrepancy between unit prices and extensions, the unit price shall govern.

7.5.6 Incomplete Bids may be rejected.

7.5.7 Bids that contain conditions not provided for on the Bid Form may be rejected.

7.5.8 Bids that contain ambiguities may be rejected.

7.5.9 With the exception of filling in the required fields on the Bid Form, no other alterations to the Bid Form shall be made.

7.6 Submission of Bid.

7.6.1 Submit **one (1) electronic version via** email to be received by the Due Date/Time listed in this Document to bids@oregonstate.edu as stated in this ITB.

7.6.2 All Bids must be received by the OSU before the Due Date/Time. OSU's official clock shall prevail in any time conflict. Any Bid received after the Due Date/Time will be rejected and will be retained and made part of the Owner's archive records in accordance with OSU Standards.

7.7 Opening of Bids. At the time of opening and reading of Bids, each Bid received, irrespective of any irregularities or informalities, may be publicly opened and read aloud.

7.8 Acceptance or Rejection of Bids by OSU.

7.8.1 The procedures for Contract awards shall be in compliance with the provisions of OSU standards and policies adopted by the Owner.

7.8.2 The Owner reserves the right to reject any or all Bids and to waive minor informalities.

7.8.3 Unless all Bids are rejected, the Owner will award the Contract(s) based on the lowest responsive Bid from a responsible Bidder. If that Bidder does not execute the Contract(s), the Contract(s) will be awarded to the next lowest responsive Bid from a responsible Bidder or Bidders in succession, provided this ITB is not cancelled under the provisions of OSU standards and policies adopted by the Owner.

7.8.4 The Owner reserves the right to hold the Bid of the three lowest Bidders for a period of sixty (60) Days from the time of Bid opening pending Award of the Contract.

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

7.8.5.1 When alternates are included on the Bid Form, they may be exercised at the sole discretion of the Owner within sixty (60) Days of the Effective Date of the Contract, unless extended by written mutual agreement of the Parties.

7.8.5.2 The Owner has the right to accept alternates without regard to order or sequence; but, such acceptance must not deliberately impair the selection of a low, responsible and responsive Bidder to whom the Contract would be awarded under an equitable bid procedure.

7.8.6 If Owner has not accepted a Bid within sixty (60) Days after the opening of the Bids, each of the three lowest Bidders may withdraw the Bid submitted.

7.9 Withdrawal of Bid.

7.9.1 At any time prior to the Due Date/Time Bidder may withdraw its Bid in accordance with OSU Standards. This will not preclude the submission of another Bid by such Bidder prior to the Due Date/Time.

7.9.2 After the Due Date/Time, Bidders are prohibited from withdrawing their Bid, except as provided by OSU Standards.

7.10 Execution of Contract, Agreement, Performance Bond and Payment Bond

7.10.1 The Bidder shall be required to execute the Contract as provided, and, if applicable, deliver a Performance Bond and a Payment Bond from a surety company licensed to do surety business in the State of Oregon within time period contained in the Award letter. The Contract Documents shall be delivered to the Owner in the manner stated in the Award letter.

7.11 Public Works Bond. At the time of submission of its Bid, each Bidder shall have on file with the Construction Contractors Board a public works bond required by ORS 279C.836, unless otherwise exempt under that statute. Failure to have on file a public works bond at the time of submission of the Bid may result in rejection of the Bid as non-responsive.

7.12 Equity Contracting. Owner will require the successful Contractor to comply with OSU Standards, policies, rules and procedures requiring good faith efforts in subcontracting with minority, women, emerging small business or service-disabled veteran owned business enterprises.

8.0 MISCELLANEOUS

8.1 Financial Responsibility.

8.1.1 OSU reserves the right to investigate, at any time prior to execution of the Contract, the Bidder's financial responsibility to perform the anticipated services. Submission of a Bid will constitute approval for OSU to obtain any credit report information OSU deems necessary to conduct the evaluation. OSU will notify Bidders, in writing, of any other documentation required, which may include, but need not be limited to: recent profit-and-loss history; current balance statements; assets-to-liabilities ratio, including number and amount of secured versus unsecured creditor claims; availability of short and long-term financing; bonding capacity and credit information. Failure to promptly provide this information may result in rejection of the Bid.

8.1.2 OSU may postpone the selection of apparent successful Bidder or execution of a contract in order to complete its investigation and evaluation. Failure of a firm to demonstrate financial responsibility may render it non-responsible and constitute grounds for Bid rejection.

8.2 Project Termination.

8.2.1 OSU reserves the right to terminate the Project or contract during any phase in the Project.

8.3 Insurance Provisions. During the term of the resulting contract, the awardee will be required to maintain in full force, at its own expense, from insurance companies authorized to transact the business of insurance in the state of Oregon, each insurance coverage/policy as set forth in the contract.

8.4 Nondiscrimination. By submission of a Bid, the Bidder certifies under penalty of perjury that the Bidder will not discriminate against minority, women, emerging small business or service-disabled veteran owned business enterprises in obtaining any required subcontracts.

8.5 AA/EEO Employer. OSU is an AA/EEO employer.

8.6 Compliance with Applicable Law. Bidder agrees to comply with all federal, state, county, and local laws, ordinances, and regulations as well as all applicable OSU Standards and Policies while on campus.

8.6.1 Smoke and Tobacco Free Campus. OSU's grounds and premises are smoke and tobacco free. Contractor and Contractor's employees, agents, Subcontractors, if any, agree not to smoke or use tobacco products while on OSU property.

8.6.2 Sexual Misconduct Policy. OSU has policies that prohibit sexual misconduct against members of the university community and in keeping with those policies Contractor and Contractor's employees, agents, and Subcontractors are prohibited from engaging in sexual misconduct against members of the university community.

8.6.3 Firearms Policy. OSU has adopted a policy that prohibits Contractor and Contractor's employees, agents and Subcontractors from possessing firearms on OSU's property.

8.7 Background Checks. Reser Stadium is designated as critical, occupied or security-sensitive facilities. Thus, the selected Contractor shall conduct criminal background checks, including sex offender registration checks, (for both: Oregon at a minimum, and national for Contractor employees that formerly lived outside of the state of Oregon) on each Contractor employee and agent with satisfactory results before referral or placement at any Owner work location. Contractor must perform the criminal background checks within the twelve (12) months immediately preceding referral or placement at any Owner work location.

Disqualifying crimes include 1) felony convictions of any kind within the last eight (8) years, 2) all crimes involving weapons of any kind ever committed, 3) all person to person crimes involving physical injury to another person ever committed, 4) sexual offenses of any kind ever committed, including stalking, and 5) child abuse, molestation, child pornography or other crimes involving child endangerment, including neglect and abandonment of any kind ever committed.

Contractor shall require Contractor's employees and agents to self-disclose to Contractor any new convictions that occur within three business days of the conviction. Contractor shall reassess the individual's assignment under the Contract.

The Owner, at its discretion, may require Contractor to reassign a Contractor employee or agent to no longer perform work under the Contract or for the Owner if, at any time, Owner believes that the Contractor employee or agent may create a danger to health or safety of the university community.

Contractor is solely responsible for complying with all applicable federal, state or local laws, rule and regulations, including but not limited to the Fair Credit Reporting Act and equal opportunity laws and regulations, when conducting background checks. The costs and Fair Credit Reporting Act obligations for criminal background checks are the responsibility of Contractor.

Contractor shall maintain a security log including a list of Contractor employees working in, accessing, or who will enter Owner critical, occupied or security-sensitive facilities; verification of each Contractor employee's satisfactory and unsatisfactory results of criminal background checks; each Contractor employee's site assignment; and each revocation of a Contractor employee's site assignment. Contractor shall update and maintain the security log during the duration of the contract and twenty-four (24) months after. Contractor shall provide Owner with access to the security log for audit and copying purposes within twenty-four (24) hours of Owner's request.

Contractor shall require Contractor's subcontractors and agents providing services under the Contract to comply with this provision. The Owner may audit Contractor's background check processes at any time to ensure compliance with this section. Failure of Contractor to comply with this section is a material breach of the resulting Contract and may result in the Owner seeking monetary damages or pursue other remedies, Contractor termination by the Owner without further liability or obligation, or both. Contractor shall indemnify, defend and hold harmless the Owner and its directors, agents, trustees and employees from all claims, suits, and actions arising out of or related to any and all claims relating to the conducting of such checks and any adverse action that may be taken as a result of such checks.

9.0 EXHIBITS

Exhibit A- Bid Form
Exhibit B- Sample OSU Reserve Contract Supplement
Exhibit C- Oregon State University General Conditions for Reserve Contracts
Exhibit D- Sample Payment Bond
Exhibit E- Sample Performance Bond
Exhibit F- MWESB Project Contract Report Instructions and Report
Exhibit G- Specifications, drafted DECA Architects dated April 2022
Exhibit H- Drawings, stamped by Deca Architecture, Inc. dated April 14, 2022
Exhibit I- Drawings, stamped by Diversified dated March 25, 2022
Exhibit J- Addenda (if and when applicable)

End of ITB

Oregon State University

BID FORM

ITB NUMBER & NAME: #2022-008570, Reser Stadium East Loge Renovation

BID DUE DATE AND TIME: _____
(fill in)

FROM: _____
(Name of Contractor)

TO: Oregon State University ("Owner")
Construction Contracts Administration
644 SW 13th Street
Corvallis, Oregon 97333

1. The Undersigned 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 Base Bid as follows:

_____ Dollars ($_____)

and the Undersigned agrees to be bound by the documents either contained in or incorporated by reference in the Invitation to Bid and ADDENDA numbered ____ through____, inclusive. ***(fill in blanks)***

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:

Alternate 1: Remove existing tile form the north and south end walls at restroom entries; replace as directed in drawings.	**(circle one)**	ADD/DEDUCT:	$	_____
Alternate 2: Prince the bar top material as LG Hausys, Aria.	**(circle one)**	ADD/DEDUCT:	$	_____
Alternate 3: With 9Wood as a basis for WC-1, provide alternate pricing to furnish and install as a custom-made treatment.	**(circle one)**	ADD/DEDUCT:	$	_____
Alternate 4: Cost for material at drink guards to be ¼" thick tempered glass.	**(circle one)**	ADD/DEDUCT:	$	_____

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

3. 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 or its surety on any Bid security furnished with the Bid and will not be communicated to such person prior to the official opening of the Bid.

4. 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 wages.

5. Contractor's CCB license number is _____. As a condition to submitting a Bid, Contractor must be licensed with the Oregon Construction Contractors Board in accordance with ORS 701.021 to 701.128, and disclose the license number. Failure to be licensed and disclose the number will render the Bid unresponsive and it will be rejected, unless contrary to federal law.

6. The Bidder hereby certifies that all subcontractors who perform construction work as described in ORS 701.005(5) are licensed with the Construction Contractors Board in accordance with ORS 701.021 to 701.128 at the time the Bid is submitted.

7. Contractor's Project Manager for this project is: _____,

Email:_____ Cell Phone:_____

8. The Undersigned agrees, if awarded the Contract, to deliver to Owner, 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.

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

NAME OF FIRM: _____

ADDRESS: _____

_____

FEDERAL TAX ID: _____

TELEPHONE NO: _____

EMAIL: _____

SIGNATURE: _____
Authorized Signature

_____
Printed Name

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

OSU RESERVE CONTRACT SUPPLEMENT
OSU RESERVE CONTRACT FOR CONSTRUCTION RELATED SERVICES
SUPPLEMENT NO.: OSU-XXX-C-18-XX
PROJECT NAME

This OSU Reserve Contract Supplement dated XXXX (the "Supplement") is entered into between:

"Contractor":

and "Owner": Oregon State University
Construction Contracts Administration
644 SW 13th Street
Corvallis, OR 97333-4238

(collectively the "Parties") pursuant to the OSU Reserve Contract for Construction Related Services between the Parties (the "Reserve Contract"). Capitalized terms have the meaning defined in the General Conditions unless otherwise defined in the Reserve 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 in the firm, fixed-price amount of $XXXXX.XX in accordance with the requirements of the General Conditions.

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 $2,000,000 or the maximum allowable under OSU standards and policies.

Contractor hereby agrees that the Work set forth in this Supplement may continue beyond the Term of the Reserve Contract and will be performed through final completion of Contractor's Work, including completion of all warranty work. The Parties expressly agree that they may execute a Supplement Amendment and extend the date which Contractor's Work may be completed, which may include a date beyond the Term of the Reserve Contract.
Termination or suspension does not extinguish or prejudice Owner's right to enforce the Supplement with respect to any breach by the Contractor that has not been cured.

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

Contractor hereby agrees that the Work set forth in this Supplement may continue beyond the Term of the Reserve Contract and will be performed through final completion of Contractor's Work, including completion of all warranty work. The Parties expressly agree that they may execute a Supplement Amendment and extend the date which Contractor's Work may be completed, which may include a date beyond the Term of the Reserve Contract.

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 $150,000 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 apply to this Project. 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 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, XXXX, as amended XXXX9, which can be downloaded at the following web address:

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

The Work will take place in XXXX, Oregon.

8. INSURANCE REQUIREMENTS.

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

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

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

10. 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 Reserve 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	Oregon State University, Owner
Print Name:_____	Print Name: Anita Nina Azarenko
Signature: _____	Signature: _____
Title: _____	Title: Associate Vice President University Facilities, Infrastructure and Operations
Date: _____	Date: _____

OREGON STATE UNIVERSITY
GENERAL CONDITIONS
FOR RESERVE CONTRACTS

January 31, 2019

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

TABLE OF SECTIONS

OREGON STATE UNIVERSITY
GENERAL CONDITIONS FOR RESERVE CONTRACTS
("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 codified 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 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.

CONSTRUCTION SCHEDULE, means the schedule prepared by the Contractor in CPM format and approved by the Owner, and all adjustments thereto approved by the Owner, that describes sequence and timing of the Work.

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 Reserve Contract, General Conditions, Supplemental General Conditions if any, Supplements, the accepted Offer, Plans, Specifications, Change Orders, Amendments, Construction Change Directives, Solicitation Document and addenda thereto, Instructions to Offerors, and Supplemental Instructions to Offerors, the Construction Schedule prepared and approved in accordance with the Construction Documents, and all other required Submittals.

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.

CPM, means a critical path method format to be used for the Construction Schedule.

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.

FINAL PAYMENT, means the last payment to the Contractor, including retainage, in connection with the Work.

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 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 an entity who submits a response to a solicitation document.

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 Oregon State University (OSU). 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 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.

PROJECT, means the total design, development and construction of which the Work performed under the Construction Documents may be the whole or a part.

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 General Conditions, recording all Services performed.

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

SOLICITATION DOCUMENT, means a document used in a formal procurement soliciting two or more qualified sources by public notice for the same specifications and requirements.

SPECIFICATION, means a description of the physical, functional, or performance characteristics, or of the nature of the goods, services or construction, including any requirement to be satisfied by a product, material or process indicating, if appropriate, the procedures to determine whether the requirements are satisfied. Specifications may be incorporated by reference and/or may be attached to the Contract.

SUBCONTRACT, means a contract between the Contractor and a subcontractor for the performance of a portion of the Work.

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.3.2.

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.

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. Execution of the Contract by the Contractor is an express representation (1) that the Contractor understands the intent stated herein with respect to the Preconstruction Phase Services, and (2) the Contractor's execution of an Amendment, including the GMP Amendment, shall be an express and unqualified representation that the Contractor understands the intent stated herein and therein.

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 Supplemental General Conditions;

(c) General Conditions;

(d) The Reserve Contract Supplements;

(e) Construction Change Directive;

(f) Division One (General Requirements) of the Specifications;

(g) Detailed Schedules of finishes, equipment and other items included in the Specifications;

(h) Plans and Specifications (other than Division One and the Detailed Schedules to the Specifications);

(i) Large-scale drawings on Plans;

(j) Small-scale drawings on Plans;

(k) Dimension numbers written on Plans which shall prevail and take precedence over dimensions scaled from Plans;

(l) The Solicitation Document, and any addenda thereto;

(m) The Reserve Contract.

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, and confirmed in writing 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. Inspection of the progress, quantity, or quality of the Work done by the Owner, any Owner representative, and public agency, the Architect/Engineer, or any inspector, shall not relieve the Contractor of any responsibility for the compliance of all Work with the Contract Documents.

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 and licenses, except for those specifically excluded in the 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. Owner shall obtain and pay for the general building permit and pay for any specialty permits required for the Work. 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. The Contractor shall pay all royalties and license fees. The Contractor shall defend all suits or claims for infringement of any patent or other proprietary rights and save harmless and blameless from loss, on account thereof, Oregon State University, and its departments, divisions, members and employees.

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 Chapters 659 and 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 701.021 to 701.068 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 952-001-0100. 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 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 Benton 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 on 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 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 written 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

If Owner fails to receive funding, appropriations, allocations or other expenditure authority as contemplated by Owner's budget and Owner determines, in its assessment and ranking of the policy objectives explicit or implicit in Owner's budget, Owner may determine it is necessary to and may terminate the Reserve Contract and or any Reserve Contract Supplements.

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)(c), 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,
(h) Changed conditions.

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%

Notwithstanding the foregoing, the maximum aggregate markup to be billed shall not exceed 10% regardless of the number of subcontract tiers

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.

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. Contractor agrees that this thirty (30) Day notice period is adequate time for it to request and document the amount of additional compensation or adjustment of Contract Time. If Contractor's request for additional compensation or adjustment of Contract Time is not made within the thirty (30) Day time limit, Contractor agrees its 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 timely 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.1.4 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, and the request is timely as set forth herein, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

D.1.5 Contractor agrees that no request or Claim 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.1.6 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 other parts of the Work or the completion of the whole Work within the Contract Time.

(c) Do not impact activities on the accepted CPM Construction 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 that 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 agrees to 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 the conditions differ materially from either the conditions stated in the Contract Documents or those that could reasonably be expected in execution of this particular Contract. If Contractor and 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 agrees it is 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 must 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 agrees to 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, provided Contractor has complied with the requirement in this Section D.2.3. Contractor agrees any Claim it may have is barred if Contractor does not comply with the requirements herein.

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 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. Contractor agrees that, unless the Claim is made in accordance with these time requirements, Contractor voluntarily waived all rights to prosecute its Claim.

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 cope 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.);

(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, or if there will be a Guaranteed Maximum Price (GMP) Amendment, then within ten (10) Days of Contractor's execution of the GMP Amendment. Contractor shall submit annual MWESB Reports on June 30 of each year the Contract is active. Contracts (or GMP Amendments) 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 OSU standards and policies.

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 at Owner's sole discretion and 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 controller of 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 the Owner 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 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.

Contractor shall verify that all mechanical or electrical equipment in the construction areas that may be affected by the Work is in working order and shall notify the Owner, in writing, of any equipment not in working order prior to the start of the Work. Start of Work will be considered as acknowledgement that all equipment is in good working order. Contractor shall be required to restore equipment to its original, or better, condition upon completion of the project.

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, sub-subcontractors of any tier, suppliers, 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 or its Subcontractors, sub-subcontractors of any tier, suppliers, employees or consultants 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, sub-subcontractor of any tier suppliers, a consultant 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 2015, Chapter 279C, 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 General Requirements. The required insurance amounts set forth below do not in any way limit the amount or scope of liability of Contractor under this Contract. The amounts listed indicate only the minimum amounts of insurance coverage Owner is willing to accept to help insure full performance of all terms and conditions of this Contract.

G.3.1.1 Primary Coverage and Non-Contributory Coverage. Insurance carried by Contractor under this Contract shall be primary and non-contributory coverage. The coverages indicated are minimums unless otherwise specified in the Contract Documents.

G.3.1.2 Company Ratings. All policies of insurance must be written by companies having an A.M. Best rating of no less than "A-VII", or equivalent. Owner may, upon thirty (30) days written notice to Contractor, require Contractor to change any carrier whose rating drops below an "A-VII" rating. 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 the Owner.

G.3.1.3 Additional Insured. Each liability policy, except Workers' Compensation and Professional Liability, shall be endorsed to include Owner, its officers, trustees, employees and agents as additional insured 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 insured, 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 insured with minimum limits of $2,000,000 per occurrence and $2,000,000 aggregate. 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.3.1.4 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 remain 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.

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 agrees Owner reserves the right to withhold payment to Contractor until evidence of reinstated or replacement coverage is provided to Owner.

G.3.1.5 Deductibles and Self-insured Retentions. Any deductible, self-insured retention and/or self-insurance in excess of $50,000 may be subject to approval by the Owner in writing.

G.3.2 Workers' Compensation. All employees, including Contractor, that employs subject workers who work under this Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Worker's Compensation coverage, unless such employers are exempt under ORS 656.126. This shall include Employer's Liability Insurance with minimum limits of $1,000,000 each accident; $1,000,000 disease-each employee; and $1,000,000 disease-policy limit. 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 Commercial General Liability. Contractor shall obtain, and keep in effect at Contractor's expense for the term of the Contract, Commercial General Liability Insurance covering bodily injury and property damage in the amount of $2,000,000 per occurrence and $4,000,000 aggregate. 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).

G.3.4 Automobile Liability. Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Automobile Liability Insurance with "symbol 1" coverage (owned, hired and non-owned vehicles). The coverage may be written in combination with the Commercial General Liability Insurance. Contractor shall provide proof of insurance showing minimum limits of $2,000,000 combined single limit. Contractor and its Subcontractors shall be responsible for ensuring that all non-owned vehicles maintain adequate Automobile Liability insurance while on site.

G.3.5 Umbrella Liability. Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Umbrella liability Insurance over and above the Commercial General Liability, Automobile Liability and Employers' Liability insurance coverage with minimum limits of $5,000,000 per occurrence and $5,000,000 aggregate.

G.3.6 Owner may adjust the insurance amounts required in Section G.3.4, G.3.4, and G.3.5 through the issuance of Supplemental General Conditions and a Contract.

G.3.7 Professional Liability. (if required by issuance of Supplemental General Conditions) Contractor shall obtain, at Contractor's expense, Professional Liability/Errors & Omissions insurance covering damages caused by any negligent error, omission, or professional misconduct of the Contractor. The policy may be either a practice based policy or a policy pertaining to the specific Project. Professional Liability insurance shall have minimum limits of $3,000,000 each claim and $3,000,000 aggregate. Contractor shall require that each of its Major Consultants and subcontractors (including structural, civil, mechanical, plumbing, electrical engineering, survey, geotechnical and materials testing) secures and maintains Professional Liability/Errors & Omissions with limits not less than $2,000,000 each claim and $2,000,000 aggregate. All other Consultants and subcontractors not listed above shall have limits not less than $1,000,000 each claim and $1,000,000 aggregate.

G.3.7.1 Tail Coverage. If the Professional Liability 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 certificates of insurance showing 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 certificate of insurance and/or 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.3.8 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 per occurrence and $3,000,000 aggregate, naming Owner as additional insured, as noted in the Additional Insured section.

G.3.9 Builders' Risk Insurance – Completed Value Basis. Unless otherwise provided, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, Builders' Risk Insurance in the amount of the initial Contract Sum, plus value of subsequent modifications, change orders, and cost of material supplied or installed by others, comprising total value of the entire Project at the site on a replacement cost basis without optional deductibles. The earthquake and flood insurance sublimits will be equal to the maximum probable loss.

G.3.9.1 Policy must provide coverage from the time any covered property becomes the responsibility of the Contractor, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off site.

G.3.9.2 The Builders' Risk Insurance shall include the Owner, the Contractor, subcontractors and sub-tier contractors in the Project as named insureds on the policy, and shall include a waiver of subrogation provision in favor of all parties.

G.3.9.3 The Builders' Risk Coverage shall be written on a Special Covered Cause of Loss form and shall include theft, vandalism, malicious mischief, collapse, false-work, temporary buildings, transit, debris removal including demolition, increased cost of construction, architect's fees and expenses, flood (including water damage), earthquake, and if applicable, all below and above ground structures, piping, foundations including underground water and sewer mains, piling including the ground on which the structure rests and excavation, backfilling, filling, and grading.

G.3.9.4 The Builders' Risk shall include a Beneficial Occupancy Clause. The policy shall specifically permit occupancy of the building during construction. Contractor shall take reasonable steps to obtain consent of the insurance company and delete any provisions with regard to restrictions within any Occupancy Clauses within the Builder's Risk Policy.

G.3.9.5 Equipment Breakdown Coverage (a.k.a. Boiler & Machinery) shall be included as required by the Contract Documents or by law, which shall specifically covers insured equipment during installation and testing (including cold and hot testing).

G.3.9.6 The Builders' Risk shall include loss of use due to delays in project completion caused by covered peril losses to the Project, including loss of income and rents and soft costs.

G.3.9.7 The deductible shall not exceed $50,000 for physical damage and shall be the responsibility of the Contractor. The deductible shall be paid by the Contractor if the Contractor is negligent. The earthquake and flood deductible shall not exceed 2 percent of each loss or $50,000, whichever is greater.

G.3.9.8 OSU shall be provided with a certificate of insurance, as well as a copy of the policy.

G.3.9.19 The Contractor shall be responsible for the payment of premium, giving or receiving notice of cancellation; and requesting amendments to this policy and accepting amendments to this policy made by the company.

G.3.9.10 OSU reserves the right to purchase the Builder's Risk insurance policy.

G.3.10 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 their sole and absolute discretion.

G.3.11 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 the execution of the Contract. The certificates(s) will specify all of the parties who are additional insured or loss payees for this Contract, and the applicable endorsements will be attached. Additional insured endorsements must include completed operations without restriction to contractual requirements.

G.3.12 Subcontractors. Subject to and following the written approval of the Owner as outlined in B.11.3 as related to Subcontracts and Assignment, the Contractor shall require Subcontractors to have insurance as outlined in section G.3.1 through G.3.4; however, the policy limits may be reduced, but no case shall the policy limits be less than $1,000,000.

G.3.13 Reserve Contracting Program: For the Reserve Contracting 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 Reserve Contract Supplement issued under the Reserve 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, a detailed Construction Schedule for review and

acceptance by the Owner. The submitted Construction Schedule must illustrate Work by significant project components, significant labor trades, long lead items, broken down by building and/or floor where applicable. Each Construction Schedule item shall account for no greater than 5% of the monetary value of the project or 5% of the available time. Construction Schedules with activities of less than one day or valued at less than 1% of the Contract shall be considered too detailed and shall not be accepted. Construction Schedules lacking adequate detail, or unreasonably detailed, shall be rejected. Included within the Construction Schedule are the following: Notice to Proceed, Substantial Completion, and Final Completion. Contractor shall provide an updated, full Project Construction Schedule with each payment request. In addition, twice monthly, the Contractor shall provide an updated three-week forward-looking schedule. Acceptance of the Construction 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 Project. Use of the float shall be negotiated. 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 re-inspections 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

I.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. 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. 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.

I.2.2 Nothing in this Section I.2 provision 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.

I.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.

I.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.

I.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.

I.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.

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 project 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 estate fails to assume the Contract within a reasonable time;

(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.

J.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 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 (refer also to 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 two (2) complete and approved sets of O & M Manuals in paper form and one (1) 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.

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 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. 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.

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 sole 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 STATE UNIVERSITY

PAYMENT BOND

Bond No. _____
Solicitation _____
Project Name _____

_____(Surety #1)	Bond Amount No. 1:	$ _____
_____(Surety #2)*	Bond Amount No. 2:*	$ _____
** If using multiple sureties*	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 Oregon State University (OSU) 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 contract No. _____ with OSU, the plans, specifications, terms and conditions of which are contained within the Contract resulting from 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 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 (1) faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, (2) 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, (3) shall save, defend, indemnify and hold harmless OSU, and its officers, board members, employees, agents and other representatives, 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, (4) 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; (5) 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; (6) 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;(7) shall permit no lien nor claim to be filed or prosecuted against the State or OSU on account of any labor or materials furnished; and (8) 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 OSU be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 352, 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

OREGON STATE UNIVERSITY

PERFORMANCE BOND

Bond No. _____
Solicitation _____
Project Name _____

_____(Surety #1)	Bond Amount No. 1:	$_____
_____(Surety #2)*	Bond Amount No. 2:*	$_____
** If using multiple sureties*	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 Oregon State University (OSU), 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 contract No. _____with the OSU, the plans, specifications, terms and conditions of which are contained within the Contract resulting from 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 (1) faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, (2) 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, (3) shall save, defend, indemnify and hold harmless OSU and its officers, board members, employees, agents and other representatives, 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 (4) 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 OSU be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279C and 352, 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

As indicated in the General Conditions of your contract(s) Section E.2.9, OSU requires that we gather MWESB (Minority, Women's Emerging Small Business) Contractor/Subcontractor information. This is an Oregon State University requirement and the information will be gathered annually and at time of final payment.

- **You must do this step first or the report will not let you add any information: In Row 1 Column B there is a drop down menu. You must select yearend (if the job has not been completed) or final (if the job is completed and you have submitted for retention). Once you choose yearend or final in the drop down menu there will be areas highlighted in light green and red. Those are the areas that you are required to fill out. If you did not use or planning to use any MWESB then the left side of the report (Light Green area) still needs to be filled out and the red area needs to remain blank.**

- **If your agency is an MWESB or if you are using/used an MWESB subcontractor then you need to fill out the information in the report that is highlighted in light green and red (see instructions in the next bullet). If you are not an MWESB or used a Subcontractor that is an MWESB then you need to fill out the left side of the form (Light Green areas) and leave the red area blank.**

- **In row 2 Column B there is another drop down menu, click the drop down menu and choose Fiscal Year 2015.**

- **In Row 4 Column B there is another drop down menu, click there and choose OSU.**

Oregon University System

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/Suppliers Used on Project	
Total Number of First-Tier Subcontractors/Suppliers Used on Project	
Number of First-Tier MWESB Subcontractors/Suppliers	

CALCULATED REPORTING DATA (Self Calculating - No Data Entry)

Number of MWESB Subcontractors/Suppliers	0
% MWESB Subcontractors/Suppliers	
% First-Tier MWESB Subcontractors/Suppliers	

CERTIFIED MWESB TOTALS

Value Awarded to MWESB Contractors/Suppliers	$0.00
% Value Awarded to MWESB Contractors/Suppliers	
Value - **minority-owned** MWESB subcontractors/suppliers	$0.00
% - **minority-owned** MWESB subcontractors/suppliers	
Value - **women-owned** MWESB subcontractors/suppliers	$0.00
% - **women-owned** MWESB subcontractors/suppliers	
Value - **emerging small business** MWESB subcontractors/suppliers	$0.00
% - **emerging small business** MWESB subcontractors/suppliers	

SELF-IDENTIFIED or OTHER CERTIFIED MWESB TOTALS

Value - **self-identified or other certified** subcontractors/suppliers	$0.00
% - **self-identified or other certified** subcontractors/suppliers	

OVERALL PROJECT CONTRACT HISTORY

% Value Awarded to MWESB Contractors/suppliers at Initial Contract	#DIV/0!
% Value Awarded to MWESB Contractors/suppliers at Final Contract	#DIV/0!

FOR OFFICIAL USE ONLY:	
Date Received by the Campus	
Initials of Campus staff who checked the document	

Individual Contractor/Sub-Contractor/Supplier Data Entry Matrix

Name of MWESB General/ Subcontractor/ Supplier	State of Oregon MWESB Certification Number	Self-Identified or Other Certified	Initial Sub-Contract Value	Sub-Contract value billed within the fiscal year (July 1-June 30)	Final Sub-Contract Value	Minority-Owned	Women-Owned	Emerging Small Business

SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY OF WORK

A. The Work Contract consists of Reser Stadium East Loge Refresh on the Oregon State University Campus, Corvallis, Oregon.

B. Work shall be started within ten (10) calendar days after signing of Contract on behalf of Oregon State University. The Contract may not be signed prior to approval of the Contractor's Certificate of Insurance by Construction Contract Administration (CCA), Oregon State University.

1.02 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.
   5. Fire egress.

B. Coordinate all operations with the Owner's Authorized Representative during the construction period. A 96-hour notification is required prior to scheduled utility shutdowns or street closures, but more lead time is often required to schedule around other critical activities.

C. Limit Contractor's employee parking to locations designated at the Pre-construction Conference.

1.03 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 Authorized 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. Use of stairs.
   3. Storage space availability.

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.

1.04 ASBESTOS AND OTHER HAZARDOUS MATERIAL

A. The Owner has made a reasonable attempt to locate and identify asbestos or other hazardous material that may be encountered during the course of the Work.

B. If the Contractor observes or suspects the existence of asbestos, polychlorinated biphenyl (PCB) or other hazardous materials in the structure or components of the building, the Contractor shall immediately stop work and notify the Owner’s Authorized Representative.

C. The Owner will arrange for the removal of asbestos, polychlorinated biphenyl (PCB) or other hazardous materials as required by Facilities Services personnel or by separate contract.

D. Schedule ten (10) days of slack or "down" time for the removal of hazardous materials without penalty to Owner for the delay of the Contract.

1.05 LEAD BASED PAINT

A. The Owner may have tested existing paint in the project area and if levels are found the following conditions apply.

B. Contractor shall remove paint as specified for surface preparation and capture removed material for disposal.

C. Contractor shall follow OSHA guidelines involving exposure to workers.

D. Owner will provide containers for Contractor’s use at project site.

E. Contractor shall comply with the requirements of DEQ and EPA and shall submit a lead abatement plan.

F. Contractor shall separate lead contaminated material from effluent and water.

G. Owner will dispose of lead paint and effluent resulting from stripping operation.

H. Soil contaminated by stripping operations shall be replaced with topsoil.

END OF SECTION

SECTION 01 23 00

ALTERNATES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. The alternates described in this Section may be exercised at the option of the Owner within 60 days of the execution of the Contract.

B. It is generally the practice of the Owner to exercise alternates in numerical order.

C. The Owner reserves the right to accept the alternates without regard to order or sequence; but, such acceptance shall not impair the selection of a low, responsible and responsive bidder to whom the Contract may be awarded under an equitable bid procedure.

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 and final conditions.

C. Questions:
1. If there is a question regarding the extent, scope, nature, or intent of the alternates, contact the Owner's Authorized Representative for clarification.
2. 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.
3. The description of the 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.
4. The applicable Sections of the Specifications apply to the work under each alternate.

1.03 LIST OF ALTERNATES: Listed on G001

A. Alternate 1: Remove existing tile form the north and south end walls at restroom entries; replace as directed in drawings.

B. Alternate 2: Prince the bar top material as LG Hausys, Aria.

C. Alternate 3: With 9Wood as a basis for WC-1, provide alternate pricing to furnish and install as a custom-made treatment.

D. Alternate 4: Cost for material at drink guards to be ¼" thick tempered glass.

END OF SECTION

SECTION 01 24 76

APPLICATIONS FOR PAYMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

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

B. Related work specified elsewhere.
   1. For the primary discussion of payments, refer to OSU General Conditions, Section E, as supplemented.
   2. In compliance with OSU General Conditions, Section K, no payments beyond 75% will be made by the Owner before draft Operation and Maintenance Manuals have been received for review by the Owner.

1.02 APPLICATION FORMS

A. For applications for payment, use sample Contract Payment Request (see below), contract payment request on company letterhead, or AIA Document G702, supported by AIA Document G703, Continuation Sheet, or similar document.

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 G703, Application Certification of Payment, Continuation Sheet or similar format. The sample continuation sheet shall be the minimum Schedule of Values breakdown.

C. The Schedule of Values shall be submitted for review by the Owner prior to the first application for payment; and may be used when, and only when, accepted in writing by the Owner.

D. Payment request is to include the Contractor's Federal Tax Identification number and return address.

1.03 PAYMENTS

A. The Owner will make progress payments on account of the Contract once monthly for the scheduled duration of the project (i.e. three (3) payments on a three-month project), 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 Payment.

B. Complete and forward Application to the Owner on or about the 15th day of each month for work performed the previous month and include certified payroll statements as specified in the OSU General Conditions.

C. Submit one (1) copy of forms requesting payment to the Owner.

D. Payments will be made on protected materials on hand at the job site properly stored, protected, and insured.

E. Estimated quantities shall be subject to the Owner's review and judgment.

1.04 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 equipment upon receipt and verification of quality and quantity against submittals and shipping documents by the Owner's Authorized Representative.

C. Receipt shall be to the job site or stored at Owner's other premises in an orderly and safe manner, secured from normal weather damage.

D. Security remains the responsibility of the Contractor.

END OF SECTION

CONTRACT PAYMENT REQUEST

DATE: _____

TO: University Financial Services
Oregon State University
850 SW 35th St.
Corvallis, OR 97333
FacServContracts@oregonstate.edu

Payment Request No. _____Contract No. _____ Period from _____ to _____

Project: _____

Original Contract Amount ..... $_____

Change Orders (Net Amount) ..... $_____

Contract Total to Date ..... $_____

==========

Total Completed and Stored to Date ..... $_____

Less Retainage (5%), if applicable ..... $_____

Total Earned, Less Retainage (if applicable)..... $_____

Less Previous Payments ..... $_____

Net Amount Due this Request ..... $_____

The undersigned Contractor certifies that, to the best of his/her knowledge, information, and belief, the Work covered by this request has been completed in accordance with the Contract Documents, that all amounts have been paid for Work for which previous applications for Payment were issued and payments received from the Owner, and that the amount shown herein is now due.

Contractor:_____

By: _____Date: _____

Federal Tax ID Number:_____

Address:_____

_____

CONTINUATION SHEET

Project Name:

Application No.:

Date:

Period To:

WRN No.:

NOTES:
Amounts are stated to the nearest penny.
Use Column I on Contracts where variable retainage for line items may apply, or if retainage is required.
Change Orders are usually listed as the last items of the basic schedule.

A	B	C	D	E	F	G		H	I
Item No.	**Description of work**	**Scheduled Value**	**Work Completed** From Previous Applications	**Work Completed** This Period	**Materials Presently Stored (Not in D or E)**	**TOTAL Completed & Stored (D+E+F)**	**% Completed (G/C)**	**Balance to Finish (C-G)**	**Retainage**
TOTALS									

SECTION 01 25 00

PRODUCT SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. General requirements for the Work in relation to substitutions and product options.

B. Submit to the Owner's property insurance carrier shop drawings, samples, and product data (such as manufacturer's standard schematic drawings and other literature) when required by individual Specifications sections.

C. Related Work Specified Elsewhere
   1. Invitation to Bid.
   2. OSU General Conditions.

1.02 REQUESTS FOR SUBSTITUTIONS

A. Requests for substitution of products in place of those specified shall be in accordance with Invitation to Bid, 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.

1.04 SUBSTITUTIONS DURING BIDDING

A. Submit one electronic copy of the following information with each request to the Owner:
   1. Substitution request form provided below.
   2. Comparison of proposed substitution with product, material or system specified.
   3. Complete data, substantiating compliance of proposed substitution with the Contract Documents.
   4. Test numbers and supporting reports, indicating compliance with referenced standards.
   5. Evidence that warranty requirements are acceptable.
   6. Details indicating specific deviations proposed for the substitution.
   7. Reference and applicable Specification sections.
   8. Applicable product samples.

B. All substitution requests shall be received in the Owner's office prior to the deadline for questions as identified in the Invitation to Bid. Requests received after this date will not be considered.

1.05 SUBSTITUTIONS DURING CONSTRUCTION

A. Substitutions will normally not be considered after date of Contract except when required due to unforeseen circumstances.

B. 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.

C. One or more of the following conditions must be documented in any such request:
   1. Required for compliance with final interpretation of code or insurance requirements.
   2. Required due to unavailability of a specified product.
   3. Required because of the inability of the specified product to perform properly or to fit in the designated space.
   4. Substitution would be substantially in the best interest of the Owner in terms of cost, time, or other considerations.

1.06 SUBSTITUTIONS NOT PERMITTED

A. If implied on submittals without first requesting approval thereof.

B. If acceptance will require substantial revision of the Contract Documents.

END OF SECTION

SUBSTITUTION REQUEST FORM

TO: _____

PROJECT: _____

SPECIFIED ITEM:

_____	_____	_____	_____
Section	Page	Paragraph	Description

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: _____

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

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

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings.

2. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.

3. The proposed substitution will have no adverse effect on other trades, the construction schedule, or specified warranty requirements.

4. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance and quality of the Proposed Substitution are equivalent or superior to the Specified Item.

Submitted by:

Signature _____

Firm _____

Address _____

_____

Date _____

Telephone _____

Attachments:

For use by Design Consultant:

☐ Accepted ☐ Accepted as noted

☐Not Accepted ☐ Received too late

By _____

Date _____

Remarks _____

SECTION 01 31 19

PROJECT MEETINGS

PART 1 GENERAL

1.01 PRE-CONSTRUCTION MEETING

A. Architect/Engineer/Designer, Contractor and Owner will meet prior to start of the Work (within seven (7) days after notice to proceed) to discuss at least the following topics and any others of mutual interest.
   1. Schedule of Values
   2. Permit Status/tree protection/erosion control
   3. List of sub-contractors
   4. Job inspections.
   5. Early purchase of, and/or lead time requirements for material and equipment/prepurchase of equipment
   6. Monthly payment date/SOP for pay requests
   7. Portion of site to be occupied by construction.
   8. Parking/Staging areas
   9. Non-smoking campus requirements
   10. Maintenance of access and safety.
   11. Processing of field decisions and change orders
   12. Labor provisions/labor rates for subs
   13. Material submittals/deferred submittals
   14. Owner access during construction.
   15. Review of Contract Documents/review ADA requirements/cross-slopes
   16. Coordination procedures and separate contracts.
   17. Progress schedules.
   18. Critical Work sequencing.
   19. Safety and emergency procedures/24 hour contact numbers
   20. Security procedures.
   21. Hazardous materials.
   22. Progress meetings.
   23. Contract close-out.

B. Location of Meeting: Project site

1.02 PROGRESS MEETINGS

A. The Contractor will schedule and administer progress meetings and will:
   1. Prepare agendas.
   2. Schedule progress meetings, frequency, time and day to be determined during pre-construction meeting.
   3. Make physical arrangements for and preside at meetings.
   4. Record minutes and include decisions.
   5. Distribute copies of minutes to participants within four (4) days after meetings.

B. Location of Meetings: Project site.

C. Attendance:
   1. The Owner or Owner’s Authorized Representative.
   2. Contractor.

3. Subcontractors affected by agenda.
4. Project Architect/Engineer/as necessary.
5. Owner will attend meeting to ascertain Work is expedited consistent with progress schedule and with Contract Documents.

D. Minimum Agenda:
1. Review and approve minutes from previous meeting.
2. Review Work progress since previous meeting.
3. Discuss field observations, and problems.
4. Review delivery schedules, construction schedule, and identify problems which impede planned progress.
5. Review proposed changes.
6. Material submittals.
7. Note all new subcontractors performing Work at the job site.

END OF SECTION

SECTION 01 33 23

SHOP DRAWINGS, PRODUCT DATA, SAMPLES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Submit to the Owner shop drawings, samples, and product data (such as manufacturer's standard schematic drawings and other literature) when required by individual Specifications sections.

B. Related Work Specified Elsewhere
   1. OSU General Conditions.

1.02 SUBMITTAL SCHEDULING

A. For items requiring review by the Owner only, submittals shall be sent to the Owner at least 15 calendar days before the date each is required for fabrication or installation.

B. Submittals to be reviewed by Owner's consultants shall be sent to the Owner at least 20 calendar days before the date each is required for fabrication or installation.

C. Submittals to be reviewed by Owner's property insurance carrier shall be sent to Owner as directed in individual specification sections.

D. Submittals involving Substitution requests or other modifications requiring review by the Owner and/or the Owner's consultants shall be sent to the Owner at least 20 calendar days before the date each is required for fabrication or installation.

1.03 SUBMITTAL CONTENT AND FORMAT

A. General Requirements:
   1. Shop Drawings: Submit in electronic format and, if requested by Owner's Authorized Representative, submit one reproducible transparency and 1 print of each drawing.
   2. Product Data: Submit electronically, and if requested by Owner's Authorized Representative, up to 6 hard copies.
   3. Samples: Submit the number and type stated in each Specification Section. Submit a minimum of three sets of color samples where color selection is required.
   4. Submittals shall include:
      a. Date and revision dates return date requested.
      b. Project title and number.
      c. The names of the Contractor, subcontractor, supplier, and manufacturer.
      d. Identification of product or material, with Specification Section number.
      e. Relation to adjacent critical features of work or materials.
      f. Field dimensions, clearly identified as such.
      g. Applicable standards, such as ASTM number or Federal Specification.
      h. Identification of deviations from Contract Documents, and for products accompanied by Substitution request as required by Section 01 25 00.
      i. Contractor's stamp legibly signed, essentially as follows:
         1) The undersigned, acting on behalf of the Contractor, certifies that this submittal has been reviewed and is approved; products have been verified as being as specified, field measurements and field construction criteria have been or will be coordinated, and the submittal is in compliance with Contract Documents.
   5. Re-submission Requirements:

a. Revise initial drawings as required and resubmit as specified for initial submittal.
b. Indicate on drawings any changes which have been made other than those requested by the Owner or the owner's consultants.

6. The Owner may return without review any submittal not meeting the requirements listed above.

B. Shop Drawings:
1. Present data in a clear and thorough manner.
2. Details shall be identified by reference to sheet and detail, schedule or room numbers shown on Contract Documents.
3. Structural items shall be identified by location in the completed structure. Identify details by reference to contract sheet and detail numbers.
4. Minimum sheet Size: 8 ½ x 11".

C. Product Data:
1. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data:
a. Clearly mark each copy to identify pertinent product or models.
b. Show dimensions, weights, and clearances required.
c. Show performance data consisting of capabilities, ROM, KW, pressure drops, design characteristics and consumption; conforming as closely as possible to the test methods referenced in the Plans and Specifications.
d. Show wiring or piping diagrams and controls.
2. Manufacturer's standard schematic drawings and diagrams:
a. Modify to delete information which is not applicable.
b. Supplement standard information to provide information specifically applicable to the Work.

D. Samples:
1. Insure that samples are of sufficient size to indicate the general visual effect or color.
2. 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.
3. One (1) sample or one (1) set of approved samples will be retained by the Owner; final work will be measured against approved samples.

1.04 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 Owner within ten (10) days after pre-construction.

1.05 DEFINITIONS

A. The Owner 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 review of the proposed Work with the Owner as soon as possible.

1.06 PROCESSING

A. Review submittals, make necessary corrections, and become familiar with the content of the submittals.

B. Mark each item with Contractor's stamp.

C. Accompany submittals with a transmittal letter bearing the project name, Contractor's name, number of items, and other pertinent data.

D. Keep one copy of each reviewed submittal on the job site at all times.

E. Be responsible for obtaining and distributing prints of shop drawings to the various suppliers, and the Owner once review process has been completed. Make prints of reviewed shop drawings only from transparencies which carry the appropriate stamp and endorsement.

