State of Connecticut
Eastern Connecticut State University
83 Windham Street
Willimantic, CT 06226

Bid number	Mandatory Pre-Bid	Bid Opening Date	Bid Opening Time	Date Issued
ECSU 2020-5	Date: 2/27/20 Time: 9 AM Place: Facilities Conf. Room	3/20/20	2:00 PM	2/19/20

Agency Contact:
Cindy Hodis
Acquisitions Manager
860-465-5148
Email: hodisc@easternct.edu

AFFIRMATION OF BIDDER: The undersigned bidder affirms and declares:

1. That this proposal is executed and signed by said bidder with full knowledge and acceptance of the provisions of Form ECSU-02 (Standard Bid and Contract Terms and Conditions) of current issue and in effect on the date of bid issue.
2. Your written signature below indicates agreement of terms and conditions on page 2 and 3 of this document.

BIDDER INFORMATION			
Complete Company Name (Trade Name, DBA)			Social Security or Federal Employer ID **Number**
Company Address: Street	City	State	Zip Code
Contact Name (typed or printed)	Email address	Telephone Number	Fax Number
Signature of Person Authorized to Sign Bids on Behalf of the above named company			Date Executed
Is your business currently a Department of Administrative Services Certified Small Business Enterprise: ☐ Yes (Attach Certificate to Bid) ☐ No			
Is your business a: ☐ Sole Proprietorship ☐ Partnership ☐ Corporation (Type & State of Incorporation) _____ ☐ LLC – sole owner ☐ LLC – Partnership ☐ LLC - Corporation			
If you are a State Employee, indicate your position/ agency/ and address:			
Remittance Address (If different from above):			
Total Bid Price: $			

RETURN BID TO ECSU IN A SEALED ENVELOPE CLEARLY MARKED IN THE LOWER LEFT CORNER WITH THE BID NUMBER, DUE DATE AND TIME.

(NOTE: FACSIMILE BIDS ARE NOT ACCEPTABLE)

ECSU PURCHASING DEPARTMENT
EASTERN ROAD
GELSI & YOUNG HALL, ROOM 344
WILLIMANTIC, CT 06226

THIS FORM AND REQUIRED PROPOSAL SCHEDULE FORMS MUST BE COMPLETED AND RETURNED WITH BID PROPOSAL

EXECUTIVE ORDERS: This contract is subject to the provisions of Executive Order No Three of Governor Thomas J. Meskill, promulgated June 16, 1971, and, as such, this contract may be cancelled, terminated or suspended by the State Labor Commissioner for violation of noncompliance with said Executive Order No. Three, or any State or federal law concerning nondiscrimination, withstanding that the Labor Commissioner is not a party to this contract. The parties of this contract, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination, until the contract is completed or terminated prior to completion. The contractor, agrees as part of consideration hereof, that this contract is subject to the Guidelines and Rules issued by the State Labor Commissioner to Implement Executive Order No. Three, and that he will not discriminate in his employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the Labor Commissioner. This contract is also subject to the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15,1973, and, as such, this contract may be cancelled, terminated or suspended by the contracting agency or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the Labor Commissioner may not be a party to this contract. The parties of this contract, as a part of the consideration hereof, agree that Executive Order No. Seventeen is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the contracting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to contract performance in regard to listing all employment openings with the Connecticut State Employment Service.

NON-DISCRIMINATION

References in this section to "contract" shall mean this Contract and references to "contractor" shall mean the Contractor.

(a) The following subsections are set forth here as required by section 4a-60 of the Connecticut General Statutes: (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. The contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved; (2) the contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the commission; (3) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e and 46a-68f; (5) the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56.

(b) If the contract is a public works contract, the contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.

(c) "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to

comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements.

(d) Determination of the contractor's good faith efforts shall include but shall not be limited to the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

(e) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the commission, of its good faith efforts.

(f) The contractor shall include the provisions of section A above in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

(g) The following subsections are set forth here as required by section 4a-60a of the Connecticut General Statutes: (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and (4) the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

(h) The contractor shall include the provisions of section (g) above in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

For the purposes of this entire Non-Discrimination section, "contract" includes any extension or modification of the contract, "contractor" includes any successors or assigns of the contractor, "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced, and "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders. For the purposes of this section, "contract" does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, (2) a quasi-public agency, as defined in Conn. Gen. Stat. Section 1-120, (3) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in Conn. Gen. Stat. Section 1-267, (4) the federal government, (5) a foreign government, or (6) an agency of a subdivision, agency, state or government described in the immediately preceding enumerated items (1), (2), (3), (4) or (5).

Insurance

The contractor agrees that while performing services specified in this agreement that he shall carry sufficient insurance (liability and/or other)as applicable according to the nature of the service to be performed so as to “save

harmless" the State of Connecticut from any insurable cause whatsoever. If requested, certificates of such insurance shall be filed with the contracting State Agency prior to the performance of services.

STATE LIABILITY

The State of Connecticut shall assume no liability for payment for services under the terms of this agreement until the contractor is notified that this agreement has been accepted by the using agency and, if applicable, approved by the Office of Policy and Management (OPM), the Department of Administrative Services and by the Attorney General of the State of Connecticut.

EASTERN CONNECTICUT STATE UNIVERSITY
INVITATION TO BID PROJECT #ECSU 2020-5
Sports Center Gym Bleacher Replacement & Floor Refinishing

SUBMISSION CHECK LIST

( ) Bidder Information Bid Form (Cover Sheet)

( ) Proposal Form - Project Data Sheet (including Subcontractor Listing)

( ) Bidder's Qualification Statement

( ) Standard Bid Bond or Certified Check in the amount of 10% of the bid

( ) Form of Proposal - Set Aside Worksheet

( ) Contract Compliance Monitoring Report (3 pages)

( ) Gift and Campaign Contribution Certificate (OPM Ethics Form 1)

( ) Nondiscrimination Certifications (Form A, B, C, D, and/or E as applicable)

( ) Consulting Agreement Affidavit (OPM Ethics Form 5)

( ) Affirmation of Receipt of State Ethics Law Summary (OPM Ethics Form 6)

( ) OPM Iran Certificate Form 7

( ) W9, Vendor Form and Small Business Certification (if applicable)

( ) DAS Contractor Pre-Qualification Certificates
- General Building Construction (Group A or higher) and/or Floor Covering

PROJECT MANUAL

SPORTS CENTER GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

EASTERN CONNECTICUT STATE UNIVERSITY
WILLIMANTIC, CONNECTICUT 06226-2295

PROJECT # 2020-5

Prepared by:

Facilities Management and Planning
Eastern Connecticut State University
Willimantic, Connecticut 06226-2295

February 18, 2020

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12/09/20

PROPOSAL FORM
EASTERN CONNECTICUT STATE UNIVERSITY
FOR PROJECTS ESTIMATED NOT TO EXCEED $2,000,000.00

DATE _____

PROPOSAL OF _____
BIDDER'S NAME

_____
BIDDER'S ADDRESS

To: Eastern Connecticut State University
83 Windham Street
Willimantic, Connecticut 06226

Dear Sir:

1. In accordance with **Section 4b-91** of the Connecticut General Statutes and pursuant to, and in compliance with your Invitation to Bid, the Notice to Bidders, the form of contract including the conditions thereto, the form of required bond, I (we) propose to furnish the labor and/or materials, installed as required for the project named and numbered on the PROJECT DATA SHEET of this Proposal, to the extent of the Proposal submitted herein, furnishing all necessary equipment, machinery, tools, labor and other means of construction, and all materials specified in the manner and at the time prescribed strictly in accordance with the provisions of the contract, including specifications and/or drawings, together with all addenda issued by your authority and received prior to the scheduled closing time for the receipt of the bids, and in conformity with requirements of the Awarding Authority and any laws or departmental regulations of the State of Connecticut or of the United States which may affect the same, for and in consideration of the price(s) stated on the said PROJECT DATA SHEET, hereof.

2. The Lump Sum Base Bid by me (us) on the PROJECT DATA SHEET includes all work indicated on the drawings and/or described in the specifications, except:

   A. Work covered by Supplemental Bids as may be listed on the PROJECT DATA SHEET.

3. This proposal is submitted subject to and in compliance with the foregoing and following conditions and/or information:

   A. AWARD:

      The award shall be made on the lowest sum of the base bid amount and any accepted supplemental base bids(s). The supplemental bids must be accepted in sequential order as they are listed herein. The Owner/Agency reserves the right to reject any or all bids, and to accept a bid in greater compliance with the materials, labor, and methods defined in this specification.

In the event of any discrepancy between the amount written in words and the amount written in numerical figures, the amount written in words shall be controlling.

The contractor is required to hold his bid price for sixty (60) days. In the event that the contract award is delayed beyond the (60) days, the Agency must obtain written confirmation from the contractor extending the bid.

B. COMMENCEMENT AND COMPLETION OF WORK: (ARTICLE 6, GENERAL CONDITIONS)

Commencement of work: The Contractor shall commence work within **five (5)** working days after receiving notice to begin work by the Agency.
This project will need to be phased to accommodate use of the gym for two local high school graduation ceremonies mid-construction.

Construction Start: On **May 7, 2020.**
Phase 1: Floor refinishing must be completed by **May 29, 2020.**
Phase 2: Bleacher installation. Phase 2 may begin on **July 1, 2020**
Substantial Completion: Shall be completed by **August 1, 2020**

C. LIQUIDATED DAMAGES: (ARTICLE 12, GENERAL CONDITIONS)

Amount per calendar day: **N/A**

The parties agree that in the event of the contractor's failure to adhere to the schedule of the starting/completion dates, the harm to the university would be very difficult or impracticable to accurately estimate and that the amount fixed as liquidated damages is not a penalty, but a reasonable forecast of just compensation for said harm.

D. CONTRACTOR PRE-QUALIFICATION

In accordance with C.G.S §4a-100, all contractors must pre-qualify before they can bid on a contract or perform work pursuant to a contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or any other public work by the state or a municipality, estimated to cost more than $500,000 and which is funded in whole or in part with state funds, except a public highway or bridge project or any other construction project administered by the Department of Transportation.

The prequalification classification for this project is one or more of the following:

FLOOR COVERING
GENERAL BUILDING CONSTRUCTION – GROUP "A" or higher

Bidders are advised that both the DEPARTMENT OF ADMINISTRATIVE SERVICES PREQUALIFICATION CERTIFICATE and UPDATE (BID) STATEMENT must accompany the bid proposal for projects estimated to exceed Five Hundred Thousand Dollars ($500,000.00) (C.G.S. §4b-91 as amended). **Failure to supply them with the bid will result in rejection of the bid.**

E. CONTRACTORS INSURANCE REQUIRED: (ARTICLE 47, GENERAL CONDITIONS)

1) The limits of liability for the Insurance required for this project shall be those listed in Article 47 of the General Conditions.

2) SPECIAL HAZARDS INSURANCE REQUIRED WHEN SPECIFIED:

N/A

3) BUILDERS RISK INSURANCE: **The General Contractor shall maintain Builder's Risk insurance providing coverage for the entire work at the project site and shall also cover portions of the Work in transit. Coverage shall be written on an All-Risk, Replacement Cost, and completed Value Form basis in an amount at least equal to the projected completed value of the Work and the policy shall state that it is for the benefit of and payable to the state of Connecticut work, as their interests may appear.**

F. STATEMENT OF BIDDER'S QUALIFICATIONS: Essential information in regard to contractor's qualifications is submitted and is made part of this proposal.

G. NONDISCRIMINATION AND LABOR RECRUITMENT: I (we) agree that the contract awarded for this project shall be subject to Executive Orders No. Three and Seventeen, promulgated June 16, 1971, and February 15, 1973, respectively and to the Guidelines and Rules of the State Labor Commissioner implementing Executive Order No. Three and further agree to submit reports of Compliance Staffing on Labor Department Form E.O. 3-1, when and as requested.

H. NONVIOLENCE: I (we) agree that the contract awarded for this project shall be subject to Executive Order No. Sixteen, promulgated August 4, 1999.

I. FEDERAL AND STATE WAGE DETERMINATIONS: The U.S. Secretary of Labor's latest decision and the State of Connecticut Wage Schedule are all incorporated in the documents as applicable. The higher rate (Federal or State) for any given occupation shall prevail. At the time of bidding, the bidder agrees to accept the current prevailing wage scale as provided by the Connecticut Department of Labor as applicable.

J. CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY AND NONSEGREGATED FACILITIES: The General Contractor and subcontractors are hereby advised that, upon acceptance of their bids, they are obligated to fill out, within seven (7) calendar days, the certification required pursuant to Executive Order No. 11246 and agree to certify to the compliance of non-segregated facilities.

4. For bids in the amount of $50,000.00 or greater, the following must accompany this proposal:

A. A CERTIFIED CHECK or a CASHIER'S CHECK drawn to the order of the EASTERN CONNECTICUT STATE UNIVERSITY in the amount of 10% of the bid or in the amount of:

_____DOLLARS ($)

and drawn on the _____
(STATE BANK & TRUST) (NATIONAL BANKING ASSOC.)

located at _____
(CITY & STATE)

which it is understood shall be cashed and the proceeds thereof used so far as may be necessary to reimburse EASTERN CONNECTICUT STATE UNIVERSITY for losses and damages arising by virtue of my (our) failure to file the required Bonds and execute the required contract in the event that this proposal is accepted by the Awarding Authority.

OR

B. A BID BOND having as surety thereto a Surety Company or Companies authorized to transact business in the State of Connecticut and made out in the penal sum of 10% of the bid, or in the amount of:

_____DOLLARS ($)

5. I (we), the undersigned, hereby declare that I am (we are) the only person(s) interested in the proposal and that it is made without any connection with any other person making any bid for the same work. No person acting for, or employed by, the State of Connecticut is directly or indirectly interested in this proposal, or in any contract which may be made under it, or in expected profits to arise therefrom. This proposal is made without directly or indirectly influencing or attempting to influence any other person or corporation to bid or refrain from bidding or to influence the amount of the bid of any other person or corporation. This proposal is made in good faith without collusion or connection with any other person bidding for the same work and this proposal is made with distinct reference and relation to the plans and specifications prepared for this contract. I (we) further declare that in regard to the conditions affecting the work to be done and the labor and materials needed, this proposal is based solely on my (our) own investigations and research and not in reliance upon any representations of any employee, officer, or agent of the State.

6. The General Contractor on this project will be required to perform not less than 0% of the work with his own forces. (This requirement is waived for this project due to the disproportionate amount of work required by the bleacher subcontractor).

A. The undersigned proposes to furnish all labor and materials required for _____ _____ in _____, in accordance with the accompanying plans and specifications prepared by _____ _____ for the contract price specified below subject to additions and deductions according to the terms of the specifications.

B. This bid includes addenda numbered: _____ _____

C. The proposed Lump Sum Base Bid price is: _____DOLLARS ($)

SUPPLEMENTAL BID 1 (NOT USED)

To provide all labor, material and equipment in accordance with Specifications, Div. 1, Section 01030.

ADD _____ Dollars $_____
(Written)

SUPPLEMENTAL BID 2 (NOT USED)

To provide all labor, material and equipment in accordance with Specifications, Div. 1, Section 01030.

ADD _____ Dollars $_____
(Written)

SUPPLEMENTAL BID 3 (NOT USED)

To provide all labor, material and equipment in accordance with Specifications, Div. 1, Section 01030.

ADD _____ Dollars $_____
(Written)

D. The undersigned understands that, because of the approvals required by the State of Connecticut, particularly the funding process, the Agency's identification of the low bidder does not constitute acceptance of the offer and no contract exists until all approvals for the proposal are received and a purchase order is let indicating acceptance of this bid.

E. The undersigned certifies that at least fifty-one percent of the ownership of the bidding company is held by a person or persons who are active in the daily affairs of the business and have the power to direct the management and policies of the business.

F. The undersigned understands that a contractor awarded a contract or portion of contract under the SMALL BUSINESS SET-ASIDE PROGRAM shall not subcontract with any business with which said contractor has interlocking ownership, management or employees.

G. The undersigned further agrees to make a good faith effort to include Connecticut Registered Small Business Set-Aside subcontractor participation, and subcontractors that are woman or minority owned. Participating contractor list may be obtained from the Department of Economic Development (860) 258-4254. List all such subcontractors in the "Additional Subcontractor" section on Page 10. (Percentage requirements are waived due to the limited availability of bleacher contractors that meet normally required set aside requirements).

H. 1. The undersigned further agrees and warrants that he has made good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials under such contract and will provide the Commission on Human Rights and Opportunities with such information as is requested by the Commission concerning his employment practices and procedures as they relate to the provisions of the general statutes governing contract requirements (see Public Act 87-577).

2. The undersigned understands that the award of this contract is contingent upon the Commission on Human Rights and Opportunities approving the apparent lowest qualified Bidder's Affirmative Action Plan. (This section applies to projects over $500,000 – Only)

I. (a) For the purposes of this section, "minority business enterprise" means any small contractor or supplier of materials, of which fifty-one per cent or more of the capital stock, if any, or assets is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) Who have the power to direct the management and policies of the enterprise and (3) Who are members of a minority, as such term is defined in subsection (a) of Conn. Gen. Stat. Sec. 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements.

For purposes of this Section, "Commission" means the Commission on Human Rights and Opportunities.

b) (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut. If the contract is for a public works project, the contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such project. The contractor further agrees to take affirmative action to insure that applicants with job related

qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved; (2) the contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the commission; (3) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the commission, advising the labor union or worker's representative of the contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the contractor agrees to comply with each provision of this Section and Conn. Gen. Stat. Sec. 4a-62, 4b-95/96, 32-9e, 46a-56 and 46a-68b to 46a-68k, inclusive, and with each regulation or relevant order issued by said commission pursuant to said sections; (5) the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as related to the provisions of this Section and Section 46a-56.

(c) Determination of the contractor's good faith efforts shall include, but shall not be limited to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the commission may prescribe that are minority business enterprises in public works projects.

(d) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the commission, of its good faith efforts.

(e) The contractor shall include the provisions of subsection (b) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor, or manufacturer unless exempted by regulations or orders of the Commission. The contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with this Section and Conn. Gen. Stat. Sec. 4a-62, 4b-95/96, 32-9e, 46a-56 and 46a-68b to 46a-68k, inclusive; provided if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter. Please note that substitution of a subcontractor for one named is not permitted except for **"GOOD CAUSE"** as defined in Connecticut General Statutes 4b-95(c). Subcontracts must be executed in the format proscribed in Sec. 4b-96, Connecticut General Statutes.

(f) The contractor agrees to comply with the regulations referred to in this section as they exist on the date of this contract and as they may be adopted or

amended from time to time during the term of this contract and any amendments thereto.

(g) After April 1, 1989, each contractor with fifty or more employees awarded a public works contract in excess of fifty thousand dollars, shall develop and file an affirmative action plan with the Commission on Human Rights subject to the conditions under P.A. 88-351. In addition, the successful bidder on contracts of $500,000 or more must submit, for approval, an Affirmative Action Plan to the Commission of Human Rights and Opportunities. Upon notification from Eastern Connecticut State University, the successful bidder has 10 calendar days to submit their plan to Eastern Connecticut State University for preliminary review.

The undersigned understands that the award of this category of contract is contingent upon the Commission on Human Rights and Opportunities approving the apparent lowest qualified bidder's Affirmative Action Plan.

NOTE: All proposals must be live signed by a duly authorized representative of the firm. NO FACSIMILE SIGNATURES PERMITTED.

Signed on this _____ day of _____2015

Project Number _____

(TO BE FILLED IN AND SIGNED BY THE BIDDER)

Firm Name _____

Address _____

City, State _____

Telephone _____

Duly Authorized _____
SIGNATURE

TYPE NAME AND TITLE _____

FOR "SMALL BUSINESS SET-ASIDE CONTRACTORS" ONLY

The undersigned certifies that he is certified as a Small Business Set-Aside Contractor and has included a copy of that certification with this bid.

Signed: _____Date: _____

Dates of Certification: _____

Type of Certification (circle one): Woman Minority Small

NAMED SUBCONTRACTORS
SUBCONTRACTOR LISTING

Pursuant to Section 4b-95 of the State of Connecticut General Statutes, provide the names and bid totals of sub-contractors for the trades listed below: In addition to those required to be listed as defined by CGS 4b-95, list the name and bid amount of any trade that exceeds $25,000.

TRADE	NAME OF SUBCONTRACTOR	AMOUNT
1. MASONRY		
2. ELECTRICAL		
3. HVAC		
4. MECHANICAL (other than HVAC)		
5. BLEACHER		
6. FLOOR REFINISHING		
7.		
8.		
9.		
10.		

OBJECTIVE CRITERIA ESTABLISHED FOR EVALUATING QUALIFICATIONS OF GENERAL BIDDERS

The following items are established pursuant to Sections 4b-92 & 4b-94, 31-53aa, and 31-57b of the Connecticut General Statutes, as amended, and represent the criteria used for bid award.

THE BIDDER MUST:

1. Low bidders must demonstrate that they customarily employ supervisory personnel with expertise in the work for the bid specifications. Experience in the trade(s) for the project will be a factor.

2. Low bidders must demonstrate satisfactory past performance of work of a similar size, scope, and dollar value to that of the subject project on a continuous basis for the past three (3) years.

3. Low bidders must own or will rent/lease equipment necessary to perform the contract work needed for the project.

4. Low bidders must be financially responsible for performing the work as bid. If requested, additional financial information must be provided. ($250,000 or over only)

5. For projects with a bid value of $50,000 or more, furnish three (3) references from architects, owners, or owner's agents indicating satisfactory and timely completion of prior work (no older than 3 years).

6. Low bidders must demonstrate, if requested, that on previous state projects, the bidder complied in good faith with the requirements of listing subcontractors per Sections 4b-93 and 4b-95 of the Connecticut General Statutes.

7. Low bidders must demonstrate that all major required subcontractors, per Section 4b-95 of the Connecticut General Statutes, who are declared in the bid documents, are in compliance with the provisions of Section 20-341gg of the Connecticut General Statutes concerning licensure if work is to be performed on any structure that exceeds the threshold limits in Section 29-276b of the Connecticut General Statutes, as revised.

8. Low bidders must have demonstrated the skill, ability and integrity necessary for faithful performance on state and other projects relative to past honesty and sincerity in relationships with client agencies and other owners. Review of Agency files shall be included in the evaluation of bidders qualifications and anticipated future performance.

9. All serious or willful violations of OSHA regulations in the past three (3) years nor have received a criminal conviction related to the injury or death of any employee in the three (3) year period preceding the bid.

10. All legal or administrative proceedings, currently pending, as well as any which have concluded adversely within the last three years which relate to performance of any public or private construction contracts.

11. Have demonstrated a good track record of past performance on state or other projects relative to the quantity, quality, timeliness, cost, cooperation and harmonious working relationships with subcontractors, suppliers and client agencies. Prompt payment to subcontractors and suppliers is a critical factor to be considered.

12. Identify any situations where the bidder failed to complete a construction contract or situations where bonds were called during the past three years. If so, note when, where, and attach a separate sheet of explanation to this form.

13. Not have been found to be currently in major violation of tax law compliance requirements of the Department of Revenue Services.

14. Not have been found to be currently in major violation of labor laws as required through the Department of Labor including violations of prevailing wage laws in the past three years.

BIDDERS' QUALIFICATION STATEMENT

PROJECT NO. _____

All bidders are required to file this form, properly completed, WITH THEIR PROPOSAL. Failure of a bidder to answer any question or provide required information may be grounds for the awarding authority to disqualify and reject their bid. If a question or request for information does not pertain to your organization in any way, use the symbol "NA" (Not Applicable). Use additional 8 1/2 x 11 sheets with your letterhead as necessary.

1. Indicate exactly the name by which this organization is known:
   Name _____.

2. How many years has this organization been in business under its present business name?
   Years _____.

3. How many years has this organization been in business as a General Contractor?
   Years _____.

4. If this organization has not always been a General Contractor, list the trade(s) that your firm customarily performed prior to the time that you became a General Contractor:
   1. _____,
   2. _____,
   3. _____.

5. Indicate all other names by which this organization has been known and the length of time known by each name:
   1. _____,
   2. _____,
   3. _____.

6. This firm is a : _____ Corporation, _____ Partnership,
   _____ Sole Proprietorship, _____ Joint Venture, _____ Other.

7. Attach resumes of all supervisory personnel, such as Principals, Project Managers, and Superintendents who will be directly involved with projects on which you are now a bidder. Indicate the number of years of construction experience and the number of years which were in a Supervisory capacity.

8. List all sub-trades which your firm customarily performs with own employees.
   1. _____,
   2. _____,
   3. _____,

9. Trade References: Names, addresses, and telephone numbers of several firms with whom your organization has regular business dealings:

   (Attach Separate Sheet)

10. All Construction Projects your organization has in process:

TITLE & LOCATION	CONTRACT AMOUNT	OWNER	DESIGNER	START DATE	FINISH DATE	ANY COMPLAINT AS TO QUALITY OF MANAGEMENT	NAME & PHONE OF OWNER'S REP	NAME & PHONE OF DESIGNER'S REP

Please attach a separate sheet explaining any negative entry in the last three columns.

11. All Construction Projects your organization has completed in the past five years or the twenty projects most recently completed:

TITLE & LOCATION	CONTRACT AMOUNT	OWNER	DESIGNER	START DATE	FINISH DATE	ANY COMPLAINT AS TO QUALITY OF MANAGEMENT	NAME & PHONE OF OWNER'S REP	NAME & PHONE OF DESIGNER'S REP

Please attach a separate sheet explaining any negative entry in the last three columns.

BIDDERS QUALIFICATION STATEMENT

12. Has your organization ever failed to complete a contract, or has any officer or partner of your organization ever been an officer or partner of another organization that failed to complete a contract? If so, indicate the circumstances leading to the project failure and the name of the company which provided the bonding for the failed contract(s):

_____
_____
_____
_____
_____
_____

13. List all legal or administrative proceedings currently pending or concluded adversely within the last five years which relate to procurement or performance of any public or private construction contracts. (Exclude OSHA violations which are called for elsewhere in this statement.)

    1. ___ Attached 2. ___ Not Applicable

14. List all willful or serious violations of any Occupational Safety and Health Act (OSHA) or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act or Occupational Safety and Health Act of 1970. Indicate whether these were abated within the time fixed by the citation or whether the citation was appealed. If appealed, what is the status or disposition.

    1.

    2.

    3.

15. Has your organization had any criminal convictions related to the injury or death of any employee in the three year period preceding the bid. Please list any such convictions below.

1.

2.

Dated at _____
this _____ day of _____, 2015.

Name of Organization:
_____

Signature _____
Print Name _____
Title _____

NOTARY STATEMENT:

Mr./Ms. _____ being duly sworn deposes and says that

he/she is the _____ of
(Position or Title)
_____, and that the answers to the
(Firm Name)
foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn before me this _____ day of _____, 2015

Notary Public: _____

My Commission expires _____, 2015.
(Seal Required)

NOTICE TO BIDDERS
EASTERN CONNECTICUT STATE UNIVERSITY

1. BIDS AND REJECTION OF BIDS: Bids shall be for the complete work as specified and shall include the names of any subcontractors for the four classes of work specified in subsection (a) of Section 4b-93 of the General Statutes of Connecticut as revised, and for each other class of work for which the awarding authority has required a separate section pursuant to said subsection and the dollar amounts of their subcontracts, and the contractor shall be selected on the basis of such bids. It shall be presumed that the bidder intends to perform with its own employees all work in such four classes and such other classes, for which no subcontractor is named. The bidder's qualifications for performing such work shall be subject to review under Section 4b-92 of the General Statutes of Connecticut, as revised.

   Every general bid, which is on a form not completely filled in or which is incomplete, conditional or obscure, or which contains any addition not called for shall be invalid; and the awarding authority shall reject every such bid. The awarding authority shall be authorized to waive minor irregularities which he considers in the best interest of the state, provided the reasons for any such waiver are stated in writing by the awarding authority and made a part of the contract file. No such bid shall be rejected because of the failure to submit prices for, or information relating to, any item or items for which no specific space is provided in the bid form furnished by the awarding authority, but this sentence shall not be applicable to any failure to furnish prices or information required by Section 4b-95 of the General Statutes of Connecticut, as revised, to be furnished in the bid form provided by the awarding authority.

   Bids shall be publicly opened and read by the awarding authority forthwith. The awarding authority may require in the bid form that the contractor agree to perform a stated, minimum percentage of work with its own forces. The awarding authority may also require the contractor to set aside a portion of the contract for subcontractors who are eligible for set-aside contracts. The awarding authority shall not permit substitution of a subcontractor for one named in accordance with the provisions of said Section 4b-95 or substitution of a subcontractor for any designated subtrade work bid to be performed by the contractor's own forces, except for good cause. The term "good cause" includes but is not limited to a subcontractor's or, where appropriate, a contractor's: (1) death or physical disability, if the listed subcontractor is an individual; (2) dissolution, if a corporation or partnership; (3) bankruptcy; (4) inability to furnish any performance and payment bond shown on the bid form; (5) inability to obtain, or loss of, a license necessary for the performance of the particular category of work; (6) failure or inability to comply with a requirement of law applicable to contractors, subcontractors, or construction, alteration, or repair projects; (7) failure to perform his agreement to execute a subcontract under Section 4b-96 of the General Statutes of Connecticut, as revised.

   The bid price shall be the price set forth in the space provided on the bid form. No bid shall be rejected (1) because of error in setting forth the name of a subcontractor as long as the subcontractor or subcontractors designated are clearly identifiable, or (2) because the plans and specifications do not accompany the bid or are not submitted with the bid. Failure to correctly state a subcontractor's price shall be a cause for rejection of the bid.

   Any contractor who violates any provision of said Section 4b-95 may be disqualified from bidding on other contracts that are subject to the provisions of Chapter 60 of the General Statutes of Connecticut, as revised, for a period not to exceed twenty-four months, commencing from the date on which the violation is discovered, for each violation. The

awarding authority shall periodically review the contractor's subcontracts to insure compliance with such provisions and shall, after each such review, prepare a written report setting forth his findings and conclusions.

Bids shall be submitted only on the forms furnished for the specific project. In no event will bids or changes in bids made by telephone, telegraph, or facsimile be considered. Any bid form omitting or adding items, altering the form, containing conditional or alternative bids, not filled in completely or without the original signature of the bidder or its authorized representative, will be rejected.

Any bid received after the scheduled closing time for the receipt of bids will be returned to the bidder unopened.

Any bid, once deposited with the agency, may only be withdrawn by letter of request, signed by the depositing bidder and presented to the Acquisitions Specialist, prior to the time of opening of any bid for the project designated or identified project.

2. BID SECURITY: Each bid must be accompanied by a certified check payable to the order of the University, or the bid may be accompanied by a bid bond, in the form required by the awarding authority, having as surety thereto such surety company or companies acceptable to the agency and as are authorized to do business in this State, for an amount not less than 10 percent of the bid. All checks submitted by unsuccessful bidders shall be returned to them after the contract has been awarded.

3. FORFEITURE OF BID SECURITY: Failure of the successful bidder to execute a contract awarded as specified and bid shall result in the forfeiture of the bid bond or certified check.

4. ADDENDA AND INTERPRETATIONS: No interpretations of the meaning of the plans, specifications or other contract documents will be made orally to any bidder. Every request for such interpretation should be in writing to the awarding authority and, to be given consideration, must be received at least ten (10) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be mailed to all prospective bidders (at the respective addresses furnished for such purposes) not later than five (5) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not release any bidder from any obligations under his bid as submitted, provided notice has been sent to the address furnished by such prospective bidder for the transmittal of notices, addenda and interpretations. It shall be the bidder's responsibility to make inquiry as to, and to obtain, the addenda issued, if any.

5. EXECUTIVE ORDER NO. THREE:

This contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971, and, as such, this contract may be canceled, terminated or suspended by the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Three, or any state or federal law concerning nondiscrimination, notwithstanding that the Labor Commissioner is not a party to this contract. The parties to this contract, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to contract

performance in regard to nondiscrimination until the contract is completed or terminated prior to completion.

The contractor agrees, as part consideration hereof, that this contract is subject to the Guidelines and Rules issued by the State Labor Commissioner to implement Executive Order No. Three, and that he will not discriminate in his employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the State Labor Commissioner.

6. EXECUTIVE ORDER NO. SIXTEEN:

This contract is subject to the provisions of Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, and, as such, the contract may be canceled, terminated or suspended by the state for violation of or noncompliance with said Executive Order No. Sixteen. The parties to this contract, as part of the consideration hereof, agree that said Executive Order No. Sixteen is incorporated herein by reference and made a part hereof. The parties agree to abide by such Executive Order.

7. EXECUTIVE ORDER NO. SEVENTEEN:

This contract is subject to the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973, and, as such, this contract may be canceled, terminated or suspended by the contracting agency or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, not withstanding that the Labor Commissioner may not be a party to this contract. The parties to this contract, as part of the consideration hereof, agree that Executive Order No. Seventeen is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the contracting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to contract performance in regard to listing all employment openings with the Connecticut State Employment Service.

8. FOREIGN CORPORATIONS: A corporation not organized under the laws of this State that is awarded the contract must comply with the laws of this State regarding the procurement of a certificate of authority to transact business in this State from the Secretary of State.

9. SECURITY FOR FAITHFUL PERFORMANCE:

A. Performance Bond. On or before the contract award date the successful bidder, for any bid equal to or exceeding $50,000, shall substitute for the certified check or bid bond accompanying his bid, an executed Performance Bond, in an amount not less than 100 percent of the contract price, conditioned upon the faithful performance of the contract, and having as surety thereto such Surety Company or Companies satisfactory to the Agency and as are authorized to transact business in this State.

B. Labor and Material Bond. At this same time the successful bidder, for any bid equal to or exceeding $50,000, shall submit a labor and material bond in an amount not less than 100 percent of the contract price which shall be binding upon the award of the contract to such bidder, with surety or sureties satisfactory to the Agency and as are authorized to transact business in this State, for the

protection of persons supplying labor or materials in the prosecution of the work provided for in the contract for the use of each such person. Any such bond furnished shall have as principal the name of the successful bidder. This bond is to be furnished pursuant to Section 49-41 of the General Statutes of Connecticut, as revised. The following sections of the General Statutes of Connecticut, as revised, are inserted as information concerning this bond.

Sec. 49-41a. Enforcement of payment by general contractor to subcontractor and by subcontractor to his subcontractors.

(a) When any public work is awarded by a contract for which a payment bond is required by Section 49-41, the contract for the public work shall contain the following provisions: (1) a requirement that the general contractor, within thirty days after payment to the contractor by the State or a municipality, pay any amounts due any subcontractor, whether for labor performed or materials furnished, when the labor or materials have been included in a requisition submitted by the contractor and paid by the State or a municipality; (2) a requirement that the general contractor shall include in each of its subcontracts a provision requiring each subcontractor to pay any amounts due any of its subcontractors, whether for labor performed or materials furnished, within thirty days after such subcontractor receives a payment from the general contractor which encompasses labor or materials furnished by such subcontractor.

(b) If payment is not made by the general contractor or any of its subcontractors in accordance with such requirements, the subcontractor shall set forth his claim against the general contractor and the subcontractor of a subcontractor shall set forth its claim against the subcontractor through notice by registered or certified mail. Ten days after the receipt of that notice, the general contractor shall be liable to its subcontractor, and the subcontractor shall be liable to its subcontractor, for interest on the amount due and owing at the rate of one percent per month. In addition, the general contractor, upon written demand of its subcontractor, or the subcontractor, upon written demand of its subcontractor, shall be required to place funds in the amount of the claim, plus interest of one percent, in any interest-bearing escrow account in a bank in this state, provided the general contractor or subcontractor may refuse to place the funds in escrow on the grounds that the subcontractor has not substantially performed the work according to the terms of his or its employment. In the event that such general contractor or subcontractor refuses to place such funds in escrow, and the party making a claim against it under this section is found to have substantially performed its work in accordance with the terms of its employment in any arbitration or litigation to determine the validity of such claim, then such general contractor or subcontractor shall pay the attorney's fees of such party.

(c) No payment may be withheld from a subcontractor for work performed because of a dispute between the general contractor and another contractor or subcontractor.

(d) This section shall not be construed to prohibit progress payments prior to final payment of the contract and is applicable to all subcontractors for material or labor whether they have contracted directly with the general contractor or with some other subcontractor on the work.

Section 49-42. Enforcement of right to payment on bond. Suit on bond; when

and how brought.

(a) Any person who performed work or supplied materials for which a requisition was submitted to, or for which an estimate was prepared by, the awarding authority and who does not receive full payment for such work or materials within sixty days of the applicable payment date provided for in Subsection (a) of Section 49-41a, or any person who supplied materials or performed subcontracting work not included on a requisition or estimate who has not received full payment for such materials or work within sixty days after the date such materials were supplied or such work was performed, may enforce his right to payment under the bond by serving a notice of claim on the surety that issued the bond and a copy of such notice to the contractor named as principal in the bond within one hundred eighty days of the applicable payment date provided for in Subsection (a) of Section 49-41a, or, in the case of a person supplying materials or performing subcontracting work not included on a requisition or estimate, within one hundred eighty days after the date such materials were supplied or such work was performed. The notice of claim shall state with substantial accuracy the amount claimed and the name of the party for whom the work was performed or to whom the materials were supplied, and shall provide a detailed description of the bonded project for which the work or materials were provided. If the content of a notice prepared in accordance with Subsection (b) of Section 49-41a complied with the requirements of this section, a copy of such notice, served within one hundred eighty days of the payment date provided for in Subsection (a) of Section 49-41a upon the surety that issued the bond and upon the contractor named as principal in the bond, shall satisfy the notice requirements of this section. Within ninety days after service of the notice of claim, the surety shall make payment under the bond and satisfy the claim, or any portion of the claim which is not subject to a good faith dispute, and shall serve a notice on the claimant denying liability for any unpaid portion of the claim. The notices required under this section shall be served by registered or certified mail, postage prepaid in envelopes addressed to any office at which the surety, principal or claimant conducts his business, or in any manner in which civil process may be served. If the surety denies liability on the claim, or any portion thereof, the claimant may bring action upon the payment bond in the superior court for such sums and prosecute the action to final execution and judgment. An action to recover on a payment bond under this section shall be privileged with respect to assignment for trial. The court shall not consolidate for trial any action brought under this section with any other action brought on the same bond unless the court finds that a substantial portion of the evidence to be adduced, other than the fact that the claims sought to be consolidated arise under the same general contract, is common to such actions and that consolidation will not result in excessive delays to any claimant whose action was instituted at a time significantly prior to the motion to consolidate. In any such proceeding, the court judgment shall award the prevailing party the costs for bringing such proceeding and allow interest at the rate of interest specified in the labor or materials contract under which the claim arises or, if no such interest rate is specified, at the rate of interest as provided in Section 37-3a upon the amount recovered, computed from the date of service of the notice of claim, provided, for any portion of the claim which the court finds was due and payable after the date of service of the notice of claim, such interest shall be computed from the date such portion became due and payable. The court judgment may award reasonable attorney’s fees to either party if upon reviewing the entire record, it appears that either the original claim, the surety's denial of liability, or the defense interposed to the

claim is without substantial basis in fact or law. Any person having direct contractual relationship with a subcontractor but no contractual relationship express or implied with the contractor furnishing the payment bond shall have a right of action upon the payment bond upon giving written notice of claim as provided in this section.

(b) Every suit instituted under this section shall be brought in the name of the person suing, in the superior court for the judicial district where the contract was to be performed, irrespective of the amount in controversy in the suit, but no such suit may be commenced after the expiration of one year after the applicable payment date provided for in Subsection (a) of Section 49-41a, or, in the case of a person supplying materials or performing subcontracting work not included on a requisition or estimate, no such suit may be commenced after the expiration of one year after the date such materials were supplied or such work was performed.

(c) The word "material" as used in Section 49-41 to 49-43, inclusive, includes the rental of equipment used in the prosecution of work provided for in the contract.

10. CONNECTICUT SALES AND USE TAXES: All bidders shall familiarize themselves with the current regulations of the Department of Revenue Service. The tax on materials or supplies exempted by such statutes and regulations shall not be included as part of a bid.

Nonresident contractors must comply with the provisions of Connecticut General Statutes Section 12-430(7), bond requirement for nonresident contractors, and the regulations established pursuant to that section.

11. CONTRACTOR'S QUALIFICATIONS: All bidders shall file with their bids a statement of qualifications on the appropriate form.

12. SUBCONTRACTORS: (a) As required by the project data sheet, each bidder shall furnish with his submitted bid, and in the place on the bid form provided for such purpose, the names of responsible and qualified subcontractors who are actually to perform the work required by the division or portion of the specifications listed, for the base bid. Failure to so list a subcontractor for any division or portion of the specifications will result in rejection of the entire bid.

13. WORKING DAY: A working day is hereby defined as each consecutive day, including and following the date set for commencement of work, except Saturdays, Sundays and state legal holidays and except those days on which, in the opinion of the awarding authority, the Contractor is prevented by inclement weather from proceeding with work on the major items under construction at the then current stage of the work at least six (6) hours with the usual force employed on these major items, provided however, that in the event the State directs or permits work to be performed on a Saturday, Sunday or a state legal holiday, then such day shall be considered a working day.

14. NONDISCRIMINATION AND AFFIRMATIVE ACTION PROVISIONS:

This section is inserted in connection with Subsection (a) of Section 4a-60 of the General Statutes of Connecticut, as revised.

A. For the purposes of this section, "minority business enterprise" means any small

contractor or supplier of materials, fifty-one percent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are member of a minority, as such term is defined in Subsection (a) of Connecticut General Statutes, Section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements.

For the purpose of this section, "commission" means the Commission on Human Rights and Opportunities.

For the purpose of this section, "public works contract" means any agreement between any individual, firm or corporation and the state or any political subdivision of the state other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, of which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

B. (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut. The contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved; (2) the contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action/equal opportunity employer" in accordance with regulations adopted by the commission; (3) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the contractor agrees to comply with each provision of this section and Connecticut General Statutes Sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to Connecticut General Statutes Sections 46a-56, 46a-68e, and 46a-68f; (5) the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the

provisions of this section and Connecticut General Statutes Section 46a-56. If the contract is a public works contract, the contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.

C. Determination of the contractor's good faith efforts shall include, but shall not be limited to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

D. The contractor shall develop and maintain adequate documentation, in a manner prescribed by the commission, of its good faith efforts.

E. The contractor shall include the provisions of subsection (b) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor, or manufacturer unless exempted by regulations or orders of the Commission. The contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes Section 46a-56; provided if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

F. The contractor agrees to comply with the regulations referred to in this section as they exist on the date of this contract and as they may be adopted or amended from time to time during the term of this contract and any amendments thereto.

15. NONDISCRIMINATION PROVISIONS REGARDING SEXUAL ORIENTATION:

This section is inserted in connection with Subsection (a) of Section 4a-60a of the General Statutes of Connecticut, as revised.

A. (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by laws of the United States or of the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the contractor agrees to provide each labor union or representative of workers with which such contractor or understanding and each vendor with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitment under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to Section 46a-56 of the general statutes; (4) the contractor agrees to provide the Commission

on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and Section 46a-56 of the General Statutes.

B. The contractor shall include the provisions of Subsection a of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Section 46a-56 of the General Statutes; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

16. AGREEMENT TO ARBITRATE: Any dispute arising out of the awarding of the contract for this project by the Agency, or performance thereunder, shall be submitted to arbitration under the rules of the American Arbitration Association. Hartford, Connecticut, shall be the locale where the Arbitration is to be held.

17. UNION LABOR: Attention is called to the fact that there may be construction work now being carried on at the site at which this construction is contemplated being done by union labor. This fact must be kept in mind by all bidders.

18. LABOR MARKET AREA:

All bidders shall have read Sections 31-52 and 31-52a of the Connecticut General Statutes, as revised. These sections relate to the preference of State citizens and the preference of residents of the labor market area in which the work under the contract is to be done and the penalties for violations thereof.

In order to avoid violations by the contractor and to cooperate with and assist the State in the implementation of the statutory mandates, any contractor bidder awarded a contract with the State shall be required to provide the State with the following information:

A. The names and addresses of employees utilized by the contractor and by its subcontractors and how long each such employee has resided in Connecticut.

B. How long each employee has resided in the labor market area, as established by the State Labor Commissioner, in which the work under the contract is to be done. Labor market areas are indicated on the attached map.

C. Within thirty (30) days after the start of work, the contractor shall submit a signed statement setting forth the procedures the contractor and its subcontractors have taken to assure that they have sought out qualified residents of the labor market area. Also, the statement shall include information as to how many persons were considered for employment and how many were actually hired. Such procedures will include, but not be limited to, obtaining names of available persons from area

Employment Security Offices.

D. In the same manner as Item (C) above, the statement shall indicate the steps taken to assure that the contractor and its subcontractors have sought out qualified residents of this state.

E. The contractor shall cooperate with and provide information to the construction supervisor or inspector of the State assigned to collect and verify the information required. The State may request that all such information be updated during the term of the contract at reasonable times.

F. All such information gathered and compiled by the State shall be forwarded to the Labor Commissioner.

Pursuant to Section 31-52b of the Connecticut General Statutes, as revised: "The provisions of Sections 31-52 and 31-52a shall not apply where the state or any subdivision thereof may suffer the loss of revenue granted or to be granted from any agency or department of the federal government as a result of said sections or regulative procedures pursuant thereto." However, no exception shall be determined to be applicable unless stated in writing from the Agency.

CONNECTICUT PREVAILING WAGE RATES

STATE OF CONNECTICUT

CERTIFICATE OF INSURANCE

This is to certify that the Company listed below has issued the policies listed below, that these policies are written in accordance with the Company's standard policies and endorsements, except as indicated below or as noted in the attachments hereto, which policies and endorsements will be made available to the Owner upon request, that they provide coverage and limits of liability shown with respect to the insurance indicated, that they are in force on this date, that all deductible amounts are indicated below, and that this Certificate is furnished in accordance with and for the purpose of satisfying the requirements of the State of Connecticut, and the Agency in connection with the award and performance of a contract or agreement with the State of Connecticut, and the Agency.

1. Name of insured _____

2. Address of insured _____

3. Location and Description of Work _____

   _____

   Project No. _____

Kind and Type of Insurance		Policy No.	Effective Date	Expiration Date	IN DOLLARS Coverage and limits of Liability			
					Bodily Injury Liability		Property Damage Liability	
					Single Limit		Each Accident	Aggregate
A)	Protective Liability for and in the name of the State of CT				1,000,000		100,000	500,000
B)	Contractor's Liability				1,000,000		100,000	500,000
C)	Contractor Protective Liability				1,000,000		100,000	500,000
D)	Contractual Liability See (1) & (2) Reverse Side				1,000,000		100,000	500,000
E)	Worker's Compensation (if self-insured Compensation Comm's Certificate Required.)				STATUTORY			
F)	Special Hazards Insurance Type C – Collapse Structural Injury Type X – Explosion or Blast				1,000,000		100,000	500,000
G)	Type U – Undergraduate Damage				1,000,000		100,000	500,000
H)	Auto Liability – Owned Automobiles Hired Automobiles Non-owned Automobiles				Each Person	Each Acci-dent		
I)	Builders Risk insurance (Fire Extended Coverage)				AS CALLED FOR ON PROJECT DATA SHEET			
J)	Umbrella Policy (as needed)							

1. Unless requested otherwise by the State, it is agreed that the above named insurance company waives governmental immunity as a defense and will not use the defense of governmental immunity in the adjustment of claims or in the defense of any suit brought against the State, and it is further agreed that the company will bill all premiums and audit charges earned under the protective liability policy to the above named contractor.

2. The contractor shall at all times indemnify and save harmless the State of Connecticut, the Agency, and their respective officers, agents, and employees, on account of any and all claims, damages, losses, litigation, expenses, counsel fees, and compensation arising out of injuries (including death) sustained by or alleged to have been sustained by the officers, agents, and employees of said State or Agency, or of the contractor, his subcontractors, or material men, and from injuries (including death) sustained by or alleged to have been sustained by the public, any or all persons on or near the work, or by any other person or property, real or personal (including property of said State or Agency) caused in whole or in part by the acts, omissions, or neglect of the contractor including but not limited to any neglect in safeguarding the work or through the use of unacceptable materials in constructing the work of the contractor, any subcontractor, material man, or anyone directly employed by them or any of them while engaged in the performance of the contract, including the entire elapsed time from the date ordered to start work or the actual start whichever occurs first until the completion as certified by the Owner.

Such insurance as is herein certified applies to all operations of the insured in connection with the work herein described at the locations stated.

In the event of any restrictive amendment to, any change in or cancellation of any one or more of said policies the

_____

Insurance Company

will give not less than thirty days written notice to the party to whom the certificate is issued of such amendment, change or cancellation.

(Original and two copies to be submitted to the awarding Agency in the State of Connecticut. Copy to be furnished named insurance.)

Dated this _____ day of _____ 2015

Insurance Company _____

Address _____

Authorized Agency _____

Authorized Agent _____

AGREEMENT

BETWEEN
Eastern Connecticut State University
and
Contractor by Name

This Agreement ("Contract") is entered into by and between [**Eastern Connecticut State University**], a constituent unit of the State of Connecticut System of Higher Education, with an address of 83 Windham Street**,** Willimantic, CT 06226 (hereinafter the "Institution"), and [*Name of Company*] (hereinafter the "Contractor") with a principal place of business at _____ to provide [*name the service*].

I. GENERAL

Contractor shall provide *[describe the service to be provided]*

II. TERM OF THE AGREEMENT

This Contract shall become effective only as of the date of signature by the Agency's authorized officials and, the date of approval by the Office of the Attorney General (OAG), if applicable, and shall continue in effect until [insert end date] unless terminated earlier in accordance with the terms of Section 7 below. Work shall commence on [insert start date].

III. COST [*insert RFP/Bid costing details]*

1. **MAXIMUM AMOUNT OF CONTRACT $ [*insert not to exceed amount]***

2. **Notices:** All notices, demands or requests provided for or permitted to be given pursuant to this Contract must be in writing. All notices, demands and requests shall be deemed to have been properly served if given by personal delivery, or if transmitted by facsimile with confirmed receipt, or if delivered to Federal Express or other reputable express carrier for next business day delivery, charges billed to or prepaid by shipper; or if deposited in the United States mail, registered or certified with return receipt requested, proper postage prepaid, addressed as follows:

MUST BE COMPLETED

If to the Institution*: Eastern Connecticut State University
83 Windham Street
Willimantic, CT 06226
Attn: Renee Theroux-Keech

If to the Contractor*: [Contractor Name]
[Contractor Street]

***Any party may change its Notice information in writing in accordance with this Section.**

IV. GENERAL STATE CONTRACT PROVISIONS:

1. **Statutory Authority.** Connecticut General Statutes §§ 10a-6, 10a-1b, 4a-52a, and/or 10a-151b provide the Institution with authority to enter into contracts in the pursuit of its mission.

2. **Claims Against the State.** The Contractor agrees that the sole and exclusive means for the presentation of any claim against the State of Connecticut or the Institution arising from this Contract shall be in accordance with Chapter 53 of the Connecticut General Statutes (Claims Against the State) and the Contractor further agrees not to initiate any legal proceedings in any state or federal court in addition to, or in lieu of, said Chapter 53 proceedings.

3. **Indemnification**. The Contractor agrees to indemnify, defend and hold harmless the State of Connecticut as well as all Departments, officers, agents, and employees of the State from and against any and all claims, losses or suits according to or resulting from any Contractors, Subcontractors, laborers, or any person, firm or corporation who may be directly or indirectly injured or damaged by the negligence or willful misconduct of the Contractor in the performance of the contract.

4. **Sovereign Immunity**. The parties acknowledge and agree that nothing in this contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of this contract. To the extent that this section conflicts with any other section, this section shall govern.

5. **Insurance**. The Contractor agrees that while performing services specified in this contract that it shall carry sufficient insurance (liability and/or other) as applicable according to the nature of the service(s) to be performed so as to "save harmless" the State of Connecticut from any insurable cause whatsoever. If requested, certificates of such insurance shall be provided to the contracting state agency prior to the performance of services.