END OF SECTION

SECTION 01 42 13

ABBREVIATIONS AND SYMBOLS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Words which may be found elsewhere in the Project Manual and Drawings are abbreviated in accordance with the standards set forth in the following table:

A/C	air conditioning
AB	anchor bolt
AC	asphaltic concrete
ACT	acoustical tile
AD	area drain
ADD	addendum
ADD'L	additional
ADH	adhesive
AFF	above finish floor
AGG	aggregate
AL	aluminum
ALLOW	allowable
ALT	alternate
ANOD	anodized
AP	access panel
APPRX	approximate
ARCH	architect(ural)
ASPH	asphalt
AUTO	automatic
AVE	avenue
BD	board
BIT	bituminous
BLDG	building
BLKG	blocking
BM	bench mark, beam(s)
BOT	bottom
BRZ	bronze
BS	both side
CB	catch basin
CEM	cement
CF	cubic foot
CFOI	contractor furnished owner installed
CG	corner guard
CH	ceiling height
CI	cast iron
CJ	control joint
CKBD	chalkboard
CL	centerline
CLG	ceiling
CLR	clear(ance)
CM	construction manager
CMT	ceramic mosaic (tile)
CMU	concrete masonry unit
COL	column
COM	communications
CONC	concrete
CONN	connect(ion)
CONST	construction
CONT	continuous or continue
CONTR	contract(or)
CPT	carpet
CRS	course(s)
CS	countersink
CSMT	casement
CT	ceramic tile
CTR	center
CVG	clear vertical grain
CW	cold water
CWT	ceramic wall tile
CY	cubic yard
D	depth
DEMO	demolish, demolition
DEP	depressed
DF	drinking fountain
DIA	diameter
DIAG	diagonal
DIM	dimension
DISP	dispenser
DIV	division
DL	dead load
DMT	demountable

DN	down
DP	dampproofing
DR	door
DS	downspout
DT	drain tile
DTL	detail
DW	dumbwaiter
DWG	drawing(s)
DWR	drawer
EA	each
EB	expansion bolt
EF	each face
EJ	expansion joint
EL	elevation
ELEC	electric(al)
EMBED	embedment
EMER	emergency
ENCL	enclose(ure)
EP	electrical panel board
EQ	equal
EQUIP	equipment
EST	estimate
EVT	equiviscious temperature
EW	each way
EWC	electric water cooler
EX.EXIT	existing
EXH	exhaust
EXP	exposed
EXT	exterior
FA	fire alarm
FAF	fluid applied flooring
FARF	fluid applied resilient floor
FAS	fasten, fastener
FBD	fiberboard
FBT	finished blowing temperature
FD	floor drain, fire damper
FE	fire extinguisher
FEC	fire extinguisher cabinet
FF	factory finish
FGL	fiberglass
FHMS	flathead machine screw
FHWS	flathead wood screw
FIN	finish(ed)
FLCO	floor cleanout
FLR	floor(ing)
FLUR	fluorescent
FND	foundation
FOC	face of concrete
FOIC	furnished by owner/installed by contractor
FOIO	furnished by owner/installed by owner
FOM	face of masonry
FP	fireproofing, flash point
FPHB	freeze-proof hose bib
FR	fire resistive, fire rated
FRM	frame(d), (ing)
FS	full size
FSS	finished structural slab
FT	foot
FTG	footing
FTS	finished topping slab
GA	gage, gauge
GALV	galvanized
GB	grab bar or gypsum board
GC	general contractor
GI	galvanized iron
GL	glass, glazing
GLS	glass resin wall surfacing
GP	gypsum
HB	hose bib
HBD	hardboard
HC	hollow core
HD	heavy duty
HDR	header
HDW	hardware
HM	hollow metal
HOR	horizontal
HP	high point
HR	hour
HT	height
HTG	heating
HVAC	heating, ventilating, air conditioning
HWD	hardwood
HWH	hot water heater
ID	inside diameter, identification
IN	inch
INCIN	incinerator
INCL	include(d), ion)
INT	interior
INV	invert
JB	junction box

JC	janitor's closet
JT	joint
KD	kiln dried
KCP	Keene's cement plaster
KO	knockout
KP	kick plate
LAB	laboratory
LAM	laminate(d)
LAV	lavatory
LBS	pounds
LH	left hand
LL	live load
LONGIT	longitudinal
LP	low point
LW	lightweight
MAX	maximum
MB	machine bolt
M. MECH	mechanic(al)
MFR	manufacture(r)
MH	manhole
Min	minimum, minute
MISC	miscellaneous
MO	masonry opening
MO#	model number
MOD	modular
MPH	miles per hour
MS	machine screw
MTL	metal
MULL	mullion
MWP	membrane waterproofing
NAT	natural, natural finish
NIC	not in contract
NO	number
NOM	nominal
NTS	not to scale
OA	overall
OBS	obscure
OC	on center(s)
OD	outside diameter
OF	overflow
OFCI	owner furnished contractor installed
OFOI	owner furnished owner installed
OHMS	ovalhead machine screw
OHWS	ovalhead wood screw
OPG	opening
OPP	opposite
OZ	ounce(s)
P	paint(ed)
PB	push button
PCF	pounds per cubic foot
PCP	putting coat plaster
PERF	perforate(d)
PL	plate, property line
PLAM	plastic laminate
PLAS	plaster
PNL	panel
PP	push plate
PR	pair
PREP	prepare
PSF	pounds per square foot
PSI	pounds per square inch
PT	point, pressure treated
PTN	partition
PVC	polyvinyl chloride
PWD	plywood
QT	quarry tile
R	rise
RA	return air
RAD	radius
RCP	reflected ceiling plan
RD	roof drain
REF	reference
REFR	refrigerator
REINF	reinforce(ing)
REQ	required
RET'G	retaining
REV	revision(s), revised
RH	right had
RM	room
RO	rough opening
RSF	resilient sheet flooring
SC	solid core
SCHED	schedule
SEC	section
SF	square feet (foot)
SHT	sheet
SHTHG	sheathing

SIM	similar
SL	sleeve
SOG	slab on grade
SPEC	specification(s)
SQ	square
SS	storm sewer
S4S	finished 4 sides
SD	storm drain
ST	steel, street
ST ST	stainless steel
STD	standard
STR	structural
SUPP	supplement
SUPT	support
SUSP	suspended
SV	sheet vinyl
T	tread
TBM	top bench mark
T&G	tongue and groove
TB	towel bar
TC	top of curb
TEL	telephone
TEMP	tempered
THK	thickness
TKBD	tackboard
TO	top of
TP	top of paving
TRANS	transverse
TS	top of slab
TV	television
TW	top of wall
TYP	typical
UNO	unless noted otherwise
VAT	vinyl asbestos tile
VB	vapor barrier
VCT	Vinyl Composition Tile
VERT	vertical
VG	vertical grain
VIF	verify in field
VWC	vinyl wall covering
W	width, wide, water
W/	with
W/O	without
WC	water closet
WD	wood, wood finish
WP	waterproof(ing)
WNS	wainscot
WR	water resistant
WS	waterstop
WW	window wall
WWC	wood wall covering
WWF	woven wire fabric

B. Words which may be found elsewhere in the Project Manual and Drawings are abbreviated in accordance with the standards set forth in the following table:

&	and
λ	angle
@	at
ι	diameter, round
"	inches
:	is, shall b
'	feet
ζ	perpendicular
/	per
%	percent
#	pound, number
X	by (as in 2 by 4)

END OF SECTION

SECTION 01 42 16

DEFINITIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Words which may be found elsewhere in the Contract Documents are defined in accordance with the standards set forth in the following table:

Approve:

Where used in conjunction with Architect's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "approved" will be limited to the Architect's responsibilities and duties as specified in General and Supplementary Conditions. In no case will "approval" by Architect be interpreted as a release of Contract requirements.

As Detailed, As Shown:

Where “as detailed”, “as shown” or words of similar importance are used, it shall be understood that reference to the Drawings accompanying the Specifications is made unless otherwise stated.

As Directed, As Required, As Authorized, As Reviewed, As Accepted:

Where “as directed”, “as required”, “as authorized”, “as reviewed”, “as accepted” or words of similar importance are used, it shall be understood that the direction, requirement, permission, authorization, review, or acceptance of the Architect is intended, unless otherwise stated.

As Indicated:

Where “as indicated” is used it shall be understood that reference to Drawings and/or Specifications is made unless otherwise stated.

Directed, Requested, etc.:

Terms such as "directed," "requested," "authorized," "selected," will be understood as "directed by Architect," "requested by Architect," and similar phrases shall not be interpreted to extend Architect's responsibility into Contractor's responsibility for construction supervision.

Furnish:

Except as otherwise defined in greater detail the term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.

Indicated:

The term "indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications and to similar means of recording requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for purpose of helping reader locate cross-reference and no limitation of location is intended except as specifically noted.

Install:

Except as otherwise defined in greater detail, the term "install" is used to describe operations at project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.

Installer:

The term "installer" is defined as the entity (person or firm) engaged by Contractor, or its subcontractor or sub-subcontractor for performance of a particular unit of Work at project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (Installers) be expert in operations they are engaged to perform.

Provide:

Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.

END OF SECTION

SECTION 01 42 19

REFERENCE STANDARDS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Quality Assurance.

B. Location of References.

C. Schedule of References.

1.02 QUALITY ASSURANCE

A. For products or quality of work specified by association, trade, or federal standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

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

C. General Applicability of Standards: Except where Contract Documents include more stringent requirements, applicable standards of the construction industry have the same force and effect as if bound or copied directly into Contract Documents.

D. Such standards are made a part of the Contract Documents by reference.

E. Individual sections indicate which codes and standards the Contractor must keep at the project site, available for reference.

F. Referenced industry standards take precedence over standards which are not referenced but recognized in industry as applicable.

G. Non-referenced standards are not directly applicable to the Work, except as a general requirement of whether the Work complies with standards recognized in the construction industry.

1.03 LOCATION OF REFERENCES

A. Valley Library, Oregon State University.

1.04 SCHEDULE OF REFERENCED ASSOCIATIONS

AIA	American Institute of Architects WWW.AIA.ORG
AISC	American Institute of Steel Construction WWW.AISC.ORG
AISI	American Iron and Steel Institute WWW.STEEL.ORG
ANSI	American National Standards Institute

	WWW.ANSI.ORG
APA	American Plywood Association WWW.APAWOOD.ORG
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers WWW.ASHRAE.ORG
ASTM	American Society for Testing and Materials WWW.ASTM.ORG
AWPA	American Wood Protection Association WWW.AWPA.COM
AWS	American Welding Society WWW.AWS.ORG
BIA	Masonry Institute of America WWW.MASONRYINSTITUTE.ORG
BOLI	Oregon Bureau of Labor and Industries WWW.BOLI.STATE.OR.US
CCB	Construction Contractors Board WWW.OREGON.GOV.CCB/
CDA	Copper Development Association WWW.COPPER.ORG
CISPI	Cast Iron Soil Pipe Institute WWW.CISPI.ORG
CSI	Construction Specification Institute WWW.CSINET.ORG
DEQ	Department of Environmental Quality (Oregon) WWW.OREGON.GOV/DEQ/
DHI	Door and Hardware Institute WWW.DHI.ORG
DOT	Department of Transportation WWW.DOT.GOV
EPA	U.S. Environmental Protection Agency WWW.EPA.GOV
FM	Factory Mutual System WWW.FMGLOBAL.COM
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) WWW.GSA.GOV/PORTAL/CONTENT/103856

IBC	International Building Code WWW.ICCSAFE.ORG
ICBO	International Conference of Building Officials PUBLICECODES.CITATION.COM/ICOD/IBG/INDEX.HTM
IRS	Internal Revenue Service WWW.IRS.GOV
ISA	Instrumentation Systems and Automation Society WWW.ISA.ORG
NAAMM	National Association of Architectural Metal Manufacturers WWW.NAAMM.ORG
NBFU	National Board of Fire Underwriters WWW.NFPA.ORG
NEC	National Electric Code WWW.NECPLUS.ORG
NEMA	National Electrical Manufacturers' Association WWW.NEMA.ORG
NESC	National Electrical Safety Code WWW.IEEE.ORG
NFPA	National Fire Protection Association WWW.NFPA.ORG
NRCA	National Roofing Contractors' Association WWW.NRCA.NET
OAR	Oregon Administrative Rules ARCWEB.SOS.STATE.OR.US/404.HTML
OESP	State of Oregon Electrical Specialty Code http://www.bcd.oregon.gov/programs/online_codes.html
ORS	Oregon Revised Statutes LANDRU.LEG.STATE.OR.US/ORS/
OSHA	Occupational Safety and Health Administration WWW.OSHA.GOV
OSSC	Oregon Structural Specialty Code http://www.bcd.oregon.gov/programs/online_codes.html
PS	Product Standard STANDARDS.GOV/STANDARDS.CFM
SDI	Steel Door Institute WWW.STEELDOOR.ORG
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association

	WWW.SMACNA.ORG
SPRI	Single Ply Roofing Institute WWW.SPRI.ORG
SSPC	Steel Structures Painting Council WWW.SSPC.ORG
SWRI	Sealing, Waterproofing and Restoration Institute WWW.SWIRONLINE.ORG
UBC	Uniform Building Code (See ICBO)
UFC	Uniform Fire Code WWW.NFPA.ORG
UL	Underwriters' Laboratories, Inc. WWW.UL.COM
UMC	Uniform Mechanical Code WWW.UBC.COM
UPC	Uniform Plumbing Code WWW.UBC.COM
WHL	Warnock Hersey Laboratories WWW.INTEK.COM/MARKS/WH/
WCLIB	West Coast Lumber Inspection Bureau WWW.WCLIB.ORG
WWPA	Western Wood Products Association WWW.WWPA.ORG

END OF SECTION

SECTION 01 45 00

QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Codes, regulations and permits.

B. Procedures for quality control.

1.02 OWNER RESPONSIBILITIES

A. Owner will employ and pay for services of an independent testing laboratory to perform inspection, sampling and testing as required by local building authority.

B. Owner's Authorized Representative will provide on-site observation during construction.

1.03 CODES, REGULATIONS AND PERMITS

A. All Work shall conform with the Oregon Structural Specialty Code (OSSC) based on the International Building Code (IBC), as amended by the State of Oregon Building Codes Division and the edition designated by the governing authority.

B. Contractor shall comply with all applicable state and local construction codes.

C. References to codes, Specifications and standards referred to in the Contract Documents shall mean, and are intended to be, the latest edition, amendment or revision of such reference standard in effect as of the date of these Contract Documents.

D. The Owner shall be responsible for all permits and City of Corvallis plan review fees; the Contractor shall be responsible for all licenses and associated fees required for the Project.

E. Contractor shall arrange and attend all required permit inspections and furnish evidence of approved City inspection reports per Section 01 77 00.

1.04 QUALITY OF WORK

A. It is the true and specific intent of these Specifications that quality of Work on all phases of the construction and embracing all the trade sections shall be of high quality performed by workers skilled in their trade and performing their Work only according to the standard of best practice of the trade.

B. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with manufacturer's directions unless otherwise specified.

C. If Work is required in a manner to make it impossible to produce first quality Work, or should discrepancies appear among Contract Documents, request interpretation from Architect before proceeding with Work.

D. Failure to secure interpretation may cause rejection by Architect or owner of installation.

1.05 LAYOUT

A. Be responsible for properly laying out the Work and for lines and measurements for the Work.

B. Verify the figures shown on the drawings before laying out the Work and report errors or inaccuracies to the Architect before commencing Work.

C. Strict compliance with maximum slopes is required. Accessible parking spaces and adjacent access aisles with slope exceeding 2% in any direction, as determined by OSU, shall be removed and replaced by the contractor at their expense.

D. Strict compliance with maximum slopes is required. New sidewalks exceeding 1:20 slope or with cross slope exceeding 2%, as determined by OSU, shall be removed and replaced by the contractor at their expense. Ramps exceeding 1:16 slope or with cross slope exceeding 2%, as determined by OSU, shall be removed and replaced by the contractor at their expense.

1.06 SUPERVISION

A. The Contractor shall maintain effective supervision on the project at all times Work is being performed.

B. The superintendent shall be the same person throughout the project and shall attend the preconstruction conference.

1.07 INSPECTIONS AND TESTING

A. Contractor shall notify the Owner at least twenty-four (24) hours in advance of any required progress inspection or final inspection including final punch list inspection.

B. Cooperate with laboratory personnel, provide access to Work and furnish incidental equipment material and labor required for field testing and sample taking.

1.08 EVALUATION OF TESTS AND INSPECTIONS

A. Results of laboratory and/or field control tests and inspections shall be the principal basis upon which satisfactory completion of Work shall be judged.

B. If results of tests and inspections indicate Work is below requirements of Contract Documents, that portion of Work is subject to rejection.

1.09 ADJUSTMENTS

A. Remove and replace Work so rejected at Contractor's expense including costs of subsequent tests and inspections until Work meets requirements of Contract Documents.

B. The Owner reserves the right to perform any testing as may be required to determine compliance with the Contract Documents.

C. Costs for such testing will be the Owner's responsibility unless testing indicates noncompliance. Cost for such testing indicating noncompliance shall be borne by the Contractor.

D. Noncomplying Work shall be corrected and testing will be repeated until the Work complies with the Contract Documents.

E. Contractor will pay costs for retesting noncomplying Work.

END OF SECTION

SECTION 01 51 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction.

B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition".

C. Electrical Service: Comply with NEMA, NEC and UL standards and regulations for temporary electric service; install service in compliance with National Electric Code (NFPA 70).

D. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use; obtain required certifications and permits if required.

1.03 PROTECTION

A. Protect sidewalks, asphalt paving, concrete, trees, shrubs, and lawn areas at all times from damage resulting from construction activities.

B. Prevent materials from clogging catch basins and yard drains; leave drains clean and in proper working condition.

C. Protect Existing Irrigation Systems:
   1. In the event damage occurs to an underground irrigation system as a direct result of a Contractor's activities, the Contractor shall repair/replace or be assessed a charge at the discretion of the Owner.
   2. If repairs are to be made by the Contractor, the repairs will be inspected by the Owner’s Authorized Representative prior to backfilling.
   3. Any galvanized pipe that requires repair shall be repaired at a threaded coupling, not by use of a compression coupling.

D. Protect Existing Air Handling Systems:
   1. Contractor shall be responsible for protection of the cleanliness of the existing air handling system at all times. This protection shall include:
      a. During site work or building demolition, prefilters shall be provided and maintained on all building outside air intakes at all times throughout the construction duration.
      b. During any interior work that may create dust in the interior space and adjacent corridor/hallways, air filters shall be provided and maintained on all affected air return and exhaust grilles. Where air flow in or out of the space is not required, all air duct openings shall be temporarily blanked off with plywood or sheet metal.
      c. Prior to starting any work, the Contractor shall record and submit to the Owner’s Authorized Representative, pressure readings across all existing air handler air filter banks before installation of new prefilters.
      d. Upon completion of all Work affecting existing air handling systems, the Contractor shall remove all temporary filters, covers and associated parts and restore the system

to its original operating condition unless otherwise stated elsewhere in the Contract Documents

E. 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.

F. Security is the responsibility of the Contractor.

G. Construction Debris:
   1. Debris shall not be allowed to remain around the buildings during performance of Work, but shall be disposed of as rapidly as it accumulates.
   2. On completion of Work, the buildings and grounds shall be left in a condition that is equal to or better than original condition.
   3. In case of failure to do so, the Owner may remove rubbish and charge the cost to the Contractor.

H. 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.

I. The Contractor shall provide and maintain suitable barricades, shelters, lights, and danger signals during the progress of the Work; they shall meet the requirements of the local building code and OSHA.

1.04 DRAINAGE

A. Verify that all rain drains in the construction areas are in working order and notify the Owner's Authorized Representative in writing of any rain drains that are plugged, prior to the start of the Work.

B. Start of Work will be considered as acknowledgment that all drains are clear and in good working order.

C. All drains shall be left in a clean and proper working condition.

1.05 CONSTRUCTION PROJECT SAFETY FORM

A. Contractor shall submit to the Owner, prior to signing the Contract, the completed "Construction Project Safety Form", which is provided with instructions at the end of this Section.

1.06 TEMPORARY UTILITIES

A. Temporary Utilities:
   1. Prepare a schedule indicating dates for implementation and termination of each temporary utility.
   2. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of the permanent service.

B. Conditions of Use:
   1. Keep temporary services and facilities clean and neat in appearance.
   2. Operate in a safe and efficient manner.
   3. Take necessary fire prevention measures.
   4. Do not overload facilities or permit them to interfere with progress.
   5. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

C. Electrical Service:
   1. Service limited to 20 amp 120V circuits will be paid for by the Owner.

2. Connection to the service shall be the responsibility of the Contractor, with the Owner's approval.
3. Coordinate with the Owner's Authorized Representative.

D. Water Service:
1. Service in reasonable quantities for the Project will be paid for by the Owner.
2. Connection to the service shall be the responsibility of the Contractor, with the Owner's approval.
3. Coordinate with the Owner's Authorized Representative.

1.07 TEMPORARY SUPPORT FACILITIES

A. Temporary Sanitary Facilities:
1. Provide and maintain an adequate number of facilities for the use of all persons employed on the Work during construction.
2. Provide enclosed, weatherproof facilities with heat as required.
3. Use of new or existing Owner's facilities will not be permitted.

B. Temporary Heat and Ventilation:
1. As necessary, provide temporary heat and ventilation required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.

C. Telephone Equipment: Provide telephone communications at project site.

D. Existing Services:
1. Do not interrupt any existing service.
2. Prior request and approval of the Owner's Representative will enable the Owner to shut down any utility required by the Work.
3. Contractor shall not shut down utilities.

1.08 TEMPORARY BARRIERS AND ENCLOSURES

A. Provide barriers and fencing to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage.

B. Provide Commercial grade chain link fence construction.

C. Provide 6 foot high fence around construction site as directed by Owner’s Authorized Representative; equip with vehicular and pedestrian gates with lock.

D. Exterior Closures: Provide temporary secured, weather-tight closures at exterior openings, to permit acceptable working conditions and protection of the Work.

E. Interior Closures:
1. Provide temporary floor to ceiling partitions (not plastic sheeting) and ceilings as required to separate work areas from Owner occupied areas, to prevent penetration of dust and moisture into Owner occupied areas, to reduce construction noise, and to prevent damage to existing materials and equipment.
2. Paint surfaces exposed to view from Owner occupied areas.

1.09 ODORS

A. Work that causes excessive odors shall be performed only after coordination with the Owner's Authorized Representative. Filtering of air intakes to units may be required to prevent odors and vapors from entering the buildings.
B. Contractor shall provide 7 days advance notice to the Owner's Authorized Representative in order for advance notice to be forwarded to building occupants. Work stoppage may occur if advance notification has not been coordinated or odors and vapors from the work are found to generate complaints from building occupants.

1.10 FIRE SAFETY

A. Ensure that required exit routes remain unobstructed while building is occupied.

B. Abide by all fire safety requirements for buildings under construction, alteration or demolition as required by Article 87, of the Uniform Fire Code as adopted by the State of Oregon.

C. An emergency telephone shall be provided on site. Cellular telephone equipment is acceptable.

D. Fire Suppression Equipment:
   1. Install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers", and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations".
   2. Maintain equipment in working condition with current inspection certificate attached to each.
   3. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
   4. Store combustible materials in containers in fire-safe locations.
   5. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways, and other access routes for fighting fires.
   6. Provide continual supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
   7. When possible, relocate hot work to a designated hot work area.
   8. If the materials or equipment cannot be relocated to a designated hot work area, use the least hazardous form of hot work that will get the job done and prepare the area properly.
   9. Manage mobile hot work using the formal hot work permit system. (mentioned in the next bullet point and also a directive in the OSU Hot Work Safety Program)
   10. Make sure both fire protection and hot work equipment work properly.
   11. Train all personnel involved in hot work operations and activities so that they have the understanding, knowledge, and skills necessary to safely perform their jobs.

1.11 CONSTRUCTION AIDS

A. Scaffolding: comply with applicable OSHA requirements.

B. Material Handling Equipment:
   1. Provide necessary cranes, hoists, towers, or other lifting devices.
   2. Use only experienced operators.
   3. Remove equipment as soon as possible after task is ended.
   4. Coordinate placement of such equipment with Owner's Authorized Representative.
   5. Obtain required permits and meet requirement of governing authorities regarding applicable regulations.

C. Materials or debris shall not be allowed to free fall from building.

D. The use of chutes or conveyors must be approved by Owner.

1.12 TEMPORARY CONTROLS

A. Water Control:
   1. Maintain excavations free of water.
   2. Provide, operate, and maintain necessary pumping equipment.

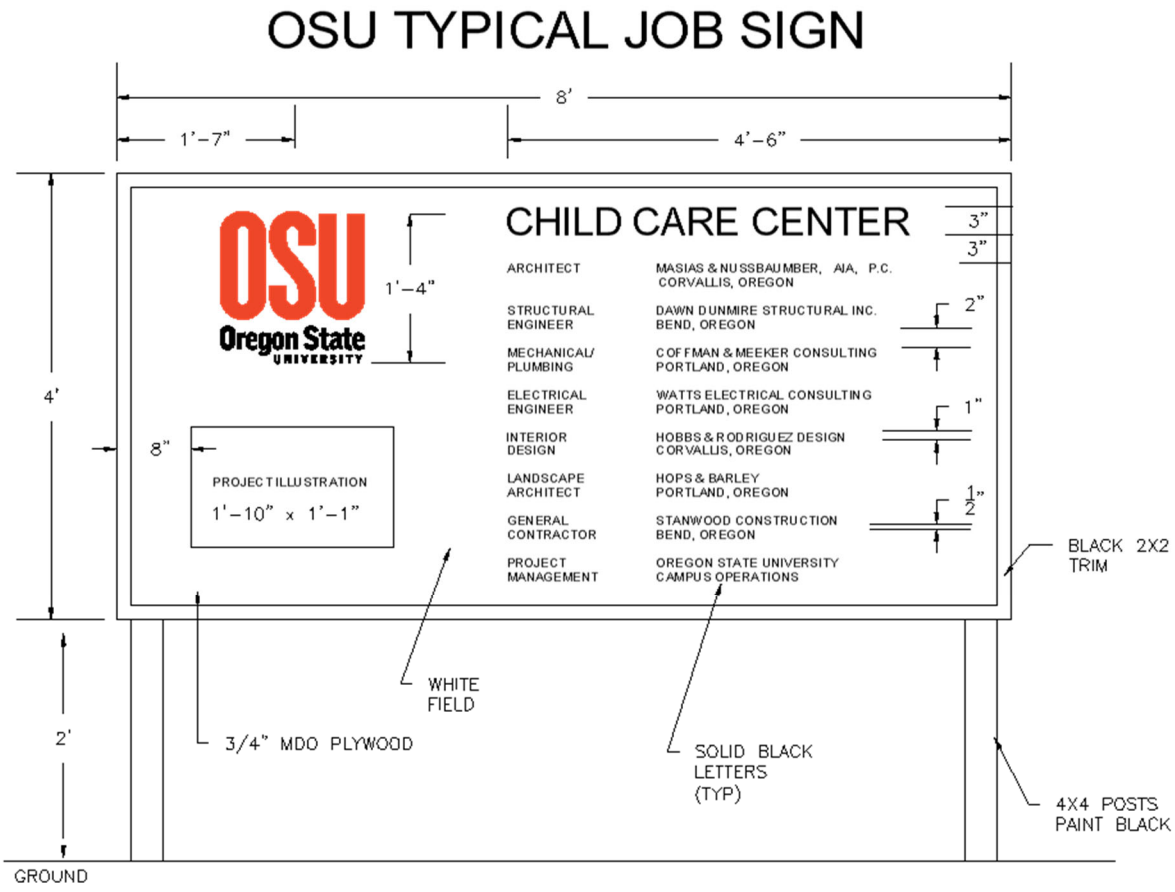
B. Protection:
   1. Protect installed Work and provide special protection where specified in individual specification sections.
   2. Prohibit traffic or storage upon waterproofed or roofed surfaces.

C. Security:
   1. Provide security and facilities to protect Work and existing facilities and Owner's operations from unauthorized entry, vandalism, or theft.
   2. Coordinate operations with Owner's Authorized Representative.

D. Temporary Traffic Control /Pedestrian Accessibility
   1. A continuous route for all pedestrians, including persons with disabilities and bicyclists, shall be maintained at all times. When existing pedestrian facilities are disrupted, closed, or relocated in a construction zone, temporary pedestrian facilities shall be provided.
   2. Temporary pedestrian facilities should be safe and accessible. There should be no curbs or abrupt changes in grade that could cause tripping or be a barrier to wheelchair use.
   3. Signage shall be provided directing people to the temporary accessible route. The signage shall include the International Symbol of Accessibility.
   4. Contractors shall not block temporary walkways with vehicles, equipment, construction materials, signs, trash, or other objects that might prohibit pedestrian passage.
   5. Construction equipment and equipment operation must be separated from any open walkways. At construction zones, pedestrian fences or other protective barriers shall be provided to prevent access into the construction zone.

1.13 PROJECT SIGNAGE

A. Contractor is permitted to post only one project identification sign based on the following example:



1.14 PREPARATION

A. Consult with Owner to review jobsite areas required for field offices, material storage and stockpiles, equipment storage, access to different locations, etc.

1.15 PERFORMANCE

A. Confine equipment, apparatus, and storage of material to work limits. The Owner will not be responsible for protection of materials and equipment from damage, pilfering, etc.

B. Install temporary facilities in such a manner that the installed work will not be damaged.

C. Do not use facilities of existing building unless authorized in writing by the Owner.

D. Effective September 1, 2012, OSU became a non-smoking campus and smoking is prohibited on all Campus property.

E. Keep facilities well maintained.

F. Relocate temporary facilities as required during job progress.

G. At Substantial Completion, clean and renovate permanent facilities that have been used during the construction period, including but not limited to:
   1. Replace air filters and clean inside of ductwork and housings.
   2. Replace significantly worn parts and parts that have been subject to unusual operating

conditions.

3. Replace lamps that are burned out or noticeably dimmed by substantial hours of use.

END OF SECTION

Oregon State University Construction and Maintenance Safety Requirements
EH&S, 100 Oak Creek Building, Corvallis, OR 97331-7405, (541) 737-2273,
FAX (541) 737-9090

Complete OSU Construction and Maintenance Safety Form - Send completed documents (including Site Safety Plan and all separate answer pages) to Construction Contract Administration along with the signed contract and bonds.

Project Isolation - All construction and remodeling activities regardless of size and/or scope must be fenced, barricaded, or otherwise protected to restrict entrance and to ensure the safety of those in the general area. See isolation requirements.

Site Safety Plan - A site safety plan will be required and will address:

- General Information
- Emergency Information
- Key Organization Personnel
- Hazard Evaluation/Facility Impact
- Emergency Procedures
- Work Zones
- Security Measures
- Fire Protection

A model plan is attached. This form can be used if another plan has not already been prepared. Contact OSU Environmental Health & Safety for more information 737-2505.

Isolation Requirements

General: All construction, maintenance, and remodeling activities, regardless of size or scope, must be fenced, barricaded, or otherwise isolated to restrict entrance and to ensure the safety of those in the general area.

Outdoor Activities: Outdoor projects require the following perimeter isolation:

- A six foot chain-link fence, with controlled access points, extending in all directions around the excavation or building site such that no area of the construction is accessible to pedestrians or unauthorized personnel or vehicles.
- Isolation area will include vehicle loading and unloading areas.
- At the University's option, other barricading plans may be accepted. These may apply to projects such as road resurfacing, parking lot striping, exterior building water proofing, deliveries, etc. Contact EH&S regarding other barricading plans.

Overnight: Any excavation across or adjacent to sidewalks or pathways which must be left open overnight, must be identified with working, blinking construction lights in addition to solid barricades

Indoor Activities: Indoor construction or maintenance projects which will create dust, potentially hazardous fumes or vapors, or offensive odors are subject to the following isolation:

- Areas where existing doors can provide isolation will be labeled "Construction Area--Authorized Personnel Only ".
- All other areas will be isolated by a solid barrier. The minimum barrier allowed is 4 mil poly sheeting sealed to prevent migration of dust.
- Mechanical ventilation may be required.
- A solid wall is required if building envelope is opened to the outside.

Contractor Responsibilities

- The contractor will provide all barricading, isolation, and fencing material. OSU will not provide any materials.

- The contractor will also provide all appropriate warning and detour signs when sidewalks, exits, or roads are closed.
- Contractor will provide all other construction area signs.

OSU Construction and Maintenance Safety Form

Send completed safety documents to Construction Contract Administration with contract and bonds.

Date: _____ Project: _____

Start Date: _____ Completion date: _____

Contractor: _____ Contact: _____

Work # _____ 24 hr #: _____

OSU Project Mgr: _____ Work / 24hr #'s: _____

Dept Contact: _____ OSU EH&S Contact: _____

Preconstruction meeting? **Y N** Date/Time/Location: _____

For the following items, prepare answers on a separate sheet for all items marked "Yes". Precede each answer with the appropriate item number. All boxes need to be checked

Y	N	For This Project	If YES, then:
		1 Will any confined spaces be accessed?	Describe location of entry Specify location of permit Notify EH&S prior to entry See SAF 209
		2 Will hot work be performed (welding, cutting, brazing, etc.)?	Provide min. 5# 2A10BC extinguisher within 10 ft If indoors - provide and describe ventilation See SAF 214
		3 Any products brought to campus?	Provide MSDS on site prior to first use; Make available to OSU on request
		4 Will lead paint be impacted?	Describe plan to limit contamination
		5 Will asbestos-containing-material be impacted?	Coordinate with OSU asbestos manager
		6 Will any materials (construction debris, soil, water, etc) be removed from campus?	Describe in detail identity and disposition of material (how, where)
		7 Any open trenches or holes?	Describe isolation procedures (see Page 1)
		8 Will a crane be used?	Describe crane safety plan (include plan to prevent loads above occupied areas)
		9 Is this project building a new facility, a major remodel?	Provide Site Safety plan Describe isolation procedures (see Page 1)
		10 Is this a minor remodeling project?	Provide, or fill out model Site Safety Plan form (see Page 3) Describe isolation procedures (see Page 1)
		11 Will air contamination be produced (e.g. dust, CO, solvent vapors, VOCs, odors)?	Describe project ventilation and isolation Indicate position of building air intake(s)
		12 Will there be noise > 85 dB?	Describe noise minimization plan
		13 Will this project use a scaffold or an external chute?	Describe isolation, dust control, installation
		14 Will this project involve a working surface >6' above a lower level	Describe fall protection
		15 Will any "blind" saw-cuts or penetrations be made in existing foundations, floors, ceilings and/or walls?	Describe plan for detecting and protecting power lines or other building utility lines.

EH&S Review: _____ Date: _____

Model Site Safety Plan

1. General Information

Contractor name_____
Address_____
City, State, Zip_____
Site Safety Officer_____ Project Dates_____
Project Name_____

2. Emergency Information

Emergency Response	911	OSU EH&S and OSU Facilities Services must be notified in the event of an emergency
Hazardous Materials Spill		
MSDS on-site location		
OSU EH&S	(541) 737-2273	
Facilities Services	(541) 737-2969	

3. Contractor Key Personnel

	Name	Phone	Emergency Contact
Company Owner			
Project Manager			
Job Supervisor			
Site Safety Officer			
Other Responsible Individual			
24 Hour Notification			

List of employees on site _____

4. Hazard Evaluation/ Facility Impact	
Physical	**Yes / No**
Heavy Equipment	
Noise	
Heat	
Elevation	
Radiation Materials	
Excavations	
Underground Utilities	
Confined Spaces	
Fire Prevention	
Electrical	

5. Emergencies
Services
Evacuation Route
First Aid Location
Hazardous Materials Spill Procedure

6. Work Zones

Material Storage_____
Parking locations_____
Individuals with OSU keys_____
Access issues_____

7. Security measures_____

8. Fire protection _____

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Summary:
   1. Product options.
   2. Owner-furnished products.
   3. Product delivery, storage and handling.

1.02 PRODUCTS

A. Products:
   1. New material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.
   2. Products may also include existing materials or components specifically identified for reuse.

B. Use interchangeable components of the same manufacture for similar components.

C. Unless otherwise specified, all material and equipment shall be new; free from defects impairing strength, durability, and appearance; of current manufacture.

D. Items specified shall be considered minimum as to quality, function, capacity, and suitability for application intended.

E. Items incorporated into the Work shall conform to applicable specifications and standards designated, and shall be of size, make, type, and quality specified.

F. Design, fabricate, and assemble in accordance with current best engineering, industry, and shop practices.

G. Manufacture like parts of duplicate units to standard size and gauge to make them interchangeable.

H. Two or more items of the same kind shall be identical and made by the same manufacturer.

1.03 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 with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

C. Products Specified by Naming One [or More] Manufacturer[s]: Products of manufacturer[s] named and meeting specifications, no options or substitutions allowed.

D. Substitution Procedure: Under Section 01 25 00.

1.04 REUSE OF EXISTING PRODUCTS

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:

1. Use care in removal, handling, storage, and reinstallation to assure proper function in the completed Work.
2. Arrange for transportation, storage, and handling of products which require off-site storage, restoration, or renovation.
3. Remove and reinstall mechanical units, vents, guys, antennae, and electrical and grounding wires or conduits.

1.05 OWNER FURNISHED PRODUCTS

A. Designate delivery dates of Owner-furnished items in the construction schedule.

B. Receive, unload, store and handle Owner-furnished items at the site; protect from damage.

1.06 DELIVERY, STORAGE AND HANDLING

A. Transport, handle, store and protect products in accordance with manufacturer's instructions.

B. Arrange deliveries in accordance with construction schedules; coordinate to avoid conflict with Work and site conditions.

C. Deliver and store products in undamaged condition in manufacturer's original containers or packaging with identifying labels intact and legible.

D. Inspect shipments to assure compliance with Contract Documents and reviewed submittals, and that products are undamaged.

E. Prevent soiling or damage to products or packaging.

F. Interior Storage: Maintain required temperature and humidity ranges. Verify that Owner furnished storage meets product manufacturer's requirements.

G. Exterior Storage:
   1. Store materials above ground to prevent soiling and/or moisture infiltration.
   2. Cover materials with waterproof breathable sheet coverings; provide adequate ventilation.
   3. All storage locations to be approved in advance by the Owner.

H. Arrange storage to provide access for inspection.

I. Coordinate with Owner’s Authorized Representative all on-site storage activities.

J. Provide for security of stored products.

END OF SECTION

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Requirements and limitations for cutting and patching of Work.

1.02 RELATED SECTIONS

A. Section 01 25 00, Product Substitution Procedures.

B. Section 01 33 23, Shop Drawings, Product Data, Samples

1.03 SUBMITTALS

A. Submit written request in advance of cutting or alteration which affects:
   1. Structural integrity of any element of the Work.
   2. Efficiency, maintenance, or safety of any operational element.
   3. Visual qualities of sight exposed elements.
   4. Work of Owner or separate contractor.

B. Include in request:
   1. Identification of project.
   2. Location and description of affected work.
   3. Necessity for cutting or alteration.
   4. Description of proposed work, and products to be used.
   5. Alternatives to cutting and patching.
   6. Effect on work of Owner or separate contractor.
   7. Written permission of affected separate contractor.
   8. Date and time work will be executed.

PART 2 PRODUCTS

2.01 MATERIALS

A. Primary Products: Those required for original installation.

B. Product Substitution: For any proposed change in materials, submit request for substitution under provisions of Section 01 25 00.

PART 3 EXECUTION

3.01 EXAMINATION

A. Inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.

B. After uncovering existing work, inspect conditions affecting performance of Work.

C. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

A. Provide temporary supports to ensure structural integrity of the Work.

B. Provide devices and methods to protect other portions of the Work from damage.

C. Provide protection from elements for areas which may be exposed by uncovering work.

3.03 CUTTING AND PATCHING

A. Execute cutting, fitting and patching to complete work.

B. Fit products together, to integrate with other work.

C. Remove and replace defective or non-conforming work.

D. Provide openings in the work for penetration of mechanical and electrical work.

3.04 PERFORMANCE

A. Execute work by methods to avoid damage to other Work, and which will provide appropriate surfaces to receive patching and finishing.

B. Cut rigid materials using masonry saw or core drill. Pneumatic tools are not allowed without prior approval from Owner's Authorized Representative.

C. Restore work with new products in accordance with requirements of Contract Documents.

D. At penetrations of fire rated walls, partitions, ceiling or floor construction, completely seal voids with approved fire rated material, to full thickness of the penetrated element.

E. Refinishing:
   1. Refinish surfaces to match adjacent finish.
   2. For continuous surfaces, refinish to nearest intersection or natural break.
   3. For an assembly, refinish entire unit.

END OF SECTION

SECTION 01 74 00

CLEANING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Related requirements specified elsewhere, cleaning for specific products or work: Specification section for that work.

B. Maintain premises and public properties free from accumulations of waste, debris, and rubbish, caused by operations.

C. At completion of Work remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave project clean and ready for occupancy.

1.02 QUALITY ASSURANCE

A. Standards: Maintain project in accord with applicable safety and insurance standards.

B. Hazard Control:
   1. Store volatile wastes in covered metal containers.
   2. Provide adequate ventilation during use of volatile or noxious substances.

1.03 MATERIALS

A. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

1.04 DURING CONSTRUCTION:

A. Wet down dry materials and rubbish to lay dust and prevent blowing dust.

B. At reasonable intervals during progress of Work clean site and public properties, and dispose of waste materials, debris and rubbish.

C. Provide on-site containers for collection of waste materials, debris and rubbish.

D. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.

E. Vacuum clean interior building areas when ready to receive finish painting, and continue vacuum cleaning on an as-needed basis until project is ready for Substantial Completion or occupancy.

F. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.

1.05 FINAL CLEANING

A. Employ experienced workers, or professional cleaners, for final cleaning.

B. In preparation for Substantial Completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of concealed spaces.

C. Remove grease, dust, dirt, stains, labels, and other foreign materials from exposed interior and exterior finished surfaces.

D. Remove putty, paint, labels, lubricants, etc., from windows, mirrors, and sash, and then polish, taking care not to scratch glass.

E. Vacuum carpeting (shampoo where required), removing debris and excess nap.

F. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.

G. Replace air filters where units were operated during construction.

H. Maintain cleaning until project, or portion thereof, is occupied by Owner.

END OF SECTION

SECTION 01 77 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. OSU General Conditions.
   2. Shop Drawings, Product Data and Samples, Section 01 33 23.

1.02 PROJECT RECORD DOCUMENTS

A. The Project Record Documents shall be organized to include the following information, as applicable:
   1. Table of Contents
   2. Project Team List
   3. Specifications (Including Addenda and Change Orders)
   4. Drawings
   5. Inspection Reports
   6. Signed Warranty(ies)
   7. Maintenance Instructions

B. Draft Project Record Documents shall be submitted for review upon 75% completion of the Work.

C. Project Record Documents shall be submitted electronically to the Owner. Hard copies will not be accepted.

D. The project team list shall include the name, address, and phone number of the Owner, Contractor, Inspector, Subcontractors, and the materials manufacturers.

E. Legibly mark each Specification section to indicate actual as-built condition indicating changes in the Work made by addenda or change order or actual materials used and actual manufacturer(s) used.

F. Maintain current and accurate as-built mark-ups during construction and make available to Owner’s Authorized Representative upon request.

G. Legibly mark the drawings to indicate actual as-built conditions indicating changes in the Work made by addenda or change order or actual conditions which differ from the drawings.

H. Redraw or provide new drawings as required for a complete as-built set of drawings. The Contractor shall maintain current and accurate as-built mark-ups during construction and make available to Owner’s Authorized Representative.

I. Include inspection reports if applicable.

J. Include, in a single section, all copies of the Project’s labor and material warranties clearly marked to identify the Owner's responsibilities under the terms of each warranty and the section of Work that each warranty covers. One set must be clearly marked as containing original

documents.

K. In the case of an elevator installation, the Contractor's and manufacturer's warranty shall provide for the Owner's right to respond to emergency/car failure situations for the purpose of extricating individuals trapped in the elevator.

L. 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 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., painting cannot be completed due to high moisture content of masonry walls.) the Contractor shall record the reason with this Punch-list item requesting temporary delay in completion from the Owner in writing.

D. Notify the Owner 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 Owner will review all documents. When the documents include a Contractor's request for delay in completion, the Owner will review all Work which is certified as complete to the best knowledge of the Contractor. The Owner will also review the listed incomplete Work and assign a value to such uncompleted work.

F. The Contractor shall make the required corrections to the Work expeditiously. A letter will be addressed to the Contractor informing the Contractor of the project status.

G. When Contract closeout procedures are completed and all Punch-list deficiencies have been corrected, provide Owner with final corrected Project Record Documents based on Owner’s preliminary review. Correct Project Record Documents shall be in electronic format.

H. Final Completion by the Owner will be documented and the Contractor will receive written notice of acceptance of the Work and notification that final payment may be billed and released.

I. All warranties shall commence and become effective beginning on the date of Substantial Completion.

END OF SECTION

ARCHITECTURAL WOODWORK

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes but is not necessarily limited to the following architectural millwork:

1. Plastic laminate casework.

2. Wood panels and trim.

3. Solid surface countertops.

1.2 REQUIREMENT OF REGULATORY AGENCIES

A. Comply with all national, state and local codes including:

1. Building codes.

2. Environmental codes.

3. Fire codes: Where required by code, all materials must be fire rated. Except for enclosed exitways and corridors, a Class C interior finish (76 to 200 flame spread) is required. In corridors, Class B interior finish (26 to 75 flame spread) is required.

4. Codes of any other regulatory agency having jurisdiction.

1.3 REFERENCES

A. Standards: The following referenced standards and standard specifications, referred to thereafter by designation only, form a part of this Section.

1. American National Standards Institute (ANSI):

a. ANSI A208.1-1987, Mat-Formed Wood Particleboard.

b. ANSI A208.2-1980, Medium Density Fiberboard for Interior Use.

c. ANSI/AHA A135.4-1982, Basic Hardboard.

2. American Society for Testing and Materials (ASTM):

a. D523-89, Test Method for Specular Gloss.

b. D2898-81 (1986), Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing.

c. E84-89a, Test Method for Surface Burning Characteristics of Building Materials.

3. Architectural Woodwork Quality Standards (AWS): Architectural Woodwork Standards, Guide Specifications and Quality Certification Program, Edition 1, adopted and

published jointly by Architectural Woodwork Institute, Architectural Woodwork Manufacturers Association of Canada and The Woodwork Institute.

4. National Particleboard Association (NPA):

   a. NPA 8-86, Voluntary Standard for Formaldehyde Emission from Particleboard.

   b. NPA 9-87, Voluntary Standard for Formaldehyde Emission from Medium Density Fiberboard (MDF).

5. National Electrical Manufacturers Association (NEMA): NEMA LD 3-91, Application, Fabrication, and Installation of High-Pressure Decorative Laminates.

6. Hardwood Plywood and Veneer Association (HPVA): ANSI/HPVA HP-1-2009, American National Standard for Hardwood and Decorative Plywood.

7. National Hardwood Lumber Association (NHLA).

8. U.S. Voluntary Product Standard (PS): U.S. Voluntary Product Standard PS 1-83, Construction and Industrial Plywood.

9. Western Wood Products Association (WWPA).

1.4 DEFINITIONS

A. Exposed Surfaces: Surfaces visible when doors and drawers are closed; bottoms of casework more than 4-feet above finished floor, backs of hinged doors and edges of hinged doors exposed when opened, visible surfaces of open shelving and surfaces behind glass doors.

B. Semi-Exposed Surfaces: Surfaces that become visible when drawers and doors are opened, tops of cases 6-feet, 6-inches or more above finished floor.

C. Concealed Surfaces: Surfaces not visible after installation.

1.5 SUBMITTALS

A. Submit the following in accordance Division 1 Section “Shop Drawings, Product Data, Samples”

B. Product Data:

1. Include catalog cuts for cabinet hardware and other equipment.

2. Provide samples for hinges, catches, door/drawer pulls, and cabinet locks.

C. Shop Drawings:

1. Submit shop drawings of woodwork showing location of each item, dimensioned plans and elevations, grain direction, large scale details, joints, sections and connections to adjacent work.

2. Include details of framing, blocking and furring and coordination for interface work at substrates.

3. Include hardware schedule for cabinet hardware.

D. Samples:

1. Wood “Elbow Rest” Edge Trim at Bar (WD-1) samples: Submit (2) 18” long wood trim sample with stain to match existing bar wood and clear finish.

2. Wood Panel and Wood Trim (WD-2) samples: Submit (2) 18-inch square x full depth corner wood panel samples with typical edge detail and wood trim with stain to match existing wood and clear finish.

3. Plastic laminate and solid surface finished samples: Submit (2) 4-inch x 4-inch of each pattern specified.

E. Composite wood manufacturer certification of compliance with requirement for no added urea-formaldehyde resins in composite wood products.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Firm with at least 5 years experience in successfully producing architectural woodwork similar to that indicated for this Project, with sufficient production capacity to produce required units without causing delay in the Work.

B. Single-Source Manufacturing and Installation Responsibility: Engage a qualified manufacturer to assume undivided responsibility for woodwork specified in this Section, including fabrication, finishing, and installation.

C. Grade of Architectural Woodwork: Conform to AWS "Custom Grade" standards for material, fabrication and installation.

D. Solid surface materials (SS) shall only be fabricated and installed by a professionally trained fabricator and/or installer for each material type. A detailed knowledge of the properties of each material and the proper installation practices is required to reduce the probability of improper installation.

1.7 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Storage: Storage areas shall be clean and the relative humidity held steady within 25% to 55%.

1.8 PROJECT CONDITIONS

A. Verify dimensions before proceeding and obtain measurements at job site for work required to be accurately fitted to other construction. Measurements shall be accurate so that finished work is precisely assembled and fitted.

B. Report unsatisfactory tolerances in adjoining work.

C. Proceed with woodwork only after substrate construction and penetrating work have been completed and if necessary, corrected by other trades.

1.9 WARRANTY

A. Woodwork: Provide one-year warranty agreeing to repair or replace work which is not in conformance with requirements of Contract Documents or work that becomes out of adjustment.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Approved Manufacturers:

1. Advance Cabinet Designs, Inc., 541-465-3394.
2. Cascade Casework Corp.; 541-258-3255.
3. Custom Source Woodworking Inc., 360-491-9365.
4. Fremont Millwork Co., 541-258-3255.
5. Genothen, 360-352-3636.
6. ISEC Cabinets, 425-488-1333.
7. Kriegsco Manufacturing, Inc., 503-981-9083.
8. Neil Kelly Cabinets, 503-335-9207.
9. Pacific Cabinets, Inc., 208-962-5546.
10. Specialty Cabinets, 971-241-4952.
11. Legend Custom Woodworking, Inc. 503-669-1000.
12. Artek Contracting, Inc., 503-641-6877.
13. Milltech Group, 800-755-3092.
14. Uncommon Cabinetry, Inc. 541-929-2701.
15. Burgener’s Woodworking, 360-694-9408.
16. Custom Source Woodworking, Inc., 360-491-9365.
17. J.S. Perrott, 503-234-1880.
18. Salem Wood Products, Inc., 503-364-9772.

B. Manufacturers: Submit company profile, marketing brochures, and list of references with names and phone numbers of Owner, Architect, and Contractor with your bid submittal.

C. Other Manufacturers: Submit Substitution Requests prior to bid date in accordance with Division 1 Section "Product Substitution Procedures."

2.2 SOLID LUMBER AND WOOD VENEER PANEL MATERIALS

A. General:

1. Comply with AWS Section 4 veneer face grade description for Grade AA veneers.

2. Provide thicknesses as indicated; if not indicated, provide minimum thicknesses required by AWS for Grade AA veneers.

3. General: Comply with AWS Section 3 lumber grading rules for Grade I work. Provide lumber surfaced four sides (S4S) and work to patterns indicated.

B. Wood “Elbow Rest” Edge Trim at Bar (WD-1): Refer to drawings for type.

C. Wood Panel and Wood Trim (WD-2):

a. Vertical grain Douglas fir veneer: WWPA Finish Grade “Superior” Douglas fir, kiln dried

b. Veneer Minimum thickness 1/28-inch at 12% moisture content.

c. Manufactured from veneer leaves of equal width, sequence, book and balance match on the panel. Horizontal grain to be end, book, and butt matched.

2. Panel Core:

a. Particleboard, 45 lb. density Industrial Grade, 3/4-inch thick.

3. Back: Hardwood back grade veneer of a similar species to balance face veneer.

4. Edges: Provide wood veneer to match face on all exposed edges.

D. Blocking, Framing and Furring:

1. Sound, thoroughly-seasoned, and free from warp that cannot be corrected in process of bridging or nailing. Use same species for members in any one assembly.

2. Grades for framing materials: Conform to grading rules of The Softwood Manufacturer's Association for species of wood being used.

2.3 CABINET HARDWARE

A. Hinges: One pair of concealed, self-closing, nickel plated, with opening angle of 125 degrees, and one heavy duty magnetic catch per cabinet door. Blum, or approved.

B. Pulls:

1. Refer to drawings for type and finish.

C. Door Locks:

1. Description: 5 pin tumbler, interchangeable core, keyed to building master, 2 keys per lock. Provide spacers to install lock flush with face of cabinet.

2. Finish: Brushed stainless steel 626.

3. Locations: Provide for each door where indicated.

4. Manufacturer: Schlage Lock CL777R (door).

D. Shelf Support Pin:

1. 5mm bored holes at 32mm o.c. with shelf pins.

2. U. S. Tek, 626-859-9225 "Engstrom #11 Seismic Shelf Clip," double pin, 500 lb. capacity.

3. Location: Open and concealed shelving.

2.4 SOLID SURFACING

A. SS-1, Solid Acrylic Countertops: Refer to drawings for type and manufacturer.

1. Color, thickness, and edge condition: Refer to drawings.

2. Accessories: Mounting adhesives, surfacing adhesives, joint sealants, and cleaning solvents of type recommended by manufacturer for application and conditions of use.

2.5 PLASTIC LAMINATE CASEWORK

B. PL, High Pressure Plastic Laminate Faces: 0.030 grade NEMA Type 1 on exposed faces including open shelving. Balance back sheet 0.020-inches thick on concealed portion of work.

C. PL Tops: 0.050 grade NEMA Type 1 on countertops and open shelves. Balance back sheet 0.020-inches thick on concealed portion of work.

D. PL Colors: Refer to drawings.

E. Particleboard Core Stock: 3/4-inch thick, complying with ANSI A208.1, 45 lbs./cu.ft. density, minimum average modulus of rupture of 2400 psi, minimum average modulus of elasticity of 400,000 psi.

F. Semi-Exposed Surfaces, Cabinet Shelves, and Partitions: Low pressure laminate (LPL) (polyester or melamine) laminated to particleboard with edge banding of the same material where edges are exposed. Refer to drawings for color. Shelves 3/4-inches thick for spans up to 32-inch, 1-inch thick for spans from 32-inches up to 42-inches. Low pressure laminate on all semi-exposed surfaces.

G. Frame Stock: No. 1 shop kiln dried Douglas-fir.

H. Drawer and Door Edge Banding, Edge Banding on Open Shelves and Edges Behind Drawers and Doors: Square edge 3mm PVC, color to match plastic laminate.

2.5 FABRICATION

A. Fabrication:

1. Comply with referenced AWS standards.

2. Provide details and profiles indicated.

3. Fabricate units rigid, neat, free from defects, warp or buckle in accordance with final shop drawings.

4. Provide factory cutouts for openings in units as required to receive associated work.

5. Assemble prefinished units at the factory to the greatest degree possible and disassemble only as required for shipping to the site. Accurately mark units for assembly at site.

B. Cabinets:

1. Comply with AWS Section 10 Custom Grade.

2. Comply with AWS Section 10 Fabrication Style: Flush Overlay.

3. Casework with Plastic Laminate Finish: Apply high pressure laminate to tops, fronts, faces, ends, backsplashes, and trim in accordance with AWI Custom grade standards and as detailed and noted on the Drawings. Self-edge all countertops.

C. Wood Veneer Panels and Trim:

1. Comply with AWS Section 8, Custom Grade.

2. Wood Veneer Panels: 45 lb. particle core with veneer faces and solid wood edge banding. Edge banding to be applied to the core before laminating except where detailed otherwise.

2.6 SHOP APPLIED FINISH

A. Provide complete factory finish.

B. Finish in strict accordance with requirements of AWS Section 5, Custom Grade.

C. Stain to match adjacent existing adjacent wood panels and trim: where noted on drawings.

D. CC-1, Clear Coat Finish:

a. Sealer: Sherwin-Williams vinyl sealer, T67 F 3.

b. Filler: Sherwin-Williams "Sher-Wood" fast-dry filler.

c. Top Coats: Sherwin-Williams “Acrylic Conversion Coating, Dull Rubbed Effect.”

2. Finishing Process: Vertical and horizontal surfaces.

a. Apply one coat sealer with brush or sprayer.

b. Sand, 220 grit.

c. Apply two top coats with sprayer, lightly sand between coats.

3. Add any of the following additional finishing steps in any order prior to top coats as required to achieve a uniform finish without sharp contrast in color or grain.

a. Bleaching.

b. Fillers.

c. Glazing.

d. Toning.

e. Wash coats.

PART 3 EXECUTION

3.1 INSPECTION

A. Examine substrates and adjoining construction and conditions under which work will be installed. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Provide all necessary blocking, backing, framing, suspension, and other components necessary to provide a complete functioning system in the profile, dimensions, configurations, and materials indicated.

B. Exposed Blocking: Install surface mounted wood blocking, nailers, furring and grounds as required for wall-hung cabinetry and other wall-hung items, whether or not such blocking and similar items are indicated on drawings.

C. Unexposed Blocking: Unexposed internal blocking within the wall construction by others. Location of unexposed blocking to be determined by this trade.

3.3 INSTALLATION

A. General:

1. Comply with AWS Sections 6-Interior and Exterior Millwork, 8-Wall Surfacing, 10-Casework, and 11-Countertops, Custom Grade.

2. Install in accordance with final shop drawings and manufacturer's instructions.

3. Assemble and install work without machine and tool marks.

4. Neatly fit and scribe work to adjacent surfaces.

B. Built-in Benches and Cabinets:

1. Install with back mounted concealed fasteners, plumb and level, no exposed fasteners.

2. Securely attach to supporting substrates and blocking and furring.

3. Coordinate with electrical requirements to provide openings at receptacles and switches.

C. Countertops:

1. Install countertops straight, level and plumb.

2. Provide concealed grounds and anchor securely to walls.

3. Coordinate with electrical and plumbing requirements to provide openings at receptacles, switches and plumbing fixtures.

D. Solid Surfacing:

1. Verify that substrates supporting solid surfaces are plumb, level, and flat to within 1/16 inch in ten feet (1.6 mm in 3000 mm), and that necessary supports and blocking are in place.

2. Clean substrates of dust and contamination.

3. Clean solid surfacing back side and joints with solvent.

4. Apply sufficient quantity of mounting adhesive in accordance with adhesive manufacturer’s recommendations to provide permanent, secure installation.

5. Joints between adjacent pieces of solid surfacing:

a. Joints shall be flush, tight fitting, level, and neat.

b. Securely join with solid surfacing adhesive.

c. Fill joints level with solid surfacing.

d. Clamp or brace solid surfacing in position until adhesive sets.

e. Joints between backsplashes and countertops: Seal joints with silicone sealant.

f.

3.4 ADJUSTING AND REPAIR

A. Before completion of work, adjust hardware until components operate properly.

B. Replace defective, damaged or missing hardware.

C. Touch-up marred finishes, including shop finishes to match adjacent surfaces.

D. Remove and replace units which are warped, bowed, not properly fitted or finished or otherwise damaged.

3.5 CLEANING AND PROTECTION

A. Clean work upon completion.

B. Protect units during construction so that they will be without any evidence of damage or use at time of acceptance.

END OF SECTION

PORCELAIN TILING

PART 1 GENERAL

1.1 SUMMARY

A. Furnish all labor, materials, equipment, and services necessary for the installation of porcelain tile, including:

1. Tile for floor applications.

2. Tile for wall applications.

1.2 REFERENCE STANDARDS

A. ANSI A108/A118/A136.1 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium).

1. ANSI A108.5 - American National Standard Specifications for Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar.

2. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy.

3. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout.

4. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework.

5. ANSI A118.3 - American National Standard Specifications for Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive.

6. ANSI A118.4 - American National Standard Specifications for Modified Dry-Set Cement Mortar.

7. ANSI A118.7 - American National Standard Specifications for High Performance Cement Grouts for Tile Installation.

8. ANSI A118.15 - American National Standard Specifications for Improved Modified Dry-Set Cement Mortar.

9. ANSI A136.1 - American National Standard Specifications for Ceramic Tile.

B. ASTM C373 - Standard Test Methods for Determination of Water Absorption and Associated Properties by Vacuum Method for Pressed Ceramic Tiles and Glass Tiles and Boil Method for Extruded Ceramic Tiles and Non-tile Fired Ceramic Whiteware Products.

C. SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168.

D. TCNA (HB) - Handbook for Ceramic, Glass, and Stone Tile Installation.

1.3 PREINSTALLATION CONFERENCE

A. Preinstallation Conference: Convene a preinstallation meeting one week before starting work of this section; require attendance by all affected installers.

1.4 SUBMITTALS

A. Submit the following in accordance with Division 1 Section " Shop Drawings, Product Data, Samples."

B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.

1. For sealants, include printed statement of VOC content.

C. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control joints, thresholds, ceramic accessories, and setting details.

D. Selection Samples: Provide manufacturer's full range of available colors for grout selection.

E. Jobsite Samples: Mount tile and apply grout on one plywood panel, minimum 24 x 24 inches in size for tile patterns illustrating pattern, color variations, and grout joint size variations. Maintain at jobsite for Architect's review.

F. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

G. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods.

H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.

1. See Division 1 Section “Shop Drawings, Product Data, Samples.” for additional provisions.

2. Provide 2 percent of each size, color, and surface finish of tile specified.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.

B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.

1.6 FIELD CONDITIONS

A. Do not install solvent-based products in an unventilated environment.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:

1. Refer to drawings.

B. Other Manufacturers: Submit Substitution Requests prior to bid date in accordance with Division 1 Section "Product Substitution Procedures."

2.2 TILE

A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.

B. T-1, T-2, T-3, Porcelain Floor and Wall Tile: ANSI A137.1, standard grade.

1. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.

2. Size: Refer to drawings.

3. Surface Finish: Refer to drawings.

4. Colors: Refer to drawings.

5. Products: Refer to drawings.

C. ANSI A137.1, standard grade.

1. Moisture Absorption: 7.0 to 20.0 percent as tested in accordance with ASTM C373.

D. Sealants and Primers:

1. Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.

a. Architectural Sealants: 250 g/L.

b. Sealant Primers for Nonporous Substrates: 250 g/L.

c. Sealant Primers for Porous Substrates: 775 g/L.

2. Use primers and sealant accessories recommended by sealant manufacturer.

3. Colors: Provide colors of exposed sealants to match colors of grout in tile adjoining sealed joints unless otherwise indicated.

E. Trowelable Underlayments, Self-Leveling Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.

1. Available Products: Ardex Engineered Cements, self-leveling underlayments and pre-tile repair mortar.

F. Sealer: Aqua Mix Sealer's Choice Gold.

1. Locations of Use: All grout joints that are not epoxy.

2.3 SETTING MATERIALS

A. Tile Setting Materials - General: Provide only products having lower volatile organic compound (VOC) content than required by SCAQMD 1168.

B. Manufacturers:

1. ARDEX Engineered Cements: www.ardexamericas.com.

2. Custom Building Products: www.custombuildingproducts.com.

3. LATICRETE International, Inc: www.laticrete.com/sle.

C. Latex-Portland Cement Mortar Bond Coat: ANSI A118.4 or ANSI A118.15.

1. Applications: Use this type of bond coat where indicated and where no other type of bond coat is indicated.

2. Products:

a. ARDEX Engineered Cements; ARDEX X 5: www.ardexamericas.com.

b. LATICRETE International, Inc; LATICRETE 254 Platinum: www.laticrete.com/#sle.

2.4 GROUTS

A. Manufacturers:

1. ARDEX Engineered Cements: www.ardexamericas.com.

2. Flextile Ltd: www.flextile.net.

3. LATICRETE International, Inc: www.laticrete.com/#sle.

4. TEC: www.tecspecialty.com.

5. Custom Building Products www.custombuildingproducts.com

B. Epoxy Grout: ANSI A118.3 chemical resistant and water-cleanable epoxy grout.

1. Applications: Refer to drawings for locations.

2. Colors: Refer to drawings or as selected by Architect from manufacturer's full line.

3. Products:

a. ARDEX Engineered Cements; ARDEX WA: www.ardexamericas.com/#sle.

b. LATICRETE International, Inc; LATICRETE SPECTRALOCK 2000 IG: www.laticrete.com/#sle.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.

C. Verify that substrates for setting tile are firm, dry, clean, free of coatings that are incompatible with tile-setting materials including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI for installations indicated.

D. Verify that concrete substrates for tile floors installed with thin-set mortar comply with surface finish requirements in ANSI A108.1b for installations indicated.

1. Verify that surfaces that received a steel trowel finish have been mechanically scarified.

2. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.

E. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.

F. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.

G. Verify that required floor-mounted utilities are in correct location.

3.2 PREPARATION

A. Protect surrounding work from damage.

B. Vacuum clean surfaces and damp clean.

C. Seal substrate surface cracks with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.

3.3 INSTALLATION - GENERAL

A. Install tile and grout in accordance with applicable requirements of ANSI A108.1a through ANSI A108.13, manufacturer's instructions, and TCNA (HB) recommendations.

B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.

C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor, base, and wall joints.

D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.

E. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.

1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.

2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.

F. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:

1. Unglazed Floor Tile: 1/8 inch.

2. Glazed Wall Tile: 1/16 inch.

G. Form internal angles square and external angles bullnosed.

H. Install non-ceramic trim in accordance with manufacturer's instructions.

I. Sound tile after setting. Replace hollow sounding units.

J. Keep control and expansion joints free of mortar, grout, and adhesive.

1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.

2. Space control joints at 12 foot to 16 foot intervals in each direction, unless otherwise indicated.

3. Provide joints at perimeter walls and at fixtures or structural elements.

K. Prior to grouting, allow installation to completely cure; minimum of 48 hours.

L. Grout tile joints unless otherwise indicated.

M. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.

3.4 INSTALLATION - FLOORS - THIN-SET METHOD

A. Use TCNA F115, "On-Ground Concrete, Ceramic Tile with Epoxy Grout" thin-set installation procedure consisting of cementitious bond coat and epoxy grouted ceramic tile for installation over slab-on-grade concrete.

3.5 INSTALLATION - WALL TILE – THIN SET METHOD

A. Use TCNA W245 "Coated Glass Mat Water-Resistant Gypsum Backer Board" installation procedure consisting of cementitious mortar bond coat on ceramic tile backing board and epoxy grouted ceramic tile. Do not install vapor retarder behind backing board (see installation instructions of ceramic tile backing board manufacturer).

B. Use TCNA W247 "Fiber-Reinforced Water-Resistant Gypsum Backer Board" installation procedure consisting of cementitious mortar bond coat on ceramic tile backing board and epoxy grouted ceramic tile. Do not install vapor retarder behind backing board (see installation instructions of ceramic tile backing board manufacturer.

3.6 CLEANING

A. Clean tile and grout surfaces.

3.7 PROTECTION

A. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION

LINEAR WOOD PANEL SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

A. Furnish all labor, material, and equipment required for the installation of linear wood panel systems including:

1. Concealed suspension system for wood grille ceiling panels.

2. Wood grille ceiling panels.

3. Trim and accessories.

4. Seismic restraints for suspended ceiling system.

1.2 REFERENCES

A. ASTM A 641: Standard Specification for Zinc Coated (Galvanized) Carbon Steel Wire; 1992.

B. ASTM C 423: Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method; 1990.

C. ASTMC C 635: Standard Specifications for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.

D. ASTM C 636: Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels; 1992.

E. ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials; 1991.

F. ASTM E 580: Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Requiring Seismic Restraint; 1991.

G. Architectural Woodwork Quality Standards (AWS): Architectural Woodwork Standards, Guide Specifications and Quality Certification Program, Edition 1, adopted and published jointly by Architectural Woodwork Institute, Architectural Woodwork Manufacturers Association of Canada and The Woodwork Institute.

H. CISCA: Ceiling Systems Handbook.

1.3 SUBMITTALS

A. Submit the following in accordance with Division 1 Section "Shop Drawings, Product Data, Samples."

B. Product Data: For each type of product specified.

C. Samples: For verification of each type of exposed finish required, prepared on samples of size indicated below. Where finishes involve normal color and texture variations, include sample sets showing the range of variations expected.

1. 12” x 18” samples of each panel type, pattern, and color.

D. Shop Drawings: Provide Shop Drawings/Coordination Drawings for all ceilings, which should include RCP and product details. Coordinate Wood Grille ceiling panels layout and installation of wood panels and suspension system components with other construction elements that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system components, partition assemblies and all perimeter conditions.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer, approved by wood panel manufacturer, who has completed ceiling and wall panels similar in species, design, and extent to that indicated for this Project and with a record of successful in-service performance.

B. Inspection: All work must pass inspection and approval of architect, as well as the local codes and regulations or authorities having jurisdiction.

C. Single-Source Responsibility for Wood Panel Systems: Obtain all types of wood panels from a single fabricator, with in-house Shop Drawing capabilities, in-house assembly and finishing capabilities, and with resources to provide products of consistent quality in appearance and physical properties without delaying the project.

D. Single-Source Responsibility for Suspension System: Obtain each type of suspension system from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying project.

E. Fire Performance Characteristics: Fire resistant wood ceiling strips shall meet Class A Fire Spread index and Class A Smoke Developed index per ASTM E84.

F. Seismic Requirements:

1. The suspended ceiling system for this building must be engineered for the appropriate forces due to the buildings classification as an Occupancy Category 3 or 4 (OSSC, table 1604.5). Provide structural calculations and details for the vertical and, if applicable, the lateral forces. Refer to State of Oregon Interpretation No: 2010 OSSC Section 1613.1 which may be found at http://www.cbs.state.or.us/bcd/programs/structural_interps.html.

2. Suspended wood panel ceiling systems, with or without lighting fixtures, air terminals, or other ceiling mounted items shall comply with the requirements of ASTM C635, ASTM C636, and the building code.

3. Ceiling areas of 144 s.f. or less surrounded by walls which connect directly to the structure above shall be exempt from these standards.

4. Light Duty systems to be used only where no loads other than ceiling acoustical materials weighing not more than 1.5 lbs./s.f. are supported by the suspension system.

5. Intermediate and Heavy Duty classification systems shall be used where suspension system is used to support acoustical material weighing more than 1.5 lbs./s.f., lighting fixtures or other equipment.

G. Pre-Installation Conference: Conduct conference at Project site.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Delivery and Unloading: Coordinate crate sizes, weights, unloading options, and delivery schedule with manufacturer prior to fabrication. Deliver wood panels and suspension system components to Project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other mistreatment.

B. Acclimatization: Before installing wood panels, permit them to reach room temperature and a stabilized moisture content (at least 72 hours) per AWI standards.

C. Handling: Handle Wood panels carefully to avoid chipping edges or damaging units.

1.6 PROJECT CONDITIONS

A. Install only when temperature and humidity closely approximate the interior conditions that will exist when the building is occupied. Heating and cooling systems shall be operating before, during, and after installation.

B. Prior to start of installation, ensure that all exterior windows and doors are in place, glazed, and weatherstripped, and that all wet trades' work is completed and thoroughly dry.

C. Ensure that mechanical, electrical, and other utility service installations above the ceiling plane are complete. No materials may rest against or wrap around the ceiling suspension components or connecting hangers.

1.7 SEQUENCING AND SCHEDULING

A. Coordinate layout and installation of the linear ceiling and its suspension system with other work penetrating the ceiling including light fixtures, HVAC equipment, and fire suppression system components.

1.8 WARRANTIES

A. Warranties: Provide owner with a (1) year warranty for material and workmanship on all installed products.

1. Manufacturers: All materials, wood panels and grid, shall be warranted for (1) one year for material and workmanship.

2. Installer: All work shall be warranted for (1) year from final acceptance of completed work.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: 9Wood, Inc. (www.9wood.com): Series 1100 Grilles.

B. Other Manufacturers: Submit Substitution Requests prior to bid date in accordance with Division 1 Section "Product Substitution Procedures."

2.2 LINEAR WOOD PANELS

A. Wood Grille Ceiling (WC-1): 9Wood, Inc. Wood Grille, Series 1100:

1. Style: 1100 Cross Piece Grille, SKU 1112-8

2. Species: Refer to drawings.

3. Stain: Refer to drawings.

3. Member Size: Refer to drawings.

4. Edge Profile: Square.

5. Members/LF: Refer to drawings.

6. Assembly Style: Cross Piece Backer.

7. Panel Sizes: 1’ x 8’ (Nom).”

8. Fire Rating: Class 1(A) Fire Rating.

9. Finish: Clear pre-catalyzed lacquer, satin on stained wood. Refer to drawings for stain color.

2.3 METAL SUSPENSION SYSTEMS, GENERAL

A. Metal T-Grid Suspension System: Provide standard interior Metal Heavy Duty 15/16” suspension T-Grid system using Main Runners, Cross-tees, Wall Angle or Shadow Moldings of types, structural classifications, and black finishes indicated and that comply with applicable ASTM C 635 requirements. Comply with all applicable codes and ordinances.

B. Attachment Devices: Size for 3 times the design load indicated in ASTM C 635, Table 1, Direct Hung unless otherwise indicated.

C. Wire, Braces, Ties, Hanger Rods, Flat Hangers and Angle Hangers: Provide wires, rods and hangers that comply with applicable ASTM specifications.

2.4 ACCESSORIES

A. Fasteners: As recommended and supplied by panel manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

A. General: Examine substrates and structural framing to which ceiling panels attach or abut, with installer present, for compliance with requirements specified in this and other sections that affect ceiling panel installation and anchorage. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Coordination: Furnish layouts for anchors, clips, and other ceiling anchors whose installation is specified in other Sections.

B. Layout: Conform to the layout shown on reflected ceiling plans in accordance with wood panel manufacturer’s reviewed Shop Drawings.

3.3 INSTALLATION

A. General: Install wood ceiling panels to comply with manufacturer's instructions and CISCA "Ceiling Systems Handbook."

B. Protection: Protect completed work above suspension system from damage during installation of suspension system components.

C. Attachments: Suspend ceiling hangers from building's structural members per manufacturer’s instructions and in compliance with all local codes and regulations.

D. Suspension Runners: Install suspension system runners so they are square and securely interlocked with one another. Install number and use on-center spacing per wood ceiling manufacturer’s instructions, as indicated on approved Shop Drawings and in compliance with all local codes.

E. Installation of Metal T-Bar Grid: Install, align, brace, tie-off, mount, handle interferences, and space suspension T-Grid in accordance with suspension manufacturer’s instructions and in compliance with all local codes and regulations.

F. Installation of Wood Panels:

1. Install wood ceiling panels in accordance with manufacturer's installation instructions and in compliance with all local codes and regulations. Install with undamaged edges and fitted accurately to suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit, as required.

3.4 CLEANING

A. General: Clean exposed wood surfaces of wood panels. Comply with manufacturer's instructions for cleaning and touchup of minor finish damage. Remove and replace wood components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

CARPETING

PART 1 GENERAL

1.1 SUMMARY

A. Furnish all labor, materials, equipment, and services necessary for the installation of carpet.

1.2 REFERENCES

A. American Association for Textile Chemists and Colorists (AATCC).

B. American Society for Testing and Materials (ASTM).

C. Carpet and Rug Institute (CRI).

1.3 SUBMITTALS

A. Submit the following in accordance with Division 1 Section “Shop Drawings, Product Data, Samples.”

B. Shop drawings showing the layout for each area to receive carpet. Show carpet color, trim strips, and any pertinent installation details, including location of seams and direction changes. Do not install carpet prior to layout approval.

C. Product Data: Data on specified products describing physical and performance characteristics, patterns and colors available, and methods of installation.

D. Written certification from carpet manufacturer to the Owner stating that the register numbered carpet furnished was manufactured in accordance with these Specifications.

E. Samples:

1. Two full tile size samples of each carpet.

2. Furnish samples of carpet to the job when and as directed by Architect for testing by an independent testing laboratory. Costs for all testing will be paid in accordance with Division 1 Section “Quality Control.”

F. Carpet manufacturer's maintenance and cleaning procedures for maximum life and appearance of carpet. This includes but is not limited to commercial cleaning, spot cleaning and vacuum cleaning for each carpet selected.

G. Warranty, as described below.

H. Certification and description of reclamation and recycling process.

I. Carpet manufacturer certification of compliance with the Carpet and Rug Institute Green label Indoor Air Quality Test Program.

1.4 QUALITY ASSURANCE

A. Indoor Air Quality: Carpet shall meet or exceed the minimum standards contained in the Carpet and Rug Institute (CRI) consumer information label.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver all carpet to the job site in original mill wrappings, each package having register number tags attached or register number marked on packaging. Do not deliver material to job site until notification and arrangements are made to properly handle, store, and protect materials. Store under cover in well ventilated spaces as soon as delivered; protect from damage, dirt, stains, and moisture during transit and storage.

1.6 PROJECT CONDITIONS

A. Do not begin installation until the work of all other trades including painting has been completed and the temperature of the rooms maintained at 70 degrees F at least 48 hours before work proceeds.

B. The Owner will employ the services of an Independent Testing Laboratory (ITL) for testing the moisture content of concrete slabs. Cooperate with the Testing Laboratory by providing the required environmental conditions for moisture testing.

1.7 SEQUENCING AND SCHEDULING

A. Make provisions for and do all necessary work to receive or adjoin other work, install carpet accessories, and provide holes and openings necessary to fit work of other trades.

1.8 WARRANTY

A. Contractor's Warranty: Written one year warranty starting at Substantial Completion and covering all repair or replacement due to defective materials or their installation. Any manufacturer's regular guarantee shall remain in effect for its full duration in addition to Contractor's guarantee.

B. Manufacturer's Warranty:

1. Lifetime Commerical Limited Warranty for Stain and Color

a. Abrasive Wear: will lose no more than 10% of the face fiber, by weight.

b. Static Protection: will not generate static build-up in excess of 3.5 kV as tested by AATCC Test Method 134

c. Stain: will resist permanent stains caused by spills of all acid-based substances

d. Colorfastness to Light and Atmospheric Contaminants: will not display a significant change in color due to exposure to light or exposure to atmospheric contaminants

e. Edge Ravel: this carpet will not edge ravel

f. Tufbind/Zippering: backing system will provide superior tuft bind strengths consistent with accepted industry standards for this type of backing.

g. Delamination: backing will not delaminate from the face carpet.

h. Dimensional Stability: backing will provide dimensional stability, per the AACHEN test.

1.9 MAINTENANCE

A. Extra Materials: Furnish scheduled overrun for future repairs and replacement, wrapped, packaged and labeled at the factory. Same dye lot and run as carpet installed. Save and package usable remnants; label and deliver to Owner.

B. Retain and identify trim pieces of usable size. Package and store same as specified for Overrun, below.

C. Overrun Schedule (each color):

Installed	Overrun
0 - 50 sq.yds.	10%
51 - 250 sq.yds.	5%
251+ sq.yds.	3%

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Product manufacturers are listed below.

B. Other Manufacturers: Submit Substitution Requests prior to bid date in accordance with Division 1 Section “Product Substitution Procedures.”

2.2 MATERIALS

A. All materials new and of domestic manufacture. Carpet of first quality and from the same dye lot for each color to be installed. Materials, construction, and appearance are based on the following performance specifications.

B. CPT-1, Carpet:

a.	Manufacturer:	Patcraft
b.	Product:	Patina, I0511
c.	Construction:	Multi-Level Pattern Loop
d.	Fiber:	ecosolution q100™ nylon
e.	Dye Method:	100% solution dyed

f.	Backing:	ecoworx® tile
g.	Protective Treatment:	SSP® Shaw Soil Protection\
h.	Size:	12 in x 48 in
i.	Gauge:	0.1 in
j.	Stitches:	8.5 per in
k.	Finished Pile Thickness:	0
l.	Average Density:	9409 oz/yd³
m.	Total Thickness:	0.263 in
n.	Tufted Weight:	0
o.	Color:	Refer to drawings.
p.	Installation Pattern:	Refer to drawings.
q.	Installation:	Glue-down tile.

C. WM-1, Walk-off Mat:

1. Manufacturer: Refer to drawings.

2. Style: Refer to drawings.

3. Color: Refer to drawings.

4. Construction: Refer to drawings.

5. Installation: Glue-down.

D. RB-1, Rubber Base:

1. ASTM F1861 Type TS, Group 1, thermoset vulcanized SBR rubber, continuous roll, 1/8-inch gauge.

2. Manufacturers: Refer to drawings.

3. Size and Style: Refer to drawings.

4. Color: Refer to drawings.

E. Accessories:

1. Rubber transition (TS-1): Refer to drawings for type and finish.

2. Metal transition (TS-2): Refer to drawings for type and finish.

3. Adhesives:

a.	Shaw 5000 pressure sensitive:	5 lbs.	85% RH	pH 5-9
b.	Shaw 5100 pressure sensitive:	5 lbs.	85% RH	pH 5-9
c.	Shaw 5036 with antimicrobial:	5 lbs.	85% RH	pH 5-9
d.	Shaw 5800 for high moisture:	10 lbs.	95% RH	pH 10

e.	Shaw 3800 indoor/outdoor	8 lbs. 90% RH pH 5-9
f.	LokDots dry adhesive:	No visible moisture pH 12
g.	LokWorx tabs:	10 lbs. 85 RH pH 12
h.	Mill-applied ES:	No visible moisture

4. Primer (if needed): 9050 is an acrylic solution made to neutralize excess alkali that is also recommend as a primer coat to prevent over absorption of adhesive and to ensure a better bond. Formulated with an antimicrobial agent, it provides protection against bacteria, fungi, and mildew in the wet or dry state. Contains no solvent, alcohol, or other hazardous materials per OSHA 29 CFR 1910.1200. Non-photo chemically reactive per rule #102. Available in 4-gallon pails.

5. Leveling and Patching Compounds: Use a cementitious patching/leveling compound that meets or exceeds the required moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine substrates, with installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.

1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of carpet products.

2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 SITE CONDITIONS

A. The following conditions must be maintained for 24 hours prior to, during and permanently after installation:

1. HVAC System must be operational.
2. The installation site, carpet and adhesive must be between 50°F and 95°F.
3. The installation site’s ambient relative humidity must not fall below 40%.
4. Conduct relative humidity or Anhydrous Calcium Chloride testing. Results must be within the proper range for Shaw 5000 adhesive:
   a. Calcium Chloride ASTM F-1869 5.0 lbs per 1000 SF /24 hours
   b. Relative Humidity ASTM F-2170 85%

5. Conduct pH testing on the floor in several locations. A reading below 5.0 or above 9.0 requires corrective measures.

3.3 PREPARATION

A. Prepare substrates according to manufacturer's written recommendations to ensure adhesion of carpet products.

B. Concrete Substrates: Prepare according to ASTM F710 except for:

1. Moisture testing paid for by Owner;

2. Removal of curing compounds and hardeners used to reduce moisture emission;

3. Repair of concrete floors performed by Division 3 Section “Cast-in-Place Concrete.”

C. Do not install carpet until all other trades have completed their work in the area to be carpeted.

D. Inspect carpet before laying for streaking, shading, spots, soil, tears, pull tufts, or other defects. Remove defective carpet from premises and replace with undamaged carpet.

E. Acclimate carpet a minimum of 24 hours prior to installation.

3.4 INSTALLATION

A. Carpet Tile:

1. Blend carpet tiles from different cartons to ensure minimal variation in color match. Locate change of color or pattern between rooms under door centerline.

2. Fully adhere carpet tile to substrate.

3. Trim carpet tile neatly at walls and around interruptions.

B. Broadloom Entry Mat:

1. Install carpet in accordance with manufacturer's recommendations for seaming technique and proper amount of stretch in width and lengths of broadloom carpet.

2. Broadloom Seams: Cement all seams of broadloom carpet. Use continuous lengths and as broad widths as possible to minimize the placement of seams in traffic lanes. Locate seams as indicated on shop drawings. Cut edges true, properly treated, and cemented to form invisible non-raveling seams.

3. Double cut carpet seams, with accurate pattern match. Make cuts straight, true, and unfrayed. Apply seam adhesive to all cut edges immediately.

4. Glue-Down: Conform to manufacturer's direct glue-down installation instructions and recommended materials for adhesive installation using only recommended adhesives and primers.

5. Trim carpet neatly at walls and around interruptions.

3.5 CLEANING

A. Remove debris after installation and clean carpet of all spots with manufacturer approved spot remover. Remove all threads with sharp scissors and thoroughly vacuum clean. Installed carpet shall be free of spots and dirt, and be without tears, fraying, or pulled tufts.

3.6 DEMONSTRATION

A. Instruct Owner in proper care and maintenance of the carpet.

3.7 PROTECTION

A. Protection of carpet after completion of installation is specified as general work and is made a part of the work of all trades doing work in areas after carpet installation.

B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer that ensure carpet is without damage or deterioration at the time of Substantial Completion.

END OF SECTION

PAINTING

PART 1 GENERAL

1.1 SUMMARY

A. Furnish all labor, material, equipment, and services necessary for and incidental to painting work. Paint all surfaces in finished room areas as scheduled and those which normally require a paint finish for proper appearance and best serviceability such as wood, gypsum board, metal work, structural steel, flashing, exposed conduit, pipes and ducts, and grilles, unless excepted.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM).

B. Architectural Woodwork Institute (AWI).

C. Master Painters Institute (MPI).

D. The Society for Protective Coatings (SSPC).

E. Painting and Decorating Contractors of America (PDCA).

1.3 DEFINITIONS

A. Regardless of the specular gloss name paint manufacturers give their products, provide specular gloss as measured on a 60° and 85° geometry Parallel-Beam Glossmeter per ASTM D523 and as defined by Master Painters Institute as follows:

1. Gloss Level 1: Traditional matte finish; flat. Gloss at 60°: Maximum 5 units. Sheen at 85°: Maximum 10 units.

2. Gloss Level 2: High side sheen flat; velvet-like finish. Gloss at 60°: Maximum 10 units. Sheen at 85°: 10 to 35 units.

3. Gloss Level 3: Traditional eggshell-like finish. Gloss at 60°: 10 to 25 units. Sheen at 85°: 10 to 35 units.

4. Gloss Level 4: Satin-like finish. Gloss at 60°: 20 to 35 units. Sheen at 85°: Minimum 35 units.

5. Gloss Level 5: Traditional semi-gloss. Gloss at 60°: 35 to 70 units.

6. Gloss Level 6: Traditional gloss. Gloss at 60°: 70 to 85 units.

7. Gloss Level 7: High gloss. Gloss at 60°: More than 85 units.

1.4 SUBMITTALS

A. Submit in accordance with requirements of Division 1 Section "Shop Drawings, Product Data, Samples."

B. Samples: Samples of mixed paint and clear coating applied to surfaces approximating job conditions with test areas painted on job if required. 12-inch x 12-inch minimum size of samples. Obtain preliminary approval of samples before doing any work on job.

C. Complete materials list indicating all materials proposed for use; show manufacturer's name, material type and name, color name and formulation, gloss level, and location where material will be used. Revise list for changes made during construction and resubmit. Where paint provided varies from specified manufacturer's product, submit product data for both the specified basis of design product and proposed paint product. Clearly note any variance between submitted product data and specified product data.

D. Paint manufacturer certification of compliance with the VOC and chemical component limits of Green Seal requirements.

1. All paints and primers: Maximum of 50 grams/liter VOC.

E. Coating Maintenance Manual: Provide coating maintenance manual including area summary with finish schedule, area detail designating location where each product/color/finish was used, product data pages, material safety data sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

F. Painting subcontractor's PDCA membership status for national, state, and local levels.

1.5 QUALITY ASSURANCE

A. Paints and coatings shall comply with the VOC and chemical component limits of Green Seal requirements.

B. Painter shall be a PDCA member at national, state, and local levels.

C. Mock-ups:

1. Brush-out areas, 5-feet x 5-feet, as selected by Architect for each color and gloss level for review and prior to final color approval. After acceptance of color brush out, use that work as the reference standard to be matched by subsequent completed work.

2. One brush-out area of approximately 100 s.f. painted with the predominate wall color in a well-lit area selected by Architect. Paint 100 s.f. of primer, 70 s.f. of first finish coat and 40 s.f. of second finish coat such that the completed mock-up will have three levels of paint, i.e., primer only, primer plus one finish coat, and primer plus two finish coats. Leave approved mock-up in place during painting as a standard of comparison to finished work. At completion of painting, repaint mock-up wall as necessary to conceal all lap marks.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Designate one location for the storage and mixing of materials. Keep location in a neat and clean condition at all times.

B. Deliver materials only when building is closed in and completed sufficiently to prevent freezing and other damage to paint products.

C. Deliver all materials to the job site in new and unopened containers, with the manufacturer's name, brand name, batch number, color, directions for tinting, mixing and application on a printed label on every container.

1.7 MAINTENANCE

A. Extra Materials: Furnish one gallon of each color and paint type for future repairs, packaged and labeled at the factory. Extra paint shall be mixed at the same time as paint installed.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Paint Manufacturers:

1. Benjamin Moore

2. Miller

3. Sherwin Williams

B. Other Manufacturers: Submit Substitution Requests prior to bid date in accordance with Division 1 Section "Product Substitution Procedures."

2.2 MATERIALS

A. Provide paint products from one or more manufacturers as required to comply with the color/gloss level/product type combinations. The gloss level of manufacturer's product numbers in this specification may not match the required gloss level specified. Adjust manufacturer's product numbers within the same quality line to match the required gloss level.

B. Interior:

1. Acrylic Latex on Gypsum Board or Existing Painted Surfaces (Refer drawings for gloss level):

a. Prime Coat:

(1) Acrylic latex primer.

(2) Manufacturers:

(a) Benjamin Moore

(b) Miller

(c) Sherwin Williams

b. Second and Third Coats:

(1) Acrylic latex

(2) Manufacturers:

(a) Benjamin Moore "Aura", “Advance”, or “Natura”

(b) Miller “Evolution”, or “Premium”

(c) Sherwin Williams “Duration”, “Superpaint”, or “Emerald”

(3) Dry thickness: 1.5 mil per coat minimum

2. Epoxy on Gypsum Board or Existing Painted Surfaces (Refer drawings for gloss level):

a. Prime Coat:

(1) Acrylic latex primer.

(2) Manufacturers:

(a) Benjamin Moore

(b) Miller

(c) Sherwin Williams

b. Second and Third Coats:

(1) Waterborne polyamide, single-component, epoxy

(2) Manufacturers:

(a) S-W Pro Industrial Pre-Catalyzed Waterbased Epoxy Semi-gloss, K46-1150 Series.

(3) Dry thickness: 1.5 mil per coat minimum

3. Clear Coating, Gloss Level 4, on Wood Panels and Trim (CC):

a. Stain to match existing adjacent wood trim and panels: Refer to drawings.

b. AWI System post-catalyzed lacquer for closed grain woods.

c. Prime Coat:

(1) Catalyzed lacquer, thinned 50%.

(2) Manufacturers:

(a) R.J. McGlennon "84 Series LVH-101 Low VOC Chemlac."

(b) S-W Sher-Wood 275 Cat-Acrylic, T77FV16.

d. Second and Third Coats:

(1) Catalyzed lacquer, gloss level 4.

(2) Manufacturers:

(a) R.J. McGlennon "84 Series LVH-101 Low VOC Chemlac."

(b) S-W Sher-Wood 275 Cat-Acrylic, T77FV16.

PART 3 EXECUTION

3.1 PROTECTION

A. Protection of Surfaces and Cleaning: Protect floors and other adjoining surfaces from paint droppings and spillage of materials.

3.2 SURFACE PREPARATION

A. General:

1. Carefully examine all surfaces over which finish is to be applied. Any surface not suitable for the proper finish which cannot be rectified by light sanding, cleaning, etc., must be brought to the attention of the Architect before any materials are applied. Do not proceed with the work until such conditions have been rectified. Beginning work denotes acceptance of substrates.

2. All surfaces shall be thoroughly dry before any finish is applied and application shall not be done in severely cold weather except under instructions from the Architect.

B. Wood:

1. Prime and back prime all woodwork immediately upon receipt at the job. Required for all wood finish unless material has been pressure preserved or dip treated and sealed. One coat primer or undercoat as used for finishing on painted work, or one coat sealer compatible with finish coats on transparent finished work.

2. Properly sand wood surfaces before any paint is applied. Knots or sappy places shall be given one coat of shellac at least twelve hours before being painted. Shellac is not to be used on any other surfaces. Use putty or wood filler of the same shade as the finish coat

in filling nail holes, checks, and other blemishes, then lightly sand smooth as soon as filler has hardened.

C. Gypsum Board Surfaces: Paint shall not be applied to any surface until it is thoroughly dry and cured. Prime surfaces that show hot spots or alkali in order to prevent such blemishes from showing through the paint. Brush off all loose particles or crystals which may have formed.

D. Existing Painted Surfaces: Prepare by sanding or other procedures necessary prior to application of new paint. Primer only required on surfaces of bare substrate unless needed for adhesion to painted substrate. Verify compatibility of new and old paint prior to application of two top coats.

3.3 APPLICATION

A. Employ workers skilled in the application of paint products specified.

B. When paint mixing is required on the job, perform mixing on the premises immediately before applying, and thoroughly stir and strain all materials. Do not change or reduce any material in any way except as specified by paint manufacturer.

C. Except where method of application is specifically noted, all materials shall be applied by brush or roller. Application by spray only where approved by the Architect. All spray application shall be by airless method only.

D. Coverage and Workmanship:

1. Assume all responsibility for paint coats applied over surfaces and undercoats which have not been inspected and approved by Architect. Apply any additional coats of paint, as directed by Architect, where surface preparation and undercoats have not been approved before painting. Make finished work match approved samples.

2. The visible parts of the structure behind grilles and louvers are to be painted with flat black enamel.

E. Drying: Apply paints to surfaces at atmospheric temperatures of not less than 50°F and maintain this minimum temperature throughout the drying time. Ensure adequate ventilation in all painted spaces. Allow sufficient time to elapse as recommended by the manufacturer, between successive coats, to permit proper drying. Modify as necessary to suit adverse weather conditions.

F. Interior:

1. Gypsum Board: All surfaces shall receive three coats of material, as specified above including walls behind tackboards, markerboards acoustical panels and other surface applied accessories. Remove dust from surfaces, clean off or seal all stains and marks which may show or bleed through finishes.

2. Stain to match adjacent existing wood trim and panels and Clear Coating: For wood panels and trim. One coat each of primer, undercoating, and finish coat.

3. Epoxy Finish on Gypsum Board: Apply one prime coat and two finish coats using manufacturer's application instructions.