6. **Forum and Choice of Law.** The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

7. **Termination.**

a. Notwithstanding any provisions in this contract, the Institution, through a duly authorized employee, may terminate the Contract whenever the Institution makes a written determination that such termination is in the best interests of the State. The Institution shall notify the Contractor in writing of termination pursuant to this section, which notice shall specify the effective date of termination and the extent to which the Contractor must complete its performance under the contract prior to such date.

b. Notwithstanding any provisions in this contract, the Institution, through a duly authorized employee, may, after making a written determination that the Contractor has breached the contract, terminate the contract in accordance with the following breach provision.

    i. Breach. If either party breaches the contract in any respect, the non-breaching party shall provide written notice of the breach to the breaching party and afford the breaching party an opportunity to cure within ten (10) days from the date that the breaching party receives the notice. In the case of a Contractor breach, any other time period which the Institution sets forth in the notice shall trump the ten (10) days. The right to cure period shall be extended if the non-breaching party is satisfied that the breaching party is making a good faith effort to cure but the nature of the breach is such that it cannot be cured within the right to cure period. The notice may include an effective contract termination date if the breach is not cured by the stated date and, unless otherwise modified by the non-breaching party in writing prior to the termination date, no further action shall be required of any party to effect the termination as of the stated date. If the notice does not set forth an effective contract termination date, then the non-breaching party may terminate the contract by giving the breaching party no less than twenty four (24) hours' prior written notice. If the Institution believes that the Contractor has not performed according to the contract, the Institution may withhold payment in whole or in part pending resolution of the performance issue, provided that the Institution notifies the Contractor in writing prior to the date that the payment would have been due.

c. The Institution shall send the notice of termination via certified mail, return receipt requested, to the Contractor at the most current address which the Contractor has furnished to the Institution for purposes of correspondence, or by hand delivery. Upon receiving the notice from the Institution, the Contractor shall immediately discontinue all services affected in accordance with the notice, undertake all Institution all records. The records are deemed to be the property of the Institution and the Contractor shall deliver them to the Institution no later than thirty (30) days after the termination of the contract or fifteen (15) days after the Contractor receives a written request from the Institution for the records. The Contractor shall deliver those records that exist in electronic, magnetic or other intangible form in a non-proprietary format, such as, but not limited to, ASCII or .TXT.

d. Upon receipt of a written notice of termination from the Institution, the Contractor shall cease operations as the Institution directs in the notice, and take

all actions that are necessary or appropriate, or that the Institution may reasonably direct, for the protection, and preservation of the goods and any other property. Except for any work which the Institution directs the Contractor to perform in the notice prior to the effective date of termination, and except as otherwise provided in the notice, the Contractor shall terminate or conclude all existing subcontracts and purchase orders and shall not enter into any further subcontracts, purchase orders or commitments.

e. The Institution shall, within forty-five (45) days of the effective date of termination; reimburse the Contractor for its performance rendered and accepted by the Institution in accordance with the terms of this contract, in addition to all actual and reasonable costs incurred after termination in completing those portions of the performance which the notice required the Contractor to complete. However, the Contractor is not entitled to receive and the Institution is not obligated to tender to the Contractor any payments for anticipated or lost profits. Upon request by the Institution, the Contractor shall assign to the Institution, or any replacement Contractor which the Institution designates, all subcontracts, purchase orders and other commitments, deliver to the Institution all records and other information pertaining to its performance, and remove from State premises, whether leased or owned, all of Contractor's property, equipment, waste material and rubbish related to its performance, all as the Institution may request.

f. For breach or violation of any of the provisions in the section concerning representations and warranties, the Institution may terminate the contract in accordance with its terms and revoke any consents to assignments given as if the assignments had never been requested or consented to, without liability to the Contractor or Contractor parties or any third party.

g. Upon termination of the contract, all rights and obligations shall be null and void, so that no party shall have any further rights or obligations to any other party, except with respect to the sections which survive termination. All representations, warranties, agreements and rights of the parties under the contract shall survive such termination to the extent not otherwise limited in the contract and without each one of them having to be specifically mentioned in the contract.

h. Termination of the contract pursuant to this section shall not be deemed to be a breach of contract by the Institution.

8. **Entire Agreement and Amendment.** This written contract shall constitute the entire agreement between the parties and no other terms and conditions in any document, acceptance or acknowledgment shall be effective or binding unless expressly agreed to in writing by the Institution. This contract may not be changed other than by a formal written contract amendment signed by the parties hereto and approved by the Connecticut Attorney General.

9. **Nondiscrimination.**

(a) For purposes of this Section, the following terms are defined as follows: (i) "Commission" means the Commission on Human Rights and Opportunities; (ii) "Contract" and "contract" include any extension or modification of the Contract or

contract; (iii) "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor; (iv) "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the gender-related identity or any other evidence that the gender-related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose; (v) "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations; (vi) "good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements; (vii) "marital status" means being single, married as recognized by the State of Connecticut, widowed, separated or divorced; (viii) "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders; (ix) "minority business enterprise" means any small contractor or supplier of materials fifty-one percent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a minority, as such term is defined in subsection (a) of Connecticut General Statutes § 32-9n; and (x) "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, (2) a quasi-public agency, as defined in Conn. Gen. Stat. § 1-120, (3) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in Conn. Gen. Stat. § 1-267, (4) the federal government, (5) a foreign government, or (6) an agency of a subdivision, agency, state or government described in the immediately preceding enumerated items (1), (2), (3), (4) or (5).

(b) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the

Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an "affirmative action equal opportunity employer" in accordance with regulations adopted by the Commission; (3) the Contractor agrees to provide each labor union or representative of workers with which the Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which the Contractor has a contract or understanding, a notice to be provided by the Commission, advising the labor union or workers' representative of the Contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this Section and Conn. Gen. Stat. §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to Conn. Gen. Stat. §§ 46a-56, 46a-68e and 46a-68f; and (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as it relates to the provisions of this Section and Conn. Gen. Stat. § 46a-56. If the contract is a public works contract, the Contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.

(c) Determination of the Contractor's good faith efforts shall include, but shall not be limited to, the following factors: The Contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

(d) The Contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts.

(e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Conn. Gen. Stat. § 46a-56; provided if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

(f) The Contractor agrees to comply with the regulations referred to in this Section as they exist on the date of this Contract and as they may be adopted or amended from time to time during the term of this Contract and any amendments thereto.

(g) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or the State of Connecticut, and that employees are treated when employed

without regard to their sexual orientation; (2) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the Contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said Commission pursuant to Conn. Gen. Stat. § 46a-56; and (4) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor which relate to the provisions of this Section and Conn. Gen. Stat. § 46a-56.

(h) The Contractor shall include the provisions of the foregoing paragraph in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Conn. Gen. Stat. § 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

10. **Executive Orders.** This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. The Contract may also be subject to Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services and to Executive Order No. 49 of Governor Dannel P. Malloy, promulgated May 22, 2015, mandating disclosure of certain gifts to public employees and contributions to certain candidates for office. If Executive Order 14 and/or Executive Order 49 are applicable, they are deemed to be incorporated into and are made a part of the Contract as if they had been fully set forth in it. At the Contractor's request, the Institution or DAS shall provide a copy of these orders to the Contractor.

11. **Force Majeure.** If the performance of obligations under this Contract are rendered impossible or hazardous or is otherwise prevented or impaired due to illness, accident, Act(s) of God, riots, strikes, labor difficulties, epidemics, earthquakes, and/or any other cause or event, similar or dissimilar, beyond the control of the Contractor, then each party's obligations to the other under this Contract shall be excused and neither party shall have any liability to the other under or in connection with this Contract.

12. **Campaign Contribution Restrictions.** For all state contracts as defined in Connecticut General Statutes § 9-612(g)(2), as amended by Public Act 10-1 having a value in a calendar year of $50,000 or more or a combination or series of such agreements or contracts having a value of $100,000 or more, the authorized signatory to this Agreement expressly acknowledges receipt of the State Election Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the Notice, referenced herein as Exhibit A.

13. **Contract Assignment**. No right or duty, in whole or in part, of the Contractor under this Agreement may be assigned or delegated without the prior written consent of the institution.

14. **Confidential Information**. The Contractor acknowledges that it may have access to Confidential Information (as hereinafter defined). The Contractor agrees that it will use the Confidential Information solely for the purpose of performing its duties as a consultant and agrees that it will not divulge, furnish, publish or use for its own benefit or for the direct or indirect benefit of any other person or entity, whether or not for monetary gain, any Confidential Information.

    For purposes of this Agreement, the term "Confidential Information" shall mean (i) all information related to the business operations, marketing plans, financial position and (ii) other business information and any other information disclosed to the Contractor. Confidential Information shall not include information which (i) is or becomes part of the public domain through no act or omission attributable to the Contractor, (ii) is released after prior written authorization or (iii) the Contractor receives from any third party who is unrelated to it and who is not under any obligation to maintain the confidentiality of such information.

15. **Family Educational Rights and Privacy Act (FERPA)**. In all respects, Contractor shall comply with the provisions of the Family Educational Rights and Privacy Act (FERPA). For purposes of this contract, FERPA includes any amendments or other relevant provisions of federal law, as well as all requirements of Chapter 99 of Title 34 of the Code of Federal Regulations, as amended from time to time. Nothing in this agreement may be construed to allow Contractor to maintain, use, disclose or share student information in a manner not allowed by federal law or regulation or by this contract. Contractor agrees that it shall not provide any student information obtained under this contract to any party ineligible to receive data protected by FERPA. This section shall survive the termination, cancellation or expiration of the contract.

16. **Summary of State Ethics Laws**. Pursuant to the requirements of section 1-101qq of the Connecticut General Statutes, the summary of State ethic laws developed by the State Ethics Commission pursuant to section 1-81b of the Connecticut General Statutes is incorporated by reference into and made a part of the contract as if the summary had been fully set forth in the contract.

17. **Whistleblower**. This contract may be subject to the provisions of Section 4-61dd of the Connecticut General Statutes. In accordance with this statute, if an officer, employee or appointing authority of the Contractor takes or threatens to take any personnel action against any employee of the Contractor in retaliation for such employee's disclosure of

information to any employee of the contracting state or quasi-public agency or the Auditors of Public Accounts or the Attorney General under the provisions of subsection (a) of such statute, the Contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty percent (20%) of the value of this contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation, each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The State may request that the Attorney General bring a civil action in the Superior Court for the Judicial District of Hartford to seek imposition and recovery of such civil penalty. In accordance with subsection (f) of such statute, each large state contractor, as defined in the statute, shall post a notice of the provisions of the statute relating to large state contractors in a conspicuous place which is readily available for viewing by the employees of the contractor.

18. **Disclosure of Records**. This Contract may be subject to the provisions of section 1-218 of the Connecticut General Statutes. In accordance with this statute, each contract in excess of two million five hundred thousand dollars between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to the Freedom of Information Act (FOIA) and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of sections 1-205 and 1-206 of the Connecticut General Statutes.

19. **Audit Requirements for State Grants**. For purposes of this clause, the word "Contractor" shall be read to mean "nonstate entity," as that term is defined in Conn. Gen. Stat. § 4-230. The Contractor shall provide for an annual financial audit acceptable to the Institution for any expenditure of State-awarded funds made by the Contractor. Such audit shall include management letters and audit recommendations. The State Auditors of Public Accounts shall have access to all records and accounts for the fiscal year(s) in which the award was made. The Contractor will comply with federal and State single audit standards as applicable.

20. **Audit Requirements for Federal Grants**. For U.S. based, non-profit Contractors expending $500,000 or more of federal awards in one year: The Contractor agrees to comply with the requirements of Office of Management and Budget (OMB) Circular A-133. Contractor further agrees to provide the Institution with copies of all independent auditors' reports which cover the period of performance of this contract. Contractor will provide a copy of its response to auditors' reports and, in instances of non-compliance, a plan for corrective action. All records and reports prepared in accordance with the requirements of OMB Circular A-133 shall be made available for review or audit by appropriate officials of the Federal agency, Institution, or the General Accounting Office (GAO) during normal business hours.

    For U.S. based, non-profit Contractors expending less than $500,000 of Federal awards in one year: Contractor agrees that all records pertaining to this agreement will be made available for review or audit by appropriate officials of the Federal agency, Institution, or the GAO during normal business hours.

21. **Professional Standards**. In rendering services under this contract, the Contractor shall conform to high professional standards of work and business ethic. The Contractor warrants that the services shall be performed: 1) in a professional and workmanlike manner; and 2) in accordance with generally and currently accepted principles and practices. During the term of this contract, the Contractor agrees to provide to Institution in a good and faithful manner, using its best efforts and in a manner that shall promote the interests of Institution, such services as Institution requests, provided in the contract.

22. **Contractor's Standards of Conduct**.

(a) In order to insure the orderly and efficient performance of duties and services at the Institution and to protect the health, safety and welfare of all members of Institution's community the Contractor agrees that the following items are strictly prohibited while performing services under this Agreement:

i. Use or possession of drugs or alcohol;

ii. Possession of firearms or illegal weapons anywhere on campus property including vehicles;

iii. Smoking in buildings;

iv. Harassment (sexual, racial or otherwise) or intimidation of anyone on the premises of the campus;

v. Violation of applicable traffic or public safety regulations or of Institution rules and procedures;

vi. Unauthorized use of Institution vehicles, equipment or property;

vii. Use of University telephones for personal business;

viii. Removal or theft of University property;

ix. Unauthorized duplication or possession of University keys;

x. Transfer of personal identification card or of parking pass to unauthorized personnel;

xi. Conduct or behavior that endangers the health, safety and welfare of any member of the public or of the University community;

xii. Interference with the work of other employees;

xiii. Work attire other than the specified uniform; and

xiv. Loud, vulgar behavior or the use of profanity.

(b) Violation of Standards: Contractor will require its employees to comply with the standards listed in Professional Standards and 22 (a) above. The Institution may, at its discretion, recommend discharge of any employee of the Contractor found to be in violation of the standards listed in 1.1(i) or 1.2(a) above, or in violation of any law or standards adopted by the Institution from time to time, as required, to protect the health, safety and welfare of the Institution's community. Upon request of the Institution, Contractor shall remove any of its employees that violate said standards from assignments to be performed under this Agreement.

V. ACCEPTANCE OF AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Contract by their duly authorized representatives with full knowledge of and agreement with its terms and conditions.

[Eastern Connecticut State University	**[Enter Contractor Business Name]**
By: _____	By: _____
Print Name: _____	Print Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

By the Connecticut Attorney General

This contract template, having been reviewed and approved as to form by the Connecticut Attorney General, is exempt from review pursuant to a Memorandum of Agreement between the Connecticut State Colleges and Universities, Board of Regents for Higher Education and the Connecticut Attorney General dated December 30, 2015. Therefore, no signature is required below.

CONNECTICUT STATE ELECTIONS ENFORCEMENT COMMISSION

EXHIBIT A - SEEC NOTICE

Rev. 1/11

NOTICE TO EXECUTIVE BRANCH STATE CONTRACTORS AND PROSPECTIVE STATE CONTRACTORS OF CAMPAIGN CONTRIBUTION AND SOLICITATION LIMITATIONS

This notice is provided under the authority of Connecticut General Statutes §9-612(g)(2), as amended by P.A. 10-1, and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined below):

CAMPAIGN CONTRIBUTION AND SOLICITATION LIMITATIONS

No *state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor*, with regard to a *state contract* or *state contract solicitation* with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall make a contribution to (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee (which includes town committees).

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

On and after January 1, 2011, no state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor, with regard to a state contract or state contract solicitation with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall **knowingly** *solicit* contributions from the state contractor's or prospective state contractor's employees or from a *subcontractor* or *principals of the subcontractor* on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

DUTY TO INFORM

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

PENALTIES FOR VIOLATIONS

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

Civil penalties - Up to $2,000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of up to $2,000 or twice the amount of the prohibited contributions made by their principals.

Criminal penalties - Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or not more than $5,000 in fines, or both.

CONTRACT CONSEQUENCES

In the case of a state contractor, contributions made or solicited in violation of the above prohibitions may result in the contract being voided.

In the case of a prospective state contractor, contributions made or solicited in violation of the above prohibitions shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

The State shall not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to “Lobbyist/Contractor Limitations.”

DEFINITIONS

“State contractor” means a person, business entity or nonprofit organization that enters into a state

contract. Such person, business entity or nonprofit organization shall be deemed to be a state contractor until December thirty-first of the year in which such contract terminates. “State contractor” does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

“Prospective state contractor” means a person, business entity or nonprofit organization that (i) submits a response to a state contract solicitation by the state, a state agency or a quasi-public agency, or a proposal in response to a request for proposals by the state, a state agency or a quasi-public agency, until the contract has been entered into, or (ii) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under section 4a-100. “Prospective state contractor” does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

“Principal of a state contractor or prospective state contractor” means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a state contractor or prospective state contractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization**,** (ii) an individual who is employed by a state contractor or prospective state contractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a state contractor or prospective state contractor, which is not a business entity, or if a state contractor or prospective state contractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any state contractor or prospective state contractor who has *managerial or discretionary responsibilities with respect to a state contract,* (v) the spouse or a *dependent child* who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the state contractor or prospective state contractor.

“State contract” means an agreement or contract with the state or any state agency or any quasi-public agency, let through a procurement process or otherwise, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a calendar year, for (i) the rendition of services, (ii) the furnishing of any goods, material, supplies, equipment or any items of any kind, (iii) the construction, alteration or repair of any public building or public work, (iv) the acquisition, sale or lease of any land or building, (v) a licensing arrangement, or (vi) a grant, loan or loan guarantee. “State contract” does not include any agreement or contract with the state, any state agency or any quasi-public agency that is exclusively federally funded, an education loan, a loan to an individual for other than commercial purposes or any agreement or contract between the state or any state agency and the United States Department of the Navy or the United States Department of Defense.

“State contract solicitation” means a request by a state agency or quasi-public agency, in whatever form issued, including, but not limited to, an invitation to bid, request for proposals, request for information or request for quotes, inviting bids, quotes or other types of submittals, through a competitive procurement process or another process authorized by law waiving competitive procurement.

“Managerial or discretionary responsibilities with respect to a state contract” means having direct, extensive and substantive responsibilities with respect to the negotiation of the state contract and not peripheral, clerical or ministerial responsibilities.

“Dependent child” means a child residing in an individual’s household who may legally be claimed as a dependent on the federal income tax of such individual.

“Solicit” means (A) requesting that a contribution be made, (B) participating in any fund-raising activities for a candidate committee, exploratory committee, political committee or party committee, including, but not limited to, forwarding tickets to potential contributors, receiving contributions for transmission to any such committee or bundling contributions, (C) serving as chairperson, treasurer or deputy treasurer of any such committee, or (D) establishing a political committee for the sole purpose of soliciting or receiving contributions for any committee. Solicit does not include: (i) making a contribution that is otherwise permitted by Chapter 155 of the Connecticut General Statutes; (ii) informing any person of a position taken by a candidate for public office or a public official, (iii) notifying the person of any activities of, or contact information for, any candidate for public office; or (iv) serving as a member in any party committee or as an officer of such committee that is not otherwise prohibited in this section.

“Subcontractor” means any person, business entity or nonprofit organization that contracts to perform part or all of the obligations of a state contractor's state contract. Such person, business entity or nonprofit organization shall be deemed to be a subcontractor until December thirty first of the year in which the subcontract terminates. “Subcontractor” does not include (i) a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or (ii) an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

“Principal of a subcontractor” means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a subcontractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a subcontractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a subcontractor, which is not a business entity, or if a subcontractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any subcontractor who has managerial or discretionary responsibilities with respect to a subcontract with a state contractor, (v) the spouse or a dependent child

who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the subcontractor.

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS

IMPORTANT

All bidders are required to file an acknowledgement of receipt of the "NOTIFICATION TO BIDDERS" form with their proposal.

Before a contract award can be made for this project, the successful low bidder will be required to file the following forms, developed by The Commission on Rights and Opportunities pursuant to Connecticut General Statutes Section 4-114a.

1) Contractors Minority Business Enterprises Utilization Form

2) Affidavit (when applicable)

3) CHRO Certificate of Compliance - Pursuant to section 46a-68c of the Connecticut General Statutes, each contractor with fifty or more employees awarded a public works contract in excess of fifty thousand dollars in any fiscal year, but not subject to the provisions of section 46a-68d, shall develop and file with the commission an affirmative action plan which shall comply with regulations adopted by said commission. Failure to develop an approved an approved affirmative action plan pursuant to this section shall act as a bar to bidding on or the award of future contracts until such requirement has been met. When the commission approves an affirmative action plan pursuant to this section, it shall issue a certificate of compliance to the contractor. This certificate shall be prima facie proof of the contractor's eligibility to bid or be awarded contracts for a period of two years from the date of the certificate.

Form of Proposal - Set Aside Worksheet

(for $500k+ projects)

Project Number: ECSU 2020-5

Project Name: Sports Center Bleacher Replacement and Floor Refinishing

	Subcontractor Name	Class of work	SBE	MBE/WBE	Prime Contractor self performing $	Subcontract amounts
1						$
2						$
3						$
4						$
5						$
6						$
7						$
8						$
9	Prime Contractor Total	Bidder is the Prime Contractor			$	
10	SBE Subtotal	Add SBE subcontract amounts from above list and enter total at right				$
11	MBE/WBE Subtotal	Add MBE/WBE subcontract amounts from the list and enter total to the right				$
12	Lump Sum base bid	Enter total lump sum base bid from bid submittal form				$
13	Bidding Prime Contractor % and $ (Divide line 9 by line 12)				%	$
14	Remaining value subject to SBE/MBE = lump sum line 12 minus prime contractor total					$
15	SBE Percentage	Divide line 10 by line 12. Enter % to the right				**%**
16	MBE/WBE Percentage	Divide line 11 by line 12. Enter % to the right.				**%**
17	**Total SBE/MBE/WBE %**	Add lines 15+16 for total %				%

In determining and ensuring compliance with CHRO requirements this worksheet *must* be submitted as part of the bid submittal package. Failure to do so shall be grounds for disqualification of the bid. Compliance determination shall initially be based on the base bid sum. However, for bid solicitations requiring acceptance of Alternates or Supplemental bids, a revised worksheet shall be required prior to issuance of contract.

The SBE requirement is 25% of the entire bid total with 6.25% to an MBE/WBE.

Due to the limited availability of qualified bleacher contractors, the percentage requirement above is waived, but a good faith effort to meet the percentages is still required for this project.

Each bidder shall submit, as part of their proposal, copies of Certificates of Eligibility for each set aside subcontractor or "screen shots" from the State of Connecticut Supplier Diversity web site for each set aside subcontractor showing name and address, certification type and certificate expiration date.

Vendor Company Name (Prime Contractor)_____

Authorized signature_____Date_____

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/17/07)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's □. good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding ten million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number_____ Or Social Security Number_____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes__ No__ -Bidder is a minority business enterprise Yes__ No__ (If yes, check ownership category) Black___ Hispanic___ Asian American___ American Indian/Alaskan Native___ Iberian Peninsula___ Individual(s) with a Physical Disability___ Female___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any)	- DAS Certification Number _____

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes__ No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes__ No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes__ No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes__ No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes__ No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No__
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes__ No__	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes__ No__ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes__ No__	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes__ No__ NA__
6. Does your company have a collective bargaining agreement with workers? Yes__ No__ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes__ No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes__ No__	12. Does your company have a written affirmative action Plan? Yes__ No__ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes__ No__ If yes, give name and phone number. _____

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes__ No__

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No__

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)

SOURCE	YES	NO	% of applicants provided by source
State Employment Service			
Private Employment Agencies			
Schools and Colleges			
Newspaper Advertisement			
Walk Ins			
Present Employees			
Labor Organizations			
Minority/Community Organizations			
Others (please identify)			

2. Check (X) any of the below listed requirements that you use as a hiring qualification

(X)	
	Work Experience
	Ability to Speak or Write English
	Written Tests
	High School Diploma
	College Degree
	Union Membership
	Personal Recommendation
	Height or Weight
	Car Ownership
	Arrest Record
	Wage Garnishments

3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

AMENDMENT NO. 1-A

. . . . . .

1. PREVAILING WAGE RATES

Notwithstanding the amount of the proposal or ECSU's estimated cost for this project, prevailing wages are required on this project, in accordance with the schedule provided in the proposal documents, pursuant to Connecticut General Statutes Section 31-53 (a-f,h), as amended.

2. SET-ASIDE / MINORITY BUSINESS ENTERPRISE PARTICIPATION

This project requires set-aside and minority business enterprise participation as stated in Section 7 (f,g,h,i) on the Project Data Sheet / Proposal Form. The contractor who is selected to perform this state project must file and receive an approved Affirmative Action Plan by the Commission on Human Rights and Opportunities.

This project is subject to the State SET ASIDE goals and **NEW STATUTORY CHANGES TO 4a-60g effective 10/1/13** as it relates to new self- performance and subcontracting requirements.

Executive Order No. 14: This Agreement is subject to the provisions of Executive Order No. 14 of Governor M. Jodi Rell, promulgated on April 17, 2006. Pursuant to this Executive Order, the Contractor shall use cleaning and/or sanitizing products having properties that minimize potential impacts on human health and the environment, consistent with maintaining clean and sanitary facilities.

STATE OF CONNECTICUT
GIFT AND CAMPAIGN CONTRIBUTION CERTIFICATION

Written or electronic certification to accompany a State contract with a value of $50,000 or more in a calendar or fiscal year, pursuant to C.G.S. §§ 4-250 and 4-252(c); Governor M. Jodi Rell's Executive Orders No. 1, Para. 8, and No. 7C, Para. 10; and C.G.S. §9-612(g)(2)

INSTRUCTIONS:

Complete all sections of the form. Attach additional pages, if necessary, to provide full disclosure about any lawful campaign contributions made to campaigns of candidates for statewide public office or the General Assembly, as described herein. Sign and date the form, under oath, in the presence of a Commissioner of the Superior Court or Notary Public. Submit the completed form to the awarding State agency at the time of initial contract execution and if there is a change in the information contained in the most recently filed certification, such person shall submit an updated certification either (i) not later than thirty (30) days after the effective date of such change or (ii) upon the submittal of any new bid or proposal for a contract, whichever is earlier. Such person shall also submit an accurate, updated certification not later than fourteen days after the twelve-month anniversary of the most recently filed certification or updated certification.

CHECK ONE: ☐ Initial Certification ☐ 12 Month Anniversary Update (Multi-year contracts only.)

☐ Updated Certification because of change of information contained in the most recently filed certification or twelve-month anniversary update.

GIFT CERTIFICATION:

As used in this certification, the following terms have the meaning set forth below:

1) "Contract" means that contract between the State of Connecticut (and/or one or more of it agencies or instrumentalities) and the Contractor, attached hereto, or as otherwise described by the awarding State agency below;
2) If this is an Initial Certification, "Execution Date" means the date the Contract is fully executed by, and becomes effective between, the parties; if this is a twelve-month anniversary update, "Execution Date" means the date this certification is signed by the Contractor;
3) "Contractor" means the person, firm or corporation named as the contactor below;
4) "Applicable Public Official or State Employee" means any public official or state employee described in C.G.S. §4-252(c)(1)(i) or (ii);
5) **"Gift"** has the same meaning given that term in C.G.S. § 4-250(1);
6) "Principals or Key Personnel" means and refers to those principals and key personnel of the Contractor, and its or their agents, as described in C.G.S. §§ 4-250(5) and 4-252(c)(1)(B) and (C).

I, the undersigned, am a Principal or Key Personnel of the person, firm or corporation authorized to execute this certification on behalf of the Contractor. I hereby certify that, no gifts were made by (A) such person, firm, corporation, (B) any principals and key personnel of the person firm or corporation who participate substantially in preparing bids, proposals or negotiating state contracts or (C) any agent of such, firm, corporation, or principals or key personnel who participates substantially in preparing bids, proposals or negotiating state contracts, to (i) any public official or state employee of the state agency or quasi-public agency soliciting bids or proposals for state contracts who participates substantially in the preparation of bid solicitations or request for proposals for state contracts or the negotiation or award of state contracts or (ii) any public official or state employee of any other state agency, who has supervisory or appointing authority over such state agency or quasi-public agency.