3.4 COLOR SCHEDULE

A. Refer to drawings.

END OF SECTION

QUARTZ SURFACING COUNTERTOPS

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes quartz surfacing (engineered stone) for:

1. Countertops.

1.2 REFERENCES

A. ASTM International
1. ASTM C97 – Absorption and Bulk Specific Gravity of Dimension Stone
2. ASTM C99 – Modulus of Rupture of Dimension Stone
3. ASTM C170 – Compressive Strength of Dimension Stone
4. ASTM C370 – Moisture Expansion
5. ASTM C482 - Bond Strength of Ceramic Tile to Portland Cement
6. ASTM C484 – Thermal Shock Resistance of Glazed Ceramic Tile
7. ASTM C501 – Relative Resistance to Wear of Unglazed Ceramic Tile to Taber Abraser
8. ASTM C531 – Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
9. ASTM C880 – Flexural Strength of Dimension Stone
10. ASTM C1026 – Resistance of Ceramic Tile to Freeze Thaw Cycling
11. ASTM C1028 – Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method
12. ASTM E84 – Surface Burning Characteristics of Building Materials 13. ASTM D6329-98 – Microbial Resistance

B. American National Standards Institute (ANSI)
1. ANSI Z124.6 – Stain Resistance

C. Others
1. NSF – ANSI/NSF Standard 51
2. Greenguard – “Greenguard Gold”
3. Earth Kosher - Kosher

1.3 SUBMITTALS

A. Product Data
1. Quartz Surfacing; Submit manufacturer’s product data.
2. Quartz Surfacing; Submit manufacturer’s care and maintenance instructions.

B. Drawings

1. Field verified dimensions of application areas.
2. Locations and dimensions of all cutouts.
3. Locations of required support and seams.
4. Notation specified edge profiles.
5. Additional installation details and methods.

C. Samples
1. Submit two sets of manufacturer's color samples for color selection.
2. Submit two (4"x4") of each color and/or finish selected for color/finish approval.
3. Adhesive: Submit two samples of an adhesive joint for each color of quartz surfacing selected. Show color match of adhesive.

D. Fabricator Qualifications
1. Work of this section shall be performed by a fabricator and/or installer approved by the manufacturer.

1.4 QUALITY ASSURANCE

A. Delivery, Storage, and Handling
1. Observe manufacturer's recommendations and handle accordingly in order to prevent damage or breakage.
2. Brace parts as necessary.
3. Transport in a near vertical position with finished face positioned towards finished face.
4. Do not allow finished faces to rub during transportation or handling.

B. Storage and Protection
1. Store in racks in near vertical position.
2. Prevent warping and breakage.
3. Store indoors and away from direct sun exposure.
4. Store between 25ºF and 130ºF. 5. Store with finished face towards finished face.

1.5 WARRANTY

A. Commercial: Provide manufacturer's Commercial 10 year Limited Warranty. Warranty against manufacturer defects when fabricated and installed by a manufacturer certified fabricator/installer.

B. Residential: Provide manufacturer's Residential 15 year Limited Warranty. Warranty against manufacturer defects when fabricated and installed by a manufacturer certified fabricator/installer.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Corian Quartz.
B. Qualifications: Manufacturer shall be ISO 9001:2008 and ISO 14001 certified.
C. Other Manufacturers: Submit Substitution Requests prior to bid date in accordance with Division 1 Section "Product Substitution Procedures."

2.2 MATERIALS

A. Quartz Surfacing
1. Material must be homogenous in nature containing approx. 90-93% crushed quartz combined with high quality polymer resin and pigments to form slabs.

B. Thickness:
1. Refer to drawings.

C. Material Identification
1. All slabs shall be identifiable by manufacturer's markings on the back side of the slab including slab item number, material finish, production batch, and serial numbers.

D. Color, Finish, and Edge Conditions: refer drawings.

E. Material Performance Characteristics
1. Water Absorption: ASTM C97 ≤0.03%
2. Flexural Strength: ASTM C880 - 6,200-11,000 psi
3. Compressive Strength: ASTM C170 - 22,000-28,000 psi
4. Abrasion Resistance: ASTM C1243 - Volume of chord: V=89 194mm2
5. Freeze Thaw resistance: ASTM C1026 - No detects after 15 cycles
6. Microbial resistance: ASTM D6329-98(2003) : Resistant to mold growth
7. Resistance to chemical acids: ASTM C560 : Not affected
8. Resistance to staining: AS2924.2-15:1998 - 5 No visible change
9. Mohs hardness: EN101 6.0-7.0

2.2 ACCESSORIES

A. Mounting Adhesives: Provide structural grade silicone or epoxy adhesive.

B. Quartz Surface Adhesive
1. Provide epoxy or polyester adhesive as recommended by manufacturer for application and conditions of use.
2. Color: Adhesives shall be tinted to match quartz surfacing for all visible finished work.

C. Joint Sealant:
1. Clear silicone sealant as recommended by manufacturer for application and for conditions of use.
2. Provide anti-bacterial type in toilet, bath, food preparation areas.

D. Solvent: Product as recommended by adhesive manufacturer to clean surface of quartz surfacing to assure adhesion and not damage surface finish of quartz material.

E. Cleaning Agents: Non Abrasive, low pH cleanser or mild soap and water.

2.3 FABRICATION

A. Layout: Layout surfaces (as shown in drawings) to minimize joints and avoid L-shaped pieces of quartz surfacing.

B. Inspection of Material:
1. Inspect material for any defects prior to fabrication.
2. Visually inspect material to be used in adjacent pieces to ensure acceptable color match. 3. Material to be used in adjacent pieces shall be from the same batch and identified accordingly.

C. Tools: All cutting and polishing shall be done using water cooled power tools.

D. Cutouts: Cutouts shall have a minimum 3/8 inch (10mm) inside radius and all exposed edges of cutouts shall be polished to match surface finish or per drawings.

E. Laminations:
1. Laminate layers of quartz surfacing as required to create buildup of edges following procedures recommended by manufacturer.

PART 3 EXECUTION

3.2 EXAMINATION

A. Site Verification
1. Verify dimensions by field measurements prior to fabrication and installation.

2. Verify that substrate(s) supporting quartz surfaces are plumb, level, and flat to within 1/16 inch in 10 feet, and that all necessary supports and blocking are in place and secure.

3.

B. Material Inspection Review
   1. Verify all materials are free of damage.
   2. Do not install any damaged material until such pieces have been repaired or replaced.

3.3 PREPARATION

A. General
   1. Protect finished surfaces against scratches, dirt, and debris.
   2. Apply masking where necessary.
   3. Take necessary precautions to prevent other trades from contacting the finished surface.

3.4 INSTALLATION

A. General Information:
   1. Install materials in accordance with manufacturer's recommendations.

B. Preliminary Installation:
   1. Position materials to verify correct size and position.
   2. Make any necessary size or finish adjustments using methods recommended by manufacturer using water cooled power tools.
   3. Perform work away from installation area if possible to protect the jobsite and surface area from dust and water.
   4. Allow gaps for expansion of not less than 1/8 inch for 10 feet when installing between walls or other fixed structures.

C. Permanent Installation:
   1. After verification of fit and finish:
      a. Remove material from preliminary positions.
      b. Clean substrates of any dust or debris.
      c. Clean the back side of all quartz surfaces and joint surfaces with denatured alcohol
   2. Apply sufficient amount of mounting adhesive in accordance with manufacturer's recommendations to provide a permanent and secure installation.
   3. Verify installation of quartz surface is plumb, level, square and flat within 1/16 inch in feet.
   4. Position adjacent pieces of quartz surfaces in the same plane.

D. Joints

1. Joints between adjacent pieces of quartz surfacing shall be flush, tight fitting, level, and neat. Securely join pieces with manufacturer's recommended stone adhesive. Fill joints level to quartz surfacing. Clamp or brace quartz surfacing pieces in position until adhesive sets.

3.5 REPAIR

A. Repair or replace damaged material in a satisfactory manner.

3.6 CLEANING

A. Remove masking, excess adhesive and/or sealant. Clean all exposed surfaces.

3.7 PROTECTION

A. Protect installed surfaces from damage by other trades.

END OF SECTION

CUSTOM SEAT CUSHIONS

PART 1 GENERAL

1.1 SUMMARY

A. Furnish all labor, materials, equipment, and services necessary for the fabrication and installation of seat cushions for custom built permanent bench seats.

1.2 SUBMITTALS

A. Submit the following in accordance with Division 1 Section "Shop Drawings, Product Data, Samples."

B. Product data indicating cushion fabric, cushion materials, construction, and sizes.

C. One 8-inch x 10-inch (minimum size) sample of cushion fabric.

1.3 PROJECT CONDITIONS

A. Field measure installed bench seats prior to cushion fabrication.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Product manufacturers are listed below.

B. Other Manufacturers: Submit Substitution Requests prior to bid date in accordance with Division 1 Section "Product Substitution Procedures."

2.2 MATERIALS

A. FAB-1 and 2: Cushion Fabric: Refer to drawings for cushion upholstery.

1. Patterns and Colors: Refer to drawings.

B. Fabric Accessory Materials:

1. Thread Materials: Compatible with fabric and of weight and strength required to secure fabric as sewn for life of fabric.

2. Thread Color: Color to match fabric.

3. Flameproofing Material: Established and tested material which does not affect size, color, durability, or pliability of the fabric.

C. Lining and Cushion Materials:

1. Fill Lining: 1/2-inch thick, wrapped 3/4 ounce polyester fiber fill.
2. Muslin Lining: Standard upholstery muslin to allow for ease of upholstery removal.
3. Bottom Seat Cushion Foam: 2 lb. density foam rubber, thickness as detailed.
4. Back Seat Cushion Foam: 1-1/2 lb. density foam rubber, thickness as detailed.

D. Wood Screws: Round head wood screws, full threaded.

2.3 FABRICATION

A. Shop Assembly:

1. Fabricate cushion foam as box cushion, cut to size required with bullnose edge.
2. Slope back cushion foam as detailed.
3. Wrap lining around cushion and sew hem at edges.
4. Triple stitch hems and turn hems to inside with zipper on concealed edge.
5. Provide nonwelted seams.
6. Allow for flipping of seat cushion.
7. Treat cushion fabrics with flameproofing.
8. Locate Velcro pads on concealed face of cushions.
9. Install grommets at 5-inches o.c. along length of holding tab.
10. Install holding tabs 3-inches from exposed edge of cushions.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surface conditions prior to starting cushion work.

B. Do not proceed with installation in areas of defective substrates.

3.2 INSTALLATION

A. Drill base, seat, and back for screw attachment of cushions.

B. Install bottom and back seat cushions and anchor in place with wood screws through grommets in cushion holding tabs.

3.3 ADJUSTING

A. Replace damaged fabric, cushion foam, and holding tabs as directed by Architect.

END OF SECTION

ELECTRICAL

Information for Design of System: All design shall be maintenance based and shall be designed with attention to maintenance and repair, working elevations, working clearance, replacement costs, OSHA standards, state and local codes, and all manufacturers' installation requirements. All design, engineering, and installation shall be done by licensed & bonded contractors, designers, or engineers.

The warranty on all electrical installations begins at the date of substantial completion. The general contractor is responsible for the warranty for both labor and material. If there is no general contractor, the electrical contractor is responsible for the labor and material. The electrical contractor is responsible for code compliance from the beginning of the project to the end of the warranty. The electrical contractor agrees to correct all code violations at his or her expense without litigation. Acceptance of a design by a representative of OSU does not release the designers or engineers from the requirement that the design meet all applicable codes. The designers and engineers shall remain responsible for the design to the end of the warranty period.

1. REQUIREMENTS
   A. Equipment and Installation Guidelines
      1. During the initial planning, consult with OSU FS Electric Shop, regarding the choice of primary service voltage to be used, its location, and the capacity available.
      2. Contractor(s), Designers, and Engineer(s) are responsible for addressing all the design review comments to the satisfaction of OSU authorized representatives in order to assure the continued reliability of the University power distribution system.
   B. Safety
      1. It is important that the design meet requirements of all appropriate codes, standards and guidelines, including, but not limited to, the following codes and regulations: State and local, UL, NEC, NESC, NFPA, NEMA, NECA, ASHRAE, ISESNA, IEEE, ANSI, ADA, IBC, and OSHA. It is also important that all the equipment, devices and installations supplied and installed in all University's Facilities meet high level of safety requirements, and the OSU Construction Standards. It shall also be known that the equipment, devices, and installation that fail to meet these requirements will not be accepted.
   C. Short Circuit Study, ARC Flash Study and Overcurrent Protection Study: For all new buildings transformers or new buildings with electrical services where electrical work is being performed a short circuit study, an arc flash study and an overcurrent protection (coordination) study shall be provided.
      1. The starting point of each study will be one overcurrent protective device "upstream" of the starting point of the scope of work of the project and terminating at the farthest point "downstream" affected by the "upstream" changes.
      2. Each study shall include the elementary diagram of the circuit being analyzed.
      3. The short circuit study shall depict the available fault currents at critical points in the distribution system. The study shall indicate the fault rating of the equipment being analyzed and designated with a "pass"/"fail" marking. Where available currents exceed the short circuit ratings of the equipment, the equipment shall be revised to a component with a higher short circuit withstand rating.
      4. The arc flash study shall be performed in accordance with NEC, NFPA and OSHA safety standards. Available fault currents shall be shown on the elementary diagram at critical points in the distribution system. The PPE level shall be provided at all switchboards, panels, disconnect switches, starters and similar electrical components with arc flash labels provided. OSU's goal is to have, and the Designer/Engineer should design, a system such that no more

than PPE Class 1 is required for maintenance of any electrical equipment with the exception that in main electrical rooms, PPE Class 2 is acceptable.

5. Categories of PPE as described in NFPA 70E are:
   a. (View Categories of PPE as described in NFPA 70# chart at end of this Section)
6. The coordination study shall be provided to assure both overcurrent and short circuit selective coordination provides an orderly shutdown and minimizes extent of outages.
7. These studies shall be part of the design services.

D. Equipment belonging to other University Departments shall not be installed in Facilities mechanical or electrical rooms, unless permission is given by OSU FS Director in writing.

E. **PROHIBITED MATERIALS AND CONSTRUTION PRACTICES**:

1. Extra flexible non-labeled conduit or non UL listed conduit.
2. Plastic conduit for interior electrical use, except that PVC conduit may be used for power circuits below basement concrete floors in corrosive environments, and for ground wires in any location, or with approval from the OSU FS Electrical Shop. The transition from PVC to steel shall be made below the floor.
3. Aluminum wiring/bussing shall not be used.
   . Use of aluminum plated bus and aluminum wound transformers is prohibited.
4. Use of incompatible Materials: Aluminum fittings and boxes shall not be used with steel conduit. All materials in a raceway system shall be compatible.
5. Use of wire ties to support conduit.
6. Use of wood strips and wood screws to support lighting fixtures.
7. Direct burial electrical cable.
8. Electrical ducts crossing above gas piping.
9. Ducts within ten (10) feet of a buried steam line in any direction. If it becomes necessary to cross a steam line, acceptable insulation of the crossing must be approved by the OSU FS Electric Shop.
10. Hard insulated wire connectors, which have Bakelite, are prohibited.
11. Dimmable lighting unless permission is obtained in writing from the OSU FS Electric Shop. See “Lighting Control” in this Division.
12. Armored or metallic BX cable. (AC, MC, or BX)
13. Nonmetallic sheathed cable.
14. Flat conductor cable type FCC, under carpet, etc.
15. Powder metal die cast connectors, fittings, and couplings.
16. Locating equipment that requires access or ventilation less than four (4) feet from a wall, fence, or other screening material, including but not limited to, electrical equipment that permits or requires cooling; access for maintenance or cleaning, connection; and main distribution panels and equipment.
17. Bottom fed switches, breakers, or fuses.
18. Switches in which the blades pivot on the top.
19. Switches, breakers, etc. that require greater than 75 pounds of force on the operating handle.
20. Irrigation controllers on shared circuits. See OSU Construction Standard 32 80 00 for more guidance on irrigation.
21. Use of cable tray with medium voltage conductors.
22. Use of busway other than as permitted in “Busways” of this Division.
23. Use of busway, for panel risers, without a means of disconnect. Individual disconnect is required for each panel.
24. Drilling or tapping of existing bussing in panel boards, switchboards, and motor control center. All spare spaces/motor buckets will have bus-ties installed.

25. Troffers: Use of radiant ceiling panels.
26. Lamps not listed by an approved testing lab.
27. Lamps (light engines, ballasts, drivers) provided by only one (1) manufacturer.
28. Luminaires that require proprietary lamps.
29. Inverter Ballasts. (See emergency/standby systems)
30. Entrance to an Electrical Closet from a location other than a common use space such as a hallway, exterior door, or mechanical room.
31. Electrical panels located in offices, classrooms, 'escort only' spaces, or bathrooms.
32. Use of a bushing without a lock nut.
33. Use of communication cable tray to support power and lighting circuits/raceway.
34. More than two (2) offices on a single circuit. Multiple circuits are allowed for a single office as needed.
35. 15A wiring devices unless required by the NEC or specific equipment.
36. Use of gray wire on 208Y/120 volt systems. Use of white wire on 480Y/277 volt systems.
37. Metal conduit covers supported by a threaded body for outdoor use in corrosive environments.
38. Piercing, push-in, or WACL type splices or connections.
39. Without UL approval, the tapping of existing switchgear, switchboards, panel boards, and motor control centers to provide power for new feeders or equipment is prohibited in all University Facilities.
40. Recessed luminaires that require ballast access through a 10-inch or less opening.
41. Sharing motor circuits with power receptacles.
42. Installation of light fixtures in a classroom, atrium, stairwell, or high bay that requires construction of scaffolding for service and maintenance; or installations without also providing the proper means for service and maintenance of said lights. Project must have approval of the OSU FS Electrical Shop for all high bay lighting above 12 feet from floor.
43. Panel enclosures and junction boxes larger than 4 11/16 that have stamped knock-outs.
44. Crimp connectors, except butt-splice.
45. Flexible conduit of any type used in interior partitions or in walls as a substitute for EMT, IMC, or rigid steel conduit.
46. Surface non-metallic raceways.
47. Inverter ballasts.
0. Self-luminous exit signs containing radioactive material unless specifically approved by Environmental Health & Safety (EH&S).
48. Fixtures that require use of proprietary lamps and ballasts and do not allow use of lamps or ballasts from other manufacturers.

2. ELECTRICAL MATERIALS AND METHODS
. All materials shall be listed by an approved testing lab.

3. WIRE, CABLE, AND BUSWAY
. Material:
    1. Copper conductors of 98 percent conductivity shall be used.
    A. Secondary Conductors:
    1. Color Coding
    . Color coding for 480/277V and 208Y/120V shall be as follows:
        a. (View Secondary Conductors Color Coding for 480/227V and 208Y/120V chart at end of this Section)

b. Label neutral at termination in panels with circuit number.

2. Solid and Stranded Wire:

0. No. 14 AWG and smaller may be solid.
   1. No. 12 and larger shall be stranded.
3. Minimum Size for Lighting and Power Branch Circuits: No. 12 AWG.
0. Use No. 14 AWG stranded for control wiring and auxiliary system circuits.
4. Field installed cords to portable equipment shall be Type ST or SO and field installed cords for normal equipment shall be Type SRDT or SPT-3.
5. Circuit wiring through ballast channels of fluorescent fixtures shall be 600-volt, 90 degrees C insulation. Fixture must be approved for through wiring.
6. General Use Insulation: NEC, 600-volt type THHN/THWN or XHHW.
7. Connections in No. 10 and smaller wire shall be made with threaded-on plastic or nylon insulated wire nuts. Crimp connectors, except butt connectors are prohibited. Joints in No. 8 and larger conductors shall be made with pre-insulated mechanical lugs.
8. Any cable, including signal, communication, and low-voltage wiring, pulled in a raceway on grade or below shall be rated for wet locations.

4. WIRING DEVICES

. Design

1. All wiring devices provided shall be 20A specification grade. New building devices will be ivory, white, or brown with stainless steel plates for standard and ground fault interrupter use. Isolated ground devices shall be orange with stainless steel cover plates. Emergency/standby power devices will be red and have red cover plates. For existing building, designs shall match the existing color scheme that is prevalent throughout building.
2. Placement of receptacles in University classrooms shall be coordinated with University Media department for locations and minimums of new technology for learning.

. In standard size classrooms (49 students or less), provide one (1) double duplex receptacle at the front of the classroom centered under the chalkboard or marker board. Provide two (2) additional receptacles at the front of the room spaced half way between corners and double duplex receptacles. Back of the rooms to be provided with one (1) single duplex receptacle at the center of the wall. Remaining walls to be provided with two (2) duplex receptacles on each wall equally spaced.

a. In classrooms with 50 students or more provide two (2) duplex receptacles for the front wall, centered between the corners and one (1) double duplex receptacle at the center of the wall. Provide two (2) duplex receptacles equally spaced on all remaining walls.
b. Corridors shall be provided with duplex receptacles 35 ft. on center and a maximum of 10 ft. from each end of the corridor. These receptacles shall have separate circuits from the room circuits. In hallways and corridors adjacent receptacles shall be on alternate circuits.
c. Lecture halls shall be provided with one (1) double duplex receptacle centered on front wall and two (2) additional double duplex receptacles equally spaced between center double duplex and corners. Provide additional receptacles throughout for cleaning. These receptacles shall be a maximum of 25 ft. on center. If lecture hall is provided with a lab bench, then provide bench with one (1) double duplex for every 8 ft. of bench.
d. Computer labs shall be provided with at least two (2) general purpose receptacles equally spaced per wall in addition to all receptacles for computers.
e. Mechanical room shall be provided with at least four (4) duplex receptacles (one per wall) and additional duplex receptacles where walls are 25 ft. or longer. At least one (1)

receptacle shall be fed from the emergency panel and identified as such, and at least one (1) 30 amp receptacle will be available for a portable air compressor.

f. Projector and electronic display boards power shall be surge protected.

3. Switches:

. Switches provided for all uses shall be 20A specification grade. Color scheme shall match receptacles.

a. Switches provided at roof hatches or where provided outside of rooms they are serving shall be provided with pilot lights.

4. Cover Plates:

. Generally cover plates for flush-mounted standard devices shall be stainless steel for interior use in new buildings. Where work is being performed in existing buildings, cover plates shall match the majority of the existing devices. In residential buildings covers shall be unbreakable nylon.

a. Cover plates for exterior use shall be a type which allows NEMA 3R rating to remain while in use. Where exterior device could be exposed to vandalism, provide locking type cover plates.

b. Cover plates shall be identified as to source (panel and circuit number).

5. HANGERS AND SUPPORTS

. Requirements

1. Materials for Straps and Hangers: Heavy-duty malleable iron or steel. For installation in locations above grade that are subject to moisture penetration, specify corrosion-resisting steel. Perforated straps are not acceptable.
2. Independent Support Systems: Required for all installations.

. Surface outlet boxes, to which fixtures are attached, and pull boxes shall be fastened to the structure independent of the conduit system supports.

a. Conduits above suspended ceiling shall not be supported by a ceiling suspension system.

3. Coordination with General Construction: The Designer/Engineer shall include the following (or similar) statements in specifications for suspended lay-in ceilings:

. Surface mounted fluorescent lighting fixtures shall be supported from the structure above independent of any ceiling system by use of 3/8-inch all thread rods.

a. Flush or recessed fixtures in ceilings of the suspended lay-in type shall be installed so that the long dimension of the fixture is supported on the main support member of the ceiling system. Provide at least two (2) galvanized steel safety hanger wires or safety chains, attached from the fixture housing to the structure independent of the ceiling system. Wire or chain shall withstand a 3-foot, 50-pound drop test. In addition, the Luminaire Support Requirements of NEC shall be strictly followed. Manufacturer supplied grid clips must be utilized and installed per manufacturer instructions.

b. Suspended ceilings in new construction shall have a minimum of 10 inches clearance below the lowest building structure, duct, and equipment.

6. RACEWAYS

. Requirements

1. Interior Conduit and Fittings: Minimum conduit size for power circuits shall be 3/4-inch for home-runs. Minimum conduit sized for control wiring shall be ½- inch.
2. Exterior Conduit and Fittings: Rigid galvanized threaded UL labeled conduit shall be specified where subjected to physical damage.

. Threaded couplings shall be used with rigid conduit and IMC.

a. IMC may be used in place of rigid galvanized where permitted by code.

3. Steel Electric Metallic Tubing (EMT) UL labeled conduit may be used in interior partitions, above ceilings, and for surface application, except in corrosive and hazardous locations, where PVC coated rigid galvanized conduit is required to be used.

. Insulating bushings and insulated throat fittings shall be used throughout EMT installation.

a. Compression fittings shall be used outdoors. Set screw type fittings may only be used indoors.

4. Plastic jacketed rigid galvanized steel conduit shall be used in corrosive atmosphere.
5. Flexible conduit used for motor make-up shall be liquid tight flexible conduit, minimum size ½ inch. Flexible conduit used for lighting fixture connections shall be steel, minimum size of ½-inch unless part of a manufactured luminaire assembly. Maximum length shall be 6'-0". Flexible conduit of any type shall not be used in interior partitions or in walls as a substitute for EMT, IMC or rigid steel conduit. A ground wire shall be pulled in all flexible conduits. All flexible conduits shall be supported per NEC. Distance between supports as allowed per NEC.

. Liquid tight flexible metal conduit shall be used on flexible conduit applications exposed to outdoor or moist locations.

a. Liquid tight flexible metal conduit shall be used in raised floor computer room applications.

6. Rigid galvanized steel conduit shall be used outdoors, above grade, in damp locations.
7. Conduit installed through a building wall shall have internal and external seals. Specify link seal or equivalent.
8. Elbows used for medium voltage cable shall be long radius rigid steel.
9. Grounding: Conduit crossing building expansion joints shall have expansion provision with grounding continuity.

7. BUSWAYS

. Requirements

1. The Designer/Engineer may use feeder Busways in lieu of conduit and wire where approved by the OSU FS Electric Shop.
2. Plug-in bus shall be used in shops where the load density provides an economic advantage over panels and shall not extend into more than one (1) space. Plug-in bus shall be copper. Busway shall be used to serve one (1) room or usable space. It is prohibited for busway to penetrate a fire rated wall.
3. Indoor busway (if used) shall be water resistant per current ANSI/IEEE Standards.
4. If use of busway is approved by special permission for a project, Contractor shall provide 10 percent of spare busway and 10 percent of total spare switches used. This includes when busway is installed in shop areas or specially approved conditions.

8. SURFACE RACEWAYS

. Requirements

1. Surface raceway shall not be used in new construction except as approved by the OSU FS Electrical Shop.
2. Surface metallic raceway with associated couplings, boxes, and fittings shall be mounted to the surface of the structure for the installation of electrical conductors and, when approved, may be used in the following locations:

. In dry locations.

a. In Class I, Division 2 Hazardous (classified) locations and as permitted by National Electric Code (NEC).

3. Surface non-metallic raceway shall not be used.
4. Fittings and Boxes:

. Raceway shall have manufacturer's finish standard prime coating suitable for field painting.

a. The acceptable manufacturer for surface raceways shall include:
   1. The Wiremold Co. Wiremold by Legrand US
   b. All junction boxes, pull boxes, and conduit bodies above suspended ceilings shall be accessible by step ladder or lift, without dismantling the ceiling.

9. UNDERGROUND RACEWAYS

. Requirements

1. All underground cables of any classification shall be installed in raceway systems. All the raceways for medium/high voltage shall be 6 inches in size and all others for street lighting and other applications shall be sized in accordance with the projected electrical load growth in the vicinity. Underground raceway systems for medium/high voltage systems shall be encased in concrete. Provide a yellow marker tape 18 inches above the conduits indicating "Danger Buried Conduits".

10. SECONDARY/LOW VOLTAGE ELECTRICAL DISTRIBUTION

. Requirements

1. Magnetic Interference and Mitigation

. Magnetic interference can pose major problems in the design and operation of electrical and electronic equipment, instruments, control systems, data processing equipment, and communication networks. This equipment frequently indicates aberrations whose sources may not be readily recognized, but which are due to magnetic interference. In general, such interference is classified as internal and external.

1. Internal interference, created by operation of components within the system itself, can usually be eliminated or nullified by shielding the individual components and confirming the magnetic force they create.
2. External interference is frequently caused by nearby or adjacent equipment such as transformers, medium voltage busway, or switching equipment, which generate magnetic "spikes" affecting apparatus which is not physically attached to the source of interference.

a. Special Protective and Preventive Materials: In addition to developing a basic protection design in preventing the penetration of magnetic interference, when it is required by this Standard to Design and specify EMF mitigation plans or strategies that will prevent and solve the magnetic interference problems, the expectation of this standard is to reduce EMF to below one (1) milligauss, even in the most complex field environment.

b. Special EMF Shielding Material: There are two means of EMF shielding that may be used to achieve effective prevention of magnetic interference or eliminate the existing problems.

1. In fields of low intensity, use CO-NETIC AA perfection sheet because of its high initial permeability and corresponding high attenuation characteristics. In fields with high intensity, use NETIC S3-6 sheet because of its high magnetic saturation characteristics. CO-NETIC AA Perfection Annealed Sheet are available in standard

gauge .014" through .062" thick, in flat sheet sizes up to 30" x 59" or full sheet of .015" thick and 36" by 120".

2. Installation: For wall or floor coverings, Designer/Engineer shall specify that sheets shall be butted at seams, all seams flush and tight.
3. Fasteners: NETIC/CO-NETIC AA sheets shall be mounted to walls by non-magnetic fasteners to penetrate the shielding sheets. Hole in the NETIC/CONETIC AA alloy sheets for fasteners shall be drilled with standard metal drills (cobalt steel drill bits). Special fastening application (masonry, concrete, etc.) shall be consistent with EMF shield manufacturer's recommended attachment procedures and EMU Building Design Standard requirements.
4. Seams: All seams between sheets to be covered by CO-NETIC AA foil, 0.01-inches thick by 4-inches wide, with factory supplied PST backing. Apply foil centered over the sheet seams and press down tightly.
5. Finishing: The CO-NETIC AA metal has a natural shiny, silver colored finish and will not rust. Gypsum wall board (dry wall) or approved other materials shall be applied over the CO-NETIC AA sheets after seams are covered. No magnetic fasteners are to penetrate the CO-NETIC AA sheets.
6. Installation: All medium voltage transformers and switch gear including motor control centers that are adjacent to or under offices, computer enters/rooms, or locations that will have the use of Sensitive Electronic Equipment (SEE) shall be shielded with ferro-magnetic material.
7. Use a minimum 10 gauge ferrous steel sheet metal on the side(s) of walls where said offices or rooms are situated to prevent moving charges that produce Electric Magnetic Field (EMF) penetration that in turn destroys or distorts sensitive electronic equipment.
8. In order to have an effective shielding, the 10 gauge sheet metal shielding shall be overlapped at a minimum of 4-inches at every joint.

c. Designers/Engineers shall contact the University EH&S Office for details, if there should be any questions.

2. Transformers (Under 600 Volts)

. General purpose distributing transformers shall be single phase and three phase dry type, which are generally used with primaries connected to secondary distribution circuits. They shall be designed for the voltage of 120, 208, 240, 480, and 600 with ratings ranging from 500VA to 5000KVA and frequency of 60 Hz.

a. The transformers shall be designed for continuous operation at the rated KVA for 24 hours a day, 365 days a year operation with a nominal life expectancy and greater overload capabilities in accordance with the latest ANSI-C57. The temperature rise of these energy efficient transformers shall be 80 degrees C and shall be insulated with a UL recognized 220 degree C insulation system. Transformers shall have K factor rating as recommended by current ANSI/IEEE standards, where required (i.e. computer center, lab, etc.). It shall have a 30 percent overload capability. Because of the growth of computer labs in all buildings and use of wireless computers throughout the University campus, all general purpose transformers in renovations and new construction shall be K-rated transformers.
b. Transformers shall be designed for a low coil watt loss.
c. Coil and Core Assemblies:
    1. Transformer cores shall be constructed with high grade, non- aging, grain-oriented silicon steel with high magnetic permeability, low hysteresis, and eddy current loses.

2. Transformer coils shall be wound of electrical grade copper and continuous wound construction. The neutral conductor shall be rated to carry 200 percent normal phase current, when required.
3. Enclosure shall be ventilated, heavy gauge sheet steel, primed and finished in gray baked enamel. The core and coil assembly of the transformers shall be impregnated with non-hygroscopic, thermosetting varnish, and cured to minimize hot spots and seal out moisture. The core of the transformer shall be grounded to the enclosure.
4. Transformer sound levels shall be designed in accordance with ANSI/NEMA recommended levels.

d. Provide minimum clearance working space of four (4) feet around transformers operating at 600 volts, nominal or less to permit ready and safe operation adjustment, repair, and maintenance.

e. Transformers greater than 25 KVA shall not be mounted on or near walls adjacent to an office, computer room, or laboratory unless the wall is magnetically shielded.

f. Proper ventilation and cooling shall be provided at locations where transformers are installed to prevent the temperature in the room to rise above 75 degrees F.

g. Wall or ceiling mounted transformers shall have the floor space below permanently accessible.

h. Transformers shall be placed on a housekeeping pad no less than 4 inches thick.

11. LOW VOLTAGE SWITCHGEAR SERVICE ENTRANCE

. Requirements

1. Protective Devices: Main breakers and feeder breakers or switches shall be equipped with ground fault protection as required by applicable codes. In critical applications provide coordinated ground fault protection on feeder breakers. Provide settings and coordination information with the service manuals.

. All circuit breakers with solid state trip units shall comply with the following standards:

1. ANSI/IEEE – Surge Withstand Capability (SWC).
2. ANSI/IEEE – Withstand capability of relay systems to radiated electromagnetic interference from transceivers.

a. The maximum operating force required to open or close a switch or breaker shall not be greater than 75 pounds on the operating handle.

b. Vacuum breakers or vacuum switches may be used with the approval of the OSU FS Electric Shop.

1. All switches shall be top or horizontal fed to the breakers.

c. Indicator lamps shall be LED or transformer type utilizing low voltage lamps.

d. Shall be placed on a housekeeping pad no less than 4 inches thick.

12. METERING (See Division 33 09 00, Instrumentation and Control for Utilities)

. Functionality Requirements

1. Metering System: A meter with system display is required for each building, transformer, or service.

. Approved and acceptable meter and manufacturer for OSU Facilities is Veris E51C2 Bi-Directional Power and Energy Meter or equivalent revenue grade meter with Modbus RTU communication.

a. Each individual KWH meter specified must have either Modbus RTU communications or impulse capability.

b. If complete meter setup cannot be done from the front panel, any required software, cables, and keys shall be provided to the OSU FS Electric Shop.
c. The height shall be five feet (5'-0") from the finished floor or four and a half feet (4'-6") from the switch pad to the center of the meter.
d. Provide three (3) or four (4) current transformers and circuit monitor that indicate true RMS current for phase and neutral.
e. The monitor shall provide the following information:
1. Voltage: phase to neutral and phase-to-phase ABC.
2. Amps: present reading and 15-minute maximum demand ABCN
3. Kilowatt maximum demand based on 15-minute intervals.
4. Power factor, kilo VAR, kilo VAR, hour KVA.

2. A 6-pole GE PK-2 panel-mounted test switch installed flush on switchgear for portable test metering by OSU FS Maintenance Personnel. Specify that three (3) left poles be factory wired to the phase current transformer secondaries; wire the right hand pole No. 6 to the phase to neutral potential source. Current transformer poles shall have shorting auxiliary contacts.

. If the meter used for KWHR reading does not have a meter serial number on the front of the display, then an engraved name plate shall be installed below the meter with the meter serial number engraved on it.
a. Avoid metering schemes that are only capable of measuring partial loads connected to the distribution system or electrical apparatus being monitored. Specify that the current transformers and the meter shall be installed to measure electrical load from the distribution system including fire pumps. The fire pumps shall be connected ahead of the main overcurrent protective device.

13. SERVICE DISCONNECT

. Requirements
1. Fuses may be used in primary voltage services and motor controls.
. UL classification fuses shall be used as required for time delay and current limitation requirements of the application.
a. Fuses for feeders and branch circuits up to 600 ampere shall be UL Class RK1 or RK5 with 200,000 AIC.
b. Fuses for secondary service mains and feeders over 600 ampere shall be UL Class L with 200,000 AIC.
c. Spare Fuses: Specify that a spare fuse complement be stored on existing metal shelves, metal mounting boards, or in a cabinet in the electrical switchgear room and that a typewritten and framed bill of material is mounted nearby. There shall be no combustibles stored or kept near transformers. If there is no existing storage or additional storage space is required, the Contractor shall provide a cabinet equal to Bussman SFC.
1. Spare fuse complement shall include a minimum of three (3) or 10 percent of the total (whichever number is greater) spare fuses of each class, ampere, and voltage rating installed, including primary fuses and control circuit fuses in switchgear and any equipment.

14. GROUNDING SYSTEM

. Requirements

1. Drawings and Specifications: Drawings shall show ground systems, protective conduit sizes, and relative locations. Specifications and drawings shall include detailed requirements of the grounding system. A reference only to the National Electrical Code, without elaboration, has proven to be insufficient. Specifying requirements only by referencing the code is prohibited. It is required that the Designer/Engineer shall specify all requirements applicable, instead of referring only to National Electrical Code. This includes specifying the size and requirement of all grounding electrode conductors used for connecting to the ground rounds, electrode grounds in the concrete, cold water pipe and between the neutral and the equipment ground. It also includes sizing all equipment grounding conductors routed with the phase conductors. All sensitive electronic equipment (computer rooms, etc.) shall have single point grounding system originating at the service entrance ground.
2. Transformer Grounds:

. Building Service Transformers: Secondary neutrals shall be grounded separately from the neutral ground at the service main, unless close coupled in unit substation construction.
   a. Low Voltage Transformers: Secondary neutrals shall be grounded in the low-voltage service equipment, as required by NEC for services.

3. Equipment Grounds: A wire equipment ground shall be installed within the branch circuit conduit and be grounded to the cabinet of the panel board to an uninsulated ground bus. The neutral bar of the panel shall not be used for equipment grounds.

. Equipment grounds and the identified neutral shall not be electrically interconnected on the building side of the service ground.

4. Convenience Outlets: Specify that a wired ground be provided for continuity of ground path from the device-grounding pole. Provide ground fault interrupter outlets in wet conditions and where required by NEC and other related codes.

15. DISTRIBUTION

. Requirements

1. Design: If feasible and when unit substations are provided, the secondary main breaker shall be made a part of the building distribution switchgear or switchboard. In no case shall the switchgear or switchboard or panel board be directly attached to the transformer. A minimum 12-inch transition section with solid barrier is required to reduce the transfer of transformer heat to the low voltage section. Reduction of heat transfer may be accomplished with secondary throat or ventilated transition section.

. When double-ended substations are provided with tiebreakers, the tiebreaker shall be key interlocked with the main secondary disconnecting means requiring the spare key to parallel sections.

2. Equipment: Metal-enclosed switchgear or distribution boards shall be used in buildings or OSU Facilities at 600V and below for service entrance power, lighting distribution, and as the secondary sections of unit substations. Main service disconnecting, 1200 amp and larger, devices shall be individually mounted and clearly labeled. Feeder devices in the main switchboard or switchgear shall be individually mounted. Feeder devices in distribution panel boards shall be group mounted. The following components shall be specified as required:

. Service protectors
   a. Molded case circuit breakers
   b. Fusible switches
   c. Motor starters
   d. Low voltage AC power circuit breaker (generally limited to main or tie position)

e. Bolted pressure switches
f. Transfer devices or switches
g. Instrumentation, metering, and relaying
1. Type of Molded Case Circuit Breakers: These devices are available in the following general types:
a. Thermal magnetic dash pot
b. Magnetic only
c. Integrally fused
d. Current limiting
e. High interrupting capacity
2. It is required that all circuit breakers that are equipped with solid state trip unit must comply with low voltage switchgear protective devices of this Division.
a. Air circuit breakers shall be draw out type, installed in individual compartments.
b. Interrupting ratings of air circuit breakers and molded case breakers shall not be applied in "cascade".
3. The handle operating force on all equipment shall be 75 pounds or less.
a. Provisions for Additional Circuits:
1. Size of Switchgear or Switchboard: Select a size that will provide sufficient spare spaces, complete with bus and bus ties. A minimum of one (1) fully bussed spare section shall be provided. Provide the following spare switches at the design stage:
a. Four (4), 100-amp/3 poles
b. Four (4) 200-amp/3 poles
b. Additional Section: Provide space in the bus arrangement (bus ties) for the addition of future switchgear or switchboard sections. Switchgear and panel boards shall be accessible with a 4-foot minimum working clearance on all sides requiring access.
4. Instrumentation shall be per "Metering" section of this Division.
5. Service to Fire Pumps: Fire pumps shall be served and protected as required in NFPA No. 20.
6. Use switchboard instead of panel board for emergency systems for the purpose of future growth and expansion. The switchboard shall be equipped with metering systems as required in "Metering" section of this standard.
7. When adding switches, circuit breakers, bus plugs, or motor starters to existing equipment, the Designer/Engineer shall include the following in the design documents:
. The manufacturer's nameplate data including manufacturer and catalog information of the existing equipment.
a. If the equipment is no longer manufactured (e.g., Continental, Arrow Hart, Crouse Hinds, etc.), the Designer/Engineer will contact a company that specializes in obsolete equipment and obtain the bidding information.
b. Designer/Engineer will provide cost analysis to replace obsolete equipment with current technology.

16. GENERAL PURPOSE POWER AND LIGHTING CIRCUITS
. Requirements
1. System Design: Design feeders for a voltage drop of not more than 2 percent between service entrance terminals and branch circuit breakers terminals with a capacity for 30 percent load

growth above initial design, unless greater growth is designated by the University in the initial planning conference.
2. Feeders: Feeder ratings shall not be such a large percentage of the main that coordination of time and current and interrupting capacities cannot be achieved.
3. Wiring: Specify that all feeders be installed in galvanized rigid conduit or electrical metallic tubing. (EMT)

17. FEEDER CIRCUITS
. Requirements
1. System Design: Design feeders for a voltage drop of not more than 2 percent between service entrance terminals and branch circuit breakers terminals with a capacity for 30 percent load growth above initial design, unless greater growth is designated by the University in the initial planning conference. Feeders shall be sized to the panel not the calculated load.
2. Feeders: Feeder ratings shall not be such a large percentage of the main that coordination of time and current and interrupting capacities cannot be achieved.
3. Wiring: Specify that all feeders be installed in galvanized rigid conduit or electrical metallic tubing. (EMT)

18. GENERAL PURPOSE POWER AND LIGHTING CIRCUITS
. Requirements
1. Distribution panels shall only serve the resident floor or level and have three (3) or more ¾" diameter EMT stub-up spares, ending in an adequately sized, accessible junction box.
2. Design branch circuits for a voltage drop of not more than 3 percent between the branch circuit breakers and the load. As a minimum, increase conductors a minimum of one size when 120-volt branch circuit home runs exceed 75 feet.
3. Lighting circuits shall not be loaded to exceed 60 percent of panel breaker rating.
4. Branch Circuit Panels: Panels for lighting, convenience outlets, small motors, and equipment shall be molded case circuit breaker type with thermal-magnetic trip and AC and DC ratings. Provide for spare circuits.

. Breakers shall be 20 ampere, 1 pole breakers, mounted in the panel with either bolt-on or stab-on connections.
1. Trip rating of breakers for lighting and general use convenience outlets shall be 20 ampere. Provide other sizes, to the OSU FS Electric Shop, as required for special loads.
a. Sub-Feed Breakers: Panels shall not have sub-feed breakers. If multiple panels are supplied from a long feeder, use sub-feed lugs or separate splice box with full size tap to panel mains. Provide individual disconnects for isolation.

b. 120/208 volt panel boards shall be designed to 50 percent fill and no more than 70 percent fill at completion of project. An additional panel board shall be installed where these conditions cannot be met. All panel boards shall have a minimum of four (4) ¾-inch spare conduits terminating in accessible space.

c. When installing new branch circuit lighting panels on a project the following shall be considered:
1. All new panels shall be 42 pole minimum. Designers/Engineers shall provide each new panel with a minimum of 30 percent spare 20 amp single pole circuit breakers. Any additional spare locations shall have a breaker installed. Designers/Engineers shall design an additional panel when these minimums cannot be met and spear breakers shall be included.

2. New panels shall be 200 ampere minimum for 208Y/120 volt, 3 phase, 4 wire service and 100 ampere minimum for 480Y/277 volt, 3 phase, 4 wire service. Do not provide 240/120 volt, 3 phase, 4 wire tapped delta systems. Where 240 volts is required, use of buck/boost transformers is required.
3. Any new or existing building with 3 phase service shall only have 3 phase panels provided.

d. Power panels shall be equipped with molded case circuit breakers of adequate interrupting capacity per NEC.

e. Fire/smoke dampers are to have individual over current protection and disconnect. The fuse shall be sized for 125 percent for non-impedance protected motors and 200 percent for impedance protected motors. The combination over current /disconnect means shall be located within six (6) feet of the fire/smoke damper motor. The combination over current/disconnect means shall be either a little fuse #LSSY, for one (1) Edison-base fuse and one (1) single pole toggle switch. All fire/smoke damper overcurrent protection shall be accessible without disassembly of mechanical equipment or ceiling.

19. MOTORS AND MOTOR CONTROLS

. Requirements

1. Related Work: Air conditioning chiller starters and fire pump controllers shall be specified with the equipment in Divisions 21 and 23. Wiring from switchgear or switchboard to this equipment shall be specified in Division 26.
2. NEMA and NEC Requirements:

. Motors and motor control equipment shall conform to NEMA voltage ratings. A motor rated at 230 volts may not be used on a 208V system. Designer/Engineer shall specify a 208V motor.

a. Motor branch circuit protective devices shall meet the all requirements of the current NEC.

3. Motor Control Centers: Class I, Type B with terminal strip terminations.

0. Locations: Centers shall not be located where ambient temperature could cause derating of overload devices.

1. Overload heater charts shall be furnished, mounted inside doors of cabinets or separately framed, and mounted outside the equipment.

4. Reduced Voltage Starters: Motor sizes shall be such that, if the inrush current exceeds 40 percent of the building transformer rating, then motors shall be equipped with a variable frequency drive, reduced voltage starters of the closed transition auto transformer, star-delta type, solid state soft start, or current ramp starters.
5. Operating Protection:

. Certification by the motor manufacturer that motors meets the voltage requirements of NEMA.

a. Overload Relays: Polyphase motor controls shall be equipped with three (3) overload relays. Reduced voltage starters shall provide overload protection during the starting step.

b. Provide 20 percent spare starters of each size used and provide 25 percent spare positions for additional starters. Provide space on floor for one (1) additional section and appropriately sized spare conduit run from MSG to immediate area.

20. MOTOR STARTER APPLICATIONS

. Requirements

1. Starters for 600V and Below: The design must conform to ANSI/NEMA ICS2-1983 (26). This is a requirement for magnetic controller ratings of 115-575V. AC motor starters and contactors may be used for controlling the circuit to the motor. This standard requires that starters should be carefully applied on circuits and in combination with short circuit protective devices such as circuit breakers, fusible disconnects that will limit the available fault current and let through energy level that the starter can safely withstand. This withstand rating must meet the requirements of ANSI/UL 508/1983 (29) and ANSI/NEMA ICS1-1983 (25), (26) which cover controls, systems and devices.

0. The starters shall not be used without an adjacent line switch. If unfused disconnect switch is used or installed, it must be close to each motor as much as possible. This standard forbids the installation of a remote switch with lock arrangement, switchgear, switchboard, or a unit in a control center.
    1. Each starter will identify controlled device and its location and each motor shall identify its control.

21. EMERGENCY/STANDBY POWER SYSTEMS

. Requirements

1. All new buildings and major renovations where labs, research equipment, or fume hoods are to be installed shall include a standby generator and system monitoring.
2. Alternate Power Sources: Where the interruption of electric power supply to a building would result in a hazard to life, major loss of research, property, or equipment, provision shall be made for a standby supply of power to be used in the event of failure of the normal supply. Details of the plans as they apply to the project shall be explained and included in the early design development submittal and meetings. If tie-in on existing circuit or feeder is not practical at present, provision shall be made for future tie-in.
3. Automatic Transfer Equipment: Reliable equipment and transfer switch must be specified. Where both emergency systems and standby power systems are provided, separate transfer switches shall be provided for each system. Refer to current NEC for system descriptions.
4. Emergency/Standby Systems: It is required that provision be made by designing an emergency system/standby power source supplied by:

0. Engine generator
    1. Separate emergency source
5. Emergency generators shall be natural gas or diesel engines depending on the availability of natural gas and the size of the unit.
6. Generator enclosures whall have a minimum clearance of (4) feet, unless otherwise specified by the manufacturer for air flow, and all doors and panels shall open to ninety (90) degrees.
7. Electrical lighting and power equipment fed from an emergency/standby generator shall be identified red. In both public and non-public areas, the equipment shall have a distinctive warning sign and indicate the location of both sources of power.
8. An emergency/standby panel board shall be provided for the following:

. Exit lights

a. Minimal hallway and stairway lighting and telephone power
b. Fire alarms, building security equipment, and fire protection systems; this does not eliminate the need for batteries. Batteries shall be tested to indicate amp hour availability. The manufacturer shall provide documentation that indicates conformance with repaired rating to the University.
c. Elevators and elevator rooms

d. Emergency illumination shall be part of emergency lighting that shall include illuminating all required means of egress lighting, illuminated exit signs, stairwell lights, and all locations where emergency lighting must provide at least code required minimum illumination to allow easy and safe egress from the area involved. Inverter ballasts are prohibited.
e. Electrical Service equipment room and mechanical room lighting
f. Generator enclosure space lighting
g. Building system equipment which is used to heat the building (to prevent freeze-up in the winter) to include heat pumps, condensate pumps, control air compressors, and other equipment as may be designated by the OSU Facilities Services.
h. Motor Control Centers (MCC) that control fume hoods, sump pumps, condensate pumps, building control air compressors, and related equipment.
i. Building automation systems
j. Animal room exhaust

9. Wiring for emergency systems shall be in separate conduits. Specify that all emergency system junction boxes and covers shall be painted yellow.
   a. Switches for emergency lighting circuits shall not be accessible to the public.
10. All new generators are required to have load bank camlocks installed.

22. ELECTRICAL PROVISION FOR ELEVATORS
. Requirements
1. Wiring and Switching: Wiring shall be extended to heavy-duty lockable fused switches located in elevator machine room.
2. Emergency Circuit: An emergency circuit to the elevator machine room shall be provided for the elevator cab light, fan, and equipment room.
3. Pit Installations: Refer to Division 14. A light, light switch, and GFCI convenience outlet must be provided in the pit of each elevator, each on separate circuit.
4. Passenger elevators that serve mechanical rooms shall be connected to an emergency generator.

23. LIGHTING
. General Requirements
1. Lighting design shall use an appropriate combination of natural, area, and task lighting with security type lights where necessary to meet appropriate Illuminating Engineer Society (or similar) recommendations. Efforts should be made to minimize electricity consumption from lighting by striving to reduce foot-candle levels. Lighting should fit task-area requirements only. General-area lighting is to be selected at a lower intensity to accommodate access and non- critical sight needs.
2. All lighting will be provided with disconnecting means in acceptance with the current NEC.
3. OSU FS Electric Shop requires replacement pricing for both ballasts and lamps, to be supplied at the design phase of the project and with the electrical submittals. Design lighting projects to lamps currently in OSU Warehouse inventory. For a list of lamps in inventory, contact OSU FS Electric Shop. The use of self-luminous exit signs containing radioactive material is prohibited unless specifically approved by Environmental Health & Safety (EH&S).

24. LIGHTING SYSTEMS
. Dimming control systems shall be reviewed and approved by OSU FS Electric Shop.

A. Reduced harmonic electronic ballasts, parallel wired for operation of one (1) or two (2) type T-8 lamps, shall be used wherever fluorescent lights are installed, except where special dimming ballasts are necessary.
B. Lamps are to have low mercury content equal to or better than Philips Lighting "ALTO".
C. Warranty
   1. Lamp system warranty: Four (4) foot T8 lamps and ballasts shall be warranted up to three (3) years (3 years for 24,000 hour lamps), from the date of substantial completion of the project. Lamps shall have an 85 CRI index, maintain a 24,000 hour warranty and have a 2,850 lumens specification.
   2. Lamp warranty: See fluorescent mortality curve for normal lamp mortality. Defective lamps or lamps failing at a higher than normal rate shall be replaced after a factory inspection determining the cause of failure or defect.
   D. Worldwide Color standards: Color coordinates shall follow the proposed IEC/ANSI color standards regardless of the country of manufacture. Campus standard is 41K.
E. Cathode construction: The lamp shall contain cathodes designed for specific operation on United States ballast operating systems (instant rapid, programmed start) regardless of country of manufacture.
F. ANSI standards: Lamps shall comply with applicable ANSI standards.
G. See the end of this section for information on parking lighting and historic fixtures.
H. Areas under construction shall have temporary lighting for nighttime.
I. All interior light fixtures shall be accessible by a step ladder, 8 feet or less, placed in accordance with OSHA standards or one of the following:
   1. A permanently installed means of access.
   2. A building specific means (supplied by the project) of access (platform lift, custom built scaffolding, etc.) stored in a readily accessible location on site and in place at the completion of the project.
   J. All exterior lights shall be accessible by means currently owned by OSU without damage to buildings or plantings. Exterior lights must be installed an operated to prevent “up lighting” into the night sky, per the City of Corvallis Land Development Code.
K. Fixtures incorporating lamps, other than those listed in OSU FS Stores inventory, shall not be used unless a written request to waive this requirement has been approved by the OSU Project Manager and OSU FS Electric Shop.
   1. For unique lamps and ballasts, ten (10) of each type or 10 percent of each lamp and ballast, driver & light engine whichever is greater, shall be added to the OSU FS Stores inventory by the project. Inventory to be added by the time of project commissioning.
   2. Fixtures that require use of proprietary lamps and ballasts and do not allow use of lamps or ballasts from other manufacturers are not allowed.
   L. All recessed can luminaires shall be 120 volt and have self-ballasted lamps. Ten (10) of each type of lamp or ten percent of each lamp, whichever is greater, including any and all LED lighting, shall be added to the OSU FS Stores inventory by the project. All re-order information shall be provided to OSU FS Stores.
M. T-8 fluorescent lighting systems shall utilize high performance ballasts and lamps, meeting Energy Trust of Oregon specifications for High-Performance T-8 Lighting Systems.
N. A list of all lamp types and ballast/driver types, shall be provided by Project Engineer at completion of project.

25. ELECTRONIC BALLAST
. Performance Requirements
   1. Ballast Factor: Ballast factors at nominal voltage shall be as follows:

0. Standard ballasts - 0.90 ballast factor.
    1. PLUS ballasts - 1.2 for 2 lamp ballast.
    2. Flicker: Ballast shall operate lamps at a frequency above 20 KHz and lamps shall have no detectable flicker.
    3. Power Factor: Ballast shall have input power factor above 97 percent when used with primary lamp type.
    4. Harmonic Distortion: Ballast shall have Total Harmonic Distortion (THD) of 20 percent or less when used with primary lamp type.
    5. Current Crest Factor: Lamp current crest factor shall be 1.7 or less.
    6. Ballast Efficacy Factor (BEF): The relative light output per watt consumed shall be equal to or greater than a CBM certified electromagnetic ballast for the same application.
    7. Lamp Life: The ballast shall provide lamp starting conditions and parameters consistent with lamp manufacturer's recommendations and shall provide full rated lamp life under normal conditions.
    8. Circuitry: The ballast circuit shall operate lamps in parallel, such that if one (1) lamp fails, others will remain lit.
    9. Starting Method: Ballast shall match lamp usage for maximum efficiency.
    10. Starting Temperature: The electronic ballast shall provide for a minimum lamp starting temperature of 0°F depending on the ballast model and installation conditions.
    11. Ballast Output: The ballast output shall be protected against lamp rectification or shorted output leads.
    12. Case Temperature: The ballast shall have a maximum case temperature rating of 70°C.
    13. Internal Protection: The ballast shall have internal protection to prevent catastrophic failure.
    14. Ballasts shall be universal 120V/277V input.
2. If drivers cannot be easily accessed, they should be located remotely and each location identified per fixture.

26. PRODUCT SPECIFICATION

. Regulatory Requirements

1. UL, CSA and CBM listing: The electronic ballast shall be Underwriters Laboratories (UL) listed, Class P, Type 1. CSA and CBM certified (where applicable).
2. EMI / RFI: Ballast shall meet FCC standard for EMI/RFI (FCC 47CFR Part 18 Non-consumer), ensuring suitability for both commercial and industrial installations.
3. Efficiency Standards: Ballast shall comply with all applicable state and federal efficiency standards.
4. Transient Protection and Harmonic Distortion: Ballast shall comply with applicable ANSI and IEEE standards for harmonic distortion and line voltage transient protection.
5. Sound Rating: Ballast shall have audible noise rating of Class A.

A. Other

1. Warranty:

. The manufacturer shall provide a written warranty against defects in material or workmanship, including replacement, for five (5) years from date of substantial completion and include a nominal replacement labor allowance.

a. If the lamp and ballast are covered by a combination lamp/ballast warranty, covered ballasts shall carry a five (5) year warranty, from the date of installation, plus an additional year if the lamps are replaced with the same type, and kind, at time of relamp, and include a nominal replacement labor allowance. Covered lamps shall carry a 2 ½ year warranty (3 years for 24,000 hour lamps), from date of substantial completion

installation. Lamps shall have an 85 CRI index maintain a 24,000 hour warranty and have 3000 lumens specification.

b. LED luminaires shall have a ten (10) year warranty on driver and light modules. Ten (10) of each type of driver and light module or ten percent of each driver and light module, whichever is greater, shall be added to the OSU FS Stores inventory by the project. All re-order information shall be provided to OSU FS Stores.

27. LIGHT LEVELS GENERAL

. All new lighting installations at the University shall comply with the latest version of ANSI/ASHRAE/IES Standards. Lighting levels are to be designed at the highest level, per chosen reference material, for the designed space or area. Outdoor lighting levels are to be at the highest accepted lighting standard for the considered space. The referenced light levels are understood to be a maintained light level. Light levels are measured at a 30-inch height from the floor or at the actual work surface and represent the average level for the area or workstation.

A. Special lighting applications, such as recreational field lighting, shall comply with the latest Illuminating Engineering Society (IES) standard.

B. Student Study Areas and Classrooms: Provide 40 to 60 foot-candle light level at workstation. Workstations equipped with video display terminals (VDT's) or computers should be illuminated with 30 to 50 foot-candles as recommended by the latest edition of the National Institute for Occupational Safety and Health (NIOSH) standards.

1. Switching in classrooms shall provide for switching the fixtures in the front and seating area separately to facilitate the use of overhead projectors, etc.
2. Light fixtures at workstations with video display terminals or computers should be located perpendicular to device in order to minimize glare and viewing difficulty.

C. Staff and Faculty Office Workstations: Provide 40 to 50 foot-candle light level at workstation.

D. Workstation Where Critical or Fine Work is performed, as in Laboratories or Drafting Rooms: Provide 50 to 70 foot-candle light level.

E. Corridors, Stairwells, Lobbies, Waiting Rooms, Storage and Service Areas: Provide 10 to 20 foot-candle light level.

F. Restrooms, Lockers and Showers: Provide 20 to 30 foot-candle light level.

G. Lecture Hall and Auditorium Lighting: Provide 40 to 60 foot-candle light level at all seating locations. For a lecture hall stage area, provide 40 to 60 foot-candle light level. For an auditorium stage area, the lighting shall comply with or exceed the latest IES standard. Provide separate switching for stage and seating area.

H. Parking Ramp Interior: Provide 1 to 3 foot-candle light level in the traffic lanes, 1 to 3 foot-candles in the parking areas and 1 to 3 foot-candle light level at the entrance/exit. All values are average maintained horizontal foot-candles. Uniformity shall be 10:1 for the entire area. HPS shall not be used in a parking structure.

I. Outside Security, Building Perimeter, Parking Lot and Outside Walkways: Provide 1 to 3 foot-candle light level.

J. Outdoor lighting levels shall be designed to comply with current IES standards for the area or as follows:

1. Primary walkways and problem areas: 1 foot-candles average and .5 foot-candles minimum.
2. Secondary walkways and other areas: .5 foot-candle and .10 foot-candle minimum.
3. Primary streets: 2 foot-candles average and .25 foot-candle minimum.
4. Parking lots: 1 foot-candle average and .25 foot-candle minimum.

K. Temporary Site Lighting During Construction: Sufficient lighting shall be provided such that Campus Police may observe the entire area. Provide a light level of 1 to 3 foot-candles. The Contractor is responsible for providing temporary lighting outside of the project area if the project interrupts the normal lighting to the area.

L. Mechanical Rooms: Provide 50 to 60 foot-candle light level. Mechanical room fixtures shall be "turret style" industrial fluorescent fixtures with wire guards. Sockets shall be protected by housing and shall not be exposed. Provide emergency egress lighting.

28. INTERIOR LIGHTING

. Requirements

1. Recommended Fixtures: Fluorescent fixtures using 4 foot T8 lamps are generally preferred. Compact florescent lamps should be used in recessed luminaries. Ballasts shall be readily accessible. Incandescent lighting may be used only with the written permission of the OSU FS Electric Shop. Any department requesting approval of incandescent lighting must be willing to accept financial responsibility for the maintenance of the incandescent lighting. Where incandescent lamps are used as part of an equipment system or alarm, provide six (6) spare lamps of each wattage.

. High pressure sodium (HPS) lamps shall not be used indoors. For warehouse areas and high ceilings over 20 feet, T-5 or T-8 high output reflective fluorescent lighting fixtures may be used.

a. Metal halide lamps shall only be used in areas where there is assurance that they will be turned off at least once a week; this reduces the possibility of an explosion at end of life. Their use should be limited to areas in which network television coverage is expected, accurate color rendering is required, or gymnasiums.

b. Fluorescent Fixtures: All fixtures shall be independently supported from the structure above. Fixtures shall be all metal with hinged shielding where required for architectural effect. 277-volt fixtures shall be used, except recessed luminaries, where this voltage is available. Fixtures shall meet or exceed the requirements of the latest version of ANSI/ASHRAE/IESNA Standards.

c. Quartz lamp fixtures shall not be used.

d. LED luminaires selected shall have a 10 year warranty and have standardized replacement light module and driver.

e. Ballasts: High frequency electronic type, specifically designed to use T8/T5 lamps, instant start or programmed start when applicable, to operate multiple lamps in a parallel configuration. Ballasts shall meet minimum performance standards as established by the Certified Ballast Manufacturers Association. Additional requirements shall include a maximum total harmonic distortion of 20 percent, sound rating of "A", shall comply with applicable standards asset by ETL, FCC, NEC, IEEE, be listed by UL and carry a five (5) year replacement warranty. Separate ballasts should be provided for each lighting fixture. For applications where one (1) ballast is used to light multiple fixtures, the location of other fixture shall be identified. Ballast selection shall be based on its designed usage; programmed start vs. rapid start.

f. Ballasts for compact fluorescent lamps shall be electronic type and shall have the following characteristics:

1. Ballasts to be high power factor type.
2. Ballasts factor shall be .95 or greater.
3. Ballasts for multiple lamps shall be parallel wiring type.
4. Minimum starting temperature shall be 0 degrees F.

5. Ballast shall contain end of lamp life fault mode shutdown protection.

2. Lenses shall not be specified as an alternative for louvers. If lenses are required for the job, the job shall be engineered for these units.
3. Fluorescent Lamps: 4-foot, 32-watt and 2-foot, 17 watt, T8, instant start/programmed start lamps with color temperature of 4100K and minimum CRI of 85.
4. Specify the use of exit signs utilizing Light Emitting Diodes (LED) light source with life expectancy greater than ten (10) years.
5. Incandescent Lamps: When approved by the OSU FS Electric Shop, specify the 130-volt, inside frosted lamp for rough duty application.
6. Lighting Safety: Stairwells in buildings shall have sufficient fixtures so that the loss of one (1) lamp or ballast will not leave the area dark. The mounting of the fixtures shall not exceed eight (8) feet and must be accessible from a flat landing area. Fixtures shall have lenses; no bare lamps shall be permitted. Stairwell and all egress lighting circuits shall be fed by e-panels from a generator (if available.)
7. Provide the following spare parts with the listed quantities for all luminaires for each item and size required: Spare products shall be the percentage or the minimum, whichever is greater. Spares are to be added to OSU FS Stores warehouse inventory. All re-order information, for lamps, ballasts, lighting modules, and drivers shall be provided to OSU FS Stores.

. Ballasts/drivers: 5 percent or a minimum of three (3) of each type.
   a. Lamp Sockets: 10 percent or a minimum of ten (10) of each type.
   b. Fixture Lenses and Supporting Hardware: 10 percent or a minimum of ten (10) of each type.
   c. Specialty lamps or light modules (those not carried by the OSU FS “Stores”): 10 percent or a minimum ten (10) of each type.

8. All submittal reviews for luminaires and ballasts, light engines/modules and drivers shall include the following:

. Catalog cut sheets and replacement costs.
   a. Lists of spare parts with quantities to be furnished.

29. <u>EXTERIOR LIGHTING</u>

. Requirements

1. Lighting for the entire site, including driveways, walks, parking areas, and the building perimeter shall be included in the contract documents.
2. Fixtures: High intensity discharge (high pressure sodium lamps) fixtures mounted on the building or on suitable standards are required for all exterior site lighting. These fixtures shall be automatically controlled by photocell(s) and/or the automated building management system and also have an accessible bypass.

. Light control shall be provided on all exterior lighting fixtures. The fixture shall be insect proof. Vandal proof fixtures shall be used if the fixtures are mounted 10 feet or less off the ground.
   a. Parking Lot Light Fixture.
      1. Architectural Lighting ALR 182 or KIM CCS, 21” diameter, multi- tap ballast, 150w HPS, 20’ or LED equivalent head round tapered steel pole, light gray color.
      2. Fixture Park Circle Series. Bieber Lighting Corporation. PC-2-J1-MT-L-S-H-GY-Yoke Mount.
      3. Fixture: PC> Size: diameter – 23”.
      4. Light source: HPS = J1, 150W. Voltage: multi-tap transformer.

5. Optics: Type 5.
6. Mounting arrangement: 2” Tenon fitter.Color: gray.
7. Options: Slip-fit fixture arm.

b. Historic Light Fixture

1. See the City of Corvallis Land Development Code for down lighting requirements
2. Visco Series A
3. Cast iron base, 12-foot tapered, fluted steel pole, (14’-2” plus or minus 1” to lamp centerline) (See Diagram 26 00 00A at end of this Section)
4. Multiap ballast
5. 100w HPS Mogul base lamp with two piece acrylic globe.
6. Prismatic Glass Refractor 4685 Type III short cut-off reflector, band, finial, and down light reflector/louver. (See Diagram 26 00 00B at end of this Section)
7. Available through Valley Iron and Steel Co. (VISCO) 29579 Awbrey Lane, Eugene, Oregon 97402-9639, Phone (541) 688-7741.
8. Shall be painted “OSU Black”: Sherwin Williams "Tricorn Black" SW 6258; 50 percent gloss. All cast iron and steel light pole parts are to be factory finished painted to “OSU Black”. All surfaces are to be sandblasted and free of any mill scale, rust, dirt, or grease prior to application of primer. Primer to be lacquer resistant, phenolic modified alkyd similar to “Barrier III Rust Inhibitive Primer” as manufactured by Rodda Paint (Eugene, OR). The primer shall be applied to give a “dry film thickness” of 1 ½ - 2 mils. The finish top-coat shall be a polyurethane, two-component coating, that can be applied a minimum of one (1) hour after primer. The finish top-coat shall be similar to “Polycoat II” as manufactured by Rodda Paint (Eugene, OR). Two finish top-coats shall be applied with each giving a “dry film thickness” of 1 ½ - 2 mils, and has a minimum dry time of twelve (12) hours.
9. Lay out must be in straight lines adjacent to sidewalks and walkways.
10. Must have 24-inch radius concrete collar (see diagrams).
11. Provide an extra conduit for future capacity at every fixture. Extend conduit beyond footing and adjacent concrete so it can be easily accessed in future. Stub location and depth shall be provided on as-builts and to the OSU FS Electric Shop.
12. Banners must be mounted on dual arms to a Historic Light Fixture. Maintain a 7’-0” minimum vertical clearance for pedestrians from the sidewalk to the lower arm. See diagrams. Note that poles are tapered when ordering the arms. (See Diagram 26 00 00C at end of this Section)

c. Fixture Location

1. Fixtures shall be located in such a manner that dark voids and excessive glare in windows are eliminated. Accessibility for servicing must be considered in locating fixtures. All fixtures shall be accessible by means currently owned by OSU Facilities without damage to landscape or plantings. Consideration must also be given to light spillage onto adjacent facilities (existing or planned) such as greenhouses, which are light sensitive. Use directional or shielded lighting as necessary to prevent light trespass and comply with City of Corvallis Land Development Code requirements.
2. Fixture locations shall be designed in concert with the Landscape Architect so as to prevent future blocking of fixture by vegetation at maturity.

30. LIGHTING CONTROLS

. Requirements

1. Automated lighting controls that minimize electrical lighting use are required in all areas. Automated lighting controls shall not be used where safety may be jeopardized, e.g., stairwells, labs, kitchens, mechanical spaces, restrooms.
0. Exceptions may be submitted to OSU FS Electric Shop for review.
    1. All systems will have a manual bypass feature installed.
2. Multiple Switching: The use of multiple switching shall be evaluated for each space and condition. Where possible, switching shall be circuited to effectively use natural lighting from windows; to permit light reduction during partial occupancy; and to permit reduced lighting for custodial activity.
3. Occupancy sensors shall not be used as the sole means of switching. Manual switches will be provided in all areas with occupancy sensors. Occupancy sensors shall not be used in mechanical rooms or other areas where safety would be jeopardized. At installation, set all sensors to maximum sensitivity and maximum time delay. Use manual on / auto off where applicable.
4. Remote switching by means of a central control should be evaluated for new construction and for large renovation projects.
5. Dimming Control: Access to dimming controls shall be readily accessible at all times without escort of other departmental personnel.

. Where dimming is required it shall be used to control incandescent lighting and may be used for Hi-Lume and approved solid state dimming ballast fluorescent fixtures for low lighting levels. The control panel/panels required for the dimming system shall have the UL label. Each dimming module shall be UL tested and tested specifically for the type of load it is controlling. Each dimmer module shall possess a means of easily disconnecting power on an individual module-by-module basis.
    a. Dimming panels shall be cooled without the use of cooling fans without exception and shall be capable of operating as such in an environment of 0 degrees to 40 degrees centigrade. Satisfactory independent laboratory test results shall be required, that at +40 degree centigrade and at full load, the maximum temperatures of both filter chokes and SCRs/Triacs are not exceeded.
    b. There shall be one air gap positive off relay for dimmer, either integral to the dimmer or mounted elsewhere in the same panel. Other advanced technological approaches that give the same or better operational result is highly recommended by this standard.
    c. All controls shall have the capabilities of reverting back to their previous status after any duration of power outage (power failure memory), without the use of any type of rechargeable or trickle-charge type of battery.
    d. All systems must be submitted to the OSU FS Electric Shop for approval.
        1. Special Requirements for Fluorescent Dimming Systems: Before specifying fluorescent dimming systems, the Designer/Engineer shall consider the following:
        . 100 hour “burn-in” time is required for the fluorescent lamps when using the dimming ballasts.
            a. The cost of replacing the ballast and lamps when needed is 200-300 percent more than replacing standard systems.
        2. This standard requires the Designer/Engineer to review the application of dimming devices and submit recommendations to OSU FS Electric Shop before incorporating into specifications.
6. Parking ramp interior lighting shall be circuited to permit lighting of dark interior areas during the day without lighting those areas which receive sufficient natural light. Automatic control of ramp lighting by photocell is required.

7. All exterior area and security lighting shall be dusk on and dawn off, powered from one (1) location in the building and controlled from the photo control, with provisions for manual override. Photo cell shall be readily accessible. Time clock control may be used on exterior or security lighting with written approval of the OSU FS Electric Shop.
    a. All lighting controls shall be located so as to have 24/7 access without escort of departmental personnel.

31. WINDOW OPERATORS
. Requirements
    1. Use of window operators must have written acceptance by the OSU FS Electric Shop.
    2. Window Operators shall be the model stocked by OSU FS Stores.
    3. At least 10 or 10% spare inventory provided by project.

Categories of PPE as described in NFPA 70E

osucs_260000.1.d.5.png

Category	Cal/cm^2	Clothing
0	1.2	Untreated Cotton
1	5	Flame retardant (FR) shirt and FR pants
2	8	Cotton underwear FR shirt and FR pants
3	25	Cotton underwear FR shirt, FR pants and FR coveralls
4	40	Cotton underwear FR shirt, FR pants and double layer switching coat and pants

Color Coding for 480/277V and 208Y/120V

cs_260000_color_coding.png

Phase	**Voltage (208Y/120)**	**Voltage (480Y/277)**
Neutral	White*	Gray*
A	Black	Brown
B	Red	Orange
C	Blue	Yellow
Equipment Ground	Green	Green
Isolated Ground	Green with Yellow Stripe	Green with Yellow Stripe
*Each with identifiable color stripe		

END OF SECTION

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

100% BID SET
04/14/2022

deca architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987 **fax** 503 239 6558 **deca-inc.com**

ABBREVIATIONS

∠	ANGLE
℄	CENTERLINE
@	AT
Ø	DIAMETER or ROUND
⊥	PERPENDICULAR
□	SQUARE
AB	ANCHOR BOLT
AC	AIR CONDITIONING
ACCES	ACCESSORY(IES)
ACOUS	ACOUSTICAL
AD	AREA DRAIN
ADJ	ADJUST(ABLE), ADJACENT
AFF	ABOVE FINISHED FLOOR
AL, ALUM	ALUMINUM
ANOD	ANODIZED
APPR(OX)	APPROXIMATE
ARCH	ARCHITECTURAL
BCS	BABY CHANGING STATION
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
B.O.	BOTTOM OF
B.O.S.	BOTTOM OF STRUCTURE
BOT, BOTT	BOTTOM
BRKT	BRACKET
CB	CATCH BASIN
CG	CLEAR GLASS
CIG	CLEAR INSULATED GLASS
CJ	CONSTRUCTION/CONTROL JOINT
CL	CENTER LINE
CLG, CEIL	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS, CONTINUE
CPT	CARPET
CS	CONCRETE-SEALED
CT	CERAMIC TILE
CTG	CLEAR TEMPERED GLASS
CTIG	CLEAR TEMPERED INSULATED GLASS
D	DRYER
DB	DOOR BUMPER
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIST	DISTANCE
DIM, DIMS	DIMENSION(S)
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DTL, DET	DETAIL
DW	DISHWASHER
DWG	DRAWING
E	EAST
EL	ELEVATION
EJ	EXPANSION JOINT
ELEC(T)	ELECTRIC(AL)
EP	ELECTRICAL PANEL
ELEV	ELEVATOR, ELEVATION
EQ	EQUAL
EQPM, EQUIP	EQUIPMENT
(E), EXIST.	EXISTING
EXT, EXTER	EXTERIOR
FA	FIRE ALARM/HORN/STROBE
FD	FLOOR DRAIN
F.D.	FOUNDATION DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FFL	FINISHED FLOOR LEVEL
FH	FIRE HYDRANT
FIN	FINISH(ED)
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
F.R.	FIRE RETARDANT
FT	FOOT(FEET)
FTG	FOOTING
GA	GAGE,GAUGE
GALV	GALVANIZED
GYP BD, GB, GWB	GYPSUM BOARD
HB	HOSE BIBB
HC	HANDICAP
HDWD	HARDWOOD
HOR(IZ)	HORIZONTAL
HVAC	HEATING, VENTILATING & AIR CONDITIONING
ID	INSIDE DIAMETER, IDENTIFY
IN	INCH(ES)
INFO	INFORMATION
INSUL	INSULATION
INT, INTER	INTERIOR
JAN	JANITOR
JT	JOINT
K.D.F.	KNOCK-DOWN FRAME
LAV	LAVATORY
LP	LIQUID PROPANE
LT	LIGHT
MACH	MACHINE
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFG	MANUFACTURE(R)(ING)
MIN	MINIMUM
MISC	MISCELLANEOUS
MP	METAL PANEL
MR	MIRROR
MTL	METAL
MULL	MULLION
(N)	NEW
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OCC	OCCUPANCY
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED-CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED-OWNER INSTALLED
OH	OPPOSITE HAND
ORD	OVERFLOW ROOF DRAIN
OSU	OREGON STATE UNIVERSITY
P, PTD	PAINT(ED)
L P	PLATE
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
(R)	RENOVATE(D)(ION)
R	RISER
R, RAD	RADIUS
RB	RUBBER BASE
RD	ROOF DRAIN
RDOD	ROOF DRAIN OVERFLOW DRAIN
REF, REFR	REFRIGERATOR
REINF	REINFORCE(D)(ING)
REQ, REQ'D	REQUIRE(D)(MENTS)
REV	REVISION(S)/REVISED
RM	ROOM
RO	ROUGH OPENING
S	SOUTH
SC	SOLID CORE
SCT	SEALED CEMENTITIOUS TOPPING
SECT	SECTION
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SP	STAND PIPE
SPECS	SPECIFICATIONS
SS, SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUC(T)	STRUCTURAL
SQ	SQUARE
SUSP CLG	SUSPENDED CEILING
SYM	SYMMETRICAL
T, TLT	TOILET
TR	TREAD
TC	TOP OF CURB
TEL	TELEPHONE
TG	TEMPERED GLAZING
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TOA	TOP OF ASPHALT
TOF	TOP OF FLOOR
TOP	TOP OF PLATE
TOS	TOP OF SCREEN
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VHI	VERY HIGH IMPACT
VIF	VERIFY IN FIELD
VT	VINYL TILE
W	WEST, WASHING MACHINE
W/	WITH
WB	WOOD BASE
WC	WATER CLOSET, WHEELCHAIR
WCP	WOOD CEILING PANEL
WCV	WALL COVERING
WD	WOOD
WDO	WINDOW
WF	WOOD FLOOR
W/O	WITHOUT
WP	WOOD PANEL, WATERPROOF
WRB	WATER RESISTANT BARRIER
WSF	WELDED STEEL FRAME

SYMBOLS

PLAN VIEW

- NEW FULL HEIGHT WALLS
- EXISTING FULL HEIGHT WALLS
- PARTIAL HEIGHT WALLS (0'-0" TOW)
- ITEMS ABOVE
- ITEM TO BE DEMOLISHED
- AD — AREA DRAIN
- RD — ROOF DRAIN
- ORD — OVERFLOW ROOF DRAIN
- CB — CATCH BASIN
- FD — FLOOR DRAIN

ELEVATION VIEW

- DUPLEX OUTLET
- SWITCH
- FA PULL STATION
- TELEPHONE OUTLET
- THERMOSTAT
- FIRE EXTINGUISHER CABINET (FEC)

REFLECTED CEILING VIEW

- CEILING LUMINAIRE: SURFACE, RECESSED
- EXHAUST FAN
- SUPPLY AIR DIFFUSER; REPAINT WHERE LOCATED IN NEWLY PAINTED SURFACE
- RETURN AIR
- LINEAR AIR DIFFUSER
- RECESSED SPEAKER; SEE AV DRAWINGS
- AREA NOT IN SCOPE

TARGETS

ROOM TAG

ROOM 101 — ROOM NAME / ROOM NUMBER

DOOR NO. TARGET

C233-1 — DOOR NO. / ROOM NO. / FLOOR / AREA

BUILDING OR WALL SECTION TARGET

6 / A601 — DETAIL NUMBER / DRAWING NUMBER

INTERIOR ELEVATION TARGET

1 / 2 / 3 / 4 / 6 / A601 — DETAIL NUMBER / DRAWING NUMBER / ELEVATION NUMBER

STRUCTURAL GRID

A

CEILING HEIGHT TARGET

9'-0" — CEILING HEIGHT ABOVE FINISH FLOOR

VERTICAL ELEVATION

100'-0"

LINE TYPES

- CENTERLINE
- PROPERTY LINE
- CONSTRUCTION LINE
- BREAKLINE

NORTH ARROW

N — TRUE NORTH

- 1 — WALL TYPE SYMBOL
- F1 — FLOOR TYPE SYMBOL
- R1 — ROOF TYPE SYMBOL
- C1 — CEILING TYPE SYMBOL

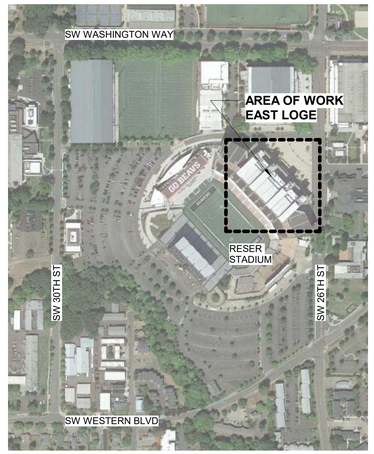
MATERIALS

PLAN, REFLECTED CEILING, AND ELEVATION VIEW

- CONCRETE
- WALK-OFF MAT
- METAL PANEL SYSTEM
- SUSPENDED GYPSUM BOARD CEILING UNO GP-CEMENT PLASTER GP-GYPSUM PLASTER FIBER CEMENT PANEL SYSTEM (GP)
- METAL MESH
- GLASS

SECTION VIEW

- ACOUSTIC WALL/CLG. PANEL
- CONCRETE
- STEEL
- ALUMINUM
- FINISH WOOD
- ROUGH WOOD
- BATT INSULATION
- RIGID INSULATION
- WOOD SHEATHING (PLYWD)
- GYPSUM BOARD
- WOOD PANEL (MDF)
- GLASS



SHEET INDEX

ADD ALTERNATES

1. ALTERNATE 01: REMOVE EXISTING TILE FROM NORTH AND SOUTH END WALLS; REPLACE WITH T-3. REMOVE AND REINSTALL DRINKING FOUNTAINS.
2. ALTERNATE 02: CHANGE BAR TOP SURFACE FROM ST-1 LISTED CORAIN "VENETIAN CREAM" TO LG HAUSYS, COLOR "ARIA" 2 CM.
3. 9WOOD WC-1 IS THE BASIS FOR DESIGN. CONTRACTOR TO PROVIDE PRICING AND SPECIFICATION FOR ALTERNATIVE COST TO CUSTOM CONSTRUCT THIS CEILING TREATMENT TO MATCH BASIS OF DESIGN.
4. DETAIL 4/A603: PROVIDE ALTERNATE FOR MATERIAL TO BE 1/4" TEMPERED GLASS WITH POLISHED EDGES.

PROJECT TEAM

CLIENT
Oregon State University
Capital Planning & Development
850 SW 35th St
Corvallis, OR 97333
tel (541) 737-5312
Amy Keene, Project Manager
amy.keene@oregonstate.edu

ARCHITECT
DECA ARCHITECTURE, INC.
935 SE Alder Street
Portland, OR 97214
tel (503) 239-1987 fax (503) 239-6558
Meredith Curran/ curran@deca-inc.com

deca architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

GENERAL NOTES AND DRAWING INDEX

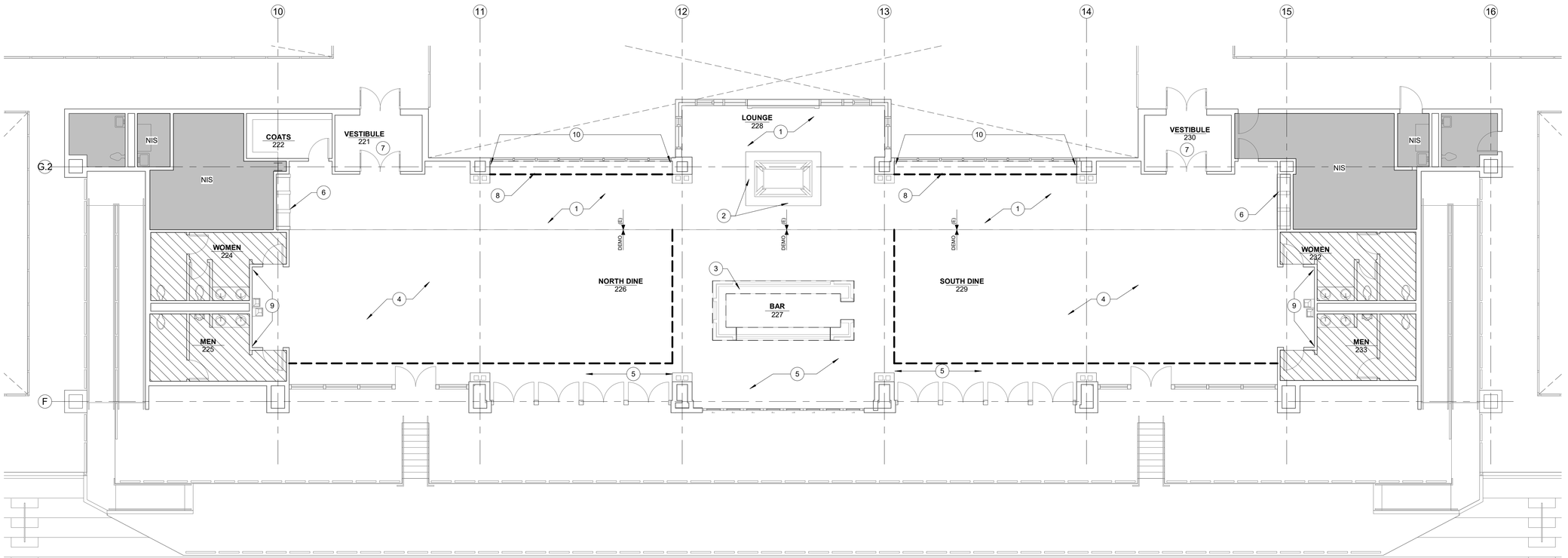
Scale: As indicated
Date: 04/14/2022
Sheet No.: **G001**

deca
architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331



1 FIRST FLOOR - DEMO
1/8" = 1'-0"

N

DEMOLITION PLAN NOTES

1. REMOVE EXISTING FINISHES AS REQUIRED FOR INSTALLATION OF NEW WORK. PATCH OR REPAIR FINISHES FOR A SMOOTH TRANSITION.
2. REPLACE OR REPAINT HVAC GRILLES IN NEWLY PAINTED SURFACES.
3. CLEAN AND ADEQUATELY PREPARE ALL EXISTING SURFACES AND SUBSTRATES SCHEDULED TO RECEIVE NEW FINISHES
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT AND OWNER OF ANY DISCREPANCIES.
5. PROTECT ALL WOOD ELEMENTS TO REMAIN INCL. WOOD BASE, WOOD FLOOR, WOOD FACE AT BAR, TRIM AT FIREPLACE.
6. COORDINATE REMOVAL OF (E) LIGHTING WHERE BEING REPLACED; SEE A201.
7. REMOVE ALL (E) FLOORING EXCEPT FOR (E) WOOD FLOOR AND BATHROOM FLOORS. WOOD BASE TO REMAIN.
8. REMOVE DECORATIVE PENDANTS AT BEAMS AND BAR PENDANT. MAINTAIN WIRING FOR REUSE WITH NEW FIXTURES. RETURN FIXTURES TO OSU.
9. TOILET ROOMS; REMOVE VANITY LIGHTS. SEE A201 FOR REPLACEMENT.
10. EXISTING DOORS AND HARDWARE TO REMAIN.
11. COORDINATE SALVAGING OF ITEMS INCLUDING DECORATIVE LIGHTING WITH OSU.
12. BATHROOM FINISHES AND FIXTURES TO REMAIN U.N.O. INCLUDING BATHROOM STALL DOORS, VANITY AND PLUMBING FIXTURES.

(#) DEMO PLAN KEYNOTES

1. EXISTING WOOD FLOOR TO REMAIN. PROTECT WOOD FLOOR AND BASE DURING WORK.
2. REMOVE (E) SURFACES AT FIREPLACE HEARTH ONLY; STONE & ALL WOOD ABOVE HEARTH TO REMAIN.
3. (E) BAR TO REMAIN WITH THE FOLLOWING MATERIALS TO BE REMOVED AND REPLACED WITH NEW MATERIALS AS NOTED. REMOVE: ALL PORTIONS OF WOOD BAR TOP; STONE MATERIAL ON VERTICAL FACES; TILE FOOT REST STRUCTURE.
4. REMOVE CARPET THROUGHOUT. PREP FOR NEW FLOORING.
5. REMOVE ALL CERAMIC TILE FLOORING IN BAR AREA.
6. WOOD DISPLAY CABINETS TO REMAIN; PROTECT DURING CONSTRUCTION.
7. REMOVE (E) FLOORING AT VESTIBULES.
8. REMOVE BUILT-IN BUFFET SURFACE; STEEL SUPPORTS TO REMAIN IF ABLE TO USE FOR NEW BUFFETS.
9. ALTERNATE 1 SCOPE: REMOVE TILE FROM BACK WALL; DRINKING FOUNTAINS TO REMAIN.
10. SALVAGE WOOD BASE FOR REUSE AS NEEDED; REMOVE WHERE NEW BUILT-IN CABINET OCCURS.

LEGEND

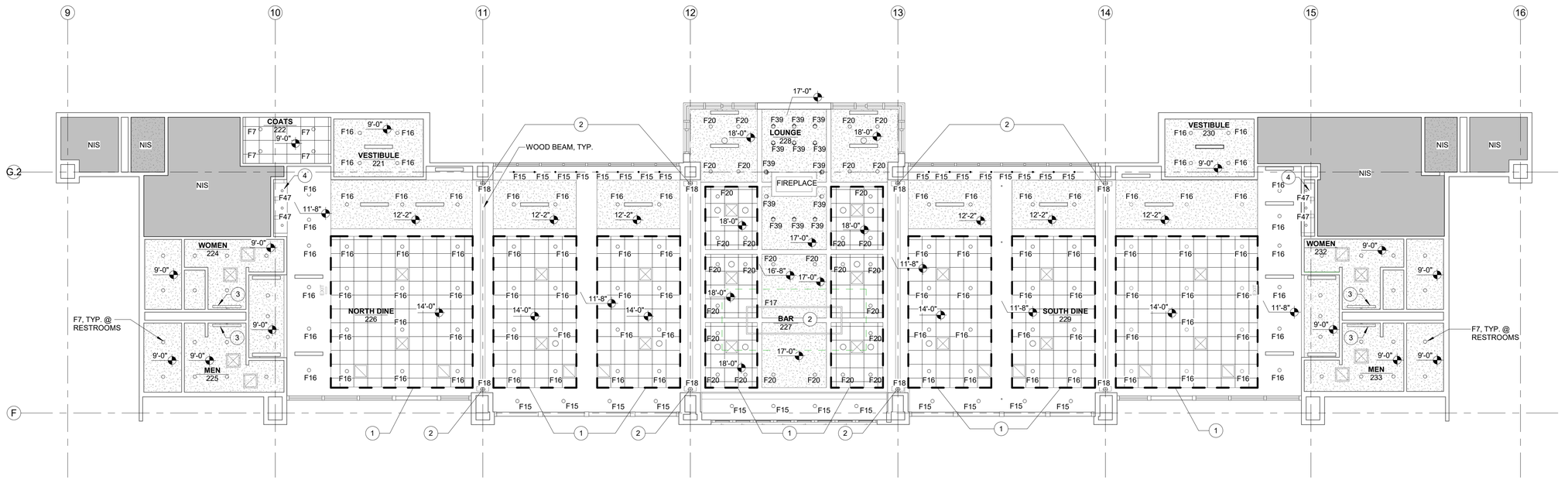
- EXISTING CONSTRUCTION TO REMAIN
- TO BE REMOVED
- NOT IN SCOPE
- ALL MATERIALS AND PLUMBING ITEMS TO REMAIN

Issue	Revision	Date
100% BID SET		4/14/2022

EAST LOGE
DEMOLITION PLAN

Scale As indicated
Date 04/14/2022
Sheet No. **A011**

deca
architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987



1 REFLECTED CEILING PLAN - EXISTING CONDITIONS
1/8" = 1'-0"

N

CEILING PLAN NOTES

1. CEILING ZONES WITH (E) ACT, GRID AND ACT TO REMAIN; REPLACE VISIBLY DAMAGED TILE WITH NEW ACOUSTIC CEILING TILE TO MATCH EXISTING.
2. IN ZONES WITH ACT, DOWNLIGHT F16 TO BE REPLACED WITH NEW FIXTURES.
3. IN HARD LID AND SOFFITS, (E) LIGHT TO REMAIN AND TO BE RELAMPED.
4. ALL WOOD BEAMS TO REMAIN; CLEAN.
5. U.N.O. MAJORITY OF FIXTURES TO BE RELAMPED WITH NEW LED LAMPS. REPLACE FIXTURES AS NOTED A202.
6. SWITCHING AND CONTROLS TO REMAIN/ REUSE.
7. REPAINT ALL HARD LID CEILING & SOFFITS AS NOTED.
8. WOOD TRIM AT PERIMETER OF ACT AREAS TO REMAIN.

(#) CEILING PLAN KEY NOTES

1. CEILING TILE AND GRID TO REMAIN. REMOVE AND REPLACE F16 AND F20 FIXTURES IN THESE ZONES.
2. SALVAGE DECORATIVE LIGHT AND RETURN TO OSU; SEE A201 FOR REPLACEMENT FIXTURES.
3. REMOVE BATHROOM VANITY AND REPLACE.
4. FIXTURES TO REMAIN; DO NOT REQUIRE RELAMPING.