I further certify that no Principals or Key Personnel know of any action by the Contractor to circumvent (or which would result in the circumvention of) the above certification regarding **Gifts** by providing for any other Principals, Key Personnel, officials, or employees of the Contractor, or its or their agents, to make a **Gift** to any Applicable Public Official or State Employee. I further certify that the Contractor made the bid or proposal for the Contract without fraud or collusion with any person.

CAMPAIGN CONTRIBUTION CERTIFICATION:

I further certify that, on or after December 31, 2006, neither the Contractor nor any of its principals, as defined in C.G.S. § 9-612(g)(1), has made any **campaign contributions** to, or solicited any contributions on behalf of, any exploratory committee, candidate committee, political committee, or party committee established by, or supporting or authorized to support, any candidate for statewide public office, in violation of C.G.S. § 9-612(g)(2)(A). I further certify that **all lawful campaign contributions** that have been made on or after December 31, 2006 by the Contractor or any of its principals, as defined in C.G.S. § 9-612(g)(1), to, or solicited on behalf of, any exploratory committee, candidate committee, political committee, or party committee established by, or supporting or authorized to support any candidates for statewide public office or the General Assembly, are listed below:

Lawful Campaign Contributions to Candidates for Statewide Public Office:

Contribution Date	Name of Contributor	Recipient	Value	Description

Lawful Campaign Contributions to Candidates for the General Assembly:

Contribution Date	Name of Contributor	Recipient	Value	Description

Sworn as true to the best of my knowledge and belief, subject to the penalties of false statement.

_____ _____
Printed Contractor Name **Printed Name of Authorized Official**

_____
Signature of Authorized Official

Subscribed and acknowledged before me this _____ day of _____, 20___.

_____
Commissioner of the Superior Court (or Notary Public)

_____
My Commission Expires

CAMPAIGN CONTRIBUTION RESTRICTION PROVISION

1. Campaign Contribution Restrictions. This section (the "CCR Section") is included here pursuant to Conn. Gen. Stat. § 9-333n and, without limiting its applicability, is made applicable to State Contracts, bid solicitations, request for proposals and prequalification certificates, as the context requires. This CCR Section, without limiting its applicability, is also made applicable to State Agencies, Quasi-public Agencies, the General Assembly, State Contractors, Prospective State Contractors and the holders of valid prequalification certificates, as the context requires.

(a) For purposes of this CCR Section only:

(1) "Quasi-public Agency" means the Connecticut Development Authority, Connecticut Innovations, Incorporated, Connecticut Health and Educational Facilities Authority, Connecticut Higher Education Supplemental Loan Authority, Connecticut Housing Finance Authority, Connecticut Housing Authority, Connecticut Resources Recovery Authority, Connecticut Hazardous Waste Management Service, Capital City Economic Development Authority, Connecticut Lottery Corporation, or as this definition may otherwise be modified by Title 1, Chapter 12 of the Connecticut General Statutes concerning quasi-public agencies.

(2) "State Agency" means any office, department, board, council, commission, institution or other agency in the executive, legislative or judicial branch of State government, or as this definition may otherwise be modified by Title 9, Chapter 150 of the Connecticut General Statutes concerning campaign financing.

(3) "State Contract" means an agreement or contract with the State or any State Agency or any Quasi-public Agency, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a fiscal year, for (A) the rendition of personal services, (B) the furnishing of any material, supplies or equipment, (C) the construction, alteration or repair of any public building or public work, (D) the acquisition, sale or lease of any land or building, (E) a licensing arrangement, or (F) a grant, loan or loan guarantee, or as this definition may otherwise be modified by Title 9, Chapter 150 of the Connecticut General Statutes concerning campaign financing.

(4) "State Contractor" means a person, business entity or nonprofit organization that enters into a State Contract. Such person, business entity or nonprofit organization shall be deemed to be a State Contractor until the termination of said contract. "State contractor" does not include a municipality or any other political subdivision of the State or an employee in the executive, legislative or judicial branch of State government or a Quasi-public Agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a State or Quasi-

public Agency employee, or as this definition may otherwise be modified by Title 9, Chapter 150 of the Connecticut General Statutes concerning campaign financing.

(5) "Prospective State Contractor" means a person, business entity or nonprofit organization that (A) submits a bid in response to a bid solicitation by the State, a State Agency or a Quasi-public Agency, or a proposal in response to a request for proposals by the State, a State Agency or a Quasi-public Agency, until the State Contract has been entered into, or (B) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under Section 4a-100 of the Connecticut General Statutes. "Prospective State Contractor" does not include a municipality or any other political subdivision of the State or an employee in the executive, legislative or judicial branch of State government or a Quasi-public Agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a State or Quasi-public Agency employee. Title 9, Chapter 150 of the Connecticut General Statutes concerning campaign financing may modify this definition, which modification shall control.

(6) "Principal of a State Contractor or Prospective State Contractor" (collectively referred to in this CCR Section as “Principal”) means (A) an individual who is a member of the board of directors of, or has an ownership interest in, a State Contractor or Prospective State Contractor, which is a business entity, except for an individual who (i) owns less than five per cent of the shares of any such State Contractor or Prospective State Contractor that is a publicly traded corporation, or (ii) is a member of the board of directors of a nonprofit organization qualified under Section 501(c)(3) of the Internal Revenue Code of 1986, or any subsequent corresponding internal revenue code of the United States, as from time to time amended, (B) an individual who is employed by a State Contractor or Prospective State Contractor, which is a business entity, as president, treasurer or executive or senior vice president, (C) an individual who is the chief executive officer of a State Contractor or Prospective State Contractor, which is not a business entity, (D) an employee of any State Contractor or Prospective State Contractor who has managerial or discretionary responsibilities with respect to a State Contract, (E) the spouse or a dependent child of an individual described in this subparagraph, or (F) a political committee established by or on behalf of an individual described in this subparagraph, or as this definition may otherwise be modified by Title 9, Chapter 150 of the Connecticut General Statutes concerning campaign financing.

(b) No State Contractor, Prospective State Contractor or Principal, with regard to a State Contract, bid solicitation or request for proposals with or from a State Agency in the executive branch or a Quasi-public Agency, and no Principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (1) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (2) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (3) a party committee.

(c) No State Contractor, Prospective State Contractor or Principal, with regard to a State Contract, bid solicitation or request for proposals with or from the General Assembly, and no Principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (1) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (2) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (3) a party committee.

(d) If a State Contractor or a Principal of a State Contractor makes or solicits a contribution prohibited under this CCR Section, the contracting State Agency or Quasi-public Agency may void the existing contract with said contractor, and no State Agency or Quasi-public Agency shall award the State Contractor a State Contract or an extension or an amendment to a State Contract for one year after the election for which such contribution is made or solicited.

(e) If a Prospective State Contractor or a Principal of a Prospective State Contractor makes or solicits a contribution prohibited under this CCR Section, no State Agency or Quasi-public Agency shall award the Prospective State Contractor the contract described in the bid solicitation or request for proposals, or any other State Contract for one year after the election for which such contribution is made or solicited.

(f) The chief executive officer of each State Contractor and Prospective State Contractor, or if a State Contractor or Prospective State Contractor has no such officer then the officer who duly possesses and exercises comparable powers and duties, shall certify, in the form of an affidavit executed subject to the penalties of false statement, that: (1) such officer has informed each individual described in subsection (a)(6) of this CCR Section with regard to said State Contractor or Prospective State Contractor concerning the provisions of subsection (b) or (c) of this CCR Section, whichever is applicable, and this subsection (f), (2) no such individual will make or solicit a contribution in violation of the provisions of subsection (b) or (c) of this CCR Section, whichever is applicable, and this subsection (f), and (3) if any such contribution is made or solicited, the State Contractor or Prospective State Contractor, as the context requires, shall not be awarded the contract described in the bid solicitation or request for proposals and shall not be awarded any other State Contract for one year after the election for which such contribution is made or solicited. Such officer shall submit the affidavit to the contracting State Agency or Quasi-public Agency prior to, in the case of an RFP, executing a negotiated contract or prior to, in the case of an ITB, the award and acceptance of a contract. In the case of an application for prequalification to the Connecticut Department of Administrative Services ("DAS"), the application shall not be deemed to be complete until DAS receives the affidavit. The State Contractor or Prospective Contractor shall submit the affidavit on a form which the State Elections Enforcement Commission ("SEEC") prescribes.

(g) The person executing the affidavit referenced in subsection (f) shall submit to the SEEC a list of Principals in accordance with the requirements set forth on a form that the

SEEC shall have prescribed for this purpose. The complete list of Principals shall be submitted to the SEEC at the same time that the affidavit is submitted to the State Agency, Quasi-public Agency or, in the case of a prequalification application, DAS. Notwithstanding any other provision in any applicable document or instrument, no party to the Contract, or a contract awarded pursuant to a non-competitive procurement, may begin performing in any way until the contracting State Agency or Quasi-public Agency has received the affidavit referenced in subsection (f) and the SEEC has received the Principals list.

(h) Notwithstanding any other provision in the Contract, invitation to bid, request for proposals and prequalification application:

(1) The State Contractor and Prospective State Contractor shall report to the SEEC, on a form which the SEEC prescribes, any changes in Principals occurring from and after the date of the previous Principals list by submitting and delivering such form to the SEEC no later than the fifteenth day of each month following the month when a change in Principals occurs, or the next succeeding business day, whichever is later. If the Contractor or Prospective State Contractor fail to submit and deliver the appropriately completed form by its due date, then the SEEC shall notify the State Agency or Quasi-public Agency and the Contractor of the failure in writing. The State Agency or Quasi-public Agency shall then review all relevant information and determine whether such failure constitutes a breach of this Contract. If the State Agency or Quasi-public Agency determines that a breach of this Contract has occurred, then the State Agency or Quasi-public Agency shall deliver a notice of breach to the Contractor, affording the Contractor an opportunity to cure the breach within ten (10) days from the date that the Contractor receives the notice. The State Agency or Quasi-public Agency may extend the right to cure period if, and continuing so long as, the State Agency or Quasi-public Agency is satisfied that the Contractor is making a good faith effort to cure the breach but the nature of the breach is such that it cannot be cured within the right to cure period. The SEEC may, if it deems it to be appropriate, send to the Contractor electronic reminders of the Contractor's obligation to report changes in Principals. The undertaking of this reminder is permissive and shall not be construed to be a condition precedent to the Contractor's obligation to submit and deliver the form timely.

(2) If the State Agency or Quasi-public Agency determines that the Contractor has breached the Contract by failing to comply with the requirements of this CCR provision, then the State Agency or Quasi-public Agency may, after expiration of the right to cure period, direct all appropriate State entities using the Contract to withhold any payment, in whole or in part, that may be due and owing to the Contractor under this Contract until such time as the Contractor submits and delivers an appropriately completed form to the SEEC.

(3) If the Contractor fails to submit and deliver the Principals list form timely three times in any 12-month period, then the SEEC may recommend to the State Agency or Quasi-public Agency that it take these failures into account for purposes of evaluating

the Contractor's responsibility in future procurements. The SEEC may recommend that the State Agency or Quasi-public Agency make a determination that the Contractor is not responsible.

(4) The Contractor's failure to submit and deliver the Principals list form timely for the third time in any 12-month period shall, upon the SEEC's recommendation, entitle the State Agency or Quasi-public Agency to Cancel the Contract. Accordingly, the third notice of breach to the Contractor from the State Agency or Quasi-public Agency in any 12-month period may include an effective Contract Cancellation date, in which case no further action shall be required of any party to effect the Cancellation of the Contract as of the stated date. If the notice does not set forth an effective Contract Cancellation date, then the State Agency or Quasi-public Agency may Cancel the Contract by giving the Contractor no less than twenty four (24) hours' prior written notice.

(5) Noting the absence of the SEEC's signature on the Contract, the State Agency or Quasi-public Agency represents that the SEEC has previously agreed in writing to assume the rights and responsibilities attaching to the SEEC and set forth in this CCR section. The State Agency or Quasi-public Agency shall provide a copy of that document to the Contractor upon request.

Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations

This notice is provided under the authority of Connecticut General Statutes §9-612 (f) (2) and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined on the reverse side of this page).

CAMPAIGN CONTRIBUTION AND SOLICITATION LIMITATIONS

No *state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor*, with regard to a *state contract* or *state contract solicitation* with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder, of a valid prequalification certificate, shall make a contribution to (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee (which includes town committees).

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

On and after January 1, 2011, no state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor, with regard to a state contract or state contract solicitation with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall **knowingly** *solicit* contributions from the state contractor's or prospective state contractor's employees or from a *subcontractor* or *principals of the subcontractor* on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

DUTY TO INFORM

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

PENALTIES FOR VIOLATIONS

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

Civil penalties—Up to $2,000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of up to $2,000 or twice the amount of the prohibited contributions made by their principals.

Criminal penalties—Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or not more than $5,000 in fines, or both.

CONTRACT CONSEQUENCES

In the case of a state contractor, contributions made or solicited in violation of the above prohibitions may result in the contract being voided.

In the case of a prospective state contractor, contributions made or solicited in violation of the above prohibitions shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

The State shall not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to "Lobbyist/Contractor Limitations."

DEFINITIONS

"State contractor" means a person, business entity or nonprofit organization that enters into a state contract. Such person, business entity or nonprofit organization shall be deemed to be a state contractor until December thirty-first of the year in which such contract terminates. "State contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Prospective state contractor" means a person, business entity or nonprofit organization that (i) submits a response to a state contract solicitation by the state, a state agency or a quasi-public agency, or a proposal in response to a request for proposals by the state, a state agency or a quasi-public agency, until the contract has been entered into, or (ii) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under section 4a-100. "Prospective state contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Principal of a state contractor or prospective state contractor" means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a state contractor or prospective state contractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a state contractor or prospective state contractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a state contractor or prospective state contractor, which is not a business entity, or if a state contractor or prospective state contractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any state contractor or prospective state contractor who has *managerial or discretionary responsibilities with respect to a state contract*, (v) the spouse or a *dependent child* who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the state contractor or prospective state contractor.

"State contract" means an agreement or contract with the state or any state agency or any quasi-public agency, let through a procurement process or otherwise, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a calendar year, for (i) the rendition of services, (ii) the furnishing of any goods, material, supplies, equipment or any items of any kind, (iii) the construction, alteration or repair of any public building or public work, (iv) the acquisition, sale or lease of any land or building, (v) a licensing arrangement, or (vi) a grant, loan or loan guarantee. "State contract" does not include any agreement or contract with the state, any state agency or any quasi-public agency that is exclusively federally funded, an education loan, a loan to an individual for other than commercial purposes or any agreement or contract between the state or any state agency and the United States Department of the Navy or the United States Department of Defense.

"State contract solicitation" means a request by a state agency or quasi-public agency, in whatever form issued, including, but not limited to, an invitation to bid, request for proposals, request for information or request for quotes, inviting bids, quotes or other types of submittals, through a competitive procurement process or another process authorized by law waiving competitive procurement.

"Managerial or discretionary responsibilities with respect to a state contract" means having direct, extensive and substantive responsibilities with respect to the negotiation of the state contract and not peripheral, clerical or ministerial responsibilities.

"Dependent child" means a child residing in an individual's household who may legally be claimed as a dependent on the federal income tax of such individual.

"Solicit" means (A) requesting that a contribution be made, (B) participating in any fundraising activities for a candidate committee, exploratory committee, political committee or party committee, including, but not limited to, forwarding tickets to potential contributors, receiving contributions for transmission to any such committee, serving on the committee that is hosting a fundraising event, introducing the candidate or making other public remarks at a fundraising event, being honored or otherwise recognized at a fundraising event, or bundling contributions, (C) serving as chairperson, treasurer or deputy treasurer of any such committee, or (D) establishing a political committee for the sole purpose of soliciting or receiving contributions for any committee. Solicit does not include: (i) making a contribution that is otherwise permitted by Chapter 155 of the Connecticut General Statutes; (ii) informing any person of a position taken by a candidate for public office or a public official, (iii) notifying the person of any activities of, or contact information for, any candidate for public office; or (iv) serving as a member in any party committee or as an officer of such committee that is not otherwise prohibited in this section.

"Subcontractor" means any person, business entity or nonprofit organization that contracts to perform part or all of the obligations of a state contractor's state contract. Such person, business entity or nonprofit organization shall be deemed to be a subcontractor until December thirty first of the year in which the subcontract terminates. "Subcontractor" does not include (i) a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or (ii) an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Principal of a subcontractor" means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a subcontractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a subcontractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a subcontractor, which is not a business entity, or if a subcontractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any subcontractor who has managerial or discretionary responsibilities with respect to a subcontract with a state contractor, (v) the spouse or a dependent child who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the subcontractor.

Non-discrimination.

(a) For purposes of this Section, the following terms are defined as follows:

(1) "Commission" means the Commission on Human Rights and Opportunities;
(2) "Contract" and "contract" include any extension or modification of the Contract or contract;
(3) "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
(4) "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the gender-related identity or any other evidence that the gender-related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose.
(5) "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
(6) "good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements;
(7) "marital status" means being single, married as recognized by the State of Connecticut, widowed, separated or divorced;
(8) "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders;
(9) "minority business enterprise" means any small contractor or supplier of materials fifty-one percent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a minority, as such term is defined in subsection (a) of C.G.S. § 32-9n; and
(10) "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in C.G.S. § 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in the immediately preceding enumerated items (1), (2), (3), or (4).

(b) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the

grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to ensure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission; (3) the Contractor agrees to provide each labor union or representative of workers with which the Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which the Contractor has a contract or understanding, a notice to be provided by the Commission, advising the labor union or workers' representative of the Contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this Section and C.G.S. §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to C.G.S. §§ 46a-56, 46a-68e, 46a-68f and 46a-86; and (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this Section and C.G.S. § 46a-56. If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the Contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency projects.

(c) Determination of the Contractor's good faith efforts shall include, but shall not be limited to, the following factors: The Contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

(d) The Contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts.

(e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and in every subcontract entered into in order to fulfill any obligation of a municipal public works contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with C.G.S. § 46a-56, as amended; provided if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission regarding a State contract, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

(f) The Contractor agrees to comply with the regulations referred to in this Section as they exist on the date of this Contract and as they may be adopted or amended from time to time during the term of this Contract and any amendments thereto.

(g) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the Contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said Commission pursuant to C.G.S. § 46a-56; and (4) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor which relate to the provisions of this Section and C.G.S. § 46a-56.

(h) The Contractor shall include the provisions of the foregoing paragraph in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with C.G.S. § 46a-56 as amended; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission regarding a State contract, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

NON DISCRIMINATION

1. Non-discrimination. References in this section to "contract" shall mean this Contract and references to "contractor" shall mean the Contractor.

(a) The following subsections are set forth here as required by section 4a-60 of the Connecticut General Statutes:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. The contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved; (2) the contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the commission; (3) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e and 46a-68f; (5) the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56.

(b) If the contract is a public works contract, the contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.

(c) "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements.

(d) Determination of the contractor's good faith efforts shall include but shall not be limited to the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

(e) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the commission, of its good faith efforts.

(f) The contractor shall include the provisions of sections (a) and (b) above in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

(g) The following subsections are set forth here as required by section 4a-60a of the Connecticut General Statutes:

> (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and (4) the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

(h) The contractor shall include the provisions of section (g) above in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

For the purposes of this entire Non-Discrimination section, "contract" includes any extension or modification of the contract, "contractor" includes any successors or assigns of the contractor, "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced, and "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders. For the purposes of this section, "contract" does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, (2) a quasi-public agency, as defined in Conn. Gen. Stat. Section 1-120, (3) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in Conn. Gen. Stat. Section 1-267, (4) the federal government, (5) a foreign government, or (6) an agency of a subdivision, agency, state or government described in the immediately preceding enumerated items (1), (2), (3), (4) or (5).

EXECUTIVE ORDERS Nos. 3, 17, 16, and 7C:

Executive Orders. The Contract is subject to the provisions of Executive Order No. 7C of Governor M. Jodi Rell, promulgated July 13, 2006, concerning contracting reforms, Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, all of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. At the Contractor's request, CCSU shall provide a copy of these orders to the Contractor.

STATE OF CONNECTICUT

NONDISCRIMINATION CERTIFICATION — Representation By Individual For All Contract Types Regardless of Value

Written representation that complies with the nondiscrimination agreements and warranties under Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended

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INSTRUCTIONS:

For use by an individual who is not an entity (corporation, limited liability company, or partnership) when entering into any contract type with the State of Connecticut, regardless of contract value. Submit to the awarding State agency prior to contract execution.

REPRESENTATION OF AN INDIVIDUAL:

I, _____ , of _____ ,
Signatory Business Address

represent that I will comply with the nondiscrimination agreements and warranties of Connecticut General Statutes §§ 4a-60(a)(1)and 4a-60a(a)(1), as amended.

_____ _____
Signatory Date

_____
Printed Name

Form B
07-08-2009

STATE OF CONNECTICUT

NONDISCRIMINATION CERTIFICATION — Representation By Entity For Contracts Valued at Less Than $50,000

Written representation that complies with the nondiscrimination agreements and warranties under Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended

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INSTRUCTIONS:

For use by an entity (corporation, limited liability company, or partnership) when entering into any contract type with the State of Connecticut valued at less than $50,000 for each year of the contract. Complete all sections of the form. Submit to the awarding State agency prior to contract execution.

REPRESENTATION OF AN ENTITY:

I, _____ , _____ , of _____ ,
Authorized Signatory Title Name of Entity

an entity duly formed and existing under the laws of _____ ,
Name of State or Commonwealth

represent that I am authorized to execute and deliver this representation on behalf of

_____ and that _____
Name of Entity Name of Entity

has a policy in place that complies with the nondiscrimination agreements and warranties of Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended.

_____ _____
Authorized Signatory Date

_____
Printed Name

Form C
07-08-2009

STATE OF CONNECTICUT

NONDISCRIMINATION CERTIFICATION — Affidavit By Entity For Contracts Valued at $50,000 or More

Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson, member, or other corporate officer duly authorized to adopt corporate, company, or partnership policy that certifies the contractor complies with the nondiscrimination agreements and warranties under Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended

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INSTRUCTIONS:

For use by an entity (corporation, limited liability company, or partnership) when entering into any contract type with the State of Connecticut valued at $50,000 or more for any year of the contract. Complete all sections of the form. Sign form in the presence of a Commissioner of Superior Court or Notary Public. Submit to the awarding State agency prior to contract execution.

AFFIDAVIT:

I, the undersigned, am over the age of eighteen (18) and understand and appreciate the obligations of an oath. I am _____ of _____ , an entity
Signatory's Title Name of Entity

duly formed and existing under the laws of _____.
Name of State or Commonwealth

I certify that I am authorized to execute and deliver this affidavit on behalf of

_____ and that _____
Name of Entity Name of Entity

has a policy in place that complies with the nondiscrimination agreements and warranties of Connecticut General Statutes §§ 4a-60(a)(1)and 4a-60a(a)(1), as amended.

_____
Authorized Signatory

_____
Printed Name

Sworn and subscribed to before me on this _____ day of _____, 20__ __.

_____ _____
Commissioner of the Superior Court / Notary Public **Commission Expiration Date**

STATE OF CONNECTICUT

NONDISCRIMINATION CERTIFICATION — New Resolution By Entity For Contracts Valued at $50,000 or More

Documentation in the form of a corporate, company, or partnership policy adopted by resolution of the board of directors, shareholders, managers, members or other governing body of a contractor that certifies the contractor complies with the nondiscrimination agreements and warranties under Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended

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INSTRUCTIONS:

For use by an entity (corporation, limited liability company, or partnership) when entering into any contract type with the State of Connecticut valued at $50,000 or more for any year of the contract. Complete all sections of the form. Submit to the awarding State agency prior to contract execution.

CERTIFICATION OF RESOLUTION:

I, _____ , _____ , of _____ ,
Authorized Signatory Title Name of Entity

an entity duly formed and existing under the laws of _____ ,
Name of State or Commonwealth

certify that the following is a true and correct copy of a resolution adopted on the _____ day of

_____ , 20_____ by the governing body of _____ ,
Name of Entity

in accordance with all of its documents of governance and management and the laws of

_____ , and further certify that such resolution has not been modified
Name of State or Commonwealth

or revoked, and is in full force and effect.

RESOLVED: That the policies of _____ comply with the
Name of Entity

nondiscrimination agreements and warranties of Connecticut General Statutes

§§ 4a-60(a)(1) and 4a-60a(a)(1), as amended.

The undersigned has executed this certificate this _____ day of _____ , 20_____ .

_____ _____
Authorized Signatory Date

_____
Printed Name

STATE OF CONNECTICUT

NONDISCRIMINATION CERTIFICATION — Prior Resolution
By Entity
For Contracts Valued at $50,000 or More

Documentation in the form of a corporate, company, or partnership policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of a contractor that certifies the contractor complies with the nondiscrimination agreements and warranties under Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended

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INSTRUCTIONS:

For use by an entity (corporation, limited liability company, or partnership) when entering into any contract type with the State of Connecticut valued at $50,000 or more for any year of the contract. Complete all sections of the form. Attach copy of previously adopted resolution (*State of CT, Nondiscrimination Certification, Form D: New Resolution*). Submit all documentation to the awarding State agency prior to contract execution.

CERTIFICATION OF PRIOR RESOLUTION:

I, the undersigned, am a duly authorized corporate officer or member of _____.
Name of Entity

I have reviewed the attached prior resolution. I certify that:

(1) the attached prior resolution complies with the nondiscrimination agreements and warranties of Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended; and

(2) the prior resolution remains in full force and effect on the date this documentation is submitted to the awarding State agency.

_____ _____
Authorized Signatory Title

_____ _____
Printed Name Date

RESERVED FOR STATE USE

I, the undersigned head of the awarding State agency, or designee, certify that the attached prior resolution complies with the nondiscrimination agreements and warranties of Connecticut General Statutes §§ 4a-60(a)(1) and 4a-60a(a)(1), as amended.

_____ _____
Signature of Agency Head (or designee) Date

_____
Awarding State Agency

STATE OF CONNECTICUT
CONSULTING AGREEMENT AFFIDAVIT

Affidavit to accompany a bid or proposal for the purchase of goods and services with a value of $50,000 or more in a calendar or fiscal year, pursuant to Connecticut General Statutes §§ 4a-81(a) and 4a-81(b). For sole source or no bid contracts the form is submitted at time of contract execution.