EXISTING LIGHT FIXTURE SCHEDULE FOR REFERENCE

F7
RECESSED FLUORESCENT DOWNLIGHT
RECESSED MOUNTED COMPACT FLUORESCENT DOWNLIGHT WITH SEMI-SPECULAR CLEAR SELF-FLANGED CONE
MANUF: KURT VERSEN
MODEL NO.: P921-SC
LAMP: PL-T32W/835/4P/ALTO
MAX WATTS: 36

F15
RECESSED INCANDESCENT DOWNLIGHT
RECESSED MOUNTED LOW VOLTAGE INCANDESCENT DOWNLIGHT WITH SEMI-SPECULAR CLEAR SELF-FLANGED CONE WITH FROSTED SPREAD LENS AND INTEGRAL ELECTRONIC TRANSFORMER.
MANUF: KURT VERSEN
MODEL NO.: K7301-SC-FR-ELEC
LAMP: Q50MR16/C/CG/NFL25
MAX WATTS: 55

F16
RECESSED INCANDESCENT DOWNLIGHT
RECESSED MOUNTED INCANDESCENT A-LAMP DOWNLIGHT WITH SEMI-SPECULAR CLEAR SELF-FLANGED CONE
MANUF: KURT VERSEN
MODEL NO.: C7320-FC
LAMP: PHILIPS HALOGENA, BC100BT15
MAX WATTS: 100

F17
LARGE CHAIN-HUNG LANTERN BAR PENDANT
SURFACE MOUNTED DECORATIVE CHAIN-HUNG INCANDESCENT LANTERN FIXTURE WITH AMBER STAINED GLASS DIFFUSER. FIXTURE MOUNTED IN CUSTOM METAL WITH RUST FINISH FRAMEWORK.
MANUF: BRASS LIGHT GALLERY, FRAMEWORK: WINONA LIGHTING OR SCOTT ARCHITECTURAL LIGHTING
MODEL NO.: PA-6409-A18
LAMP: PHILIPS HALOGENA, BC60BT15
MAX WATTS:100
NOTE: REPLACE WITH NEW FIXTURES

F20
RECESSED INCANDESCENT DOWNLIGHT
RECESSED MOUNTED INCANDESCENT PAR LAMP DOWNLIGHT WITH SEMI-SPECULAR CLEAR SELF-FLANGED CONE
MANUF: KURT VERSEN
MODEL NO.: c7302-sc
LAMP: 100PAR38/IRC/FL25
MAX WATTS: 100

F47
PUCK LICGHT
MANUF: EXCELINE
MODEL NO.: RLW32-HFLGC-6
LAMP: 12-10-HB-FR
NOTE: NO RELAMPING OF THIS FIXTURE

CEILING PLAN LEGEND

- CEILING LUMINAIRE: SURFACE, RECESSED
- EXHAUST FAN
- SUPPLY AIR DIFFUSER; REPAINT WHERE LOCATED IN NEWLY PAINTED SURFACE
- RETURN AIR
- LINEAR AIR DIFFUSER
- RECESSED SPEAKER; SEE AV DRAWINGS
- AREA NOT IN SCOPE
- F16 AND F20 LIGHTINGS IN THIS AREA TO BE REPLACED; WOOD TRIM TO REMAIN

OREGON STATE UNIVERSITY

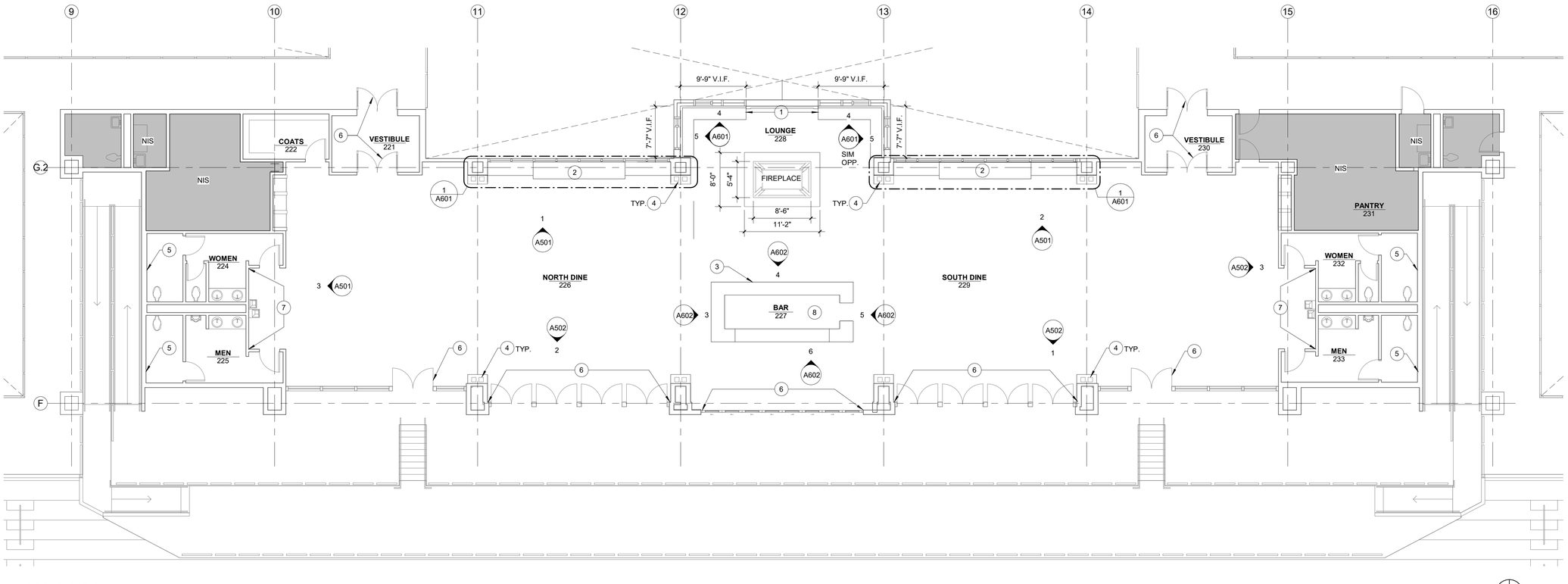
RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

EAST LOGE REFLECTED CEILING PLAN - EXISTING / DEMO

Scale: As indicated
Date: 04/14/2022
Sheet No.: **A020**



1 FIRST FLOOR PLAN
1/8" = 1'-0"

N

FLOOR PLAN GENERAL NOTES

1. REPAINT ALL PAINTED SURFACES INCLUDING BATHROOM WALLS & CEILINGS.
2. FOR FLOOR FINISHES SEE SHEET A901. PROVIDE FLOOR PREP AS REQUIRED AT ALL NEW SURFACES.
3. MONITOR AND MAINTAIN FUNCTION OF LIFE SAFETY DEVICES. WHEN WORK REQUIRES UNITS TO BE TURNED OFF COORDINATE PRIOR WITH OSU FACILITIES.
4. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND SHALL COORDINATE ALL CONSTRUCTION EFFORTS WITH OWNER'S REQUIREMENTS.
5. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR LOCATING, IDENTIFYING, OR SPECIFYING MEANS OF REMOVAL FOR ANY HAZARDOUS MATERIALS. HAZARDOUS MATERIAL TESTING SHALL BE COMPLETED BY OWNER CONTRACTED CONSULTANT.
6. REFER TO PROJECT MANUAL AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

(#) FLOOR PLAN KEY NOTES

1. NEW BUILT-IN BANQUETTE.
2. NEW BUILT-IN BUFFET SURFACE AND CABINETS WITH NEW ELECTRICAL OUTLETS PROVIDED BELOW. NEW OUTLETS TO SUPPORT EQUIPMENT WITH 110-120 VOLT, 300 WATT POWER. ELECTRICIAN TO VERIFY. OUTLETS TO BE NEMA 5-15P TYPE OUTLETS. COORDINATE W/ OWNER'S REQUIREMENTS FOR O.F.O.I. HEATING EQUIPMENT.
3. NEW BAR COUNTER W/ WOOD EDGE.
4. LIGHT SAND TO REPAIR DAMAGE; SEAL / RESTAIN WOOD COLUMNS, TYP; 8 LOCATIONS WITH (2) POSTS EACH TOTAL.
5. FURNISH AND INSTALL ADA VERTICAL GRAB BAR; SEE ELEVATION 2/A601.
6. EXISTING WOOD AND GLASS DOORS; PROVIDE LIGHT SAND OR BUFF TO REFURBISH, REPAIR CLEAR DAMAGE. ENSURE HARDWARE IS SECURE AND FUNCTIONING.
7. ALTERNATE 1 SCOPE: REMOVE AND REPLACE (E) DRINKING FOUNTAINS AFTER TILE IS REPLACED.
8. G.C. TO COORDINATE WITH OSU FACILITIES SERVICES PLUMBING SHOP ON REMOVAL OF BAR EQUIPMENT PRIOR TO DEMOLITION. OWNER TO STORE PLUMBING/EQUIPMENT ITEMS IN SAFE LOCATION UNTIL SCHEDULED TO REINSTALL. DISCONNECTION AND RECONNECTION BY OWNER.

LEGEND

EXISTING

NOT IN SCOPE

deca architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

EAST LOGE FLOOR PLAN

Scale: As indicated

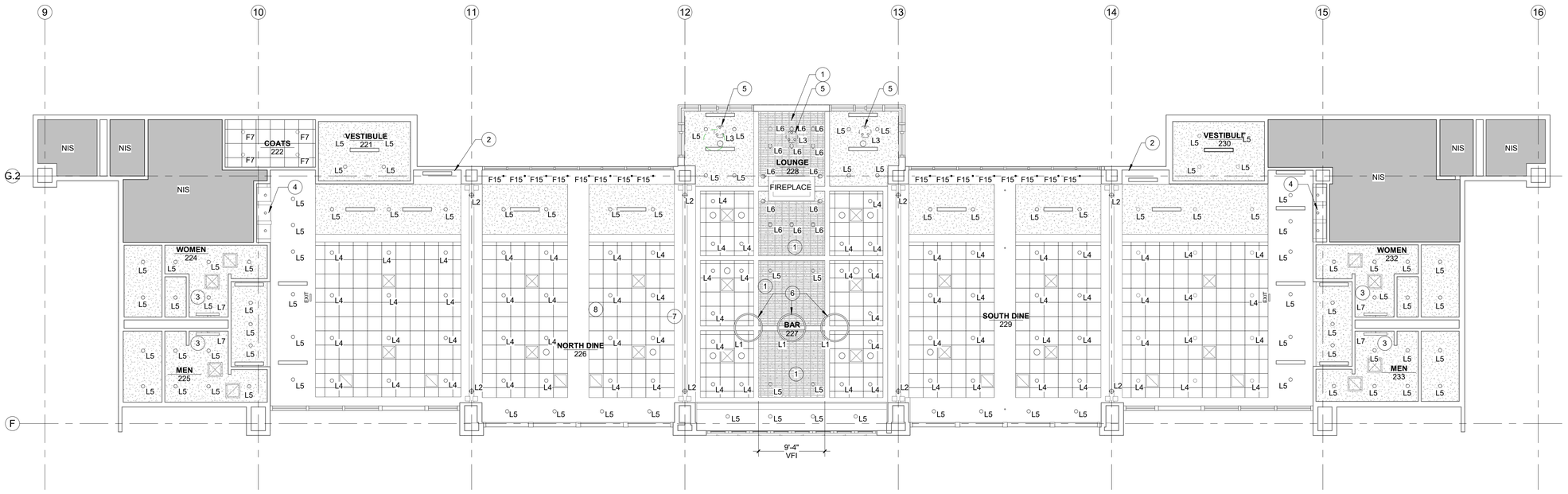
Date: 04/14/2022

Sheet No. **A101**

deca
architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY
RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331



1 REFLECTED CEILING PLAN
1/8" = 1'-0"

N

CEILING PLAN NOTES

1. FIXTURES AND EQUIPMENT SHOWN FOR REFERENCE AND IN APPROX LOCATION, VERIFY AS REQUIRED.
2. MAINTAIN AND UTILIZE (E) WIRING AND/OR LOCATION TO THE EXTENT POSSIBLE.
3. EXISTING LIGHTING NOT SHOWN TO REMAIN UNO
4. PROVIDE NEW COVER PLATES ON NEW CONTROLS, OUTLETS & SWITCHES IN AREA OF WORK, VERIFY COLOR W/ ARCHITECT; ALLOW FOR METAL/ DARK BRONZE COVER PLATES.
5. NO CHANGES TO (E) EXIT SIGNS OR LOCATIONS.
6. MAINTAIN EGRESS LIGHTING AND MIN 1 FOOT CANDLE AT FLOOR.
7. FIRE/ LIFE SAFETY DEVICES TO REMAIN AS IS, UNO.
8. NEW LED FIXTURES MAY NOT BE COMPATIBLE W/ EXISTING WIRING FOR DIMMING. PROVIDE COST AS NEEDED TO MAKE FIXTURE DIMMABLE WHERE NOTED FOR NEW FIXTURES.
9. REPLACE EXISTING F16 FIXTURES (SEE A201) IN ACT WITH L4 FIXTURE.
10. HARD LID CEILING AND SOFFIT AREAS COMPATIBLE WITH (E) FIXTURES: REPAINT; (E) LIGHT FIXTURES TO REMAIN BUT RELAMP WITH LED LAMPS.
11. AREAS WITH CEILING TILE, REPLACE VISIBLY DAMAGED EXISTING ACOUSTIC TILE TO MATCH IN STYLE AND COLOR.
12. DUST AND CLEAN CEILING WOOD BEAMS.
13. DUST/VACUUM AND CLEAN ALL HVAC SUPPLY & RETURN UNITS IN THIS LOCATION ONLY. REPAINT UNITS IN HARD LID CEILING, AND WHERE UNITS OCCUR IN PAINTED SURFACE.
14. COORDINATE ALL CEILIGN WORK AND ELECTRICAL WITH AV DRAWINGS.
15. ANY LIGHTS ON AN EMERGENCY EGRESS CIRCUIT REPLACED WITH A NEW FIXTURE TO REMAIN ON EGRESS CIRCUIT TO MAINTAIN CODE REQUIREMENT.
16. SEE PROJECT MANUAL, SPECIFICATION SECTION 26: ELECTRICAL; SECTION 23-28 FOR OSU STANDARDS. THESE REQUIREMENTS MUST BE FOLLOWED; ALERT ARCHITECT OF ANY REQUESTED DIGRESSION.

(#) CEILING PLAN KEY NOTES

1. NEW WC-1 WOOD SLAT CEILING SYSTEM; PAINT HARD LID ABOVE PRIOR TO INSTALL, ADJUST SPRINKLER HEADS AS REQUIRED.
2. LOCATION OF (E) CONTROLS. REUSE CONTROLS BUT REPLACE COVERPLATE; VERIFY COLOR.
3. FURNISH AND INSTALL NEW LED VANITY FIXTURE L7 AT (E) LOCATION.
4. NO CHANGE TO LIGHT FIXTURES.
5. NEW L3 FIXTURES CENTERED IN OPENINGS. NORTH TO SOUTH; VERIFY EAST TO WEST WITH ARCHITECT.
6. ONE FIXTURE LOCATED HERE PREVIOUSLY; REVIEW NEW JBOX LOCATIONS, NEW TRANSFORMER LOCATIONS.
7. LOCATION OF NEW CEILING MOUNTED AUTOMATED PROJECTION SCREEN; SEE AV DRAWINGS AND COORDINATE ELECTRICAL NEEDS.
8. APPROXIMATE LOCATION OF NEW CEILING MOUNTED PROJECTOR; SEE AV DRAWINGS AND COORDINATE ELECTRICAL NEEDS.

LIGHT FIXTURE LEGEND

L1 **LARGE BAR PENDANT**
REPLACES: F17 IN BAR
MANUF: EUREKA
STYLE: RING 4424D-42-JDJ6
DESCRIPTION: RING SILENE CLASSIC 42" DIRECT
FINISH: BLACK
LENGTH: CUSTOM, VERIFY WITH ARCHITECT
DIFFUSER: FROSTED
KELVIN: 3000
SIZE: 42" DIA.; 6 LAMPS
DV OR DC FUNCTION: DIMMING
NOTE: CENTER EQUALLY OVER BAR. SUSPEND TO APPROX. 12'-0" AFF.
CUSTOM: BASE OF LANTERNS BLACK TO MATCH RING STRUCTURE.

L2 **SMALL PENDANT AT COLUMNS**
REPLACES: F18 PENDANTS
MANUF: WAC LIGHTING
STYLE: BANDED 9" MINI PENDANT
MODEL: PD-68909
LAMP: INCANDESCENT TO ALLOW FOR DIMMING
FINISH: BK BLACK
DRIVER: VERIFY IF IN CANOPY OR JBOX
SIZE: 9 1/4" X 5"
FUNCTION: DIMMABLE
INSTALL: APPROX. 7'-6" AFF

L3 **PENDANT AT LOUNGE**
NEW FIXTURE/ NEW WIRING
MANUF: OCL
STYLE: TUBIE 5
MODEL: TB5-P1FK-36-MW-BKP-LED1-30K-ND-UNV-144-DM1
FINISH: WHITE ACRYLIC; BLACK FINISHES
KELVIN: 3000K
INSTALL HEIGHT: SEE ELEVATIONS
QTY: 6
DIMMING FUNCTION: 0-10 VOLT
NOTE: 3 SEPARATE FIXTURES WITH SEPARATE CANOPIES AND JUNCTION BOXES; SWITCHED TOGETHER

L4 **NEW RECESSED DOWNLIGHT (IN ACT)**
REPLACES: F16, F20 IN ACT LOCATIONS.
MANUF: COOPER LIGHTING/PORTFOLIO
DESCRIPTION: LD6B LED RECESSED DOWNLIGHT
DISTRIBUTION: MEDIUM OR WIDE - MATCH EXISTING
COLOR FOR CRI: 3000K
CAT#:
FINISH:
LAMP:
SIZE: 6" DIA.
FUNCTION: DIMMING

L5 **RELAMP: (E) DOWNLIGHT (ON EXISTING HARD-LID CEILING) REPLACES LAMPS IN F16, FIXTURES F20**
MANUF: SORRA
LAMP STYLE: VIVID
SIZE: AS REQUIRED PER FIXTURE
NOTE: MATCH EXISTING/PAR OR MR16 AS REQUIRED

L6 **RELAMP: RECESSED WALL WASHER REPLACES LAMPS IN F39 FIXTURES**
MANUFACTURER: SORAA
STYLE: VIVID
SIZE: AS REQUIRED PER FIXTURES

L7 **NEW VANITY FIXTURE**
MANUF: SONNEMAN
STYLE: TUBO SLIM BATH BAR
FINISH: SATIN NICKEL
LAMP: INTEGRATED LED
LENGTH: 32"
SHAPE: FLAT TRIM

LED LUMINAIRES SHALL HAVE A TEN(10) YEAR WARRANTY ON DRIVER AND LIGHT MODULES. TEN (10) OF EACH TYPE OF DRIVER AND LIGHT MODULE OR TEN PERCENT OF EACH DRIVER AND LIGHT MODULE, WHICHEVER IS GREATER, SHALL BE ADDED TO THE OSU FS STORES INVENTORY BY THE PROJECT. ALL RE-ORDER INFORMATION SHALL BE PROVIDED TO OSU FS STORES.

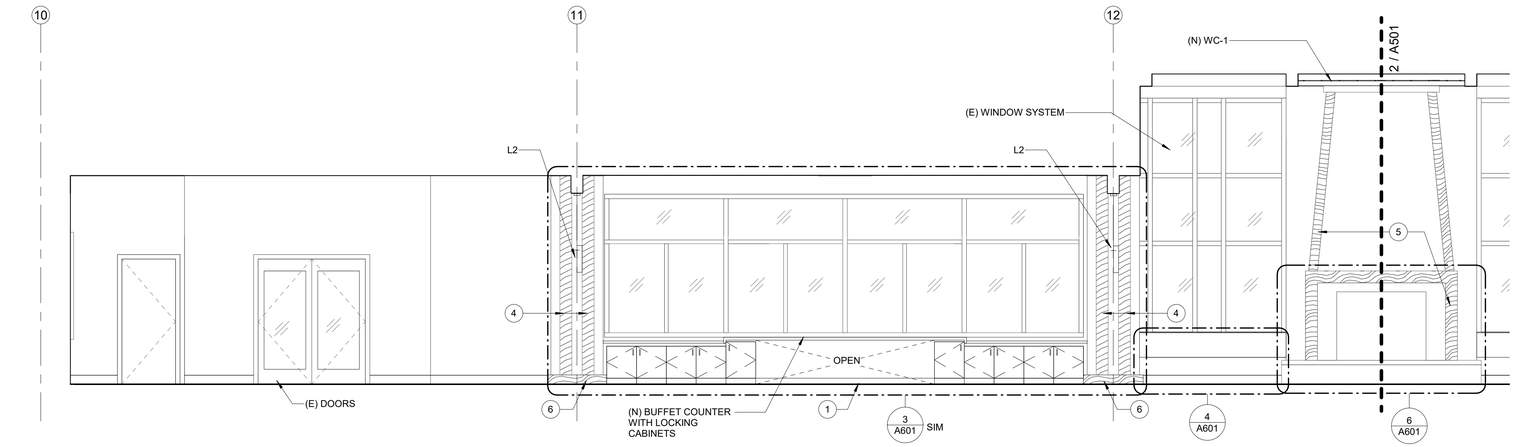
CEILING PLAN LEGEND

- CEILING LUMINAIRE: SURFACE, RECESSED
- EXHAUST FAN
- SUPPLY AIR DIFFUSER; REPAINT WHERE LOCATED IN NEWLY PAINTED SURFACE
- RETURN AIR
- LINEAR AIR DIFFUSER
- RECESSED SPEAKER; SEE AV DRAWINGS
- AREA NOT IN SCOPE

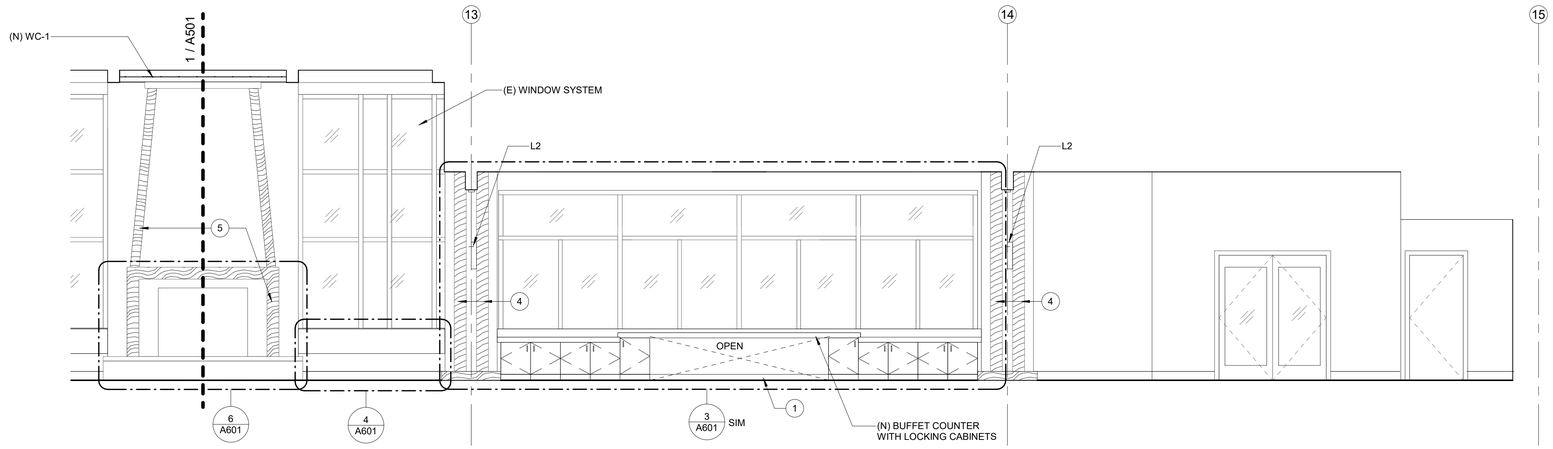
Issue	Revision	Date
100% BID SET		4/14/2022

EAST LOGE
REFLECTED CEILING PLAN

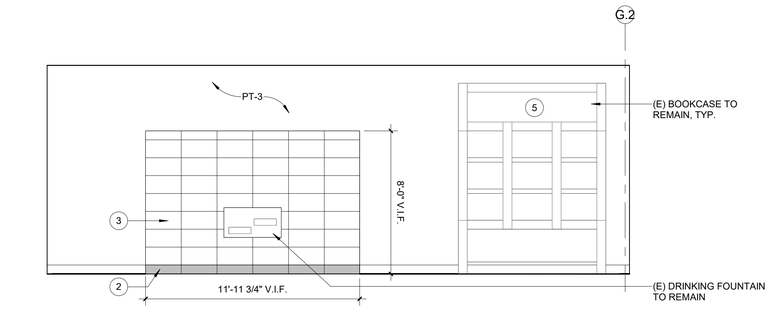
Scale As indicated
Date 04/14/2022
Sheet No. A201



1 EAST ELEVATION - A
1/4" = 1'-0"



2 EAST ELEVATION - B
1/4" = 1'-0"



3 NORTH ELEVATION
1/4" = 1'-0"

ELEV: GENERAL NOTES

1. ALL EXISTING DOOR HARDWARE TO REMAIN.
2. T-2 AT BAR AND FIREPLACE HEARTH : MINIMIZE GROUT LINE 1/8" OR SIM; GROUT: LATICRETE #45 RAVEN.
3. ALL WOOD TO REMAIN U.N.O.
4. ALL WALLS PAINTED PT-1 U.N.O.

(#) ELEVATION KEY NOTES

1. (E) WOOD BASE TO REMAIN WHERE (N) BUFFET IS OPEN.
2. INFILL WB-1 WHERE REQUIRED IN ALCOVES; USE SALVAGED BASE
3. ALTERNATE 1: NEW TILE, T-3: STACKED, FLOOR TO CEILING 12X24 WITH 1/8" GROUT LINES.
4. TYP. AT COLUMNS: LIGHT SAND/ REPAIR DAMAGE LOCATIONS: 8; 2 POSTS/LOCATION. WOOD COLUMNS/ RESTORE AND RESEAL.
5. CLEAN & RESEAL (E) WOOD SURFACES AS REQUIRED; PROTECT DURING CONSTRUCTION.
6. BASES OF ALL COLUMNS (TOTAL-8). RESTAIN OR PAINT (MATCH EXISTING) AND ALLOW FOR MINOR REPAIR AND SAND AT EACH COLUMN BASE.

deca architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY

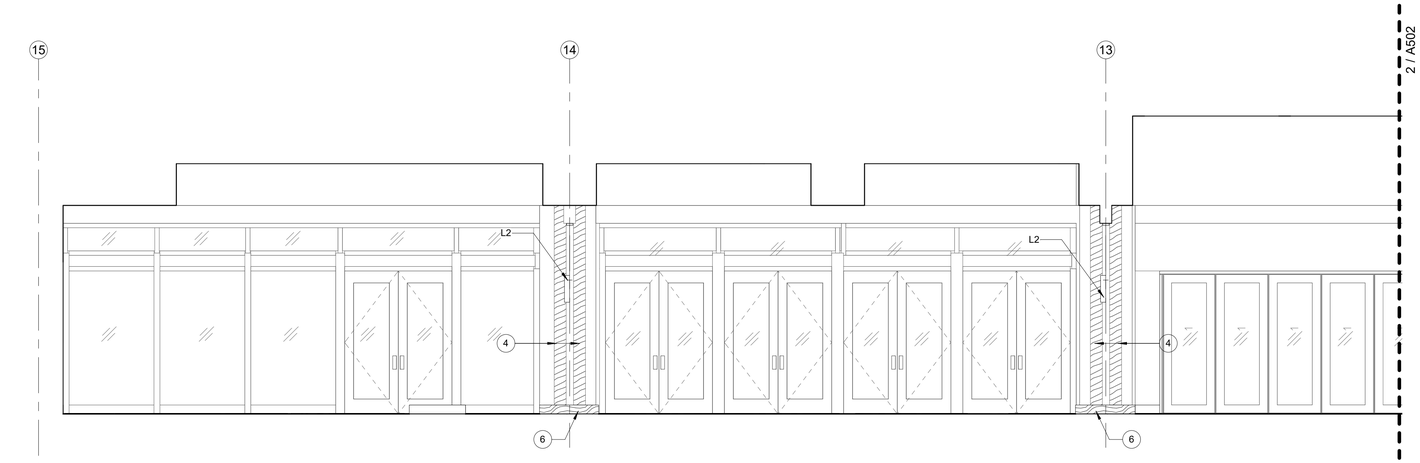
RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

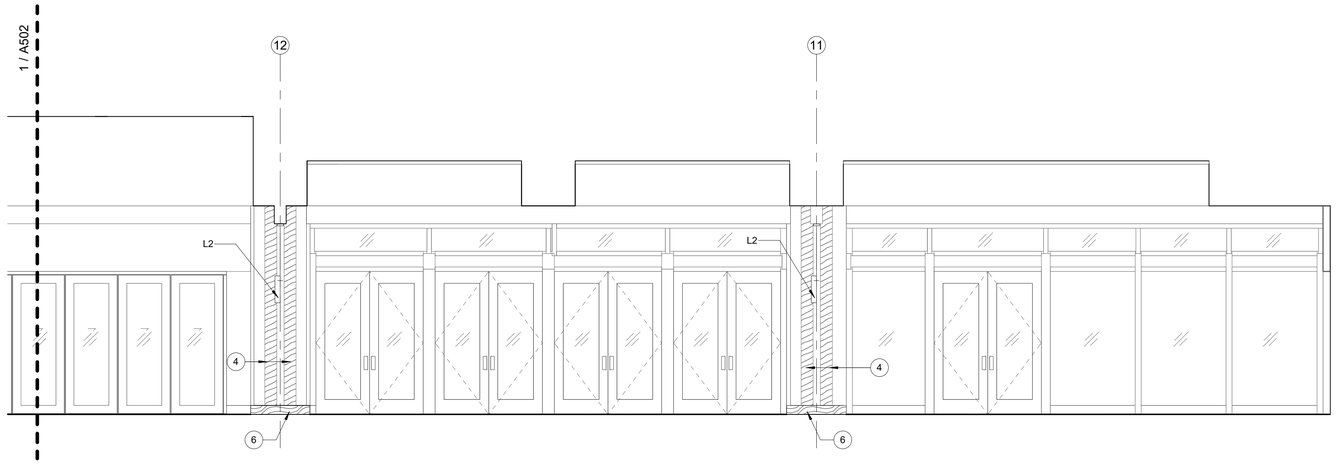
Issue	Revision	Date
100% BID SET		4/14/2022

INTERIOR ELEVATIONS

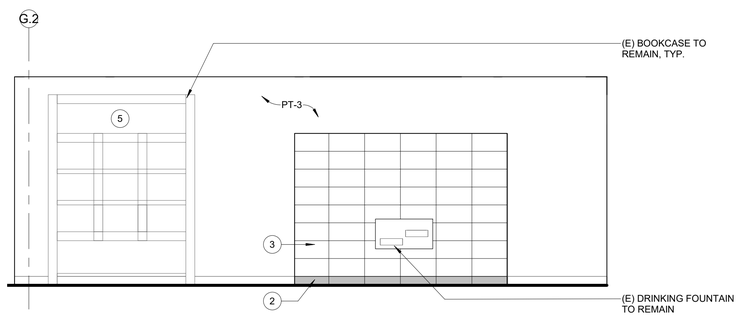
Scale: As indicated
Date: 04/14/2022
Sheet No.: A501



1 WEST ELEVATION - A
1/4" = 1'-0"



2 WEST ELEVATION - B
1/4" = 1'-0"



3 SOUTH ELEVATION
1/4" = 1'-0"

ELEV: GENERAL NOTES

1. ALL EXISTING DOOR HARDWARE TO REMAIN.
2. T-2 AT BAR AND FIREPLACE HEARTH : MINIMIZE GROUT LINE 1/8" OR SIM; GROUT: LATICRETE #45 RAVEN.
3. ALL WOOD TO REMAIN U.N.O.
4. ALL WALLS PAINTED PT-1 U.N.O.

(#) ELEVATION KEY NOTES

1. (E) WOOD BASE TO REMAIN WHERE (N) BUFFET IS OPEN.
2. INFILL WB-1 WHERE REQUIRED IN ALCOVES; USE SALVAGED BASE
3. ALTERNATE 1: NEW TILE, T-3: STACKED, FLOOR TO CEILING 12X24 WITH 1/8" GROUT LINES.
4. TYP. AT COLUMNS: LIGHT SAND/ REPAIR DAMAGE LOCATIONS: 8; 2 POSTS/LOCATION. WOOD COLUMNS/ RESTORE AND RESEAL.
5. CLEAN & RESEAL (E) WOOD SURFACES AS REQUIRED; PROTECT DURING CONSTRUCTION.
6. BASES OF ALL COLUMNS (TOTAL-8). RESTAIN OR PAINT (MATCH EXISTING) AND ALLOW FOR MINOR REPAIR AND SAND AT EACH COLUMN BASE.

deca
architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

INTERIOR ELEVATIONS

Scale As indicated

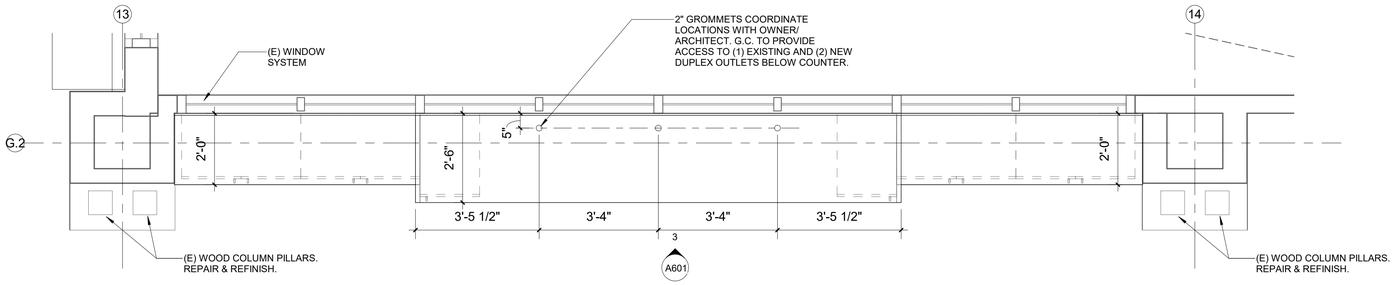
Date 04/14/2022

Sheet No. **A502**

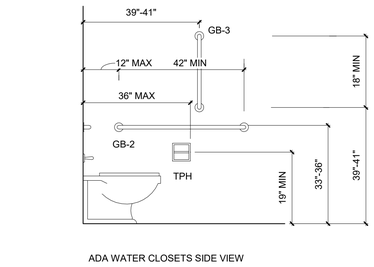
d

deca
architecture.inc

935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

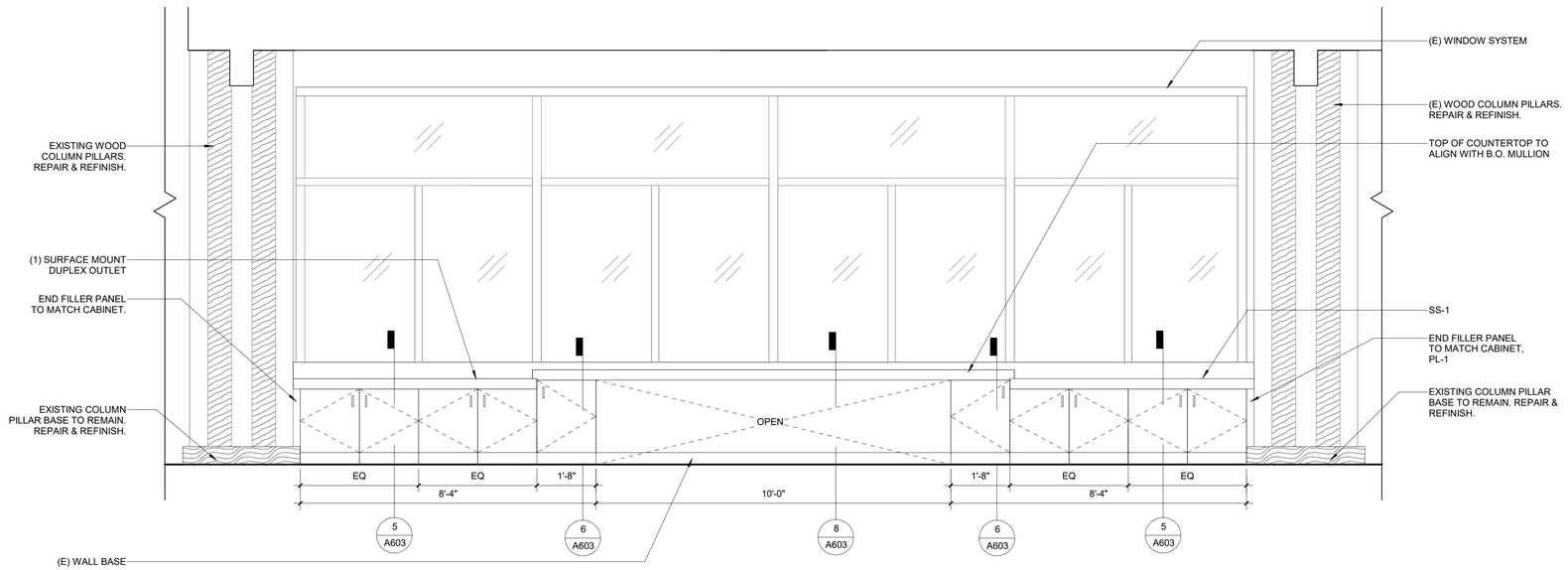


1 NORTH BUFFET PLAN (SOUTH TO MATCH)
1/2" = 1'-0"

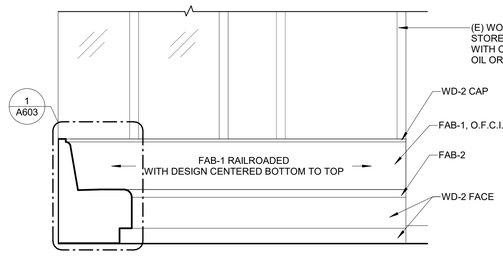


ADA WATER CLOSETS SIDE VIEW

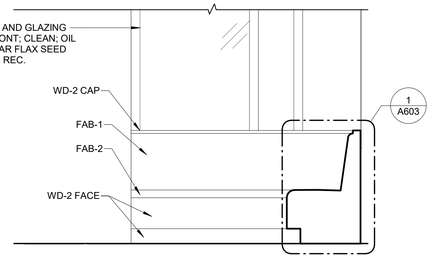
2 ADA WATER CLOSET TYPICAL MOUNTING HEIGHT
1/2" = 1'-0"



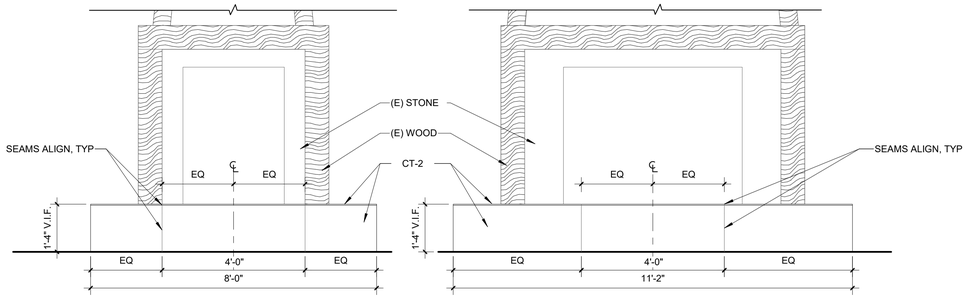
3 NORTH BUFFET (SOUTH TO MATCH)
1/2" = 1'-0"



4 BANQUETTE VIEW EAST
1/2" = 1'-0"



5 BANQUETTE VIEW NORTH
1/2" = 1'-0"



6 FIRE PLACE - TILE AND MANTLE COVER
1/2" = 1'-0"

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

ENLARGED ELEVATIONS & DETAILS

Scale 1/2" = 1'-0"

Date 04/14/2022

Sheet No. **A601**

deca
architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

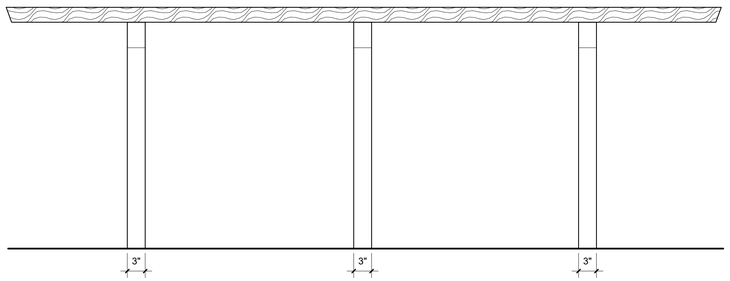


TABLE ELEVATION VIEW

WOOD SLABS MUST BE REVIEWED AND APPROVED BY OWNER/ARCHITECT PRIOR TO PURCHASE.

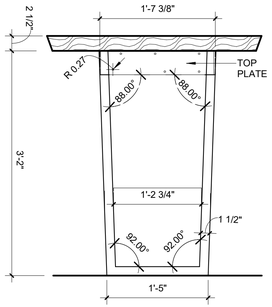


TABLE SIDE VIEW

WELD: SMOOTH MITER WITH NO VISIBLE WELD.

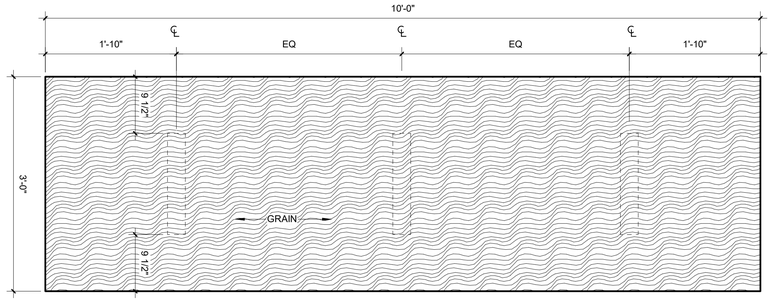
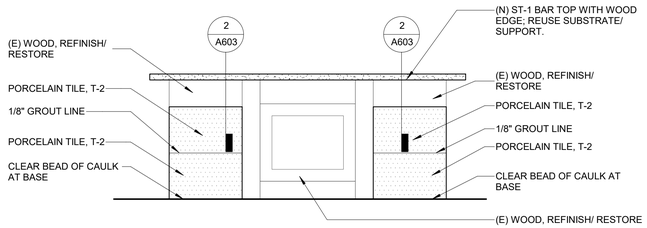


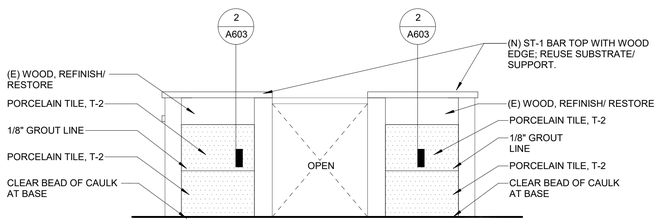
TABLE PLAN VIEW

WOOD: WALNUT W/ INFILL
EDGE: MINIMIZE ROUGH EDGE.
QTY: 2

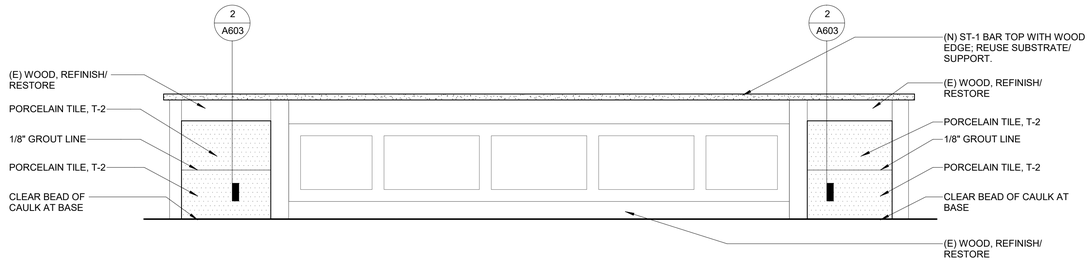
1 CUSTOM LIVE EDGE TABLE
1" = 1'-0"



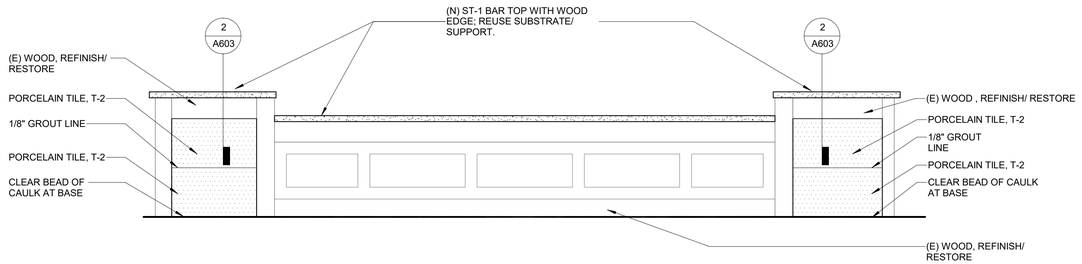
3 BAR - NORTH ELEVATION
1/2" = 1'-0"



5 BAR - SOUTH ELEVATION
1/2" = 1'-0"



4 BAR - EAST ELEVATION NEW
1/2" = 1'-0"



6 BAR - WEST ELEVATION
1/2" = 1'-0"

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

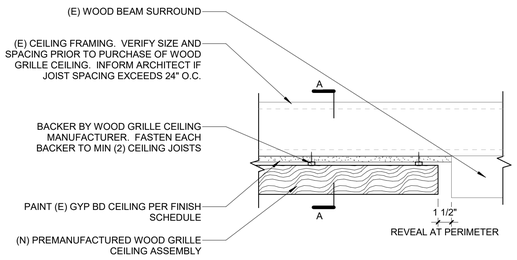
Issue	Revision	Date
100% BID SET		4/14/2022

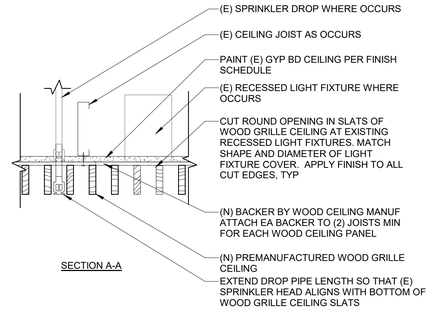
ENLARGED
ELEVATIONS & DETAILS

Scale As indicated

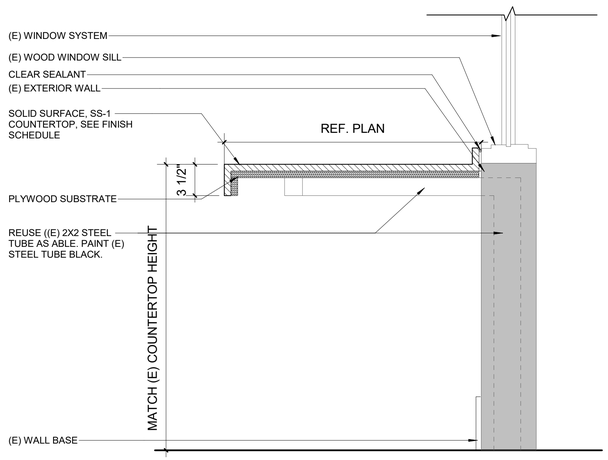
Date 04/14/2022

Sheet No. **A602**

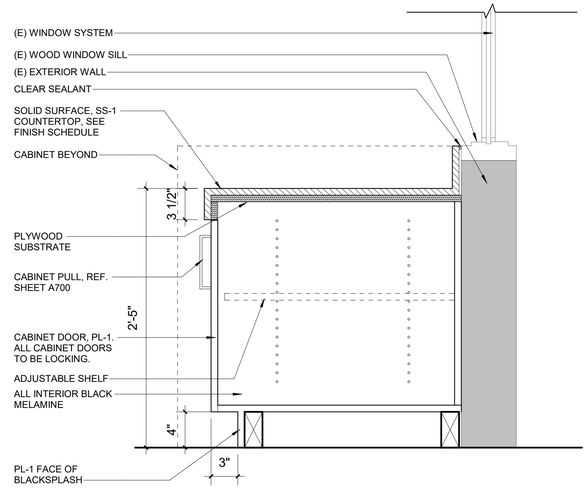




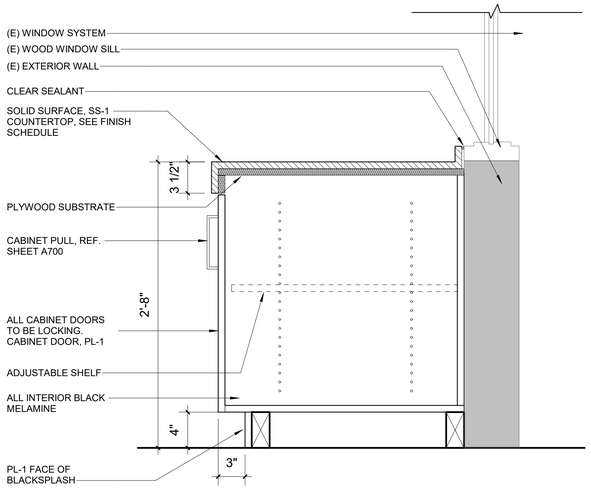
7 WOOD GRILLE CEILING
1 1/2" = 1'-0"



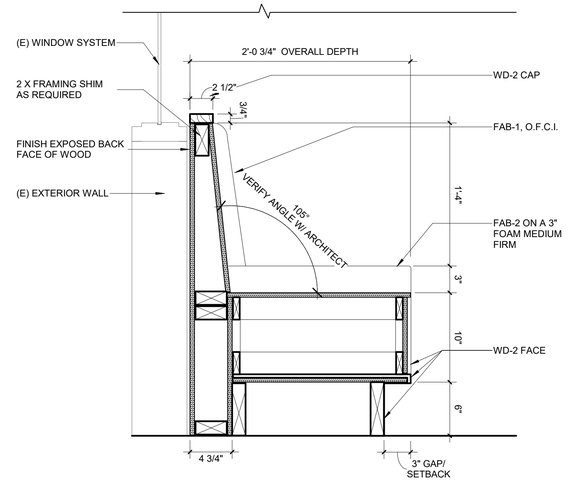
8 BUFFET SECTION
1 1/2" = 1'-0"



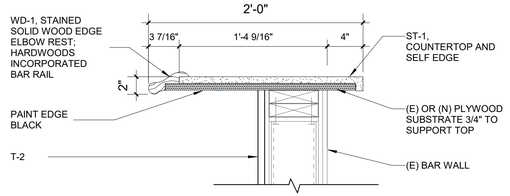
5 BUFFET SECTION
1 1/2" = 1'-0"



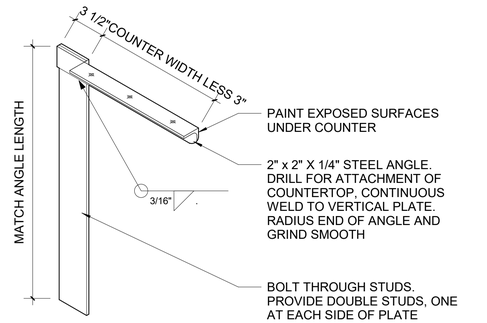
6 BUFFET SECTION
1 1/2" = 1'-0"



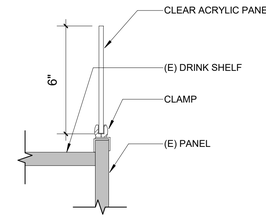
1 BANQUETTE SECTION
1 1/2" = 1'-0"



2 BAR DETAIL
1 1/2" = 1'-0"



COUNTER BRACKET IF REQUIRED AT BUFFET
3 1 1/2" = 1'-0"



CLAMP OPTIONS:

A. ZETEK SNEEZE GUARD CLAMP CUBICLE PANEL EXTENDER BRACKET. SIZE:_____. LOCATION: AMAZON.COM OR ZEKETDIGITAL.COM

B. MANUFACTURER: MODERNOFFICE FURNITURE.COM. SNEEZE GUARD CLAMPS FOR CUBICLES. SIZE 0.75" - 1.25:THICK SOLD IN SETS OF 2

QUANTITY: 2 CLAMPS PER DRINK SHELF

CLAMP MATERIAL:

PLEXIGLASS/ ACRYLIC
THICKNESS: 1/4" APPROX.
HEIGHT: 6"
EDGES: 2 SIDES AND TOP (MIN) WITH POLISHED EDGES ROUNDED CORNERS

TOTAL QUANTITY: 104

GENERAL NOTE:
PROVIDE ONE MOCK-UP PRIOR TO FABRICATING FOR ARCHITECT/ OWNER TO REVIEW AND APPROVE.