INSTRUCTIONS:

If the bidder or vendor has entered into a consulting agreement, as defined by Connecticut General Statutes § 4a-81(b)(1): Complete all sections of the form. If the bidder or contractor has entered into more than one such consulting agreement, use a separate form for each agreement. Sign and date the form in the presence of a Commissioner of the Superior Court or Notary Public. **If the bidder or contractor has not entered into a consulting agreement, as defined by Connecticut General Statutes § 4a-81(b)(1):** Complete only the shaded section of the form. Sign and date the form in the presence of a Commissioner of the Superior Court or Notary Public.

Submit completed form to the awarding State agency with bid or proposal. For a sole source award, submit completed form to the awarding State agency at the time of contract execution.

This affidavit must be amended if there is any change in the information contained in the most recently filed affidavit not later than (i) thirty days after the effective date of any such change or (ii) upon the submittal of any new bid or proposal, whichever is earlier.

AFFIDAVIT: [Number of Affidavits Sworn and Subscribed On This Day: _____]

I, the undersigned, hereby swear that I am a principal or key personnel of the bidder or contractor awarded a contract, as described in Connecticut General Statutes § 4a-81(b), or that I am the individual awarded such a contract who is authorized to execute such contract. I further swear that I have not entered into any consulting agreement in connection with such contract, **except for the agreement listed below**:

_____ _____
Consultant's Name and Title Name of Firm (if applicable)

_____ _____ _____
Start Date End Date Cost

Description of Services Provided: _____

_____

Is the consultant a former State employee or former public official? ☐ YES ☐ NO

If YES: _____ _____
Name of Former State Agency Termination Date of Employment

Sworn as true to the best of my knowledge and belief, subject to the penalties of false statement.

_____ _____ _____
Printed Name of Bidder or Contractor **Signature of Principal or Key Personnel** **Date**

_____ _____
Printed Name (of above) Awarding State Agency

Sworn and subscribed before me on this _____ day of _____, 20___.

_____
Commissioner of the Superior Court or Notary Public

_____
My Commission Expires

STATE OF CONNECTICUT

AFFIRMATION OF RECEIPT OF STATE ETHICS LAWS SUMMARY

Written or electronic affirmation to accompany a large State construction or procurement contract, having a cost of more than $500,000, pursuant to Connecticut General Statutes §§ 1-101mm and 1-101qq

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INSTRUCTIONS:

Complete all sections of the form. Submit completed form to the awarding State agency or contractor, as directed below.

CHECK ONE:

- ☐ I am a person seeking a large State construction or procurement contract. I am submitting this affirmation to the awarding State agency with my bid or proposal. [Check this box if the contract will be awarded through a competitive process.]
- ☐ I am a contractor who has been awarded a large State construction or procurement contract. I am submitting this affirmation to the awarding State agency at the time of contract execution. [Check this box if the contract was a sole source award.]
- ☐ I am a subcontractor or consultant of a contractor who has been awarded a large State construction or procurement contract. I am submitting this affirmation to the contractor.
- ☐ I am a contractor who has already filed an affirmation, but I am updating such affirmation either (i) no later than thirty (30) days after the effective date of any such change or (ii) upon the submittal of any new bid or proposal, whichever is earlier.

IMPORTANT NOTE:

Within fifteen (15) days after the request of such agency, institution or quasi-public agency for such affirmation contractors shall submit the affirmations of their subcontractors and consultants to the awarding State agency. Failure to submit such affirmations in a timely manner shall be cause for termination of the large State construction or procurement contract.

AFFIRMATION:

I, the undersigned person, contractor, subcontractor, consultant, or the duly authorized representative thereof, affirm (1) receipt of the summary of State ethics laws* developed by the Office of State Ethics pursuant to Connecticut General Statutes § 1-81b and (2) that key employees of such person, contractor, subcontractor, or consultant have read and understand the summary and agree to comply with its provisions.

* The summary of State ethics laws is available on the State of Connecticut's Office of State Ethics website.

_____ _____
Signature Date

_____ _____
Printed Name Title

_____
Firm or Corporation (if applicable)

_____ _____ ____ _____
Street Address City State Zip

_____
Awarding State Agency

STATE OF CONNECTICUT

Written or electronic PDF copy of the written certification to accompany a large state contract pursuant to P.A. No. 13-162 (Prohibiting State Contracts With Entities Making Certain Investments In Iran)

Respondent Name: _____

INSTRUCTIONS:

CHECK ONE: ☐ Initial Certification.
☐ Amendment or renewal.

A. Who must complete and submit this form. Effective October 1, 2013, this form must be submitted for any large state contract, as defined in section 4-250 of the Connecticut General Statutes. This form must always be submitted with the bid or proposal, or if there was no bid process, with the resulting contract, regardless of where the principal place of business is located.

Pursuant to P.A. No. 13-162, upon submission of a bid or prior to executing a large state contract, **the certification portion of this form must be completed** by any corporation, general partnership, limited partnership, limited liability partnership, joint venture, nonprofit organization or other business organization **whose principal place of business is located outside of the United States**. United States subsidiaries of foreign corporations are exempt. For purposes of this form, a "foreign corporation" is one that is organized and incorporated outside the United States of America.

Check applicable box:

☐ Respondent's principal place of business is within the United States or Respondent is a United States subsidiary of a foreign corporation. Respondents who check this box **are not required to complete the certification portion of this form**, but must submit this form with its Invitation to Bid ("ITB"), Request for Proposal ("RFP") or contract package if there was no bid process.

☐ Respondent's principal place of business is outside the United States and it is not a United States subsidiary of a foreign corporation. **CERTIFICATION required.** Please complete the certification portion of this form and submit it with the ITB or RFP response or contract package if there was no bid process.

B. Additional definitions.

1) "Large state contract" has the same meaning as defined in section 4–250 of the Connecticut General Statutes;
2) "Respondent" means the person whose name is set forth at the beginning of this form; and
3) "State agency" and "quasi-public agency" have the same meanings as provided in section 1–79 of the Connecticut General Statutes.

C. Certification requirements.

No state agency or quasi-public agency shall enter into any large state contract, or amend or renew any such contract with any Respondent whose principal place of business is located outside the United States and is not a United States subsidiary of a foreign corporation unless the Respondent has submitted this certification.

Complete all sections of this certification and sign and date it, under oath, in the presence of a Commissioner of the Superior Court, a Notary Public or a person authorized to take an oath in another state.

CERTIFICATION:

I, the undersigned, am the official authorized to execute contracts on behalf of the Respondent. I certify that:

☐ Respondent has made no direct investments of twenty million dollars or more in the energy sector of Iran on or after October 1, 2013, as described in Section 202 of the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010.

☐ Respondent has either made direct investments of twenty million dollars or more in the energy sector of Iran on or after October 1, 2013, as described in Section 202 of the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010, or Respondent made such an investment prior to October 1, 2013 and has now increased or renewed such an investment on or after said date, or both.

Sworn as true to the best of my knowledge and belief, subject to the penalties of false statement.

_____ _____
Printed Respondent Name **Printed Name of Authorized Official**

_____
Signature of Authorized Official

Subscribed and acknowledged before me this _____ day of _____, 20___.

_____
Commissioner of the Superior Court (or Notary Public)

_____
My Commission Expires

Clear Form

STATE OF CONNECTICUT - AGENCY VENDOR FORM

IMPORTANT: ALL parts of this form must be completed, signed and returned by the vendor.

READ & COMPLETE CAREFULLY

SP-26NB-IPDF Rev. 4/10

COMPLETE VENDOR LEGAL BUSINESS NAME	**Taxpayer ID # (TIN):** ☐ SSN ☐ FEIN WRITE/TYPE SSN/FEIN NUMBER ABOVE

BUSINESS NAME, TRADE NAME, DOING BUSINESS AS (IF DIFFERENT FROM ABOVE)

BUSINESS ENTITY: ☐ CORPORATION ☐ LLC CORPORATION ☐ LLC PARTNERSHIP ☐ LLC SINGLE MEMBER ENTITY ☐ NON-PROFIT ☐ PARTNERSHIP ☐ INDIVIDUAL/SOLE PROPRIETOR ☐ GOVERNMENT

NOTE: IF INDIVIDUAL/SOLE PROPRIETOR, INDIVIDUAL'S NAME (AS OWNER) MUST APPEAR IN THE LEGAL BUSINESS NAME BLOCK ABOVE.

BUSINESS TYPE: A. SALE OF COMMODITIES B. MEDICAL SERVICES C. ATTORNEY FEES D. RENTAL OF PROPERTY (REAL ESTATE & EQUIPMENT)

E. OTHER (DESCRIBE IN DETAIL)

UNDER THIS TIN, WHAT IS THE PRIMARY TYPE OF BUSINESS YOU PROVIDE TO THE STATE? (ENTER LETTER FROM ABOVE) →	
UNDER THIS TIN, WHAT OTHER TYPES OF BUSINESS MIGHT YOU PROVIDE TO THE STATE? (ENTER LETTER FROM ABOVE) →	

NOTE: IF YOUR BUSINESS IS A ***PARTNERSHIP***, YOU **MUST** ATTACH THE NAMES AND TITLES OF ALL PARTNERS TO YOUR BID SUBMISSION.

NOTE: IF YOUR BUSINESS IS A ***CORPORATION***, IN WHICH STATE ARE YOU INCORPORATED?

VENDOR ADDRESS STREET CITY STATE ZIP CODE

Add Additional Business Address & Contact information on back of this form.

VENDOR E-MAIL ADDRESS	VENDOR WEB SITE

REMITTANCE INFORMATION: *INDICATE BELOW THE REMITTANCE ADDRESS OF YOUR BUSINESS.* ☐ *SAME AS VENDOR ADDRESS ABOVE.*

REMIT ADDRESS STREET CITY STATE ZIP CODE

CONTACT INFORMATION: NAME (TYPE OR PRINT)

1ST BUSINESS PHONE:	Ext. #	HOME PHONE:
2ND BUSINESS PHONE:	Ext. #	1ST PAGER:
CELLULAR:		2ND PAGER:
1ST FAX NUMBER:		TOLL FREE PHONE:
2ND FAX NUMBER:		TELEX:

WRITTEN SIGNATURE OF PERSON AUTHORIZED TO SIGN PROPOSALS ON BEHALF OF THE ABOVE NAMED VENDOR ←SIGN HERE	DATE EXECUTED
TYPE OR PRINT NAME OF AUTHORIZED PERSON	TITLE OF AUTHORIZED PERSON

IS YOUR BUSINESS **CURRENTLY** A DAS *CERTIFIED* SMALL BUSINESS ENTERPRISE? ☐ YES *(ATTACH COPY OF CERTIFICATE)* ☐ NO

IS YOUR BUSINESS **CURRENTLY** A CT DOT *CERTIFIED* DISADVANTAGED BUSINESS ENTERPRISE (DBE)? ☐ YES ☐ NO

IF YOU ARE A ***STATE EMPLOYEE***, INDICATE YOUR POSITION,
AGENCY & AGENCY ADDRESS

PURCHASE ORDER DISTRIBUTION:
(E-MAIL ADDRESS)

NOTE: THE E-MAIL ADDRESS INDICATED IMMEDIATELY ABOVE WILL BE USED TO FORWARD PURCHASE ORDERS TO YOUR BUSINESS.

ADD FURTHER BUSINESS ADDRESS, E-MAIL & CONTACT INFORMATION ON SEPARATE SHEET IF REQUIRED

Form **W-9**
(Rev. November 2017)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

► **Go to *www.irs.gov/FormW9* for instructions and the latest information.**

Give Form to the requester. Do not send to the IRS.

Print or type. See **Specific Instructions** on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ►

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

Requester's name and address (optional)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN,* later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

		–							

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	**Signature of U.S. person** ►	**Date** ►

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9.*

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting,* later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

2. You do not certify your TIN when required (see the instructions for Part II for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code,* later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships,* earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code,* later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)

2—The United States or any of its agencies or instrumentalities

3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities

5—A corporation

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession

7—A futures commission merchant registered with the Commodity Futures Trading Commission

8—A real estate investment trust

9—An entity registered at all times during the tax year under the Investment Company Act of 1940

10—A common trust fund operated by a bank under section 584(a)

11—A financial institution

12—A middleman known in the investment community as a nominee or custodian

13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5[2]
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester,* later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at *www.SSA.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/Businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. Go to *www.irs.gov/Forms* to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to *www.irs.gov/OrderForms* to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code,* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account[1]
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor[2]
5. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee[1] The actual owner[1]
6. Sole proprietorship or disregarded entity owned by an individual	The owner[3]
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity[4]
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships,* earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov.* You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at *spam@uce.gov* or report them at *www.ftc.gov/complaint.* You can contact the FTC at *www.ftc.gov/idtheft* or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see *www.IdentityTheft.gov* and Pub. 5027.

Visit *www.irs.gov/IdentityTheft* to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

EASTERN CONNECTICUT STATE UNIVERSITY
83 WINDHAM STREET • WILLIMANTIC, CONNECTICUT 06226 • 860-465-5000

INSPECTION OF PROPOSALS AND CONFIDENTIAL INFORMATION

Proposals may be available for public inspection upon notice of award and shall be available for public inspection after the contract is signed by all parties. Information marked as "confidential" in any proposal shall be honored as such, to the extent allowable under the Freedom of Information Act.

The University treats Proposals as confidential until after the award is issued. At that time they become subject to disclosure under the Freedom of Information Act. If a respondent wishes to supply any information, which it believes is exempt from disclosure under the Act that respondent should summarize such information in a separate envelope and each page submitted should clearly state "Confidential", but otherwise be presented in the same manner as the Proposal. However, any such information is provided entirely at the respondent's own risk and the University assumes no liability for any loss or damage which may result from the University's disclosure at any time of any information provided by the respondent in connection with its proposal.

Connecticut State University System

Central Connecticut State University
Eastern Connecticut State University
Southern Connecticut State University
Western Connecticut State University
System Office

STANDARD TERMS AND CONDITIONS

I. DEFINITIONS

The following words, when used herein, shall have the following meanings:

1. "Contract" shall mean any agreement negotiated by and between CSU and the contractor selected by CSU as the result of a request for proposal, request for quotation, or request for bid, including, but not limited to, a personal service agreement or purchase order.
2. "CSU" shall refer to the Connecticut State University System, which is comprised of Central Connecticut State University, Eastern Connecticut State University, Southern Connecticut State University, Western Connecticut State University and the System Office, collectively and individually, as the context requires.
3. "Person" shall mean an individual, partnership, corporation or other business entity, as the context requires.
4. "Proposal" shall mean a response to a request for proposal, request for bid, or request for quotation.
5. "Proposer" shall mean a contractor that submits a response to a request for proposal, request for bid, or request for quotation.
6. "RFP" shall mean a request or invitation for proposal, bid, or quotation, as applicable.

II. TERMS AND CONDITIONS RELATED TO REQUESTS FOR PROPOSALS

A. General Conditions

1. CSU reserves the right to amend or cancel an RFP prior to the date and time for the opening of proposals. CSU, in its sole discretion, reserves the right to accept or reject any and all proposals, in whole or in part, and to waive any technicality in any proposal submitted, and to accept any part of a proposal deemed to be in the best interest of CSU.
2. Proposals received from proposers debarred by the State of Connecticut will not be considered for award.
3. CSU does not commit to specific volumes of activity, nor does it guarantee the accuracy of statistical information provided in the RFP. Such information is supplied to proposers for reference only.
4. All responses to the RFP shall be and remain the sole property of CSU.
5. Each proposer shall bear all costs associated with proposer's response to an RFP, including, but not limited to, the costs of any presentation and/or demonstration required by CSU. In addition, answers or clarifications sought by CSU arising out of or in connection with the proposal shall be furnished by the proposer at the proposer's expense.
6. CSU reserves the right to negotiate, as it may deem necessary, with any or all of the proposers that submit proposals.
7. Any alleged oral agreement or arrangement made by any proposer with CSU or any employee thereof shall not be binding.

B. Submission of Proposals

1. Proposals must be submitted on forms supplied by CSU. Telephone, facsimile, or email proposals will not be accepted in response to an RFP.
2. The time and date proposals are to be received and opened are stated in each RFP issued by CSU. Proposals received in the applicable CSU purchasing department after the date and time specified in the RFP will be returned to the proposer unopened. Proposal amendments received by CSU after the time specified for opening of proposals shall not be considered.
3. All proposals must be addressed to the location designated in the RFP. Proposal envelopes must clearly state the proposal number as well as the date and time of the opening of the proposals, as stated in the RFP. The name and address of the proposer must appear in the upper left hand corner of the envelope.
4. Proposals must be computer prepared, typewritten or handwritten in ink. Proposals submitted in pencil will be rejected.
5. Proposers must answer all the questions set forth in the RFP using the outline and numbering scheme set forth therein. Proposers must furnish all information requested in the RFP and supply all materials required for consideration. Failure of the proposer to answer all questions and supply all information and materials requested may be grounds for rejection of the proposal.
6. All proposals must be signed by a person duly authorized to sign proposals on behalf of the proposer. All signatures on the proposal must be original. Proposals bearing stamp signatures will be rejected. Unsigned proposals will be rejected.
7. Alterations or corrections to the proposal must be initialed by the person signing the proposal or his or her authorized designee. All initials on alterations or corrections to the proposal must be original. In the event that an authorized designee initials an alteration or correction, the proposer must submit a written authorization from the proposal's signatory to the authorized designee, authorizing the designee to make the alteration or correction. Failure to submit such an authorization shall result in rejection of proposal as to those items altered or corrected and not initialed.

8. Conditional proposals are subject to rejection in whole or in part, in the sole discretion of CSU. A conditional proposal is defined as one that limits, modifies, expands or supplements any of the terms and conditions and/or specifications of the RFP.
9. Alternate proposals will not be considered by CSU, unless otherwise noted on the RFP or on the proposal form. An alternate proposal is defined as one that is submitted in addition to the proposer's primary response to the RFP.
10. CSU does not sponsor any one manufacturer's products, but lists equipment by name and model number to designate the quality and performance level desired. Proposers may propose substitutes similar in nature to the equipment specified. The substitute must, in the sole determination of CSU, be equal in quality, durability, appearance, strength and design to the equipment or product specified in the RFP, or offer a clear advantage to CSU because of improved or superior performance. All proposals including equipment or product substitutes must be accompanied with current descriptive literature on, and data substantiating, the equal or superior nature of the substitute. All final decisions concerning substitutes will be made by CSU prior to any award. The word substitute shall not be construed to permit substantial departure from the detailed requirements of the specifications.
11. Each proposer's prices must be firm for a period up to 120 days from date of the opening of proposals. Prices must be extended in decimal, not fraction, must be net, and must include transportation and delivery charges, fully prepaid by the contractor, to the destination specified in the proposal, and subject only to cash discount.
12. Pursuant to Section 12-412 of the Connecticut General Statutes, the State of Connecticut is exempt from the payment of excise, transportation and sales taxes imposed by the Federal Government and/or the State. Accordingly, such taxes must not be included in proposal prices.
13. If there is a discrepancy between a unit price and an extended price, the unit price will govern.
14. By submitting a proposal, the proposer asserts that the offer and information contained therein is in all respects fair and without collusion or fraud and was not made in connection with any competing proposer's submission of a separate response to the RFP. By submitting a proposal, the proposer further asserts that it neither participated in the formation of CSU's solicitation development process nor had any knowledge of the specific contents of the RFP prior to its issuance, and that no employee of CSU participated directly or indirectly in the preparation of the proposer's proposal.
15. It is the proposer's responsibility to check the website of the State of Connecticut Department of Administrative Services (www.das.state.ct.us/Purchase/Portal/Portal_Home.asp) for changes prior to the proposal opening. It is the responsibility of the proposer to obtain all information related to proposal submission including, without limitation, any and all addenda or supplements required.
16. Any person contemplating submitting a proposal who is in doubt as to the true meaning of, or is in need of clarification of, any part of the RFP or the specifications set forth therein, must submit a written request for clarification to CSU. The proposer may rely only upon a response to a request for clarification set forth in writing by CSU.
17. Proposals for the provision of services must include the cost of obtaining all permits, licenses, and notices required by the city or town in which the services is to be provided, and the State and Federal governments..
18. Each proposer must complete and submit with its proposal the following non-discrimination and affirmative action forms: the Notification to Proposers, Contract Compliance, and EEO-1. It shall not be sufficient to declare or state that such forms are on file with the State of Connecticut. Failure to include the required forms shall result in rejection of the proposal.

C. Samples

1. Samples, when required by the RFP, must be submitted strictly in accordance with the requirements of the RFP.
2. Any and all required samples shall be furnished by the proposer at no cost to CSU. All samples, unless otherwise indicated, will become the property of CSU and will not be returned to the proposer unless the proposer states in the proposal that the sample's return is requested. A sample will be returned on the request of the proposer if the sample has not been rendered useless or beyond its useful life. The proposer must pay the costs associated with the return of any sample. Samples may be held by CSU for comparison with actual product deliveries.
3. The making of chemical and physical tests of samples submitted with proposals shall be made in the manner prescribed by CSU.

D. Bonding Requirements / Guaranty or Surety

1. If required by this RFP, the proposal must be accompanied by a bid bond or a certified check in an amount that is ten percent (10%) of the bid amount. The bid bond must be executed by an insurance company licensed to do business in the State of Connecticut. Certified checks must be made payable to CSU or the appropriate CSU University.
2. The proposal bond must be executed by the proposer as follows:
   (a) If the proposer is a corporation - must be signed by an official of the corporation above his or her official title, and the corporate seal must be affixed over the signature;
   (b) If the proposer is a partnership - must be signed by a general partner;
   (c) If the proposer is an individual - must be signed by the individual and indicate that he or she is "doing business as . . . ."
3. The surety company executing the bond or countersigning must be licensed in Connecticut and the bond must be signed by an official of the surety company with the corporate seal affixed over his or her signature. Signatures of two witnesses for both the principal and the surety must appear on the bond.

III. CONTRACT AWARD

1. All proposals properly submitted will be opened and read publicly. Upon award, the proposals are subject to public inspection. CSU will not prepare abstracts of proposals received for distribution, nor will information concerning the proposals received be conveyed by telephone.
2. Award will be made to the lowest responsible qualified proposer who complies with the proposal requirements. Price alone need not be the sole determining factor for an award. Other criteria, listed in the RFP, may be considered by CSU in the award determination.
3. CSU reserves the right to grant an award and/or awards by item, or part thereof, groups of items, or all items of the proposal and to waive minor irregularities and

omissions if, in CSU's judgment, the best interests of CSU or the State of Connecticut will be served.

4. CSU reserves the right to correct inaccurate awards resulting from its administrative errors.
5. The Award Notice and Offer (to enter into a formal contract) shall be sent to the awarded proposer by first class certified mail, return receipt requested, to the address provided in the awarded proposal, or by overnight courier. The Notice and Offer shall constitute an offer by CSU to enter into negotiations to come to a formal contract agreement. If the proposer, within ten (10) business days of receipt of said Notice and Offer, declines to begin contract negotiations, then the offer to negotiate a contract may be withdrawn and an offer to negotiate a contract extended to the next lowest responsible qualified proposer, and so on until a contract is negotiated and executed.
6. Each proposal submitted shall constitute an offer by the proposer to furnish any or all of the commodities or services described therein at the prices given and in accordance with conditions set forth in the proposal, the RFP, and these "Standard Terms and Conditions." Acceptance and resulting contract formation shall be in a formal written document authorized by CSU's Purchasing Department and where applicable, approved by the Attorney General, and shall comprise the entire agreement between the proposer and CSU.

IV. TERMS AND CONDITIONS RELATED TO CONTRACT WITH SUCCESSFUL PROPOSER

By submitting a response to the RFP, the proposer agrees that any contract negotiated between it (if the successful proposer), as contractor, and CSU may contain the following provisions, as deemed applicable by CSU:

A. General Conditions

1. Any product developed and accepted by CSU under a contract awarded as a result of an RFP shall be sole property of CSU, unless stated otherwise in the contract.
2. Data collected or obtained by the contractor in connection with the performance of the contract shall not be shared with any third party without the express written approval of CSU.
3. The contractor shall defend, indemnify and hold harmless CSU, its officers and employees, against any and all suits, actions, legal or administrative proceedings, claims, demands, damages, liabilities, monetary loss, interest, attorney's fees, costs and expenses of whatsoever kind or nature arising out of the performance of the agreement, including those arising out of injury to or death of contractor's employees or subcontractors, whether arising before, during or after completion of the services thereunder and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part, by reason of any act, omission, fault or negligence of contractor or its employees, agents or subcontractors. Without limiting the foregoing, the contractor shall defend, indemnify and hold CSU and the State of Connecticut harmless from liability of any kind for the use of any copyright or un-copyrighted composition, secret process, patented or unpatented invention furnished or used in the performance of the contract. This indemnification shall be in addition to the warranty obligations of the contractor and shall survive the termination or cancellation of the contract or any part thereof.
4. The contactor shall: (i) guarantee its products against defective materials and workmanship; (ii) repair damage of any kind, for which it is responsible, to CSU's premises or equipment, to its own work or to the work of other contractors; (iii) obtain and pay for all applicable licenses, permits, and notices; (iv) give all notices and comply with all requirements of the municipality in which the service is to be provided and of the State and federal governments; and (v) carry proper and sufficient insurance to protect the State from loss.
5. The contract shall be interpreted and governed by the laws of the State of Connecticut, without regard to its principles of conflicts of laws.
6. The contractor agrees that it shall be subject to and abide by all applicable federal and state laws and regulations.
7. The contractor agrees that it shall comply with Section 4a-60 of the Connecticut General Statutes and with Executive Orders Nos. 3, 16, 17 and 7C.
8. The contractor agrees that the sole and exclusive means for the presentation of any claim against the State of Connecticut, the Connecticut State University or the Board Of Trustees arising from a contract with CSU, shall be in accordance with the provisions of Chapter 53 of the Connecticut General Statutes (Claims Against the State) and that no additional legal proceedings will be initiated in any state or federal court in addition to, or in lieu of, said Chapter 53 proceedings.
9. The contractor agrees that CSU shall have and retain sole and exclusive right and title in and to the forms, maps, and/or materials produced for CSU pursuant to the contract, including all rights to use, distribute, sell, reprint, or otherwise dispose of same. The contractor further agrees that it shall not copyright, register, distribute, or claim any rights in or to said maps and/or materials or the work produced under the contract.
10. The contractor or subcontractor, as applicable, shall offer and agree to assign to CSU all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act, 15 U.S.C. 15, or under Chapter 624 of the general statutes, arising from the purchase of services, property or intangibles of any kind pursuant to a public purchase contract or subcontract; such assignment shall be made and become effective at the time the contract is executed by the parties, without further acknowledgment by them.
11. The contractor shall not assign or otherwise dispose of the contract or its right, title or interest therein, or its power to execute such contract, to any other person without the prior written consent of CSU.
12. CSU reserves the right to inspect commodities for conformance with proposal specifications. When commodities are rejected by CSU, said commodities shall be removed by the contractor, at the contractor's expense, from the CSU premises within forty-eight (48) hours after notification of such rejection, unless public health and safety require immediate destruction or other disposal of such rejected delivery. Rejected items left longer than forty-eight (48) hours shall be considered abandoned by the contractor and CSU shall have the right to dispose of them as its own property.
13. If any provision, term or condition of the contract is prohibited, invalid, or unenforceable then that provision, term or condition shall be ineffective to the extent of the prohibition, invalidity, or prohibition without invalidating the remaining provisions, terms and conditions unless it materially alters the nature or intent thereof.
14. Should the terms of any purchase order or invoice issued in connection with the contract conflict with the

terms of the contract, the terms of the contract shall prevail.

15. Failure of the contractor to deliver commodities or perform services as specified in the contract will constitute authority for CSU to purchase these commodities or services on the open market. The contractor shall promptly reimburse CSU for excess costs incurred by CSU due to these purchases, and these purchases shall be deducted by CSU from the quantities contracted for.
16. No right or duty, in whole or in part, of the contractor under the contract may be assigned or delegated without the prior written consent of CSU. The subcontracting or assignment of any of contractor's obligations under the contract to a subcontractor shall require the prior written approval of CSU.
17. Upon termination of the contract by CSU, the contractor shall both immediately discontinue all services (unless the notice directs otherwise) and deliver to CSU all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the contractor in performing its duties under the contract, whether completed or in progress. All such documents, information, and materials shall become the property of CSU.
18. The State of Connecticut shall assume no liability for payment for services under the terms of the contract until the contractor is notified that the contract has been accepted by CSU and, if applicable, approved by the Office of Policy and Management ("OPM") or the Department of Administrative Services ("DAS") and by the Attorney General of the State of Connecticut.

B. Insurance

1. Before commencing to perform services pursuant to the contract, the contractor shall obtain, at its own cost and for the duration of the contract, the following insurance:
   (a) Commercial General Liability: $1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. Coverage shall include Premises and Operations, Independent Contractors, Products and Completed Operations, Contractual Liability and Broad Form Property Damage coverage. If a general aggregate is used, the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the occurrence limit.
   (b) Automobile Liability: $1,000,000 combined single limit per accident for bodily injury. Coverage extends to owned, hired and non-owned automobiles. If the contractor does not own an automobile, but one is used in the execution of the contract, then only hired and non-owned coverage is required. If a vehicle is not used in the execution of the contract then automobile coverage is not required.
   (c) Professional Liability: $1,000,000 limit of liability.
   (d) Workers' Compensation and Employers Liability: Statutory coverage in compliance with the laws of the State of Connecticut. Coverage shall include Employer's Liability with minimum limits of $100,000 each accident, $500,000 Disease – Policy limit, $100,000 each employee.
   An Excess Liability/Umbrella Policy may be used to meet the minimum limit guidelines.
2. The contractor shall provide copies of its Certificates of Insurance to CSU, if requested to do so. The Certificates shall include the following:
   (a) The certificate shall clearly identify the State of Connecticut, its officers, officials, employees, agents, boards and commissions as Additional Insured. The coverage shall contain no special limitations on the scope of protection afforded to the State.
   (b) The certificate shall clearly indicate the project name and project number or some easily identifiable reference to the relationship to the State.
3. The Certificates shall be signed by a person authorized by that insurer to execute contracts on its behalf. The certificate Accord Form 25 Certificate shall indicate a minimum thirty (30) day endeavor to notify requirement in the event of cancellation or non-renewal of coverage.
4. The contractor shall assume responsibility for payment of any and all deductibles applicable to the insurance policies described in Section IV.B.1 above.
5. The contractor's insurer shall have no right of recovery or subrogation against the State and the described insurance shall be primary coverage.
6. Each required policy of insurance shall provide that it shall not be suspended, voided, cancelled or reduced except after thirty (30) days' prior written notice sent by certified mail to CSU.
7. "Claims Made" coverage shall be unacceptable, with the exception of Professional Liability.

C. Bonds

The successful proposer shall submit the following bonds, at the request of CSU, within ten (10) days of the date of receipt of the Award Notice and Offer:

1. A Performance Bond in the amount of one hundred percent (100%) of the total proposal price; and

2. A Labor and Material Payment Bond in the amount of one hundred percent (100%) of the total proposal price.

A company authorized to transact business in the State of Connecticut shall execute the bonds. Checks shall be made payable to CSU or the appropriate CSU University.

D. Delivery

1. Unless otherwise specified in the proposal, all products and equipment delivered pursuant to the contract shall be new and shall include any and all manufacturer's warranties.
2. Delivery shall be to the point specified in the contract.
3. All deliveries shall display, in plain sight, any related Purchase Order or Reference/Delivery Number. Failure to display said number may cause the shipment to be rejected and returned at the contractor's expense.
4. All deliveries shall be in compliance with Sections 22a-194 to 22a-194g of the Connecticut General Statutes related to product packaging.
5. Deliveries shall be subject to reweighing on official sealed scales designated by the State and payment shall be made on the basis of net weight of materials received.
6. Payment terms are net forty-five (45) days after receipt of goods or invoice, whichever is later. State of Connecticut certified small or minority contractors are payable under terms net thirty (30) days.
7. Monies owed to CSU or the Department of Revenue Services (DRS) by the contractor shall be deducted from current obligations.

E. Inspection and Tests

1. The inspection of all commodities and the making of chemical and physical tests of samples of deliveries to determine whether or not the contract specifications are being complied with shall be made in the manner prescribed by CSU.
2. Any item that fails in any way to meet the terms or specifications set forth in the contract is subject to be paid for at an adjusted price or rejected, in the discretion of CSU.
3. After delivery and installation of any equipment provided pursuant to the contract, the contractor shall certify to CSU that the equipment has been properly installed and is ready for use. Thereafter, for a test period of sixty (60) days, CSU shall operate the system in accordance with its normal operating practices. The acceptance test shall determine if the equipment's operating characteristics meet the performance standards set forth in the contract.

F. Advertising

Reference by the contractor to sales to CSU for advertising and promotional purposes without the prior approval of CSU shall be expressly prohibited.

General Conditions of the Contract for Construction
Eastern Connecticut State University
Willimantic, Connecticut

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Article 1
DEFINITIONS

Whenever the following terms, or pronouns in place of them, are used the intent and meaning shall be as follows:

1.1 ADDITIONAL OR DELETED WORK: Work required, in the judgment of the Agency, involves any addition to, deduction from, or modification of the Work required by the Contract Documents.

1.2 AGENCY: The (User) Agency of the State of Connecticut having administrative authority of the facility in which the Work is being performed.

1.3 APPLICATION FOR PAYMENT, PARTIAL PAYMENT OR REQUISITION: Contractor's certified request for payment for completed portions of the Work and, if the Contract so provides, for materials or equipment suitably stored pending their incorporation into the Work.

1.4 ARCHITECT OR ENGINEER: An individual, partnership, firm, corporation or other business organization under contract with the Agency, commissioned to prepare Contract Drawings and specifications, to advise the Agency and in certain cases, to perform regular inspections during construction and when authorized to perform the duties of the Construction Administrator.

1.5 BASE BID: Monetary value stated in the Bid Proposal form as the sum for which the bidder offers to perform the Work described in the Bidding Documents, exclusive of adjustments for Supplemental Bids.

1.6 BID BOND: Form of bid security executed by the Bidder as Principal and by a Surety to guarantee that the Bidder will enter into a Contract within a specified time and furnish any required bond as mandated by Connecticut General Statute Section 4b-92.

1.7 BIDDER: An individual, partnership, firm, corporation or other business organization submitting a Bid on the Bid Proposal Form for the Work contemplated.

1.8 BIDDING DOCUMENTS: Collectively, the Bidding Requirements and the proposed Contract Documents, including any addenda issued prior to receipt of Bids.

1.9 BID OR BID PROPOSAL FORM: A complete and duly signed proposal to perform Work (or a designated portion thereof) for a stipulated sum submitted in accordance with the Bidding Documents.

1.10 BID SECURITY: Certified check or Bid Bond submitted with Bid Proposal Form, which provides that the Bidder, if awarded the Contract, will execute such Contract in accordance with the requirements of the Bidding Documents.

1.11 BUILDER'S RISK INSURANCE: A specialized form of property insurance which provides coverage for loss or damage to the Work pursuant to the Contract Documents.

1.12 CASH ALLOWANCE: An amount established in the Contract Documents for inclusion in the Contract Sum to cover the cost of prescribed items not specified in detail, and as shown in the Allowance Schedule.

1.13 CERTIFICATE of COMPLETION: A document is-sued by the Construction Administrator to the Agency stating that the Contractor has met all contractual obligations.

1.14 CERTIFICATE of COMPLETION and ACCEPTANCE: A document issued by the Agency to the Contractor stating that all Work has been completed and that the Work is accepted by the Agency.

1.15 CERTIFICATE of COMPLIANCE: A document is-sued to the Agency by the design professional stating that for the portion of the project completed, either the design portion or the construction portion, has been performed in substantial compliance with all applicable building codes

1.16 CERTIFICATE OF OCCUPANCY: Document issued by the authority having jurisdiction certifying that all or a designated portion of a building is approved for its designated use.

1.17 CERTIFICATE OF SUBSTANTIAL COMPLETION: A document prepared by the Architect and approved by the Agency on the basis of an inspection stating:

1.17.1 That the Work, or a designated portion thereof, is determined to be Substantially Complete;

1.17.2 The date of Substantial Completion;

1.17.3 The responsibilities of the Agency and the Contractor for security maintenance, heat, utilities, damage to the Work and insurance; and

1.17.4 The time within which the Contractor shall complete the remaining work.

1.18 CHANGE ORDER: Written authorization signed by the Agency, authorizing a modification in the Work, an adjustment in the Contract Sum, or an adjustment in the Contract Time.

1.19 COMMISSIONER: The State of Connecticut, Department of Public Works (DPW) Commissioner acting directly or through specifically authorized DPW personnel or

agent(s) having authority to perform duties defined in Article 25.

1.20 CONSTRUCTION ADMINISTRATOR: An individual, partnership, firm, corporation or other business organization, under contract or employed by the Agency commissioned and/or authorized to oversee the fulfillment of all requirements of the Contract Documents.

1.21 CONSTRUCTION CHANGE DIRECTIVE: A written authorization signed by the Agency, directing a modification in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum, Contract Time or both.

1.22 CONTRACT DOCUMENTS OR CONTRACT: The Agreement between Agency and Contractor, Conditions of the Contract (General Conditions, Supplementary Conditions, General Requirements and other Conditions), Drawings, Specifications, and Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract, all of which shall constitute the Contract.

1.23 CONTRACTOR OR GENERAL CONTRACTOR: An individual, partnership, firm or Corporation, under direct contract with the Agency, responsible for performing the Work under the Contract Documents. Whenever the words "Contractor" or "General Contractor" are used it shall be understood to mean Contractor.

1.24 CONTRACTOR'S LIABILITY INSURANCE: Insurance purchased and maintained by the Contractor that insures the Contractor for claims for property damage, bodily injury or death.

1.25 CONTRACT START DATE OR DATE OF COMMENCEMENT OF THE WORK: The date, specified by the Agency in the Notice to Proceed, on which the Contractor is required to start the Work.

1.26 CONTRACT SUM: The sum stated in the Contract, which is the total amount payable by the Agency to the Contractor for performance of the Work under the Contract Documents.

1.27 CONTRACT TIME: The period of time allotted in the Contract Documents for Substantial Completion of the Work, including authorized adjustments thereto. The days specified, calendar or working days, are stipulated in the Bidding Documents.

1.28 DAY: Whenever the word Day is used it shall be understood to mean calendar day or working day as stated on the Bidding Documents, unless stated otherwise.

1.29 PROJECT MANAGER: The individual employed by the Agency, to be responsible for the overall management and oversight of the Project, and to represent the Agency.

1.30 EQUAL(S): A replacement for the specified material, device, procedure, equipment, etc., which has been determined by the Architect and the Agency to be substantially identical to the first listed manufacturer or first listed procedure specified in terms of cost, quality and performance for the Project. The Equal does not constitute a modification in the scope of Work, the Schedule or Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

1.31 FINAL ACCEPTANCE: The Agency's written approval and acceptance of the Work issued to the Contractor upon written certification by the Architect of Final Completion.

1.32 FINAL COMPLETION: A written statement by the Architect to the Owner that the Work has been completed in accordance with the terms and conditions of the Contract Documents.

1.33 FINAL INSPECTION: Review of the Work by the Architect and Agency to determine whether Final Completion has been achieved.

1.34 FINAL PAYMENT: The last payment made by the Owner to the Contractor, made after notice of the Final Acceptance. Payment shall include the entire unpaid balance of the Contract Sum as adjusted by Modifications.

1.35 GENERAL CONDITIONS: The General Conditions of the Contract for Construction, part of Division 0 of the Specifications.

1.36 GENERAL REQUIREMENTS: That part of the Contract Documents entitled General Requirements, which is Division 1.

1.37 LIQUIDATED DAMAGES: A sum established in a Contract, usually as a fixed sum per day, as the predetermined measure of damages to be paid to the Agency due to the Contractor's failure to complete the Work within the Contract Time.

1.38 LUMP SUM: An item or category priced as a whole rather than broken down into its elements.

1.39 MINOR CHANGES IN THE WORK: Changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents, which shall be affected by written order issued by the Architect.

1.40 MODIFICATION OR AMENDMENT:

1.40.1 A written change to the Contract Documents.

1.40.2 A Change Order.

1.40.3 A Construction Change Directive.

1.40.4 Supplemental Instructions for minor changes in the Work and/or additional instructions to the Work.

1.41 NOTICE TO BIDDER: A notice contained in the Bidding Document informing prospective Bidders of the opportunity to submit Bids on a Project.

1.42 NOTICE TO PROCEED: Written notice, issued by the Agency to the Contractor authorizing the Contractor to proceed with the Work and establishing the date for commencement of the Contract Time.

1.43 OWNER OR AGENCY: Eastern Connecticut State University, Willimantic, Connecticut or specifically authorized Agency personnel or agent.

1.44 PAYMENT BOND, LABOR BOND OR MATERIAL BOND: A bond in which the Contractor and the Contractor's surety guarantee to the Agency that the Contractor will pay for labor and materials furnished for use in the performance of the Contract, as required by Connecticut General Statutes Section 49-41.

1.45 PERFORMANCE BOND OR SURETY BOND: A bond in which the Contractor and the Contractor's surety guarantee to the Agency that the Work will be performed in accordance with the Contract Documents, as required by Connecticut General Statutes Section 41.

1.46 PERFORMANCE SPECIFICATION: A description of the desired results or performance of a product, material, assembly, procedure, or a piece of equipment with criteria for identifying the standard.

1.47 PLANS OR DRAWINGS: All drawings or reproductions of drawings pertaining to the construction of the Work contemplated and its appurtenances.

1.48 PROJECT: The total construction of which the Work performed under the Contract Documents may be the whole or a part.

1.49 PROJECT MANUAL: The set of documents assembled for the Work which includes, but is not limited to, Contract Documents, Bidding Requirements, Sample Forms, Conditions of the Contract, General Requirements and the Specifications.

1.50 PROPRIETARY SPECIFICATION: A specification that describes a product, procedure, function, material, assembly, or piece of equipment by trade name and/or by naming the manufacturer(s) or manufacturer's procedure, exact model number, item, etc., of those products acceptable to the Agency.

1.51 RECORD DOCUMENTS OR AS-BUILT DRAWINGS: Construction Drawings revised to show all significant Modifications made during the construction process.

1.52 SCHEDULE: A Critical Path Method (CPM) or Construction Schedule as required by the Contract Documents which shall be a diagram, graph or other pictorial or written schedule showing all events expected to occur and operations to be performed and indicating the contract time, start dates, durations and finish dates and their relationship to Substantial Completion and Final Completion of the Work, rendered in a form permitting determination of the optimum sequence and duration of each operation.

1.53 SCHEDULE OF VALUES: A document furnished by the Contractor to the Architect and Agency stating the portions of the Contract Sum allocated to the various portions of the Work, which is to be used for reviewing the Contractor's Applications for Payment.

1.54 SECONDARY SUBCONTRACTOR: An individual, partnership, firm or Corporation under direct contract with the Subcontractor to the General Contractor.

1.55 SHOP DRAWINGS: Drawings provided to Architect and Agency by a Contractor that illustrate construction, materials, dimensions, installation, and other pertinent information for the incorporation of an element or item into the construction as detailed Contract Documents.

1.56 SPECIFICATIONS: The description, provisions and other requirements pertaining to the method and manner of performing the Work and/or to the quantities and quality of materials to be furnished under the Contract.

1.57 SUBCONTRACTOR: A person, partnership, corporation or other business organization under direct contract with the Contractor supplying labor and/or materials for the Work at the site of the Project.

1.58 SUBMITTALS: Documents including, but not limited to, samples, manufacturer's data, shop drawing, or other such items submitted to the Agency and Architect by the Contractor for the purpose of approval or other action, as required by the Contract Documents.

1.59 SUBSTANTIAL COMPLETION: The stage in the progress of the Work when the Work or designated portion

thereof is sufficiently complete in accordance with the Contract Documents so the Agency can occupy or utilize the Work for its intended use.

1.60 SUBSTITUTION: A material, device, procedure, equipment, etc., which has been determined by the Architect and the Agency to be not an Equal to the first manufacturer or procedure listed in the Specification in terms of cost, quality and performance but which may be used in place of that item specified. . The Substitution constitutes a modification in the Work, the Schedule or the Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

1.61 SUPPLEMENTAL BID: The monetary value stated in the Bid to be added to the amount of the Base Bid if the corresponding Work, as described in the Bidding Documents, is accepted.

1.62 SUPPLEMENTARY CONDITIONS: An extension of the General Conditions applicable to any and all portions of Work under the Contract Documents.

1.63 THRESHOLD LIMIT BUILDING: Any proposed (new) structures or additions as defined by the Connecticut General Statutes Section 29-276b.

1.64 UNIT PRICE: The monetary value stated by the Agency or the Contractor, as a price per unit of measure for materials or services as described in the Contract Documents and/or Bidding Documents.

1.65 WORK: The construction and services required by the Contract Documents, and including all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

Article 2
REFERENCE STANDARDS AND DEFINITIONS

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

2.2 References to standard specifications and codes refer to the editions current at the bid due date. An exception is, buildings exceeding the threshold limit must be in substantial compliance with the requirements of the effective code at the time of receipt of completed application to the Office of State Building Inspector (OSBI). References include their addenda and errata, if any, and shall be considered a part of these specifications as if they were printed herein in full.

2.3 The manufacturers' standard warranties or guarantees shall apply when their products are used on this project.

2.4 Flame Spread Ratings - all materials that are required or obligated to meet specified standards shall be submitted to the owner for their records as part of the shop drawing submittal process for their construction records.

Article 3
CONDITIONS OF WORK

3.1 The Contractor shall carefully examine and study the conditions under which the Work is to be performed and the site of the Work, and compare the Contract Documents with each other and to information furnished by the Agency including but not limited to the plans and specifications, the form of the Contract, General Conditions, Supplementary Conditions, General Requirements, Bonds and all other Contract Documents associated with the Work.

3.2 The Contractor shall report to the Construction Administrator all errors, inconsistencies or omissions discovered. The Contractor shall not be liable to the Agency for damage resulting from errors, inconsistencies or omissions in the Contract Documents unless the Contractor recognized such errors, inconsistencies or omission and failed to report it to the Construction Administrator. If the Contractor performs any actions or construction activity knowing it involves an error, inconsistency or omission in the Contract Documents without notice to the Construction Administrator, the Contractor shall assume responsibility for such performance and related costs for the correction and shall not be allowed to submit any claim related to error, inconsistencies or omission.

3.3 It shall be the Contractor's responsibility upon discovery to immediately notify the Construction Administrator, in writing, of errors, omissions, discrepancies, and instances of noncompliance with applicable codes and regulations within the documents, and of any work which will not fit or properly function if installed as indicated on the Contract Documents. Any additional costs arising from the Contractor's failure to provide such notification shall be borne by the Contractor.

3.4 The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the Construction Administrator at once; and it will be assumed that the Contractor has been satisfied as to all requirements of the Contract Documents. Any deterrent conditions at the site of the Work which are obvious and apparent upon examination of the site but are not indicated on the plans shall be corrected by the Contractor without additional compensation.

3.5 It is not the intent of the Documents to show all existing conditions. All contractors are advised and required to visit and examine the site with the Construction Administrator prior to submitting bids. If conflicts are noted the Contractor shall notify the Agency as soon as possible prior to bid date. If a conflict appears during construction notify the Construction Administrator, in writing, as soon as possible -- Do not proceed without direction from the Construction Administrator.

3.6 Where existing objects or conditions are uncovered and exposed, subsequent to the issuance of the Contract, the Contractor and the Construction Administrator will jointly inspect these conditions and their findings will be recorded in writing by the Contractor. All corrective measures jointly agreed upon will be recorded in detail sufficient to prevent confusion and conflict at a later date.

3.7 The Contractor will proceed with the Work in these areas, taking into consideration these newly exposed conditions, and will adjust its working procedures to compensate for these conditions.

3.8 Contractors should investigate and satisfy themselves as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, uncertainties of weather, roads or similar physical conditions of the ground, the character of equipment, and facilities needed preliminary to and during the prosecution of the Work. The Contractor should further satisfy himself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the Contract Documents. Any failure by the Contractor to acquaint himself with the available information shall not relieve him from the responsibility for estimating properly the difficulty and cost of successfully performing the Work.

3.9 If applicable to this Project a review of Geo-Technical Reports, Boring Logs Asbestos, Hazardous Materials and Confined Space parameters are contained in a separate Volume of this Project Manual, the Boring Location Plans are in the Contract Documents.

3.10 A Pre-Bid Conference and tour of the site will be conducted as scheduled in the Notice to Bidders. This scheduled conference is the only official opportunity for the bidders to tour the site with the Agency, Architect, Engineer, Construction Administrator, and Consultants.

3.11 In performing the Work, the Contractor must employ such methods or means as will not cause any interruption of or interference with the Work of any other Contractor, nor any inordinate disruption with the normal routine of the Institution or Agency operating at the site.

3.12 No claims for additional compensation will be considered when additional costs result from conditions made known to, discovered by, or which should have been discovered by, the Contractor prior to Contract signing.

3.13 The Contractor shall perform the Work in accordance with the Contract Documents and approved submittals pursuant to Article 8.

Article 4
CORRELATION OF CONTRACT DOCUMENTS

4.1 The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The Specifications and Drawings are intended to describe and illustrate the materials and labor necessary for the work of this Project. Where discrepancies of conflict occur in the Contract Documents the following order of precedence shall be utilized:

4.1.1 Amendments and addenda shall take precedence over previously issued Contract Documents.
4.1.2 The General Requirements take precedence over the Supplementary Conditions.
4.1.3 The Supplementary Conditions take precedence over the General Conditions.
4.1.4 The General Requirements take precedence over the General Conditions.
4.1.5 The Specifications shall take precedence over the Plans.
4.1.6 Stated dimensions shall take precedence over scaled dimensions.
4.1.7 Large-scale detail drawings shall take precedence over small-scale drawings.
4.1.8 The schedules contained in the Contract Documents shall take precedence over other data on the Plans.

4.2 Neither party to the Contract shall take advantage of any obvious error or apparent discrepancy in the Contract Documents. The Contractor shall give immediate written notification of any error or discrepancy discovered to the Construction Administrator, who shall take the necessary actions to obtain such corrections and interpretations as may be deemed necessary for the completion of the Work in a satisfactory and acceptable manner. The Contractor shall then promptly proceed under the direction of the Agency and the provisions of Article 13. The Contractor's failure to provide immediate notice shall mean the Contractor will not be entitled to any additional compensation, either monetary or contract time adjustment, with respect to any discrepancy.

4.3 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

4.4 Organization of the Specifications into divisions, sections and articles, and arrangement of drawings, shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

4.5 Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

4.6 Throughout the Technical Specifications, the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 816, current addition including any interim and supplemental specifications may be referenced. Where so referenced the requirements set forth therein are applicable and made a part hereof Copies of Form 816 are available from the Connecticut Department of Transportation at a nominal charge.

Article 5
SUPPLEMENTAL BID

5.1 Definition: A Supplemental Bid is an amount proposed by bidders and stated on the Bid Proposal Form for certain work defined in the Bidding Documents that may be added to the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

5.2 The cost for each supplemental bid is the net addition to the Contract Sum to incorporate the Supplemental Bid into the Work. Supplemental Bids are only accepted in the numerical order that they are listed on the Bid Proposal Form and never accepted out of numerical sequence. No other adjustments are made to the Contract Sum.

5.3 Coordination: Modify or adjust affected adjacent Work as necessary to completely and fully integrate that Work into the Project.

5.4 Include as part of each Supplemental Bid, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Supplemental Bid.

5.5 Execute accepted Supplemental Bids under the same conditions as other Work of this Contract.

5.6 Schedule: A "Schedule of Supplemental Bids" is included within the Supplementary General Requirements (Section 01030 Supplemental Bids. Specification Sections referenced in the Schedule contain requirements for materials necessary to achieve the Work described under each Supplemental Bid.

Article 6
COMMENCEMENT AND PROGRESS OF WORK

6.1 The Work shall start upon the date given in the Notice to Proceed. The Contractor shall complete all the Work necessary for Final Completion, including but not limited to Substantial Completion, Contract close-out, testing and demonstration of all systems as required for acceptance, punchlist Work, training and submission of Record Documents, manuals, guarantees and warranties as stated in the Bidding Document.

6.2 Time is of the essence with respect to the Contract Time. By executing the Contract, the Contractor confirms and agrees that the Contract Time is a reasonable period to perform the Work. The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time. The Contractor may, at his discretion, plan to complete the work and achieve Substantial Completion in less time than the Contract Time.

6.3 The Contractor's early completion schedule notwithstanding, the Agency reserves the right to order Modifications to the Work in accordance with Article 13 at any time during the Contract Time.

6.4 The Contractor shall not be entitled to costs for delay due to Agency ordered Modifications or any other circumstances for the period of time between the Contractor's elected early completion and the end of the Contract Time. Costs include, but are not limited to, delays extended home or field office costs, supervisory and management costs incurred in performance of the Work. Early completion of the Work shall not merit additional compensation.

6.5 If the Contractor is delayed at any time in the progress of Work by acts of God such as fire or flood or any action, injunction or stop order issued by any court, judge or officer of the court or any other court action beyond the Agency's control, then the Contract Time may be extended by Change Order for such reasonable time as demonstrated by the Contractor's Schedule and as the Agency may determine that such event has delayed the Work. In any event, the granting of an extension of time shall be solely within the discretion of the Agency.

6.6 Except as otherwise may be provided herein, extensions of time shall be the Contractor's sole remedy for such delay. No payment or compensation of any kind shall be made to the Contractor for damages because of hindrance in the orderly progress of Work caused by the aforesaid causes.