DRINK GUARD DETAIL AT EXTERIOR BOXES
4 3" = 1'-0"

deca architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

DETAILS

Scale As indicated
Date 04/14/2022
Sheet No. A603

FINISH MATERIAL SCHEDULE

Code	Manufacturer	Description	Color / Finish	Notes	Location	Contact
ACOUSTICAL CEILING TILE/CEILING TREATMENT						
ACT-EX	*USG*	*STYLE: FROST* *SIZE: 24 X 24* *GRID: EXISTING*	*COLOR: SANDSTONE*	*LISTED ONLY IF NEEDED FOR REPLACEMENT*	*MAIN DINING AREAS*	USG: CAROLYN FORBES (206)518-3006 CFORBES@USG.COM
WC-1	9WOOD	SERIES: 1100 WOOD: WESTERN HEMLOCK 3/4" WIDE SLATS X APPROX 3" BACKER BOARD SUPPORT	STAIN: MAHOGANY SLATS: 5/FOOT LENGTH: VIF; 10'	EQUIVALENT SUBSTITUTES THAT RESULT IN COST SAVINGS WILL BE CONSIDERED - MADRID, RULON, CUSTOM	OVER BAR, ATTACH PANELS TO EXSTG JOISTS; PAINT EXISTING CEILING FIRST AS DIRECTED	JERALD SCHWARZ (206)218-3489 JERALD@DIV-9.COM
CARPET						
CPT-1	PATCRAFT	CARPET TILE: PATINA STYLE: IO511 SIZE: 12"X 48" THICKNESS: 0.263" OZ YARN WEIGHT: 23 OZ	COLOR: URBAN STUDY, 00590 INSTALL: ASHLAR	FURNISH AND INSTALL TRANSITIONS WHERE CARPET MEETS NEW FLOORING.	DINING AREAS/REPLACE EXISTING & EXTEND	AMANDA DAMMARELL (347)380-3354 AMANDA.DAMMARELL @PATCRAFT.COM
CORNER GUARDS						
CG-1	INPRO OR SIM	ALUMINUM CORNER GUARD DW-AL1 1212-BLA) 1 1/2" WIDTH	COLOR: ANODIZED BLACK	QUANTITY: PROVIDE 8 FOR VARIOUS LOCATIONS, 8'-0" TALL	WALL CORNERS BY KITCHEN/CATERING; F & I A COUNT OF 6.	
FABRIC (FOR BANQUETTE)						
FAB-1	FABRIC	MANUF: ARCHITEX STYLE: KAINAI WIDTH: 55"	COLOR: PLUME	OFCI : OWNER HAS PURCHASED THIS FABRIC *THIS FABRIC NIC*	BACKREST OF BANQUETTE SEATS, INSTALLED RAILROADED	
FAB-2	FABRIC	MANUF: ARCHITEX - AUTHENTEC STYLE: WORMWOOD WIDTH: 53"	COLOR: ACQUISITION	GC TO PURCHASE	BANQUETTE SEATS	STEPHANIE DESHAIES (206)383-7215 STEPHANIEDESHAIES@ ARCHITEX-IJH.COM
PAINT						
PT-1	TBD	GENERAL WALL PAINT (WARM WHITE)	COLOR: GENERAL: EGGSHELL		GENERAL WALLS MAIN SPACE	-
PT-2	TBD	CEILING/SOFFIT	COLOR: TBD FINISH: FLAT	CEILING/SOFFIT COLOR	THROUGHOUT MAIN SPACE	-
PT-3	SHERWIN WILLIAMS	ACCENT PAINT (DARK)	COLOR: FINISH: EGGSHELL		AS NOTED ON DRAWINGS; NORTH AND SOUTH END WALLS, WRAPPING INTO RESTROOMS	SHERWIN WILLIAMS REP:ANNA ATCHISON (971)330-0728 ANNA.ATCHISON@SH ERWIN.COM
PT-4	TBD	PAINT (MID-DARK)	COLOR: TYPE: EPOXY FINISH: SEMI GLOSS		BATHROOM WALLS, CEILINGS	
PT-5	TBD	ACCENT PAINT (DARK)	COLOR: FINISH: EGGSHELL		EAST WALL AT FIREPLACE LOUNGE	
PLASTIC LAMINATE						
PL-1	WILSONART	PLASTIC LAMINATE	STYLE: SLATE VELVET, 15507-31 FINISH: TRACELESS FINISH		CABINET DOORS & SURFACES @ BUFFET	JENNIE GRIP EB BRADLEY
METAL						
MT-1	CUSTOM	BLACK STEEL MANTEL COVERS AT FIREPLACE TO PROTECT WOOD	BLACK STEEL GAUGE: NOTED ON DETAIL	BY OTHERS; NIC IN GC SCOPE	FIREPLACE (4 SIDES)	
PULL (CABINETS)						
PULL	AMEROCK	MONUMENT CABINET PULL 6 1/4" CENTERS	OIL RUBBED BRONZE	INSTALL 1.5" DOWN, 2" FROM EDGE		SHOPAMEROCK.COM
RESILIENT BASE AND TRIMS						
RB-1	JOHNSONITE	6" RUBBER BASE, CONTINUOUS ROLL	COLOR: TBD SIZE: 6" TALL STYLE: COVED	IF REQUIRED IN BAR WITH NEW TILE FLOOR, EXISTING BAR DIE WALLS/MATERIAL		
TS-1	JOHNSONITE	RUBBER TRANSITION STRIP SIM/MATCH EXISTING	COLOR: TBD, VERIFY WITH ARCHITECT	CARPET TRANSITION TO WOOD; TILE.	-	
TS-2	SCHLUTER	STYLE: AS RECOMMENDED BETWEEN WOOD FLOOR (EXISTING) AND T-1	COLOR: DARK BRONZE/BLACK			
STONE/QUARTZ						
ST-1	CORIAN QUARTZ	QUARTZ STONE SLAB SLAB THICKNESS: 2 CM (3/4" SLAB)	COLOR: VENETIA CREAM	REQUIRES PLYWOOD SUBSTRATE; SEE DETAILS FOR WOOD ELBOW REST EDGE TRIM (*See Altnerate 2 for alternate material)	REPLACE BAR COUNTER TOP	WILLIS: KATY ROTHERT (971)221-3519 KATYR@4WILLIS.COM
SOLID SURFACE						
SS-1	CORIAN	CORIAN SOLID SURFACE THICKNESS: 2CM	COLOR: NEUTRAL AGGREGATE EDGE: 1/4" BEVEL	COUNTER AND BACKSPLASH	BUFFET COUNTER TOPS	WILLIS KATY ROTHERT 971-221-3519

FINISH MATERIAL SCHEDULE

Code	Manufacturer	Description	Color / Finish	Notes	Location	Contact
TILE						
T-1	FLORIDA TILE	PORCELAIN TILE STYLE: DIVINITY DIMENSIONS: 12"X24" INSTALL: RUNNING BOND, NORTH TO SOUTH	COLOR: 10 DAWN EPOXY GROUT CUSTOM BUILDING PRODUCTS COLOR: #543 DRIFTWOOD SIZE: 1/8"	INSTALL A MIX TO DISTRIBUE BROWN VEINING ACCENT THROUGHOUT	FLOOR AROUND BAR AREA; IN BAR	AMY BOOTS Amy.Boots@floridatile.com
T-2	PENTAL SURFACES	PORCELAIN TILE STYLE: STONE PROJECT DIMENSIONS: 24 X 48	COLOR: BLACK FALDA NATURAL GROUT: LATICRETE COLOR: #45 RAVEN SIZE: 1/8"	CORNERS TO HAVE ONE TILE OVERLAP OTHER; DO NOT USE CORNER TRIM PIECE	CLAD WALLS OF BAR WHERE STONE REMOVED; CLAD FIREPLACE HEARTH ALL SIDES/TOP	ROBERT LONG ROBERTL@ARCSURFACES.COM
T-3	EMSER	ALTERNATE 1: PORCELAIN TILE STYLE: BUILDING BLOCKS DIMENSIONS: 12 X 24	COLOR: GRAY ITEM #: J01BCONGR1224 GROUT: LATICRETE COLOR: #60 DUSTY GREY	ALTERNATE #1	ALTERNATE 1: RESTROOM ENTRANCE WALL, NORTH AND SOUTH ENDS OF SPACE	RACHEL PRATT (503)308-2852 rachelpratt@emser.com
WALK OFF MAT						
WM-1	PATCRAFT	FOOT IN THE DOOR II STYLE: ENTRY POINT I0306	COLOR: STERLING 500		VESTIBULES	AMANDA DAMMARELL (347)380-3354 amanda.dammarell@patcraft.com
WOOD						
WF-1	(E) HARDWOOD FLOOR	EXISTING HARDWOOD FLOOR TO REMAIN; REFINISH	SAND AND CLEAR SEALCOAT TO EXST WOOD FLOOR		ALL WOOD FLOORING LOCATIONS	
WD-1	WOOD "ELBOW REST" EDGE TRIM AT BAR	HARDWOODS INCORPORATED BAR RAIL MOLDING BR475	RED OAK STAIN TO MATCH EXISTING BAR WOOD	PROVIDE SUBMITTAL FOR STAIN	OUTER EDGES OF NEW ST-1 BAR TOP	HARDWOODSINCORPORATED.COM/PRODUCT/BR450/
WD-2	WOOD BANQUETTE	VERTICAL GRAIN DOUG FIR STAINED TO MATCH EXST WOOD IN SPACE GRAIN TO RUN HORIZONTAL	STAIN TO MATCH EXIST WOOD	PROVIDE SUBMITTAL FOR APPROVAL	BASE AND WOOD COMPONENTS AT BUILT-IN BENCHES, FIREPLACE LOUNGE	

MATERIAL/FINISH GENERAL NOTES

1 Contact information is provided to assist in locating materials, but is not limited to only one company/person as a source
2 Latex paint is recommended unless the surfaces were originally painted with an oil-base paint product. Painter to verify and provide appropriate paint product recommendation.
3 Provide 10'x10' brush-outs of all paint colors for designer's review and approval, revisions to color may be required
4 All walls and hard lid ceiling, soffits painted PT-1 except where noted otherwise.

* For quick reference only. Contractor responsible to verify all locations indicated in drawings.

NOTES ON THIS SHEET

1. CONTACT INFORMATION IS PROVIDED TO ASSIST IN LOCATING MATERIALS, BUT IS NOT INTENDED TO BE THE ONLY SOURCE.
2. PROVIDE 10'X10' BRUSH-OUTS OF ALL PAINT COLORS FOR REVIEW PRIOR TO PAINTING AND PLAN FOR TWO BRUSH-OUT REVISIONS FOR EACH COLOR.
3. LATEX PAINT IS RECOMMENDED, UNLESS OTHERWISE NOTED, OR IF THE EXISTING SURFACE WAS ORIGINALLY PAINTED WITH AN OIL-BASED PAINT PRODUCT. PAINTER TO VERIFY & PROVIDE APPROPRIATE PRODUCT RECOMMENDATION.
4. PATCH ALL CRACKS AS NEEDED. MATCH ADJACENT CONDITIONS AND WALL PAINT.
5. FOR GENERAL REFERENCE ONLY. CONTRACTOR RESPONSIBLE FOR VERIFYING ALL LOCATIONS IN DRAWINGS AND SPECIFICATIONS.

* LOCATION PROVIDED FOR QUICK REFERENCE ONLY. REFER TO DRAWINGS TO VERIFY ALL LOCATIONS THAT MAY NOT BE NOTED IN THIS SCHEDULE

deca architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY
RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

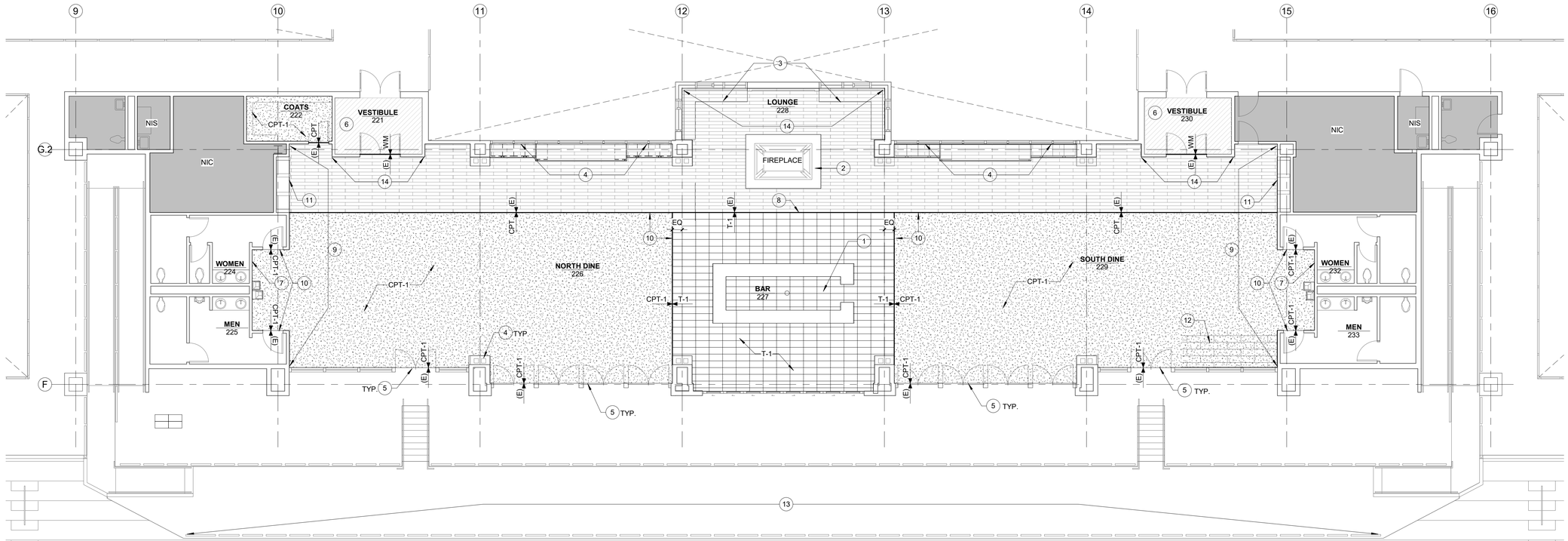
MATERIAL & FINISH SCHEDULE

Scale 12" = 1'-0"
Date 04/14/2022
Sheet No. **A700**

deca
architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987

OREGON STATE UNIVERSITY
RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331



1 FIRST FLOOR FINISH PLAN
1/8" = 1'-0"

N

FINISH PLAN NOTES

1. ALL GYPSUM SURFACES TO BE REPAINTED, INCLUDING HARD LID CEILINGS; RESTROOMS; COATS 222, VESTIBULES.
2. ALL WALLS AND HARD LID PAINTED PT-1 UNO; SEE ELEVATIONS AND SHEET A700.
3. WOOD AT BAR WALLS, FIREPLACE AND DECORATIVE COLUMNS TO REMAIN UNO. LIGHT SAND/STAIN AT BAR AND COLUMNS; CLEAN AND RESEAL WOOD AT FIREPLACE; REPAIR VISIBLE DAMAGE, LIGHTLY REFURBISH.
4. PROVIDE FLOOR PREP WHERE REQUIRED FOR NEW FLOOR MATERIALS.
5. WOOD BASE TO REMAIN THROUGHOUT; REPAIR AND INFILL WOOD BASE WHERE REQUIRED.
6. ALL DOORS TO RECEIVE LIGHT BUFF / SAND / OIL TO REFURBISH.

(#) FINISH PLAN KEY NOTES

1. CT-1 FLOOR EXTENDS INTO BAR SERVICE AREA. PROVIDE RB-1 BASE AT BAR DIE WALL INTERIOR.
2. HEARTH/ BENCH WHICH SURROUNDS FIREPLACE: REMOVE (E) TILE AND REPLACE WITH T-2.
3. NEW BUILT-IN BENCH/BANQUETTE SEATING.
4. REMOVE/REWORK BASE AS NEEDED FOR NEW CASEWORK AT BUFFER.
5. TRANSITION FROM CPT-1 TO EXTERIOR (E) CONCRETE.
6. NEW WALK OFF MAT AT EACH VESTIBULE.
7. ALTERNATE 1: NEW TILE T-3 ON WALL (AT EACH BATHROOM ENTRY). DRINKING FOUNTAINS TO REMAIN.
8. SCHLUTER TRANSITION STRIP BETWEEN CT-1 AND (E) WF-1: SCHIENE OR PROPOSE DESIGN IF TRANSITION IS SLOPED. FINISH: BRONZE.
9. PT-3 WALL THIS AREA; ALCOVE; CONTINUE INTO BATHROOMS
10. TRANSITION RUBBER TRANSITION STRIP TO ACCOMMODATE FLOORING MATERIAL AND THICKNESS CHANGE.
11. LIGHT SAND / REPAIR TO (E) WOOD DISPLAY CASE TO REFURBISH.
12. INDICATES INSTALLATION DIRECTION FOR CPT-1.
13. EXTERIOR SEATING BOXES, LOCATION OF DRINK GUARD 4/A603. QTY 104.
14. CG-1 LOCATION

FINISH FLOOR LEGEND

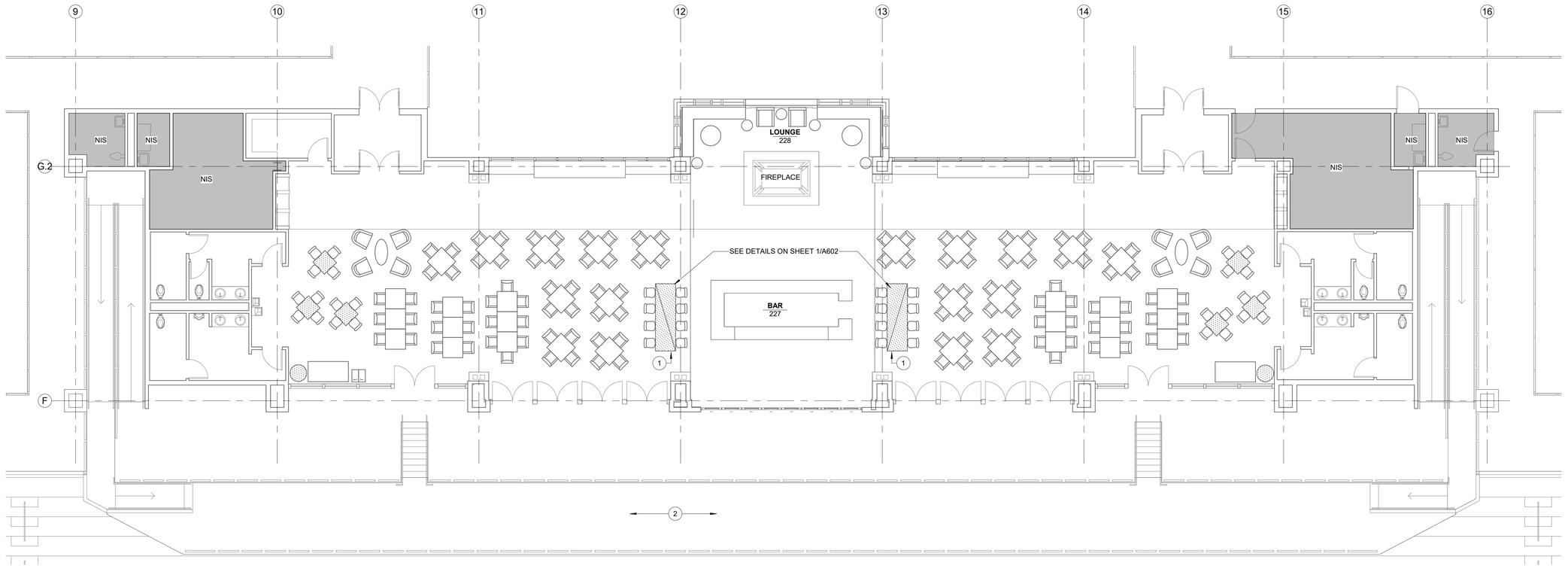
- **WM-1** WALK OFF MAT
- **WF-1** EXISTING WOOD FLOOR; SAND AND RESEAL.
- **T-1** NEW TILE AT BAR
- **CPT-1** INSTALLED ASHLAR, NORTH TO SOUTH.
- RECOMMENDED JOHNSONITE OR SIM TRANSITION PIECE.

Issue	Revision	Date
100% BID SET		4/14/2022

EAST LOGE FINISH PLAN

Scale: As indicated
Date: 04/14/2022
Sheet No.: **A901**

deca
architecture.inc
935 SE Alder Street : Portland Oregon 97214
tel 503 239 1987



1 FIRST FLOOR PLAN - FURNITURE LAYOUT
1/8" = 1'-0"

NOTE: FURNITURE BY OTHERS EXCEPT WHERE NOTED

N

#	FURNITURE PLAN KEYNOTES
1.	CFCI FREESTANDING CUSTOM TABLES, SEE 1/A602.
2.	LOCATION OF DRINK GUARDS; SEE 4/A603; F & I QUANTITY OF 102. PROVIDE FULL MOCK-UP FOR ARCHITECT/ OWNER APPROVAL PRIOR TO FABRICATION.
3.	BUILT-IN BANQUETTES, SEE DETAILS 4 & 5/A601.

OREGON STATE UNIVERSITY

RESER STADIUM EAST LOGE REFRESH

660 SW 26th St.
CORVALLIS OR, 97331

Issue	Revision	Date
100% BID SET		4/14/2022

FIRST FLOOR PLAN - FURNITURE LAYOUT

Scale As indicated

Date 04/14/2022

Sheet No. IA101

OREGON STATE UNIVERSITY
RESER STADIUM EAST LOGE REFRESH

660 SW 26TH STREET
CORVALLIS, OR 97331

AUDIOVISUAL SYSTEMS DRAWINGS

DRAWING INDEX

NOTE: AN "X" AT INTERSECTION OF DRAWING AND ISSUE INDICATES THAT THE DRAWING IS INCLUDED IN THAT ISSUE. IF NO "X" IS SHOWN, DRAWING IS NOT PART OF THAT ISSUE.

DRAWING NUMBER	DRAWING TITLE	ISSUE DESCRIPTION: ISSUED FOR REVIEW DATE: 2022-03-25
TA00-000	AUDIOVISUAL DRAWING INDEX	X
TA00-001	AUDIOVISUAL RESPONSIBILITIES, SYMBOLS, ABBREVIATIONS AND NOTES	X
TA00-101	AUDIOVISUAL FIRST FLOOR KEY PLAN	X
TA01-101	AUDIOVISUAL EAST LOGE FACILITIES & ELECTRICAL PLANS	X
TA01-131	AUDIOVISUAL EAST LOGE ELEVATION & SECTION VIEWS	X
TA01-132	AUDIOVISUAL EAST LOGE ELEVATION & SECTION VIEWS	X
TA01-133	AUDIOVISUAL EAST LOGE ELEVATION & SECTION VIEWS	X
TA01-311	AUDIOVISUAL EAST LOGE AV WIRING DIAGRAM	X
TA01-401	AUDIOVISUAL EAST LOGE EQUIPMENT ENCLOSURE	X

Diversified.
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University
OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:
- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By: ______________

Date: ______________

PIC	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: N. COLEY
ENGINEER: D. MEADOWS
SCALE: NTS
SHEET SIZE: ARCH E 48 X 36

CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH

AUDIOVISUAL

DRAWING
INDEX

PROJECT NUMBER
0008695

DRAWING NUMBER
TA00-000

SCHEDULE OF RESPONSIBILITIES

	SUPPLIED BY:						INSTALLED BY:						
	GC	BEC	SCC	AVC	OWNER	OTHER	GC	BEC	SCC	AVC	OWNER	OTHER	N/A
CEILING MOUNTED EQUIPMENT													
PROJECTION SCREENS				●						●			
PROJECTION SCREEN CONTROLLERS AND SWITCHES				●						●			
VIDEO PROJECTORS AND LENSES				●						●			
VIDEO PROJECTOR FIXED MOUNTS				●						●			
VIDEO PROJECTOR MOTORIZED MOUNTS													●
HANGING MONITORS													●
HANGING MONITOR MOUNTS													●
CEILING MOUNTED CAMERAS													●
STOCK CEILING CAMERA MOUNTS OR ENCLOSURES													●
CUSTOM CEILING CAMERA MOUNTS OR ENCLOSURES													●
CEILING SPEAKERS				●						●			
CEILING MICROPHONES													●
CEILING WIRELESS AV ANTENNA				●						●			
STRUCTURAL ATTACHMENTS FOR ANY CEILING DEVICES				●						●			
ALL CEILING PENETRATIONS AND CUT OUTS													●
POWER FOR ANY CEILING DEVICES		●						●					
LAN DROPS FOR ANY CEILING DEVICES													●
WALL MOUNTED EQUIPMENT													
FRONT PROJECTION SCREENS													●
PROJECTION SCREEN CONTROLLERS AND SWITCHES													●
REAR PROJECTION SCREENS													●
REAR PROJECTION MIRROR ASSEMBLY													●
WALL MOUNTED CAMERAS				●						●			
STOCK CAMERA MOUNTS AND ENCLOSURES				●						●			
CUSTOM CAMERA MOUNTS AND ENCLOSURES													●
INTERACTIVE WHITEBOARDS													●
WALL MOUNTED MONITORS													●
WALL MOUNTED WIRELESS AV ANTENNA													●
WALL MOUNTED SPEAKERS													●
STOCK MONITOR AND SPEAKER MOUNTS													●
CUSTOM MONITOR AND SPEAKER MOUNTS													●
BLOCKING AND STRUCTURAL SUPPORTS IN ANY WALL													●
RECESSED WALL OPENINGS, TRIMS AND FINISHES													●
CONTROL PANELS				●						●			
NON STANDARD CONTROL PANEL BACKBOXES													●
STANDARD BACKBOXES FOR ANY WALL DEVICES		●						●					
POWER FOR ANY WALL DEVICES		●						●					
LAN DROPS FOR ANY WALL DEVICES													●
TABLE MOUNTED EQUIPMENT													
MICROPHONES													●
MICROPHONE TERMINATIONS													●
HOLES IN TABLE FOR MICROPHONES													●
TABLE BOXES													●
TABLE BOX AV TERMINATIONS													●
TABLE BOX POWER TERMINATIONS													●
TABLE BOX LAN TERMINATIONS													●
CUTOUTS IN TABLE FOR TABLE BOXES													●
POWER FOR ANY UNDER TABLE DEVICES													●
LAN DROPS FOR ANY UNDER TABLE DEVICES													●

	SUPPLIED BY:						INSTALLED BY:						
	GC	BEC	SCC	AVC	OWNER	OTHER	GC	BEC	SCC	AVC	OWNER	OTHER	N/A
MISC. FURNITURE													
LECTERN													●
LECTERN AV EQUIPMENT													●
LECTERN AV CABLE TERMINATIONS													●
CUTOUTS IN LECTERN FOR AV EQUIPMENT													●
CUTOUTS IN LECTERN FOR EQUIPMENT VENTILATION													●
CREDENZA/CABINET													●
CREDENZA/CABINET AV EQUIPMENT													●
CREDENZA/CABINET AV CABLE TERMINATIONS													●
CUTOUTS IN CREDENZA/CABINET FOR AV EQUIPMENT													●
CUTOUTS IN CREDENZA/CABINET FOR VENTILATION													●
ELECTRICAL INFRASTRUCTURE FOR AV SYSTEMS													
POWER OUTLETS		●						●					
JUNCTION AND PULL BOXES		●						●					
CONDUITS WITH PULL STRINGS		●						●					
LADDER RACK OR CABLE TRAY													●
LOW VOLTAGE AV SIGNAL CABLE					●						●		
AV SIGNAL CONNECTORS AND TERMINATIONS					●						●		
WALL BACKBOXES													●
FLOOR BOXES		●						●					
FLOOR BOX POWER OUTLETS		●						●					
FLOOR BOX TELE/DATA OUTLETS AND PLATES			●						●				
AV CONNECTOR PLATES FOR WALL OR FLOOR BOXES				●						●			
ROOM ENVIRONMENT SYSTEMS													
DIMMING SYSTEM EQUIPMENT													●
DIMMING SYSTEM PROGRAMMING													●
DIMMING SYSTEM AV CONTROL INTERFACE													●
AV CONNECTION TO DIMMING SYSTEM INTERFACE													●
MOTORIZED WINDOW SHADES AND DRAPES													●
MOTORIZED SHADES CONTROL SWITCHES/BUTTONS													●
MOTORIZED SHADES LOW VOLTAGE CONTROL INTERFACE													●
AV CONNECTION TO SHADES CONTROL INTERFACE													●
MOVABLE PARTITION SENSING INTERFACE													●
AV CONNECTION TO PARTITION SENSING INTERFACE													●
RELAYS AND WIRING TO FIRE LIFE SAFETY SYSTEM													●
TELEPHONE AND DATA (TEL/DATA)													
ANALOG TELEPHONE (POTS) DISTRIBUTION													●
DATA NETWORK (LAN) SERVICES					●						●		
DATA NETWORK (LAN) SWITCHES AND ROUTERS					●						●		
LAN OUTLETS AND PLATES			●						●				
LAN CABLING			●						●				
LAN CONNECTION AND TERMINATIONS			●						●				
IP ADDRESS ASSIGNMENTS FOR ALL AV DEVICES					●						●		
CABLE OR SATELLITE TELEVISION (CATV/SATV)													
CABLE/SATELLITE/IPTV TUNERS					●						●		
CABLE/SATELLITE TV CABLING			●						●				
CABLE/SATELLITE TV OUTLET PLATES			●						●				
SATELLITE TV DISH			●						●				
CABLE/SATELLITE TV CONNECTORS AND TERMINATIONS			●						●				

	SUPPLIED BY:						INSTALLED BY:						
	GC	BEC	SCC	AVC	OWNER	OTHER	GC	BEC	SCC	AVC	OWNER	OTHER	N/A

SYMBOL LEGEND

AUDIOVISUAL DEVICE OR JUNCTION BOX:

STANDARD WALL BOX (XXX)X — CEILING DEVICE (XXX)X — FLOOR BOX (XXX)X

SPECIALIZED WALL BOX (XXX)X

'XXX' DENOTES DEVICE OR BOX TYPE. 'X' IS BOX OR DEVICE NUMBER, WHEN MORE THAN ONE IS USED. REFER TO DETAILED JUNCTION BOX AND DEVICE SCHEDULE FOR MORE INFORMATION.

POWER OUTLETS:

	WALL MT	CLNG MT	FLOOR MT
CLOCK	X	X	X
DUPLEX	X	X	X
QUAD	X	X	X
TWIST-LOCK	X	X	X
POWER WHIP	X	X	X

BUILDING STANDARD POWER OUTLETS, ALL TO BE 120V/20A UNLESS NOTED OTHERWISE. "X" DENOTES SPECIAL TYPES, AS FOLLOWS:

30A	208V/30A CIRCUIT
240V	240V CIRCUIT
CL	CLOCK STYLE, RECESSED OUTLET 120V/20A
DED	DEDICATED CIRCUIT
IG	ISOLATED GROUND
UPS	UNINTERRUPTIBLE POWER SUPPLIED CIRCUIT
PW	POWER WHIP TERMINATION 120V, 20A

TEL/DATA AND TV OUTLETS:

	WALL MT	CLNG MT	FLOOR MT
LAN/VOIP	X	X	X
LAN	X	X	X
PHONE	X	X	X
CATV OR SATV	X	X	X

BUILDING STANDARD COMMUNICATION OUTLETS OF INDICATED TYPE, WHERE 'x' DENOTES NUMBER OF CIRCUITS REQUIRED WHEN GREATER THAN ONE.

DRAWING INDICATORS:

A / TAxx-xxx — DETAIL INDICATOR: REFER TO INDICATED DETAIL AND DRAWING NUMBER FOR ADDITIONAL DETAIL FOR INDICATED ITEM. WHERE "A" DENOTES DETAIL NUMBER OR LETTER AND "TAxx-xxx' DENOTES DRAWING NUMBER

A / TAxx-xxx — ELEVATION INDICATOR, SINGLE VIEW: REFER TO INDICATED DETAIL AND DRAWING NUMBER FOR ELEVATION VIEW FROM INDICATED PERSPECTIVE. WHERE "A" DENOTES DETAIL NUMBER OR LETTER AND 'TAxx-xxx' DENOTES DRAWING NUMBER

A — ELEVATION INDICATOR, ON SHEET: REFER TO INDICATED DETAIL FOR ELEVATION VIEW FROM INDICATED PERSPECTIVE. WHERE "A" DENOTES DETAIL NUMBER OR LETTER INDICATED INSIDE SAME DRAWING SHEET.

A / B / C / D / TAxx-xxx — ELEVATION INDICATOR, MULTIPLE VIEWS: REFER TO INDICATED DETAIL AND DRAWING NUMBERS FOR ELEVATION VIEW FROM INDICATED PERSPECTIVES. WHERE "A", "B", "C" OR "D" DENOTES DETAIL NUMBER OR LETTER AND 'TAxx-xxx' DENOTES DRAWING NUMBER

A / TAxx-xxx — SECTION INDICATOR: REFER TO INDICATED DETAIL AND DRAWING NUMBER FOR SECTIONAL VIEW ALONG INDICATED LINE AND PERSPECTIVE. WHERE "A" DENOTES DETAIL NUMBER OR LETTER AND 'TAxx-xxx' DENOTES DRAWING NUMBER

ABBREVIATIONS

A	AMPERE
ABAN	ABANDON
ABS	ABSOLUTE
AC	ALTERNATING CURRENT
ACC	ACCESSIBLE
ACT	ACOUSTICAL CEILING TILE
ACR	AUDIO CASSETTE RECORDER
ACU	AUDIO CONFERENCE UNIT
ADA	AMERICANS WITH DISABILITIES ACT
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFC	ABOVE FINISHED CEILING
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AMP	AMPLIFIER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APROX	APPROXIMATE
ARCH	ARCHITECT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATSC	ADVANCED TELEVISION STANDARDS COMMITTEE
AUX	AUXILIARY
AV	AUDIOVISUAL
AVC	AUDIOVISUAL CONTRACTOR
AVG	AVERAGE
AWG	AMERICAN WIRE GAUGE
AWT	ACOUSTICAL WALL TREATMENT
BEC	BUILDING ELECTRICAL CONTRACTOR
BFC	BELOW FINISHED CEILING
BFF	BELOW FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
BTU/HR	BRITISH THERMAL UNIT PER HOUR
BTWN	BETWEEN
C	CONDUIT
CAB	CABINET
CAC	CEILING ATTENUATION CLASS
CALC	CALCULATE
CAP	CAPACITY
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CKT	CIRCUIT
CKT BKR	CIRCUIT BREAKER
CL	CENTER LINE
CLG	CEILING
CLG HT	CEILING HEIGHT
CMPTR	COMPUTER
COAX	COAXIAL CABLE
CONF	CONFERENCE
CONT	CONTINUE
CP	CONTROL PANEL
CTR	CENTER
CTRL	CONTROL
D	DEPTH
dB	DECIBEL
dBA	SOUND PRESSURE LEVEL, A-WEIGHTED
dBm	POWER LEVEL, REFERENCED TO 1mW
dBV	VOLTAGE LEVEL, REFERENCED TO 1V
DC	DIRECT CURRENT
DEG	DEGREE
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGRAM
DM	DIGITAL MEDIA
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DVD	DIGITAL VERSATILE (VIDEO) DISC
DVI	DIGITAL VISUAL INTERFACE
E	EAST
EA	EACH
EC	ELECTRICAL CONTRACTOR
ECT	ET CETERA
EIA	ELECTRONIC INDUSTRY ALLIANCE
EL	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ER	EQUIPMENT ROOM
F	FAHRENHEIT
FB	FLOOR BOX
FC	FOOT-CANDLE
FL	FOOT-LAMBERT
FP	FLOOR PLAN
FO	FINISHED OPENING
FREQ	FREQUENCY
FT	FOOT OR FEET
G	GROUND
GC	GENERAL CONTRACTOR
GEN	GENERAL
GND	GROUND
H	HIGH
HD	HIGH DEFINITION
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE
HDTV	HIGH DEFINITION TELEVISION
HF	HIGH FREQUENCY
HR	HOUR
HT	HEIGHT
HV	HIGH VOLTAGE
Hz	HERTZ
I/O	INPUT/OUTPUT
ID	INSIDE DIAMETER
IDF	INTERMEDIATE DISTRIBUTION FRAME
IN	INCH
IR	INFRARED
ISO	INTERNATIONAL STANDARDS ORG.
ITU	INTERNATIONAL TELECOMMUNICATIONS UNION
J-BOX	JUNCTION BOX
kHz	KILOHERTZ
L	LENGTH
LBS	POUND
LCD	LIQUID CRYSTAL DISPLAY
LM	LUMEN
LV	LOW VOLTAGE
LVC	LOW VOLTAGE CONTROL
MATV	MASTER ANTENNA TELEVISION
MAX	MAXIMUM
MHz	MEGAHERTZ
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MIX	MIXER
MON	MONITOR
mSEC	MILLISECOND
MTX	MATRIX
mV	MILLIVOLT
mW	MILLIWATT
N	NORTH
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
NTSC	NATIONAL TELEVISION SYSTEM COMMITTEE
NUM	NUMBER
OD	OUTSIDE DIAMETER
OFE	OWNER FURNISHED EQUIPMENT
PAL	PHASE ALTERNATING LINE
PC	PERSONAL COMPUTER
PN	PART NUMBER
QTY	QUANTITY
R	RADIUS
RC	REMOTE CONTROL
RCP	REFLECTED CEILING PLAN
REC	RECESSED
RECPT	RECEPTACLE
RF	RADIO FREQUENCY
RM	ROOM
RMS	ROOT MEAN SQUARE
S	SOUTH
SATV	SATELLITE TELEVISION
SCC	STRUCTURED CABLING CONTRACTOR
SCRN	SCREEN
SEC	SECOND
SECAM	SEQUENTIAL COLOR WITH MEMORY
SIG	SIGNAL
SMPTE	SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS
SPDT	SINGLE POLE, DOUBLE THROW
SPKR	SPEAKER
SPL	SOUND PRESSURE LEVEL
SPST	SINGLE POLE, SINGLE THROW
STC	SOUND TRANSMISSION CLASS
SUB	SUBWOOFER
SW	SWITCH
TB	TABLE BOX
TBD	TO BE DETERMINED
TEL	TELEPHONE
TEMP	TEMPERATURE
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
TR	TELECOMMUNICATIONS ROOM
TV	TELEVISION
TYP	TYPICAL
UHF	ULTRA HIGH FREQUENCY
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
VAC	VOLT, ALTERNATING CURRENT
VDC	VOLT, DIRECT CURRENT
VCR	VIDEO CASSETTE RECORDER
VHF	VERY HIGH FREQUENCY
VGA	VIDEO GRAPHICS ARRAY
VOL	VOLUME
VTC	VIDEO TELECONFERENCE
W	WEST
W	WATT
W/	WITH
W/O	WITHOUT
WT	WEIGHT
XFMR	TRANSFORMER

PROJECT NOTES

GENERAL:

1. THESE DRAWINGS PROVIDE ADVICE AND INFORMATION TO THE PROJECT OWNER, ARCHITECT AND ENGINEERS. THESE DRAWINGS ARE NOT INTENDED AS CONSTRUCTION DOCUMENTS, AND SHOULD NOT BE USED AS SUCH. ONCE ACCEPTED BY THE PROJECT OWNER, THE INFORMATION INCLUDED IN THESE DRAWINGS SHOULD BE INCORPORATED INTO THE PROJECT CONSTRUCTION DOCUMENTS AS ISSUED BY THE ARCHITECT AND/OR ENGINEERS.
2. ANY DISCREPANCIES BETWEEN THESE DOCUMENTS AND CONSTRUCTION DOCUMENTS ARE TO BE REFERRED TO THE ARCHITECT FOR RESOLUTION.
3. THE FINAL LOCATION OF ALL INDICATED DEVICES SHALL BE COORDINATED BY THE ARCHITECT.

FURNITURE:

1. THE CABINETS CONTAINING AUDIOVISUAL EQUIPMENT MUST PROVIDE FOR THE CIRCULATION OF AIR TO REMOVE HEAT GENERATED BY AV EQUIPMENT. VENTS MUST BE PROVIDED AT FRONT/BOTTOM AND TOP/REAR OF CABINET. FAILURE TO DO SO MAY RESULT IN DAMAGE TO THE AUDIOVISUAL EQUIPMENT.
2. THE DOORS ON THE SECTIONS CONTAINING THE EQUIPMENT RACKS MUST BE REMOVABLE OR HINGED TO PERMIT 180° SWING TO ALLOW FOR SERVICING OF THE EQUIPMENT.

LIGHTING:

1. THE TOTAL NUMBER OF CONTROLLABLE ZONES IS DEPENDENT UPON ROOM SIZE AND FUNCTION. REFER TO AV REFLECTED CEILING DRAWINGS FOR SUGGESTED LIGHTING ZONES.
2. LIGHT ON DISPLAYS OR SCREENS MUST BE LESS THAN 15 FC. ANY FIXTURE THAT CASTS DIRECT LIGHT ON A DISPLAY OR SCREEN MUST BE PLACED IN AN INDEPENDENT ZONE.
3. INDIRECT FLORESCENT LIGHTING FIXTURES, CAPABLE OF PROVIDING EVEN ILLUMINATION WITHOUT SHADOWS, ARE SUGGESTED IN ROOMS WITHOUT VIDEO TELECONFERENCING.
4. FIXTURES WITH LOUVERED DIFFUSERS ANGLED AT 45°, AIMED FROM ABOVE THE CAMERA TOWARD THE PARTICIPANTS, ARE SUGGESTED IN ROOMS WITH VIDEO TELECONFERENCING.
5. LIGHT LEVELS AT PARTICIPANTS: 40-50 FC, 1.5:1 MAX:MIN UNIFORMITY ACROSS ALL FACES.
6. LIGHT LEVELS AT WALLS: 15-20 FC, 1.5:1 MAX:MIN UNIFORMITY RATIO ACROSS WALL SURFACES BEHIND PARTICIPANTS FROM TABLE TOP HEIGHT TO 24" ABOVE EYE HEIGHT OR 6'
7. LAMPS: 3000-3500K CORRELATED COLOR TEMPERATURE, 85 COLOR RENDERING INDEX (CRI)
8. DIMMING SYSTEMS SHOULD BE OUTFITTED WITH LOW VOLTAGE CONTROLLERS FOR INTERFACING WITH THE AUDIOVISUAL CONTROL SYSTEM.

ENVIRONMENT:

1. LIGHT THROUGH EXTERIOR OR INTERIOR WINDOWS MAY CAUSE ISSUES IN ROOMS WITH VIDEO TELECONFERENCING BY ALLOWING A "MIX" OF LIGHTING COLOR TEMPERATURES.
2. BLACKOUT SHADES ARE REQUIRED ON ALL WINDOWS IN ROOMS WITH VIDEO TELECONFERENCING, AND ON ALL EXTERIOR WINDOWS IN ANY ROOM WITH A DISPLAY OR SCREEN. IT IS RECOMMENDED THAT THESE SHADES BE MOTORIZED, WITH LOW VOLTAGE CONTROL INTERFACES.
3. TO THE FULLEST EXTENT POSSIBLE ALL FINISHES IN VIDEO TELECONFERENCE ROOMS SHOULD BE OF A NEUTRAL COLOR, LIGHT GRAY TO LIGHT BLUE IS RECOMMENDED.