6.7 The Contractor acknowledges that the Contract amount includes and anticipates any and all delays, whether avoidable or unavoidable, from said orders, which may issue from any court, judge, court officer, or act of God, and that such delays shall not, under any circumstances, be construed as compensable delays.

6.8 Any extension of the Contract Time shall be by Change Order pursuant to Article 17 and Article 18.

Article 7
PROJECT MEETINGS

7.1 Pre-construction Conference: The Contractor will attend a Pre-construction Conference before starting construction, as scheduled by the Construction Administrator convenient to the Agency, the Construction Administrator, Architect, and Contractor. This meeting will take place within seven (7) Calendar Days after the written Notice to Proceed and before the Contract Start Date. Hold the conference at the Project Site or another convenient location as directed by the Construction Administrator. The Construction Administrator shall conduct the Pre-construction Conference to review the Contractor and Subcontractor responsibilities and personnel assignments. NOTE: Amplify the paragraph below as necessary to suit project requirements.

7.1.1 Attendees: Authorized representatives of the Construction Administrator, Agency, Architect, and their consultants; the Contractor and its superintendent; major subcontractors; agency; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

7.1.2 Agenda: Discuss items of significance that could affect progress, including the following:

a. Tentative construction schedule.
b. Critical work sequencing.
c. Progress meeting schedule.
d. Designation of responsible personnel.
e. Procedures for processing field decisions and Change Orders.
f. Procedures for processing Applications for Payment.
g. Distribution of Contract Documents.
h. Submittal of Shop Drawings, Product Data, and Samples.
i. Preparation of record documents.
j. Use of the premises.
k. Parking availability.
l. Office, work, and storage areas.
m. Equipment deliveries and priorities.
n. Safety procedures.
o. First aid.
p. Security.
q. Housekeeping.
r. Plan of Use
s. Substitutions
t. Safety – Conn OSHA
u. Working hours.
v. Coordination with Audio-Visual and Telecommunications.

7.2 Progress Meetings: The Construction Administrator will conduct progress meetings, weekly, at the Project Site or at regular intervals as agreed upon at the Pre-construction Conference. The Construction Administrator will notify the Agency, the Architect, and the Contractor of the scheduled Progress Meeting dates. Coordinate dates of Progress Meetings with preparation of Application for Payment requests.

7.2.1 Attendees: In addition to representatives of the Contractor, Construction Administrator, Agency and the Architect, subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities may be requested to attend these meetings on an as needed basis. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work. The Contractor shall include the site superintendent as a minimum.

7.2.2 Agenda: Progress Meetings shall review and correct or approve minutes of the previous Progress Meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.

7.2.3 Construction Schedule: Review progress since the last Progress Meeting. Determine where each activity is in relation to the required Contractor's "Construction Schedule" and whether each activity is on time or ahead or behind Schedule. Determine how Work that is behind Schedule will be expedited; secure commitments from parties involved to do so. Discuss whether Schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.

7.2.4 Review the present and future needs of each entity present.

7.2.5 Reporting: The Construction Administrator will distribute minutes of the meeting to each party present, promptly and before the next scheduled meeting, and to parties who should have been present.

7.2.6 A schedule of regular Project Meetings will be established at the Pre-construction Conference.

Article 8
SUBMITTALS, PRODUCT DATA, SHOP DRAWINGS AND SAMPLES

8.1 Contractor shall review, approve and submit to the Construction Administrator/Agency all submittals including but not limited to Product Data, Shop Drawing and Sample Manufacturers, with such promptness as to cause no delay in the Work.

8.2 Correction or approval of such submittals, Shop Drawings, Product Data sample will be made with reasonable promptness by the Architect. Approval will be general only and shall not relieve the Contractor from responsibility for errors in dimensions, for construction and field coordination of the Work or for any departure from the Contract

Documents unless such departure has received the Agency's written approval.

8.3 No Work governed by such drawings, schedules or samples shall be fabricated, delivered or installed until approved by the Architect.

8.4 No damages for delays or time extensions will be granted even if approvals deviate from the approved Schedule.

8.5 Summary: This Section includes administrative and procedural requirements for submittals required for performance of the Work, including but not limited to the following:

a. Submittal schedule.
b. Shop Drawings.
c. Product Data.
d. Samples.
e. Quality assurance submittals.
f. Proposed "Substitutions Request" form.
g. Warrantee samples.
h. Coordination Drawings.
i. O & M Manuals
j. Plan of Use

8.6 Administrative Submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

a. Permits.
b. Applications for Payment.
c. Performance and payment bonds.
d. Contractor's construction schedule.
e. Daily construction reports.
f. Construction Photographs.
g. Insurance certificates.
h. List of subcontractors.
i. Subcontractors/Suppliers FEIN numbers and Connecticut tax registration number.

8.7 Coordination Drawings are to show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended and as identified within the Contract Documents.

8.7.1 Preparation of Coordination Drawings is specified in Division 1 Section "Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.

8.7.2 Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.

8.7.3 Submittal Procedures: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

8.7.4 Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that requires sequential activity.

8.7.5 Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.

8.7.6 The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

8.7.7 The Architect reserves the right to reject incomplete submitted packages.

8.7.8 Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.

a. Allow (2) two weeks for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals.
b. If an intermediate submittal is necessary, process the same as the initial submittal.
c. Allow (2) two for reprocessing each submittal.
d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.

8.9 Submittal Preparation: Place a permanent label, title block or 8-1/2 inches x 11 inches cover page approved by the Architect, on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

8.9.1 The minimum number of copies required for each submittal shall be at a minimum 7 copies or

as determine otherwise at the pre-construction conference or by the Construction Administrator.

8.9.2 Provide a space approximately 4 inches by 5 inches on the label, beside the title block or on the cover page on Shop Drawings to record the Contractor's review and approval markings and the action taken.

8.9.3 Include the following information on the label for processing and recording action taken.

a. Project Name and State of Connecticut Project Number.
b. Date.
c. Name and address of the Architect, Construction Administrator, and Owner Representative.
d. Name and address of the Contractor.
e. Name and address of the subcontractor.
f. Name and address of the supplier.
g. Name of the manufacturer.
h. Number and title of appropriate Specification Section.
i. Drawing number and detail references, as appropriate.
j. Indicate either initial or resubmittal.
k. Indicate deviations from Contract Documents.
l. Indicate if "equal" or "substitution".

8.10 Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Architect using a transmittal form. Copy the Construction Administrator on the transmittal and one copy of the submittal. The Architect will return submittals to the Contractor after action is taken with a complete copy of the submittal package to the Construction Administrator.

8.10.1 On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

8.11 Submittal Schedule: After development and review by the Construction Administrator and Architect acceptance of the Contractor's Construction Schedule prepare a complete Schedule of Submittals. Submit the schedule to the Construction Administrator within seven (7) days of Contract Award.

8.11.1 Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.

8.11.2 Prepare the schedule in chronological order. Provide the following information:

a. Related section number.
b. Schedule date for the initial submittal.
c. Submittal category (Shop Drawings, Product Data, or Samples).
d. Name of Subcontractor.
e. Description of the part of Work covered.
f. Scheduled date for resubmittal.
g. Scheduled date for the Architect's final release of approval.

8.11.3 Distribution: Following response to the initial submittal schedule, print and distribute copies to the Construction Administrator, Architect, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.

8.11.4 When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

8.11.5 Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

8.12 Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the Construction Administrator at weekly intervals:

a. List of subcontractors at the site.
b. Approximate count of personnel at the site.
c. High and low temperatures, general weather conditions.
d. Accidents and unusual events.
e. Meetings and significant decisions.
f. Stoppages, delays, shortages, and losses.
g. Meter readings and similar recordings.
h. List of equipment on site and identify if idle or in use.
i. Orders and requests of governing authorities.
j. Change Orders received, start and end dates.
k. Services connected, disconnected.
l. Equipment or system tests and startups.

m. Partial Completion's, occupancies.
n. Substantial Completion's authorized.
o. Equals or Substitutions approved or rejected.
p. Sub-Contractors meeting minutes.
q. Safety Meeting minutes.

8.13 Shop Drawings: Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.

8.13.1 Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:

a. Dimensions:
b. Identification of products and materials included by sheet and detail number.
c. Compliance with specified standards.
d. Notation of coordination requirements.
e. Notation of dimensions established by field measurement.
f. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 36 by 48 inches.
g. Submit one (1) reproducible media and seven (7) prints as directed by the Construction Administrator. The Contractor's submittal shall identify the specification section and/or drawing number applicable to the submittal.
h. Details shall be large scale and/or full size.

8.13.2 The Contractor shall review the Shop Drawings, stamp with this approval, and submit them with reasonable promptness and in orderly sequence so as to cause no delay in his Work or in the Work of any subcontractor. Shop Drawings shall be properly identified as specified for item, material, workmanship, and project number. At the submission, the Contractor shall inform the Architect, in writing of any deviation in the shop drawings from the requirements of the Contract Documents.

8.13.3 The Architect will review and comment on shop drawings with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the project and with the information given in the Contract Documents. Shop Drawings received by the Architect that indicate insufficient study of drawings and specifications, illegible portions or gross errors, will be rejected outright. Such rejections shall not constitute an acceptable reason for granting the Contractor additional time to perform the work.

8.13.4 The Contractor shall make any corrections required by the Architect and shall resubmit the required number of corrected copies of shop drawings until fully reviewed.

8.13.5 Upon final review submit four (4) additional prints, same as submitted, to the Construction Administrator for his use.

8.13.6 The Architect's review and comments on shop drawings shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents.

8.13.7 Only final reviewed shop drawings are to be used on the project site.

8.13.8 The Work installed shall be reviewed in accordance with the shop drawings and the drawings and specifications. Final Review of the shop drawings by the Architect shall constitute acceptance by the State and the Architect of a variation or departure that is clearly identified. Final reviewed shop drawings shall not replace or be used as a vehicle to issue or incorporate change orders.

8.14 Product Data: Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, schedules, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.

8.14.1 Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:

a. Manufacturer's printed recommendations.
b. Compliance with trade association standards.
c. Compliance with recognized testing agency standards.
d. Application of testing agency labels and seals.
e. Notation of dimensions verified by field measurement.

f. Notation of coordination requirements.

8.14.2 Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

8.14.3 Preliminary Submittal: Submit a preliminary single copy of Product Data where selection of options is required.

8.14.4 Submittals: Submit 7 copies of each required submittal; submit an additional 3 copies where required for maintenance manuals. The Architect will retain one and will return the others marked with action taken and corrections or modifications required.

8.14.5 Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

8.14.6 Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

8.14.7 Do not proceed with installation until a copy of Product Data is in the Installer's possession.

8.14.8 Do not permit use of unmarked copies of Product Data in connection with construction.

8.15 Samples: Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.

8.15.1 Store, mount or display Samples on site in the manner to facilitate review of qualities indicated. Prepare Samples to match the Architect's sample. Include the following:

a. Specification Section number and reference.
b. Generic description of the Sample.
c. Sample source.
d. Product name or name of the manufacturer.
e. Compliance with recognized standards.
f. Availability and delivery time.

8.15.2 Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show approximate limits of the variations.
b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
d. Samples not incorporated into the Work are the property of the Contractor and shall be removed from the site prior to Substantial Completion.

8.15.3 Preliminary Submittals: Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices, unless otherwise noted in specification section.

a. The Architect will review and return preliminary submittals with the Architects notation, indicating selection and other action.

8.15.4 Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit three (3) sets. The Architect will return one set marked with the action taken.

8.15.5 Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.

8.15.6 Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

8.15.7 Sample sets may be used to obtain final acceptance of the construction associated with each set.

8.15.8 Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

8.15.9 Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.

8.16 Quality Assurance Submittals: Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.

8.16.1 Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

8.16.2 Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

8.16.3 Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 1 Section "Quality Control".

8.17 Architect's Action: Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken, and return promptly.

a. Compliance with specified characteristics is the Contractor's responsibility.

8.17.1 Action Stamp: The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:

a. Final Unrestricted Release: When the Architect marks a submittal "Approved for fabrication," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

b. Final-But-Restricted Release: When the Architect marks a submittal "Incorporate Notations," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Submit corrected copies for record. Final payment depends on that compliance.

c. Returned for Resubmittal: When the Architect marks a submittal "Rejected, or Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.

8.17.2 Other Action: Where a submittal is for information or record purposes or special processing or other activity, the Architect will return the submittal marked "Action Not Required."

8.17.3 Unsolicited Submittals: The Architect will discard unsolicited submittals without action.

8.18 Do not use, or allow others to use, submittals marked "Rejected, or Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.

8.19 The Contractor shall allow a minimum of two weeks for the Agency and its agents' review of Submittals. No extension of the Contract Time shall be granted for revisions and resubmission. Further, the Contractor shall allow a minimum of eight weeks for testing and acceptance of the Work by the Agency and its agents.

Article 9
EQUALS AND SUBSTITUTIONS

Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.

9.1 Equals or Substitutions General: Changes in products, materials, equipment, and methods of construction required by the Contract Documents proposed by the Contractor after award of the Contract.

9.2 Equal: Any deviation from the specification which is defined as follows: A replacement for the specified material, device, procedure, equipment, etc., which is recognized and accepted as substantially equal to the first listed manufacturer or first listed procedure specified, after review, by the Architect and may be rejected or approved at the sole discretion of the owner. All equals must be substantially equivalent to the first manufacturer or first procedure listed in the Specifications with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suita-

bility for purposes intended; size, rating and cost. The equal does not constitute a modification in the scope of Work, the Schedule or Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

9.3 Substitution: Any deviation from the specified requirements, which is defined as follows: A replacement for the specified material, device, procedure, equipment, etc., which is not recognized or accepted as equal to the first manufacturer or procedure listed in the Specification after review by the Architect and may be rejected or approved by the Agency. The Substitution is not equal to the specified requirement in comparison to the first manufacture or first procedure listed in the Specifications in one or more of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended; size; cost and rating. The Substitution constitutes a modification in the scope of Work, the Schedule or the Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

9.3.1 The following are not considered to be requests for Equals or Substitutions:

a. Revisions to the Contract Documents requested by the Agency or Architect.
b. Specified options of products and construction methods included in the Contract Documents.
c. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities having jurisdiction.

9.4 Submittals: Equals and Substitution Request Submittals: The Owner will consider requests for equals or substitutions if received within time period of thirty (30) calendar days from the contract award. Requests received more than the days specified will be rejected.

9.4.1 The Contractor is required to prepare and submit 3 copies of the required data for the first manufacturer listed or procedure listed in the specifications section with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended including the size, rating and cost. All submissions must include all the required data for the first listed manufacturer or procedure as specified, as well as the required data for the proposed Equal or Substitution. This will enable the Agency and Architect/Engineer to determine that the proposed Equal or Substitution is or is not substantially equal to the first listed manufacturer or procedure.

9.4.2 The Contractor is required to identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.

9.4.3 The Contractor is required to provide complete documentation showing compliance with the requirements for equals or substitutions, and the following information, as appropriate on a "Substitution Request" form as required by the Agency:

h. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Agency and separate contractors, that will be necessary to accommodate the proposed Equal or Substitution.
h. A detailed comparison chart of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.
h. Product Data, including Shop Drawings and descriptions of products and fabrication and installation procedures.
h. Samples, where applicable or requested.
h. A statement indicating the effect on the Contractor's Construction Schedule compared to the schedule without approval of the Equal or Substitution. Indicate the effect on overall Contract Time.
h. Cost information, broken down, including a proposal of the net change, if any in the Contract Sum.
h. The Contractor's certification that the proposed Equal or Substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.
h. The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the Equal or Substitution to perform adequately.

9.5 Architect's/Engineer's Action: If necessary, the Architect/Engineer will request additional information or documentation for evaluation within one week of receipt of the original request for equal or substitution request. The Architect/Engineer will notify the Construction Administrator who will notify the Agency of recommended acceptance or rejection of the proposed equal or substitution, within two (2) weeks of receipt of the request, or one (1) week of receipt of additional information or documentation, whichever is later. The Construction Administrator will give final acceptance or rejection by the Agency not less than one (1) week after notification.

9.6 Any request deemed an "Equal" and accepted by the Construction Administrator, Architect, and Agency will result in written notification to the Contractor and will not be in the form of a change order for an "Equal".

9.7 Any request deemed a "Substitution" and rejected or approved by Construction Administrator, Architect, and Agency may result in written notification to the Contractor and may be in the form of a change order if the "Substitution" is approved.

9.8 Equal or Substitutions: Conditions: The Architect will consider the Contractor's request for Equal or Substitution of a product or method of construction when one or more of the following conditions are satisfied, as determined by the Architect. If the following conditions are not satisfied, the Architect will return the requests to the Construction Administrator without action except to record noncompliance with these requirements.

a. The proposed request does not require extensive revisions to the Contract Documents.
b. The proposed request is in accordance with the general intent of the Contract Documents.
c. The proposed request is timely, fully documented, and/or properly submitted. The proposed request can be provided within the Contract Time. However, the Architect will not consider the proposed request if it is a result of the Contractor's failure to pursue the Work promptly or coordinate activities properly.
d. The proposed request will offer the Agency a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Agency must assume. However, if the proposed request requires the Owner to incur additional responsibilities, including but not limited to, additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or similar considerations, then the Owner will have just cause to reject the request for Equal or Substitution.
e. The proposed request can receive the necessary approvals, in a timely manner, required by governing authorities having jurisdiction.
f. The proposed request can be provided in a manner that is compatible with the Work as certified by the Contractor.
g. The proposed request can be coordinated with the Work as certified by the Contractor.
h. The proposed request can uphold the warranties required by the Contract Documents as certified by the Contractor.

9.9 The Contractor's submission and the Architect's review of Submittals, including but not limited to, Samples, Manufacturer's Data, Shop Drawings, or other such items, which are not clearly identified as a request for an Equal or Substitution, will not be considered or accepted as a valid request for an Equal or Substitution, nor does it constitute an approval.

Article 10
SEPARATE CONTRACTS

10.1 The Agency reserves the right to perform Work in connection with the Contract with the Agency's own forces, or to let separate contracts relating to the Contract (Project) site or in connection with work on adjoining sites. In such cases, the Contractor shall afford such parties reasonable opportunity for storage of materials and equipment and coordinate and connect the Work with the work on adjoining sites or other projects, and shall fully cooperate with such parties.

10.2 Contractors working in the same vicinity shall cooperate with one another and, in case of dispute, decision of the Agency shall be final and binding to all Contractors involved, including Contractors under separate Contracts.

10.3 The Contractor shall assume all liability, financial or otherwise, in connection with this Contract and shall protect and hold harmless the Agency from any and all damages or claims that may arise because of inconvenience or delay which the Contractor may cause other Contractors. If the Contractor experiences a loss because of the presence and operations of other Contractors working adjacent to or within the limits of the same project, then as between the Agency and the Contractor, the Contractor shall bear such loss.

10.4 Insofar as possible, the Contractor shall arrange the Work and shall place and dispose of the materials being used so as not to interfere with the operations of other Contractors adjacent to or within the limits of the same project. The Contractor shall join its Work with that of others in an acceptable manner, and perform the Work in proper accordance with that of the others.

10.5 In no event shall the Agency be responsible for any claim or damages that are the result of the Contractor's failure to coordinate the work with any Contractor or Subcontractor.

Article 11
COOPERATION OF TRADES

11.1 The Contractor shall be responsible for and shall control all activities of their Subcontractors. The Subcontractors shall consult and cooperate with one another. Each Subcontractor shall furnish all necessary information to other Subcontractors and shall lay out and install their own Work so as to avoid any delays or interference with the Work of others.

11.2 Any cost or changes, cutting and/or repairing, made necessary by the failure to observe the above requirements shall be borne by the party or parties responsible for such failure or neglect or their faulty Work installed.

Article 12
DAMAGES

12.1 The Liquidated Damages, provided in the Bidding Documents, will be assessed for each day beyond the date given for Substantial Completion of the Contract according to the Contract Time.

12.2 The Liquidated Damages or any portion thereof may be waived at the sole discretion of the Agency.

12.3 No payment by the Agency, either partial or final, shall be construed to waive the Agency's right to seek liquidated damages.

12.4 In the event a court determines that the contract herein is null and void for any reason, Contractor agrees that Contractor will not seek or pursue any lawsuit or claim for damages, including, but not limited to, claims for loss of overhead or anticipated profits, against the Agency and the Agency shall not be liable for any damages which Contractor may incur as a result of such decision. In addition, if the court enjions the Agency from entering into or proceeding with the contract herein, the Agency shall not be liable for any damages arising out of or relating to the award of such contract which Contractor may have incurred as a result of the injunction.

Article 13
MINIMUM WAGE RATES

In accordance with the provisions of the Connecticut General Statutes Section 31-53, the following applies:

"The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of section 31-53 of the general statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day."

Article 14
POSTING MINIMUM WAGE RATES

14.1 The Contractor shall post at conspicuous points on the site of the Contract a Schedule showing all determined wage rates for all trades and all authorized deductions, if any, from wages to be paid.

14.2 The Contractor shall provide weekly certified payrolls to the Agency for all persons working on the site.

Article 15
CONSTRUCTION SCHEDULES

15.1 Unless otherwise specified in the Contract Documents, within seven (7) calendar days from the contract start date, the Contractor shall submit the following to the Agency for approval:

a. A comprehensive Schedule of Activities. Said schedule shall include Submittal dates, required approval dates and date material must be on site.

15.2 Within **seven (7) days** of the Agency's issuance of a Contract, the Contractor shall submit to the Construction Administrator **three (3) copies** of a Construction Schedule for this Project. The Schedule shall be in bar chart form and shall include all aspects of the work, the interrelationship of the various trades, and the critical path of the job. The schedule shall include a timeline for the submission, review and approval of shop drawings for critical path items, and delivery and installation dates for those same critical path, or long lead time items, (such as electrical transformers and elevator). The Schedule shall coincide with the Contractor's approved Schedule of Values. The Schedule shall indicate a completion date in advance of the date established for Substantial Completion. The Schedule shall be acceptable to the Architect/Engineer and the Construction Administrator. It shall be revised and reissued at the beginning of every month for the duration of the project. This monthly update progress Schedule shall include a summary comparison of the original schedule and the latest updated schedule (previous month) showing all activity description and dates. These comparison schedules shall be in the form of a summary bar chart, an activity listing report, and actual to target comparisons. The reports shall include critical activities, float time, duration of each activity, dates of each activity, and the network logic (including successors and predecessors of each activity). Included with the written report and copy of the schedule submission, there also shall be a 3- ½" computer diskette noting the above referenced requirements. Failure to provide the Architect/Engineer, or the Construction Administrator with an acceptable, revised Schedule, within **seven (7) days** of the receipt of a written request, may result in the withholding of the Contractor's monthly progress payments until such a Schedule is received.

15.3 Phasing: The Contractor shall include, as part of the Construction Schedule, all proposed phasing for execution of the work. The phasing must incorporate all aspects of the work and shall reflect coordination with any concurrent projects undertaken by Agency, and any partial occupancy requirements of the Agency.

15.4 Project Schedule Format:

a. Format: Utilize a horizontal bar chart (gantt) with a separate bar for each major portion of the Work or operation, identifying first work day of each week.
b. Program: Use Microsoft Project, latest version.
c. Sequence of Listings: Utilize the Table of Contents of this Project Manual and the chronological order of the start of each item of work.
d. Scale and Spacing: Provide space for notations and revisions.
e. Sheet Size: To be coordinated with Construction Administrator.

15.5 Quality Assurance: The Contractor's Consultant: Retain a knowledgeable person and/or consultant to provide planning, evaluating, and reporting by CPM scheduling. The Agency may waive the requirement to retain a consultant if the Contractor can demonstrate that:

a. The Contractor has the computer equipment required to produce construction schedules.
b. The Contractor employs skilled personnel with experience in construction scheduling and reporting techniques.

15.6 Computer Program for Project Schedules: Use "Microsoft Project" compatible, latest version.

15.7 Standards: Comply with procedures contained in AGC's "Construction Planning & Scheduling."

15.8 Content: Provide the following:

a. Show complete sequence of construction by activity, with dates beginning and completion of each element of construction.
b. Identify each item by specification section number.
c. Identify work of separate phases other and other logically grouped activities.
d. Show accumulated percentages of completion of each item, and total percentage of Work completed, as of the first day of each month.
e. Provide separate schedule of submittal dates for shop drawings, product data, and samples, Owner/Agency furnished products and any products identified as under Allowances, and dates reviewed submittals will be required from Architect/Engineer. Indicate decision dates for selection of finishes.
f. Indicate delivery dates for Agency furnished products and any products identified as under Allowances.
g. Coordinate content with Schedule of Values.

15.8.1 Submittals And Revisions To Schedules: Provide the following:

a. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
b. Identify activities modified since previous submittal, major changes in scope, other identifiable changes.
c. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.

15.9 Unless otherwise specified under the Contract Documents, the Contractor shall provide a monthly update of the Construction Schedule in the format required by the Agency as well as a disk of the updated Schedule and program. If, in the opinion of the Agency, the Work is falling behind Schedule, the Contractor shall submit a revised Schedule demonstrating a recovery plan to ensure Substantial Completion of the Work within the Contract Time.

15.10 Requisitions for partial payment will not be processed until the Contractor has complied with this requirement.

Article 16
PREFERENCE IN EMPLOYMENT

16.1 Should this Contract be for the construction or repair of any building, then in the employment of labor to perform the Work specified herein, preference shall be given to citizens of the United States, who are, and continuously for at least three (3) months prior to the date hereof, have been residents of the labor market area, as established by the State of Connecticut Labor Commissioner, in which such Work is to be done, and if no such qualified person is available, then to citizens who have continuously resided in the county in which the Work is to be performed for at least three (3) months prior to the date hereof, and then to citizens of the state who have continuously resided in the State at least three months prior to the date hereof.

16.2 Should this Contract be for a public works project other than for the construction, remodeling or repairing of public buildings covered by Connecticut General Statutes Section 31-52, then in the employment of mechanics, laborers or workmen to perform the Work specified herein, preference will be given to residents of the state who are, and continuously for at least six (6) months prior to the date hereof have been residents of this State, and if not such person is available then to residents of other states.

16.3 The provisions of this Article shall not apply where the state or any sub-division thereof may suffer the loss of revenue granted or to be granted from any agency or department of the federal government as a result of this Article or regulations related thereto.

Article 17
MODIFICATION PROCEDURES

17.1 Summary: This Section specifies administrative and procedural requirements for handling and processing contract modifications.

17.2 Minor Changes in the Work: The Architect, through the Construction Administrator, may issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on the "Supplemental Instructions" form as required by the Agency.