ROOM ACOUSTICS:

1. ROOM AMBIENT NOISE NOT TO EXCEED 40dB A-WEIGHTED.
2. AN NC-30 NOISE CRITERIA RATING SHOULD BE MAINTAINED.
3. MAXIMUM REVERBERATION TIME SHOULD NOT EXCEED 600mS FOR ALL ROOMS.
4. ACOUSTICAL PANELS OR "SOUND-SOAK" WALL TREATMENTS SHOULD BE CONSIDERED FOR AT LEAST 75% OF WALL SURFACES, IN AN ASYMMETRICAL PATTERN.
5. ACOUSTICAL PROPERTIES OF THE CEILING TILES, CARPET AND CARPET PAD SHOULD BE CONSIDERED DURING SELECTION.
6. TO PREVENT SOUND LEAKAGE INTO THESE ROOMS FROM ADJOINING SPACES, ALL WALLS SHOULD EXTEND TO THE DECKING ABOVE. ALL PENETRATIONS LEAVING THE SPACE SHOULD BE SEALED AS REQUIRED. THE SPACE ABOVE THE CEILING TILES MAY ALSO NEED CONSIDERATION AND TREATED WITH FIBERGLASS BATTING.
7. RECOMMENDED SOUND TRANSMISSION CLASS FOR WALL CONSTRUCTION METHOD TO BE OF A STC-60 RATING. AT A MINIMUM, PARTITIONS SHOULD BE FILLED WITH BATT INSULATION AND COVERED WITH TWO LAYERS OF GWB ON BOTH SIDES.
8. ACOUSTICAL REFLECTIONS OFF ALL GLASS SURFACES SHOULD BE ADDRESSED WITH APPROPRIATE WINDOW TREATMENTS.

TEL/DATA/TV:

1. UNLESS OTHERWISE NOTED, THIS DRAWING ONLY REFLECTS THE MINIMUM TEL/DATA REQUIREMENTS NEEDED FOR THE USE OF THE AUDIO VISUAL EQUIPMENT AND SYSTEMS.
2. ALL INDICATED LAN, TELEPHONE, CATV, MATV, AND DSS DROPS SHALL BE PROVIDED AND INSTALLED BY THE STRUCTURED CABLING CONTRACTOR.

ELECTRICAL:

1. ELECTRICAL POWER CIRCUITS AND OUTLETS SHOWN ON THESE DRAWINGS ARE FOR THE EXCLUSIVE USE OF THE AUDIOVISUAL SYSTEMS. CIRCUITS AND OUTLETS FOR OTHER PURPOSES ARE SPECIFIED ELSEWHERE.
2. ALL AV SYSTEM OUTLETS SHALL BE ISOLATED GROUND STYLE OUTLETS. ALL CIRCUITS SHALL BE PROVIDED WITH DEDICATED INSULATED GROUNDS RUN BACK TO THE PANEL. IN EACH ROOM ALL CIRCUITS SHALL BE FED FROM THE SAME PHASE AND PANEL.
3. POWER CIRCUITS FOR MOTORIZED PROJECTION SCREENS AND LIFTS SHALL NOT BE FED FROM THE SAME PHASE AS OTHER AUDIOVISUAL EQUIPMENT.
4. THE SIZE OF ALL WIREWAYS, BACK BOXES, AND CONDUITS SHOWN ON THESE DRAWINGS MUST BE CONFIRMED BY THE ARCHITECT AND ELECTRICAL ENGINEER. THE SIZES SHOWN ARE RECOMMENDATIONS TO THE ELECTRICAL ENGINEER ONLY.
5. ALL CONDUIT, PULL BOXES, TROUGH, WIRE WAYS, RACEWAYS, LADDER RACK AND OTHER INFRASTRUCTURE TO PROVIDE CABLE PATHWAYS FOR AUDIOVISUAL CABLING SHALL BE PROVIDED AND INSTALLED BY BASE ELECTRICAL CONTRACTOR.
6. ALL CONDUIT SHALL BE CLEAN, DRY AND DEBURRED, WITH PULL STRINGS LEFT INSIDE.
7. AUDIOVISUAL CONDUIT RUNS SHOULD BE KEPT FURTHER THAN 12 INCHES FROM ALL POWER AND LIGHTING CONDUITS. AV CONDUITS MUST NOT BE RUN PARALLEL TO POWER OR LIGHTING CONDUITS. WHERE AV CONDUITS MUST CROSS POWER OR LIGHTING CONDUITS, THEY MUST DO SO AT RIGHT ANGLES.
8. MOTORIZED SHADE AND DRAPE SYSTEMS SHOULD BE OUTFITTED WITH LOW VOLTAGE CONTROLLERS FOR INTERFACING WITH THE AUDIOVISUAL CONTROL SYSTEM. COORDINATE THESE CONTROLLERS WITH AUDIOVISUAL CONTRACTOR PRIOR TO PURCHASE OR INSTALLATION.

Diversified
IMAGINATION ENGINEERED
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University
OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:

☐ Approved, No Exceptions Taken
☐ Make Corrections Noted
☐ No Resubmission Required
☐ Rejected, Revise & Resubmit

Reviewed By: _____

Date: _____

PIC	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: F. LAST
ENGINEER: F. LAST
SCALE: NTS
SHEET SIZE: ARCH E 48 X 36

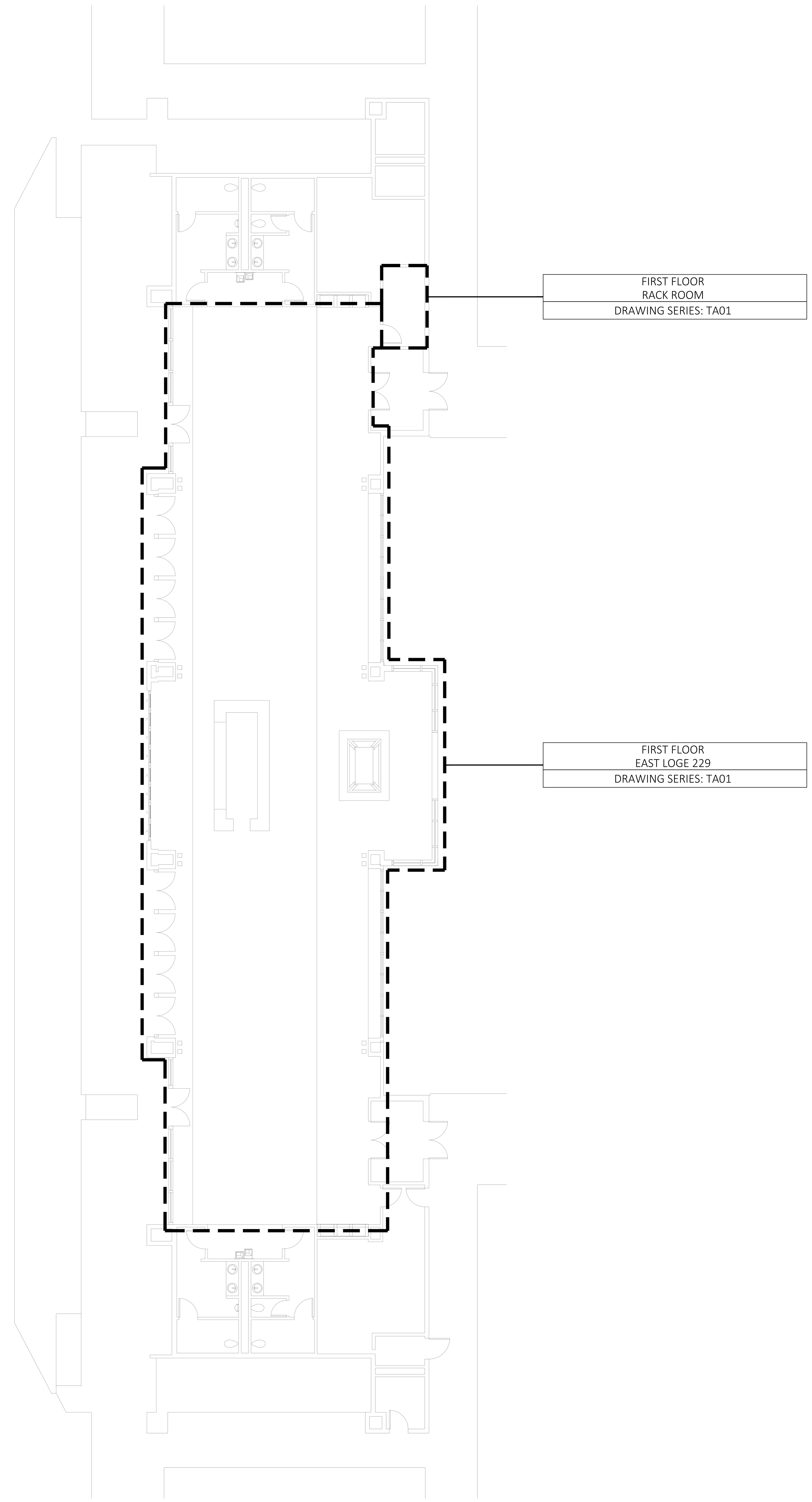
CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH
ROOM OR AREA
LINE 2 AS NEEDED
AUDIOVISUAL

GENERAL NOTES AND RESPONSIBILITIES

PROJECT NUMBER
0008695

DRAWING NUMBER
TA00-001



1 AUDIOVISUAL FIRST FLOOR KEY PLAN
SCALE: 1/8"=1'-0"

Diversified.
IMAGINATION ENGINEERED
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University

OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:

- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By: ____________

Date: ____________

PIC	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: N. COLEY
ENGINEER: D. MEADOWS
SCALE: AS NOTED
SHEET SIZE: ARCH E 48 X 36

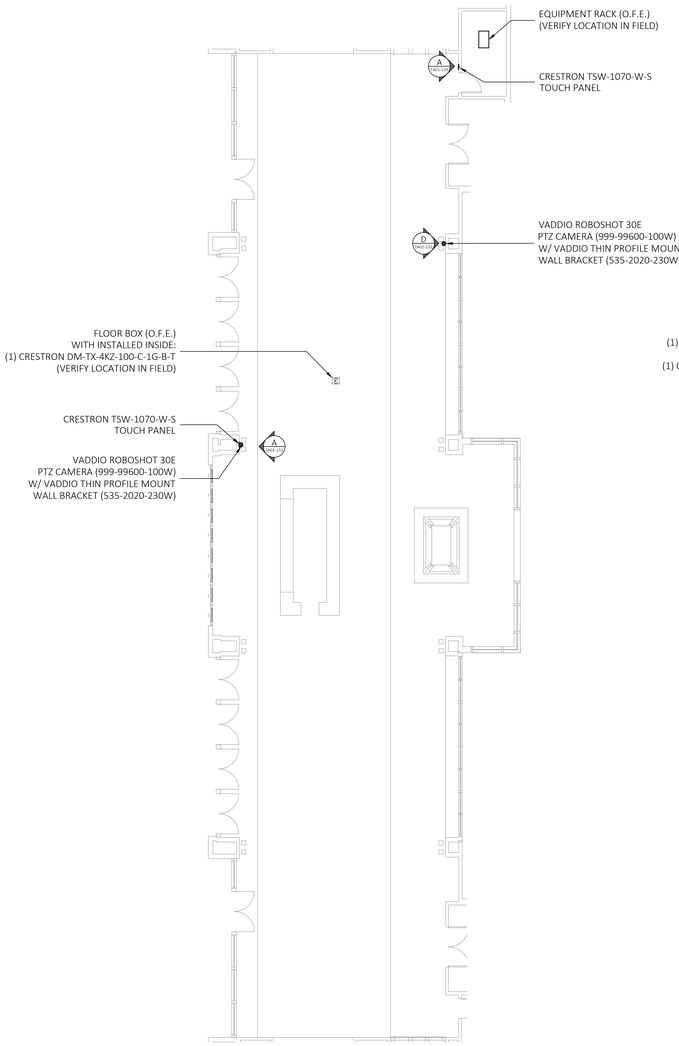
CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH
FIRST
FLOOR
AUDIOVISUAL

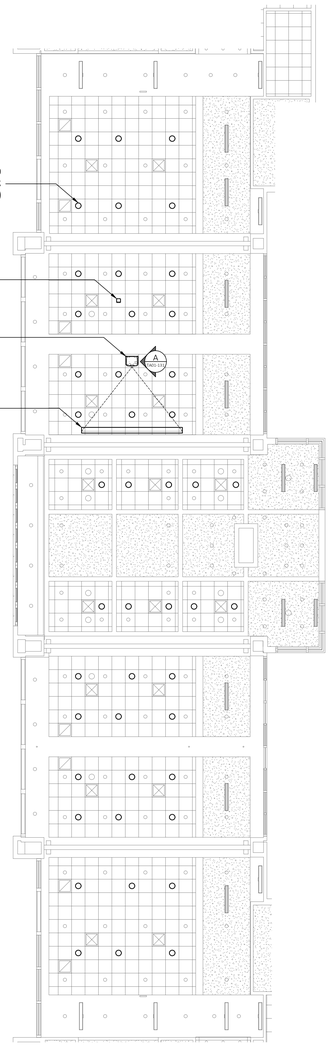
KEY
PLAN

PROJECT NUMBER
0008695

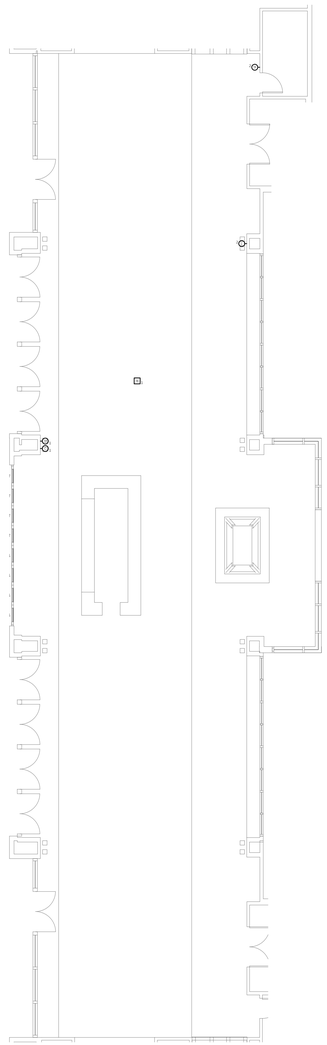
DRAWING NUMBER
TA00-101



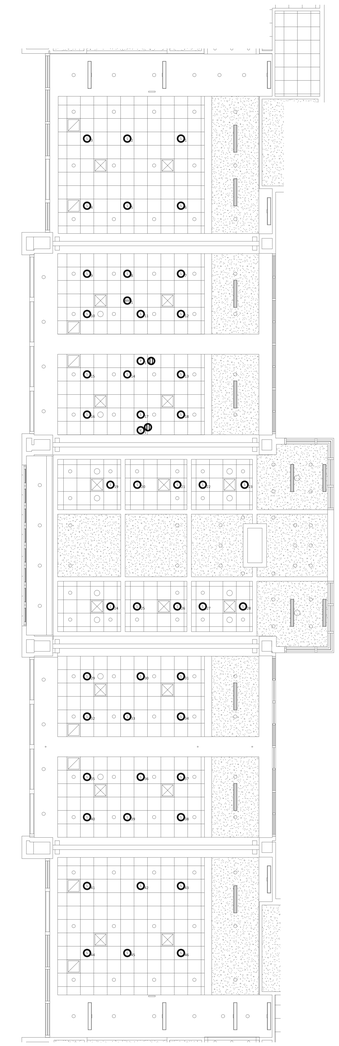
1 EAST LOGE
AUDIOVISUAL FACILITIES PLAN
SCALE: 1/8"=1'-0" RM_225



2 EAST LOGE
AUDIOVISUAL REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0" RM_225

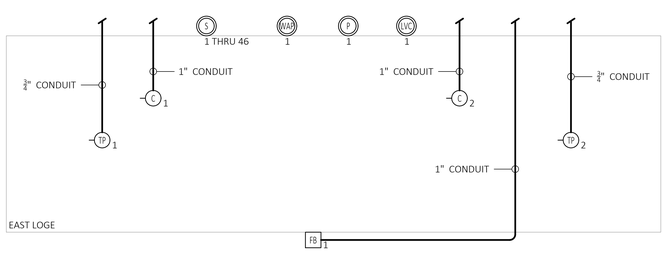


3 EAST LOGE
AUDIOVISUAL ELECTRICAL PLAN
SCALE: 1/8"=1'-0" RM_225



4 EAST LOGE
AUDIOVISUAL REFLECTED CEILING ELECTRICAL PLAN
SCALE: 1/8"=1'-0" RM_225

AV JUNCTION BOX AND DEVICE SCHEDULE			
SYMBOL	FUNCTION	DESCRIPTION	SLACK
C X	VTC CAMERA , 'X' = CAMERA NUMBER	WALL MOUNTED CAMERA, 2 GANG RECESS MOUNT BACK BOX	10'
TP X	AV WALL MOUNTED TOUCH PANEL, 'X' = TOUCH PANEL NUMBER	WALL MOUNTED TOUCH PANEL, 2 GANG RECESS MOUNT BACK BOX	10'
FB X	FLOOR BOX , 'X' = BOX NUMBER	FLOOR BOX (SUPPLIED BY OTHERS, INSTALLED BY GC)	5'
S X	CEILING SPEAKER , 'X' = SPEAKER NUMBER	CEILING MOUNTED SPEAKER	10'
WAP X	AV CEILING MOUNTED WIRELESS ACCESS POINT, 'X' = WAP NUMBER	CEILING MOUNTED WAP, MOUNTED TO THE SURFACE OF THE CEILING	10'
P X	AV CEILING MOUNTED PROJECTOR, 'X' = PROJECTOR NUMBER	CEILING MOUNTED PROJECTOR	10'
LVC X	PROJECTION SCREEN INTEGRATED LVC, 'X' = SCREEN NUMBER	1 GANG JUNCTION BOX MOUNTED TO SIDE OF SCREEN HOUSING	10'
	120V, 20A, CEILING/CABLE TRAY MOUNTED DUPLEX POWER OUTLET	N/A	N/A
	120V, 20A, CEILING/CABLE TRAY MOUNTED QUAD POWER OUTLET	N/A	N/A



5 EAST LOGE
AUDIOVISUAL CONDUIT RISER DIAGRAM
SCALE: N.T.S. RM_225

Diversified.
IMAGINATION ENGINEERED
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University

OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:
- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By: _____

Date: _____

PIC	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: N. COLEY
ENGINEER: D. MEADOWS
SCALE: AS NOTED
SHEET SIZE: ARCH E 48 X 36

CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH

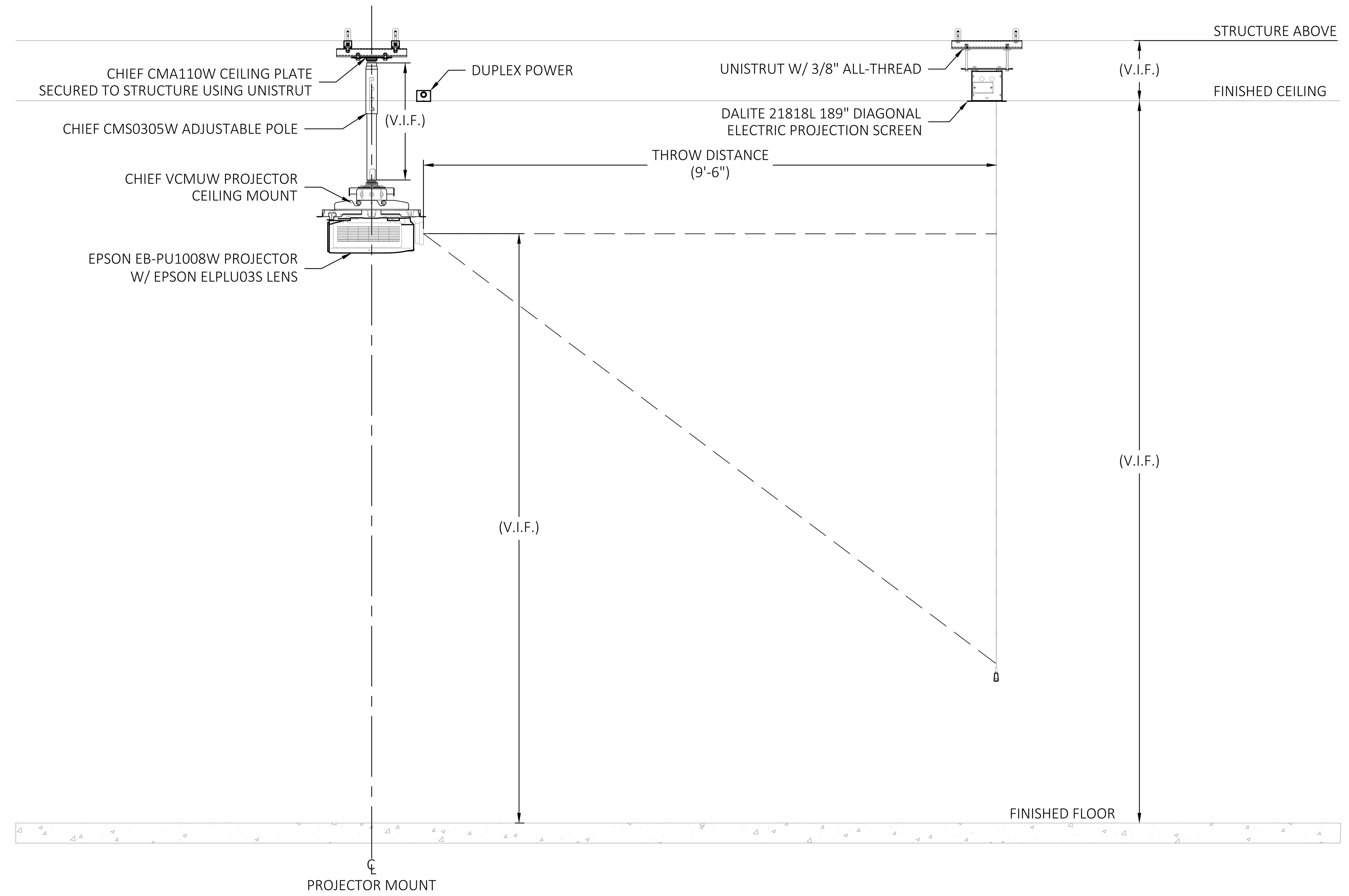
EAST
LOGE

AUDIOVISUAL

FACILITIES &
ELECTRICAL PLANS

PROJECT NUMBER
0008695

DRAWING NUMBER
TA01-101



A EAST LOGE
AUDIOVISUAL PROJECTOR AND SCREEN SECTION
SCALE: 3/4"=1'-0" RM_225

Diversified.
IMAGINATION ENGINEERED
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University

OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:

- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By:________________

Date:________________

PIC	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: N. COLEY
ENGINEER: D. MEADOWS
SCALE: AS NOTED
SHEET SIZE: ARCH E 48 X 36

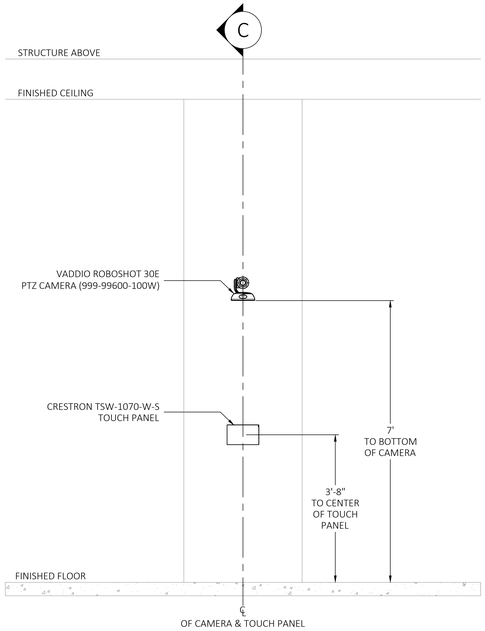
CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH
EAST
LOGE
AUDIOVISUAL

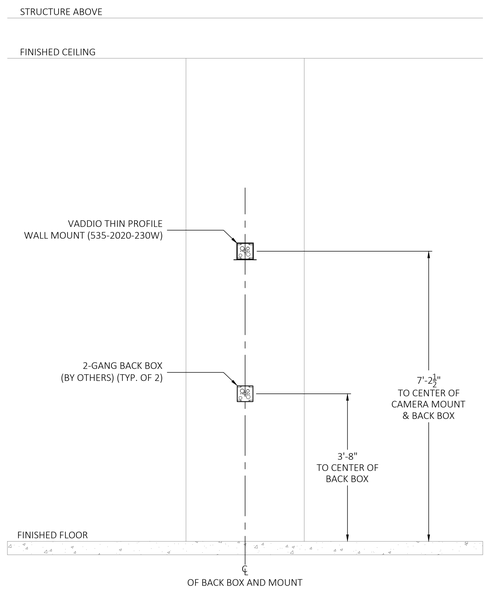
ELEVATION &
SECTION VIEWS

PROJECT NUMBER
0008695

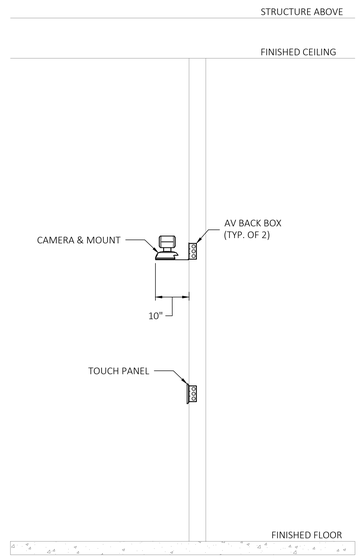
DRAWING NUMBER
TA01-131



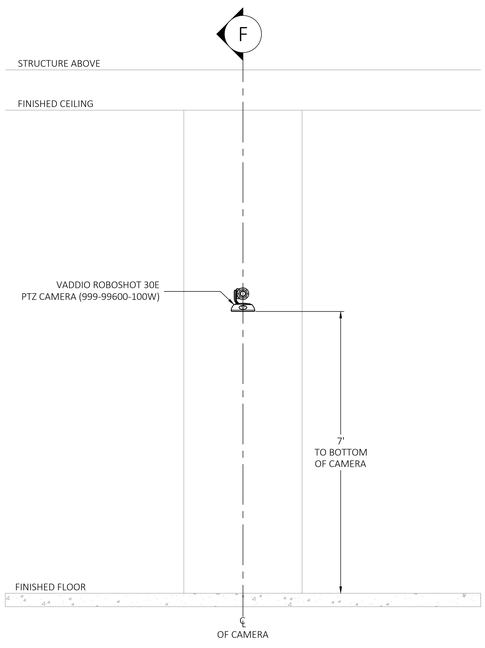
A EAST LOGE
AUDIOVISUAL TOUCH PANEL & CAMERA ELEVATION
SCALE: 3/4"=1'-0" RM_229



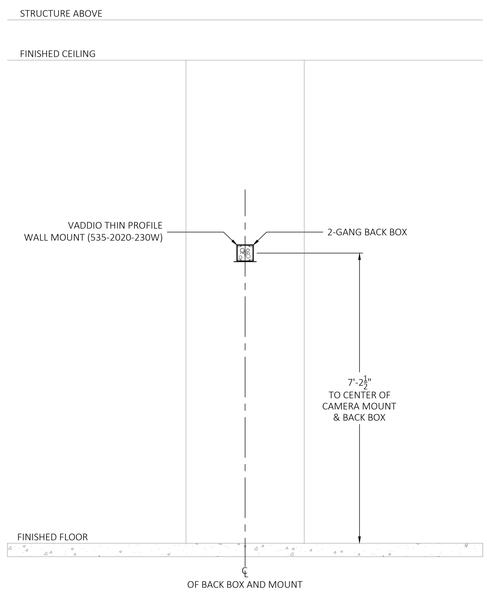
B EAST LOGE
AUDIOVISUAL MOUNTING ELEVATION
SCALE: 3/4"=1'-0" RM_229



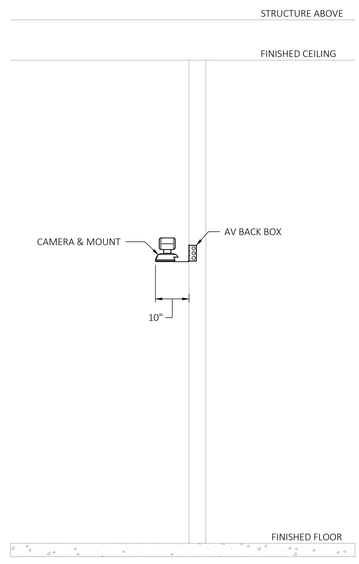
C EAST LOGE
AUDIOVISUAL TOUCH PANEL & CAMERA SECTION
SCALE: 3/4"=1'-0" RM_229



D EAST LOGE
AUDIOVISUAL CAMERA ELEVATION
SCALE: 3/4"=1'-0" RM_229



E EAST LOGE
AUDIOVISUAL CAMERA MOUNTING ELEVATION
SCALE: 3/4"=1'-0" RM_229



F EAST LOGE
AUDIOVISUAL CAMERA SECTION
SCALE: 3/4"=1'-0" RM_229

Diversified
IMAGINATION ENGINEERED
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University
OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:
- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By:_____

Date:_____

PIC	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: N. COLEY
ENGINEER: D. MEADOWS
SCALE: AS NOTED
SHEET SIZE: ARCH E 48 X 36

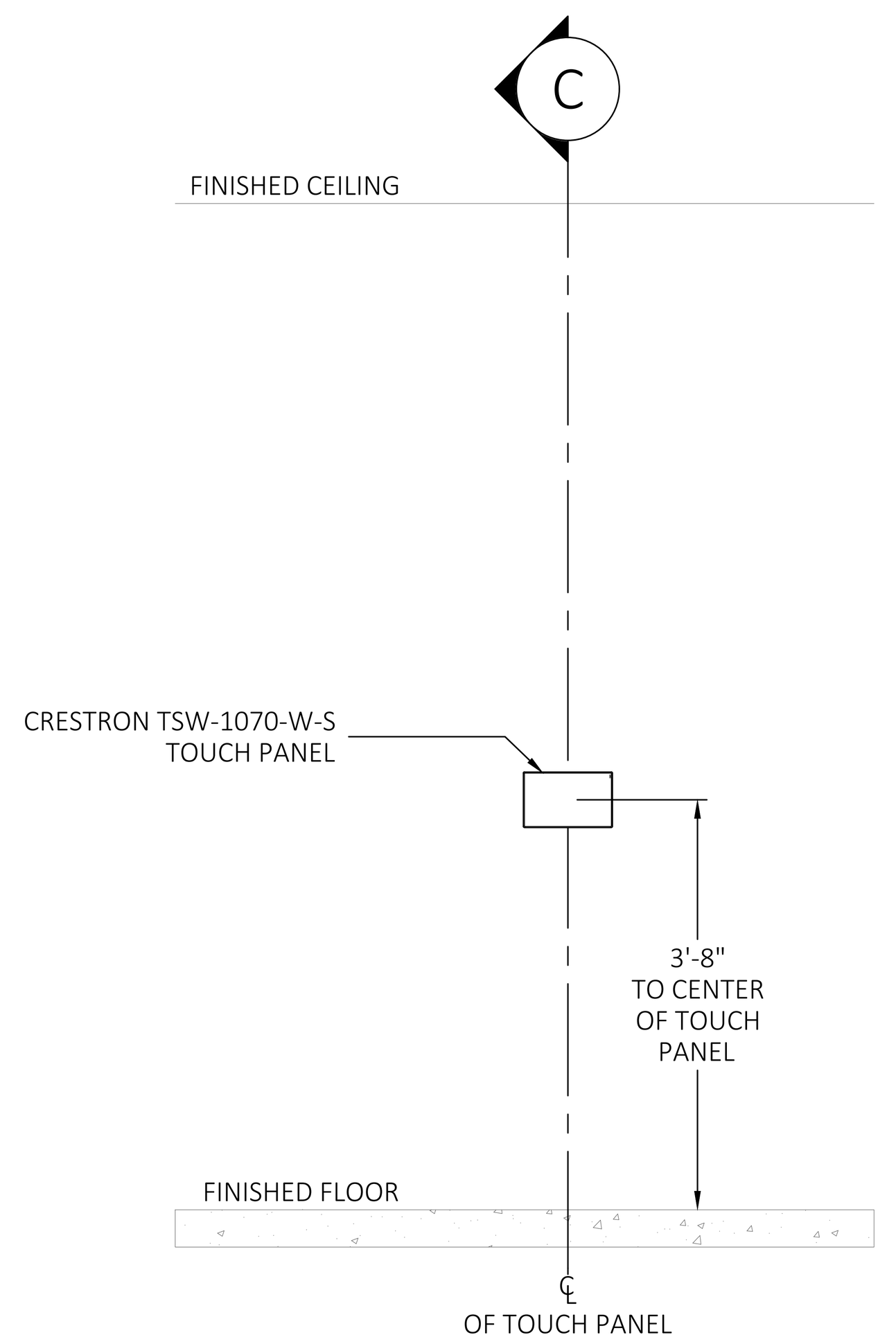
CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH
EAST
LOGE
AUDIOVISUAL

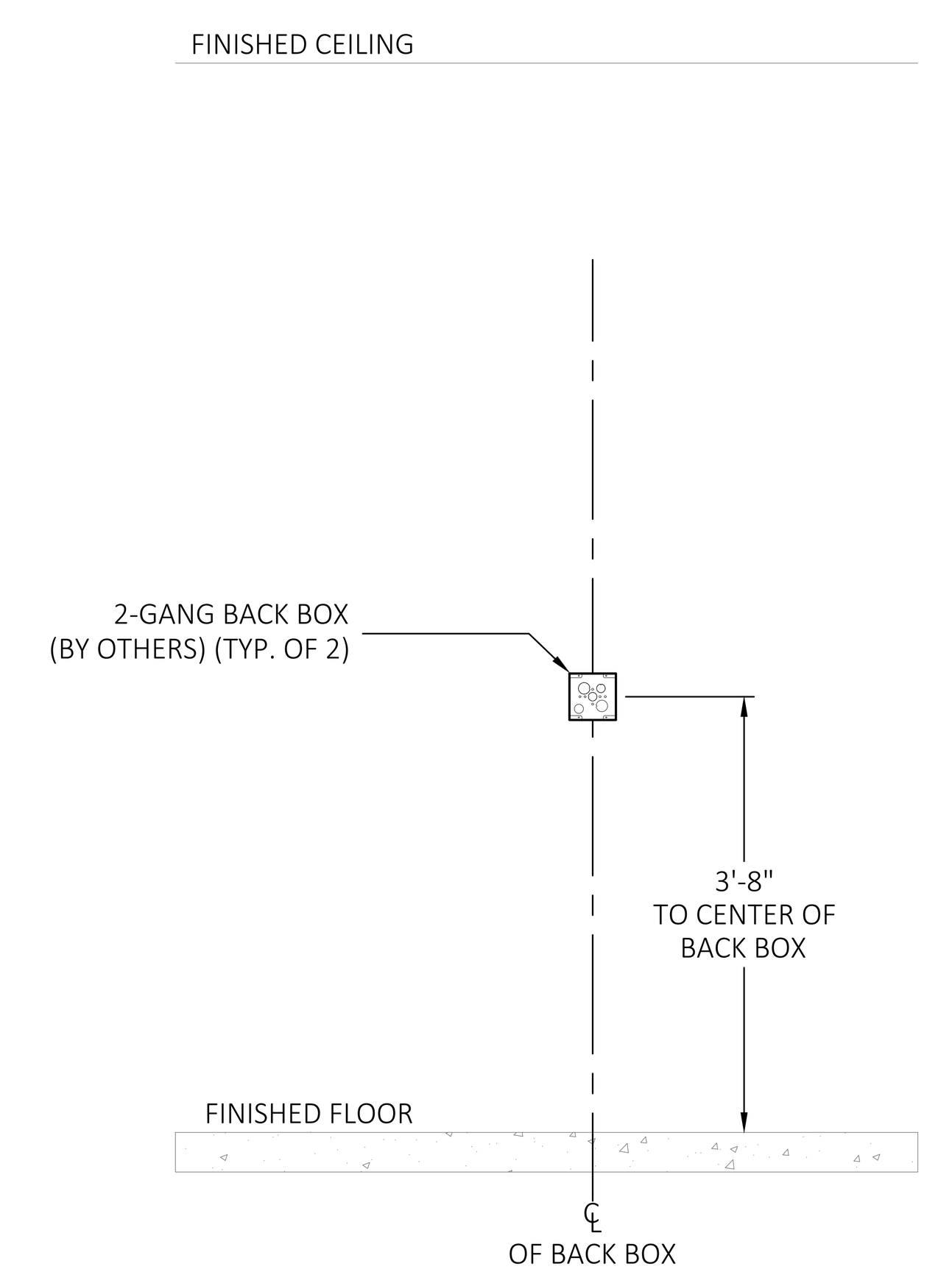
ELEVATION &
SECTION VIEWS

PROJECT NUMBER
0008695

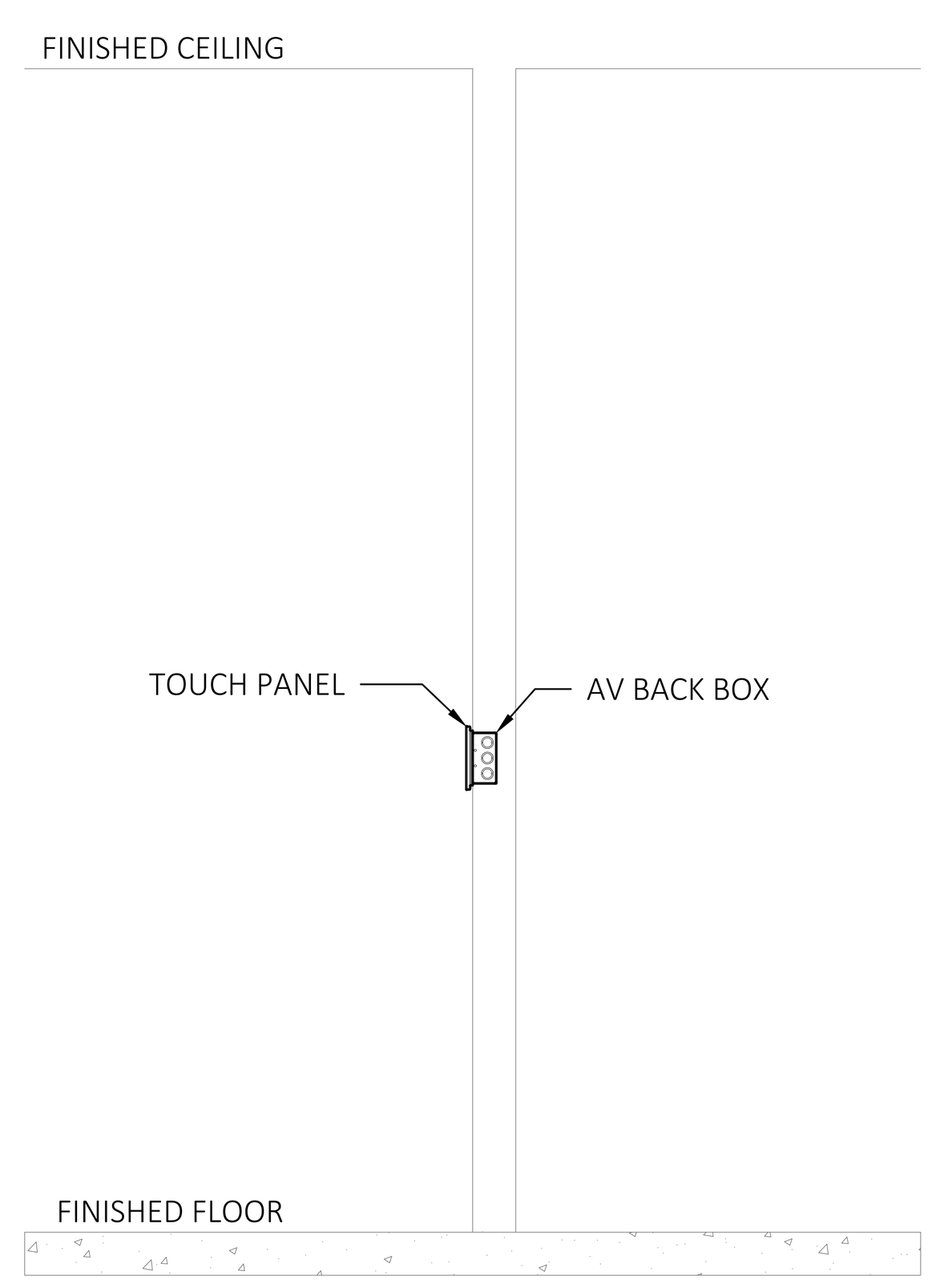
DRAWING NUMBER
TA01-132



A EAST LOGE
AUDIOVISUAL TOUCH PANEL ELEVATION
SCALE: 3/4"=1'-0" RM_229



B EAST LOGE
AUDIOVISUAL MOUNTING ELEVATION
SCALE: 3/4"=1'-0" RM_229



C EAST LOGE
AUDIOVISUAL TOUCH PANEL SECTION
SCALE: 3/4"=1'-0" RM_229

Diversified.
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University

OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:

- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By:________________

Date: ________________

PIC	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: N. COLEY
ENGINEER: D. MEADOWS
SCALE: AS NOTED
SHEET SIZE: ARCH E 48 X 36

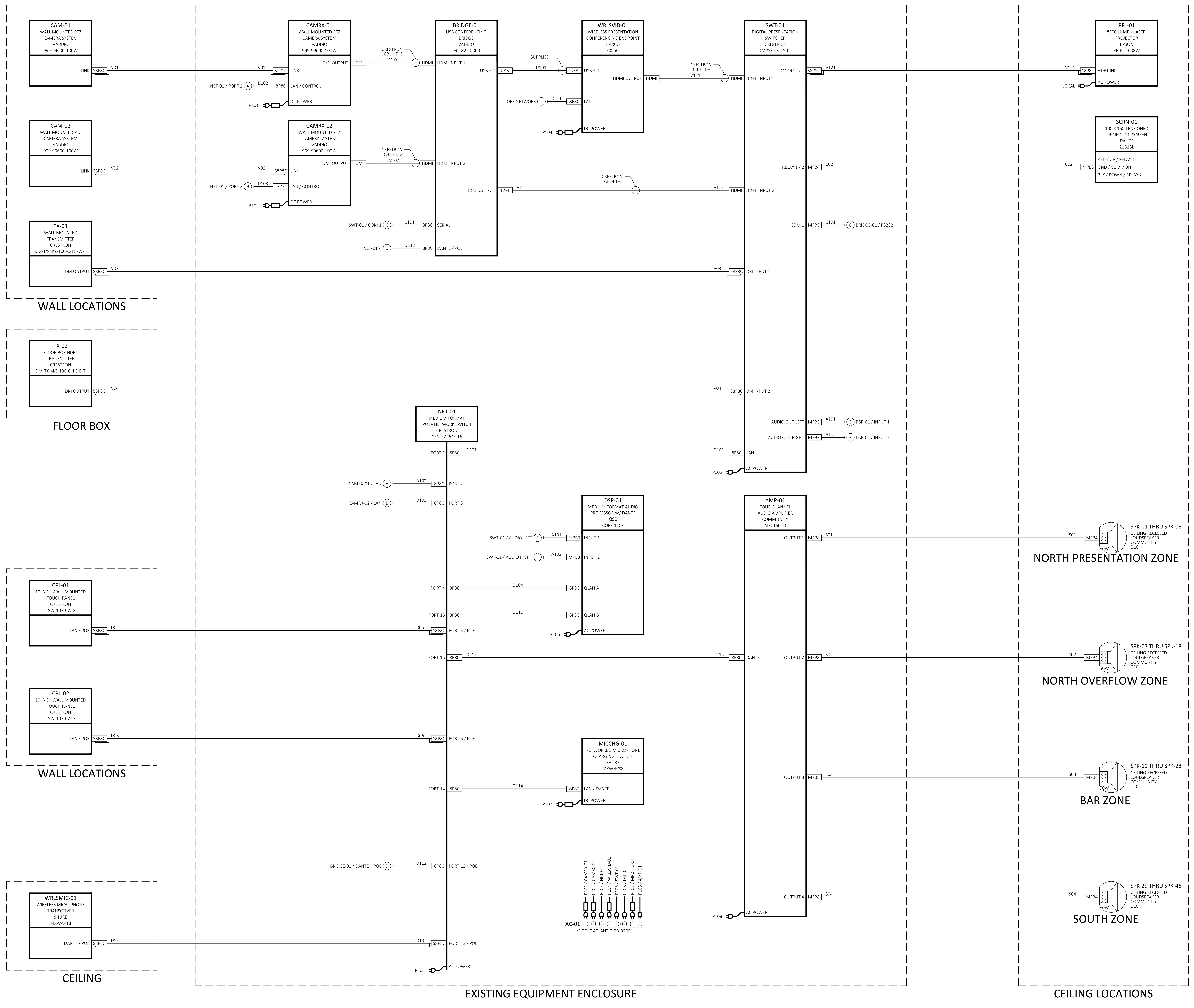
CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH
EAST
LOGE
AUDIOVISUAL

ELEVATION &
SECTION VIEWS

PROJECT NUMBER
0008695

DRAWING NUMBER
TA01-133



Diversified
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University

OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:

- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By: ____________

Date: ____________

REV	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: D. MEADOWS
ENGINEER: D. MEADOWS
SCALE: NTS
SHEET SIZE: ARCH E 48 X 36

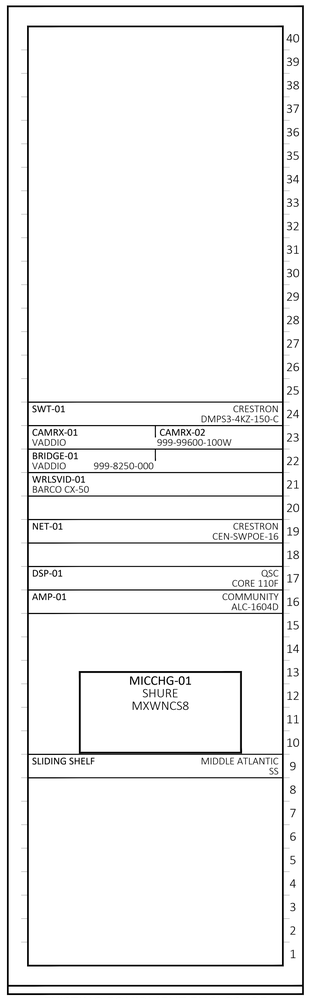
CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH

AUDIO / VIDEO / CONTROL CABLING DIAGRAM

PROJECT NUMBER
0008695

DRAWING NUMBER
TA01-311



EXISTING EQUIPMENT ENCLOSURE

Diversified
IMAGINATION ENGINEERED
www.diversifiedus.com
866-447-1004
customerservice@diversifiedus.com

Oregon State University
OREGON STATE UNIVERSITY
660 SW 26TH STREET
CORVALLIS, OR 97331

The client has reviewed this drawing and asks that the following actions be taken:

- ☐ Approved, No Exceptions Taken
- ☐ Make Corrections Noted
- ☐ No Resubmission Required
- ☐ Rejected, Revise & Resubmit

Reviewed By: _____

Date: _____

REV	DATE	DESCRIPTION

ISSUE FOR REVIEW
2022-03-25

DRAFTER: D. MEADOWS
ENGINEER: D. MEADOWS
SCALE: 1:25
SHEET SIZE: ARCH E 48 X 36

CORVALLIS, OR

RESER STADIUM
EAST LOGE REFRESH

EXISTING EQUIPMENT ENCLOSURE

PROJECT NUMBER
0008695

DRAWING NUMBER
TA01-401