17.3 Proposal Request: The following is the outlined procedure:

a. Architect/Agency-Initiated Requests For Proposals: The Architect or Agency will issue a detailed description of proposed changes in the Work via the Construction Administrator that will require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications. Such requests

shall be on a "Proposal Request" form as required by the Agency.

b. "Proposal Request" is issued for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.

c. Within Seven (7) Calendar Days of receipt of a "Proposal Request", submit an "Change Order Proposal" with the required information necessary to execute the change to the Construction Administrator for the Architect's/Agency's review.

d. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

e. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.

f. Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.

17.4 The Agency is tax exempt. All Contractor and Subcontractor services provided under your contract with the State of Connecticut may not be exempt from taxes. The State of Connecticut, Department of Revenue Services can guide you as to which services are exempt and which are not.

a. The State of Connecticut construction contract has the following tax exemptions:

b. Purchasing of materials which will be physically incorporated and become a permanent part of the project.

c. Tools, supplies and equipment used in fulfilling the construction contract are not exempt.

d. Services that are resold by the contractor are exempt, i.e. if a General Contractor hires a plumber, to be integral and inseparable component parts of the building contract.

e. Dollar values shown on the Schedule of Values shall not be the governing (or deciding) final amounts for change orders involving either additional charges or deletions.

17.5 Requests for Information: In the event that the contractor, subcontractor or Construction Administrator, determines that some portion of the drawings, specifications, existing site conditions or other contract documents requires clarification or interpretation by the Architect, then they shall submit a "Request for Information" in writing to the Architect via Construction Administrator. "Requests for Information" shall be submitted on the "Request for Information" forms as required by the Agency. The "Request for Information", shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed from the Architect. The following shall apply:

a. In the "Request for Information", the writer shall set forth an interpretation or understanding of the requirement along with reasons why such an understanding was reached.

b. The Agency acknowledges that this is a complex project. Based upon the Agency's past experience with projects of similar complexity, the Agency anticipates that there will probably be some "Requests for Information" on this project.

c. The Architect will review all "Requests for Information" to determine whether they are "Requests for Information" within the meaning of this term. If it is determined that the document is not a "Request for Information", it will be returned to the contractor, unreviewed as to content, for resubmittal on the proper form and in the proper manner.

d. A "Requests for Information Response" shall be issued within seven (7) Calendar Days of receipt of the request unless the Agency determines that a longer time is necessary to provide an adequate response. If a longer time is determined necessary by the Agency, the Agency will, within seven (7) Calendar Days of receipt of the request, notify the writer of the anticipated response time. If the contractor submits a "Request for Information" on an activity with seven (7) Calendar Days or less of float on the current project schedule, the contractor shall not be entitled to any time extension due to the time it takes the Architect to respond to the request provided that the Architect responds within the seven (7) Calendar Days set forth above.

e. A "Requests for Information Response" from Architect will not change any requirement of the contract documents. In the event the contractor believes that the "Requests for Information Response" will cause a change to the requirements of the contract document, the contractor shall immediately give written notice to the Construction Administrator stating that the contractor believes the "Requests for Information Response" will result in "Change Order" and the Contractor intends to submit a "Change Order Proposal" request. Failure to give such written notice immediately shall

waive the contractor's right to seek additional time or cost under the requirement these Requirements.

17.6 Change Order Proposal: When either a "Request for Information" from the Contractor or a "Proposal Request" from the Architect or Agency results in conditions that may require modifications to the Contract, the Contractor may propose changes by submitting a request for a "Change Order Proposal" to the Architect via the Construction Administrator on forms as required by the Agency. These forms shall also include "Change Order Proposal Worksheets" as required by the Agency. The following shall apply:

a. Include statements outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.
b. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
c. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
d. Comply with requirements in Equals and Substitutions if the proposed change requires an equal or substitution of one product or system for a product or system specified.

17.7 "Change Order Request" Forms: Use "Change Order Proposal" and "Change Order Proposal Worksheets" forms as required by Agency.

17.8 Construction Change Directive: When the Agency and the Contractor disagree on the terms of a "Change Order Proposal" resulting from either a "Request for Information" or "Proposal Request", then the Architect through the Construction Administrator may issue a "Construction Change Directive" on a "Construction Change Directive" as authorized by the Agency on the form required by the Agency. The "Construction Change Directive" instructs the Contractor to proceed with a change in the Work, for subsequent inclusion in a "Change Order".

17.8.1 The "Construction Change Directive" contains a complete description of the change in the Work. It also designates the method to be followed to determine change in the Contract Sum or Contract Time. The Contractor shall maintain detailed records on a time and material basis of work required by the "Construction Change Directive". After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract. The final value shall be negotiated based on the supporting data to determine the value of the work.

17.9 Change Order Procedures: Upon the Agency's approval of a Contractor's "Change Order Proposal", the Construction Administrator will issue a "Change Order" for signatures of the Architect, Agency and the Contractor on "Change Order" form as required by the Agency.

Article 18
COMPENSATION FOR CHANGES IN THE WORK

18.1 At any time, without invalidating the Contract and by a written order and without notice to the sureties, the Agency, through the Construction Administrator, may order modifications in the Work consisting of additions, deletions or other revisions. Upon request, the Contractor shall supply the Construction Administrator promptly with a detailed proposal for the same, showing quantities of and unit prices for the Work and that of any Subcontractor involved.

18.2 Modifications to the Work will be authorized by a written Change Order, or if necessary to expedite the Work, a written Construction Change Directive. Change Orders and Construction Change Directives shall be processed in accordance with the terms of the Contract Documents. Upon receipt of the written Change Order, the Contractor shall proceed with the Work when and as directed.

18.3 If such Change Orders make the Work less expensive for the Contractor, the proper deductions shall be made from the Contract Sum, said deductions to be computed in accordance with the provisions listed in this Article 18.

18.4 The Contractor and the Agency agree that the Contract Time specified for the performance of the Contract shall include not only the Work of the original Contract but also any Additional Work ordered by the Agency by Change Order. No extension of time will be granted if it is the opinion of the Agency that the additional Work can be performed concurrently with the original Work.

18.5 The Contractor may request, and the Agency may grant additional contract time when, in the opinion of the Agency, the Contractor has demonstrated that such additional work cannot be performed concurrently with the original Work.

18.6 The amount of compensation to be paid to the Contractor for any Additional or Deleted Work that results in a

Change Order shall be determined in one of the following manners:

18.6.1 AMOUNT OF COMPENSATION FOR CHANGE ORDER COSTS: LABOR, EQUIPMENT, BENEFITS AND MATERIAL

18.6.1.1 Unit Price: As stated in the Contract Documents.

18.6.1.2 Unit Price: As subsequently agreed upon by the Contractor and Agency.

18.6.1.3 Lump Sum: Agreed upon sum by the Agency and the Contractor. The Lump Sum must be based upon the following itemized costs:

18.6.1.3.1 Labor (Contractor's or Subcontractor's own forces).

18.6.1.3.2 Material (Used by Contractor's or Subcontractor's own forces).

18.6.1.3.3 Benefits: (The established rates of the following benefit costs inherent to the particular labor involved):

18.6.1.3.3.1 Workers Compensation.

18.6.1.3.3.2 Federal Social Security.

18.6.1.3.3.3 Connecticut Unemployment Compensation.

18.6.1.3.3.4 Fringe Benefits.

18.6.1.3.4 Rented Equipment (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

18.6.1.3.5 Owned Equipment (Used directly on the Work and by the Contractor's or Subcontractor's own forces). Daily rate is not to exceed 3% of the monthly rental rate as identified by a nationally recognized construction cost estimating guide or service.

18.6.1.3.6 Trade related equipment, hand tools and power tools, normally supplied with the labor are not compensable.

18.6.2 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material).

18.6.2.1 Contractor's markup for Work performed by their own forces:

Change Order Amount	**Overhead and Profit**
$0 to $ 5,000	20%
$5,001 to $15,000	17%
$15,001 to $25,000	15%
$25,000 and greater	12%

18.6.3 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material).

18.6.3.1 Contractor's markup for Work performed by their Subcontractors forces:

Change Order Amount	**Overhead and Profit**
$0 and greater	6%

18.6.4 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material).

18.6.4.1 Subcontractor's markup for Work performed by their own forces:

Change Order Amount	**Overhead and Profit**
$0 to $ 5,000	20%
$5,001 to $15,000	17%
$15,001 to $25,000	15%
$25,000 and greater	12%

18.6.5 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material).

18.6.5.1 Subcontractor's markup for Work performed by their Secondary Subcontractor's forces.

Change Order Amount	**Overhead and Profit**
$0 and greater	6%

18.7 Actual additional bonding costs associated with the value of the Change Order will be compensable only when supported by a written documentation by the bonding company that the Change Order requires an increase to the original Performance, Payment, Labor or Material Bond. Such claims shall be held and calculated at the end of construction activities and to be included under Final Payment.

18.8 If Unit Prices are not applicable and the parties cannot agree upon a lump sum, then the Agency, through the Construction Administrator take the following action(s):

18.8.1 Issue a Construction Change Directive for the Additional or deleted Work. The amount of compensation shall be computed by the actual net costs to the Contractor based upon the following:

18.8.1.1 Labor (Contractor's or Subcontractor's own forces).

18.8.1.2 Material (Used by Contractor's or Sub- contractor's own forces).

18.8.1.3 Benefits: (The established rates of the following benefit costs inherent to the particular labor involved):

18.8.1.3.1 Workers Compensation.
18.8.1.3.2 Federal Social Security.
18.8.1.3.3 Connecticut Unemployment Compensation.
18.8.1.3.4 Fringe Benefits.

18.8.1.4 Rented Equipment (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

18.8.1.5 Owned Equipment (Used directly on the Work and by the Contractor's or Subcontractor's own forces). Daily rate is not to exceed 3% of the monthly rental rate that can be identified by a nationally recognized construction cost estimating guide or service.

18.8.2 Issue a Change Order adjusting the Contract Sum in the amount as determined by the Agency.

18.9 For any Change Order or Construction Change Directive the Contractor shall, when requested, promptly furnish in a form satisfactory to the Construction Administrator and the Agency a complete detailed accounting of all costs relating to the Additional Work, including but not limited to certified payrolls and copies of accounts, bills and vouchers to substantiate actual costs. Further, the Agency reserves the right to access and make copies of the Contractor's records at any time upon written request to the Contractor.

18.10 If the Contractor wishes to make a claim for an increase in the Contract Sum for any damages sustained as a result of Additional Work, then the Contractor shall give the Agency, through the Construction Administrator, written notice thereof within seven (7) calendar days after the occurrence of the event giving rise to such claims.

18.11 No such claims shall be valid if the written notice is submitted after the required seven (7) calendar days. In addition, the Contractor shall file with the Agency, through the Construction Administrator, daily or weekly itemized statements of the details and cost of such Work performed or damage sustained as may be required by the Agency.

18.12 Failure of the Contractor to negotiate in good faith issues of time and costs and failure to provide requested documentation within (14) fourteen calendar days, or a time period accepted by the Agency, shall constitute a waiver by the Contractor of any claim. In such cases the Agency may elect to issue a unilateral Change Order in an amount deemed to be fair and equitable by the Agency. The provisions hereof shall not affect the power of the Contractor to act in case of emergency, threatened injury to persons, or damage to Work on any adjoining property. In this case the Agency, through the Construction Administrator, shall issue a written order for such amount as the Agency finds to be reasonable cost of such Work.

Article 19
DELETED WORK

19.1 Without invalidating any of the terms of the Contract, the Agency may order deleted from the Contract any items or portions of the Work deemed necessary by the Agency.

19.2 The compensation to be deducted from the Contract Sum for such deletions shall be determined in the manner provided for under the provisions of Article 13 or in the event none of the provisions of Article 13 are applicable than by the value as estimated by the Agency.

Article 20
MATERIALS: STANDARDS

20.1 Unless otherwise specifically provided for in the Specifications, all equipment, materials and articles incorporated in the Work are to be new and of the best grade of their respective kinds for the purposes. Wherever in the Contract Documents a particular brand, make of material, device, or equipment is shown or specified, the first manufacturer listed in the specification section is to be regarded as the standard. When the specification is proprietary and only one manufacturer is listed, the Contractor shall use the named manufacturer and no Substitutions or Equals will be allowed.

20.2 Any other brand, make of material, device, equipment, procedure, etc. which is a deviation from the specified requirement is prohibited from use but may be considered by the Agency for approval as an Equal or Substitution. The Contractor is to adhere to the specific requirements of the Contract Documents. Substitutions are discouraged and are only approved by the Agency as an exception.

20.3 Each request for an Equal or Substitution shall be submitted, with the appropriate documentation, as detailed in the Contract Documents, to the Construction Administrator. All requests will be compared to the first manufacturer or first procedure listed in the specific Specification section with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended including the size, rating and cost. All submissions must include all the required data for the first listed manufacturer or procedure as specified, as well as the proposed Equal or Substitution. The submission of all Equals or Substitutions to those specified must be made within the days listed below after the contract start date. After that time period, the Contractor shall provide what is specified unless otherwise allowed within the sole discretion of the Agency.

20.3.1 30 days for projects having a Contract Time duration of 180 days or less.

20.3.2 60 days for projects having a Contract Time duration of 181 days to 360 days.
20.3.3 90 days for projects having a Contract Time duration of 361 days or greater.

20.4 Contractor shall submit each request for Equal or Substitution to the Architect who shall review each request and make the following recommendations to the Agency:

20.4.1 Acceptance or non-acceptance of the adequacy of the submission and required back-up,
20.4.2 Determination of the category of the request for Substitution or Equal, and
20.4.3 Overall recommendation for approval or rejection of the Substitution or Equal. The determination of the category as a Substitution may be grounds for an immediate rejection by the Agency.

20.5 Approval of the Agency, for each Equal or Substitution shall be obtained before the Contractor proceeds with the Work. The decision of the Agency, in this regard, shall be final and binding on the Contractor.

20.6 No extension of time will be allowed for the time period required for consideration of any Substitution or Equal. No extension of time will be allowed and no responsibility will be assumed by the Agency when a Contractor submits a request for Substitution or Equal, whether such request be approved or denied.

20.7 If the Contractor submits any request for an Equal or a Substitution, he shall bear the burden of proof that such requested Equal or Substitution meets the requirements of the plans and specifications.

20.8 The Contractor shall purchase no materials or supplies for the Work which are subject to any chattel mortgage or which are under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that the Contractor has good title to all materials and supplies used by him in the Work.

20.9 All Products and systems supplied to the State as result of a purchase by a contractor shall be certified that, to the best of the supplier's knowledge there are no materials that are classified as hazardous materials being used within the assembly. Hazardous materials include, but are not limited to, products such as asbestos, lead and other materials that have proven to cause a health risk by their presence.

Article 21
QUALITY CONTROL

21.1 Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, the Agency, through the Construction Administrator, shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. All tests required by the individual specification sections are required to be scheduled and notification given to the Construction Administrator forty-eight (48) hours in advance to the test/inspection as applicable.

21.2 Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.

21.3 Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Agency's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services. Such services include Special Inspections as required by the latest adoption of the “Connecticut State Building Code”.

21.4 Where the Agency has engaged a testing agency for testing and inspecting part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner. The Agency will engage the services of a qualified Special Inspector for this project. The Special Inspector, as a representative of the Agency, shall document and confirm compliance with the provisions of the Connecticut State Building Code for Special Inspections.

21.5 Materials and assemblers for this project will be tested and construction operations inspected as the work progresses. Failure to detect any defective work or material shall not in any way prevent later rejection when such defect is discovered nor shall it obligate the State for final acceptance.

21.6 The Agency use of testing and inspection services shall in no way relieve the contractor of the responsibility to furnish materials and finished construction in full compliance with the Contract Documents and the Connecticut State Building Codes.

21.7 Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

.7.1 The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.

21.7.2 The Agency will issue a credit change order to cover all costs incurred related to all re-tests/re-inspection due to non-compliance to the contract documents, including but not limited to the Agency's costs and the Consultants costs.

21.8 Associated Services: Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:

a. Provide access to the Work.
b. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
c. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
d. Provide facilities for storage and curing of test samples.
e. Deliver samples to testing laboratories.
f. Provide an approved design mix proposed for use for material mixes that require control by the testing agency.
g. Provide security and protection of samples and test equipment at the Project Site.

21.9 Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Construction Administrator, Architect and the Contractor in performance of the testing agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.

21.9.1 The testing agency shall notify the Construction Administrator and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

21.9. 2 The testing agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.

21.9.3 The testing agency shall not perform any duties of the Contractor.

21.10 Agency will pay for the services of an independent testing agency laboratory to perform inspections, tests and other services required by the Specifications except as noted below, listed for which the Owner will issue a deduct change order to cover the cost associated with these tests:

a. When the Contractor notifies the Construction Administrator and/or Testing Agency less than twenty-four (24) hours before the expected time of testing.
b. When the Contractor requires testing for his own convenience.
c. When the Contractor schedules a test and is not ready for the required test.

21.11 Fire Alarm/Acceptance Testing Procedures: The Contractor shall follow the "Acceptance Testing Procedures" as provided by the Agency prior to Acceptance Testing.

21.11.1 Submittals: Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the Construction Administrator. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.

21.11.2 Submit additional copies of each written report directly to the governing authority, when the authority so directs.

21.11.3 Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:

a. Date of issue.
b. Project title and number.
c. Name, address, and telephone number of testing agency.
d. Dates and locations of samples and tests or inspections.
e. Names of individuals making the inspection or test.
f. Designation of the Work and test method.
g. Identification of product and Specification Section.
h. Complete inspection or test data.
i. Test results and an interpretation of test results.
j. Ambient conditions at the time of sample taking and testing.
k. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
l. Name and signature of laboratory inspector.
m. Recommendations on re-testing.

21.12 Quality Assurance: Engage inspection and testing service agencies, including independent testing laboratories, that are pre-qualified as complying with the National Voluntary Laboratory Accreditation Program and that specialize in the types of inspections and tests to be performed.

21.12.1 Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.

21.13 Repair and Protection: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes. Comply with Contract Document requirements for Division 1 Section "Cutting and Patching."

21.13.1 Protect construction exposed by or for quality-control service activities, and protect repaired construction.

21.13.2 Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

Article 22
INSPECTION AND TESTS

22.1 The purpose of the inspections will be to assure that the Work is performed in accordance with the Contract Documents. These inspections shall include, but not be limited to all inspections and testing as required by the Agency, and any authorities have jurisdiction.

22.2 All material and workmanship, if not otherwise designated by the Specifications, shall be subject to inspection, examination and test by the Agency at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. The Contract Documents additionally identify the parties responsible for performing and paying for the required testing and inspections. All required tests performed in a laboratory will be obtained and paid for by the Agency except when the tests show the Work to be defective. The Contractor shall pay for all the costs associated with re-tests and re-inspections for all tests and inspections which fail. The Agency will issue a deduct Change Order to recover said retesting costs from the Contractor. All other tests, unless otherwise specified, shall be made at the Contractor’s expense. Notice of the time of all tests to be made at the site shall be given to all interested parties, including the Agency.

22.3 Without additional cost to the Agency, the Contractor shall promptly furnish facilities, labor and materials necessary to coordinate and perform operational tests and checkout of the Work. The Contractor shall furnish promptly all reasonable facilities, labor and materials necessary to make all such testing safe and convenient.

22.4 If, at any time before Final Completion and Final Acceptance of the Work, the Agency considers it necessary or advisable to examine of any portion of the Work already completed by removing or tearing out the same, the Contractor shall, upon request, furnish promptly all necessary facilities, labor and materials. If such Work is found to be defective in any material respect, as determined by the Agency, because of a fault of the Contractor or any of the

Contractor's Subcontractors, or if any Work shall have been covered without the approval or consent of the Agency or its representatives (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including removal and/or demolition of the defective work, including labor, material, and testing, including labor, material, re-testing or re-inspecting, services of required consultants, additional supervision, the Agency's and the Construction Administrator's administrative costs, and other costs for services of other consultants.

Article 23
ROYALTIES AND PATENTS

23.1 If the Contractor desires to use any design, device, material or process covered by a patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the holder of said patent or copyright. The Contractor shall furnish a copy of this legal agreement to the Agency.

23.2 The Contractor shall indemnify and hold harmless the Agency and Construction Administrator for any costs, expenses and damage which it may be obliged to pay by reason of any infringement of a patent or a copyright, at any time during the prosecution or after the Final Completion of the Work.

Article 24
SURVEYS, PERMITS AND REGULATIONS

24.1 Unless otherwise provided for, the Contractor shall furnish surveys necessary for the execution of the Work. The Agency will furnish the Contractor with two base lines and a benchmark.

24.2 The Contractor shall obtain and pay for permits and licenses necessary for the execution of the Work and the occupancy and use of the completed Work.

24.3 The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations including building and fire safety codes relating to the performance of the Work.

24.4 If underground utilities may involve part of the Work, the Contractor shall obtain the services of a qualified underground utility locating firm, at no cost to the Agency, to verify locations of underground utilities, to provide safety, protect the Work and protect the workmen as necessary to perform the Work.

Article 25
PROTECTION OF THE WORK, PERSONS AND PROPERTY

25.1 The Contractor shall continuously and adequately protect the Work against damage from any cause, and shall protect materials and supplies furnished by the Contractor or Subcontractors, whether or not incorporated in the Work, and shall make good any damage unless it be due directly to errors in the Contract Documents or is caused by agents or employees of the Agency.

25.2 To the extent required by law, by public authority, or made necessary in order to safeguard the health and welfare of the personnel or occupants of any of the state institutions, the Contractor shall adequately protect adjacent property and persons, and provide and maintain all facilities, including but not limited to passageways, guard fences, lights, and barricades necessary for such protection.

25.3 The Contractor shall take all necessary precautions for the safety of employees on the Work and shall comply with applicable provisions of federal and state 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. The Contractor shall also comply with the applicable provisions of the Associated General Contractors' "Manual of Accident Prevention in Construction", and the standards of the Connecticut Labor Department and Occupational Safety and Hazard Association (OSHA).

25.4 The Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of employees of the State and the public, and shall post danger signs warning against any dangerous condition or hazard created by such things as protruding nails, well holes, elevator hatchways, scaffolding, window openings, excavations, tripping hazards or slipping, stairways and falling materials.

25.5 The Contractor shall designate a qualified and responsible on site staff person, whose duty shall be the prevention of accidents. The name and position of the designated person shall be reported to the Agency by the Contractor at the commencement of the Contract.

25.6 The Contractor shall at all times protect excavation, trenches, buildings and all items of Work from damage by rain, water from melted snow or ice, surface water run off and subsurface water usual for the vicinity at the time of operations; and provide all pumps and equipment and enclosures to insure such protection.

25.7 The Contractor shall construct and maintain all necessary temporary drainage and do all pumping necessary to keep excavation, basements, footings and foundations free of water.

25.8 The Contractor shall remove all snow and ice as may be required for access to the site and proper protection and prosecution of the Work.

25.9 The Contractor shall install bracing, shoring, sheathing, sheet piling, caissons and any other underground facilities as required for safety and proper execution of the Work, and shall remove this portion of the Work when no longer necessary.

25.10 During cold weather the Contractor shall protect all Work from damage. If low temperature makes it impossible to continue operations safely in spite of cold weather precautions, the Contractor may cease Work upon the written approval of the Agency.

Article 26
TEMPORARY UTILITIES

26.1 Unless expressly provided for otherwise in the Contract Documents, the Contractor shall include in the bid the costs of all temporary utilities required for project completion and protection of the Work. Said temporary utilities include but are not limited to lighting, heating, cooling, electrical power, water, telephone, sanitary facilities, and potable water.

Article 27
CORRECTION OF WORK

27.1 The Contractor shall promptly and without expense to the Owner remove from the premises all materials rejected by or unacceptable to the Construction Administrator as failing to conform to the Contract Documents, whether incorporated in the Work or not.

27.2 The Contractor shall promptly and without expense to the Owner replace any such materials which do not conform to the Contract Documents, and shall bear the expense of making good all Work of other Contractors or Subcontractors destroyed or damaged by such removal or replacement.

27.3 If the Contractor, after receipt of notice from the Agency, shall fail to remove such rejected or unacceptable materials within a reasonable time as fixed in said notice, the Owner may remove and store such materials at the expense of the Contractor.

27.4 Such action shall not affect the obligation of the Contractor to replace and complete assembly and installation of the Work and to bear the expenses referred to above. Prior to the correction of rejected or unacceptable Work or if the Agency deems it inexpedient or undesirable to correct any portion of the Work which was rejected, deemed unacceptable or not done in accordance with the Contract Documents, the Contract sum shall be reduced by such amount as, in the judgment of the Agency, shall be equitable.

27.5 No extension of time will be given to the Contractor for correction of rejected or unacceptable Work. All significant punchlist Work shall be completed before Substantial Completion is determined. The remaining minor punchlist Work, as determined by the Agency, shall be completed within 60 days of established Substantial Completion date.

27.6 Final Payment shall not relieve the Contractor of responsibility for the defects in material or workmanship.

27.7 Unless expressly provided for otherwise in the Contract Documents, the Contractor shall remedy any rejected or unacceptable Work, and any Work found to be not conforming to the Contract Documents which is discovered within 18 Months after the date of Substantial Completion. The Contractor shall pay for any damage to other Work caused by such nonconforming Work or any damage created in correcting the nonconforming Work.

Article 28
STARTING SYSTEMS

28.1 General: The Contractor shall provide the following:

a. Coordinate schedule for start-up of various equipment and systems with the Construction Administrator and Agency.
b. Provide written notification to the Construction Administrator fourteen (14) Calendar Days prior to start-up of each item.
c. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, and control sequence for other conditions that may cause damage.
d. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
e. Verify in wiring and support components are complete and tested.
f. Execute the start-up under supervision of manufacturer's representative, in accordance with manufacturer's instructions.
g. When referenced in individual specification sections, require manufacturer to provide an authorized representative to be present at the site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
h. Submit a written report that the equipment or system has been properly installed and is functioning properly.

28.2 Demonstration and Instructions: The Contractor shall provide the following:

a. Demonstrate operation and maintenance of Products to Architect/Engineer and Agency Personnel two (2) weeks prior to substantial completion. Provide a VHS type video record of all demonstrations.
b. Demonstrate Project equipment and instruct in a classroom environment at location designated by the Construction Administrator and instructed by a qualified manufacturer's representative who is knowledgeable about the project.
c. For equipment or systems requiring seasonal operation perform demonstration for season within six (6) months.
d. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Architect/Engineer and Agency Personnel in detail to explain all aspects of operation and maintenance.
e. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, and maintenance, and shutdown of each item at agreed upon scheduled time and at equipment or designated location.
f. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during demonstration.

28.3 Testing Adjusting, and Balancing: The Contractor will employ and pay for the testing services of an independent consultant to verify the testing, adjusting, and balancing.

28.3.1 Reports will be submitted by the independent testing consultant to the Construction Administrator indicating observations and results of tests and indicating compliance or non-compliance with the requirements of the Contract Documents.

28.3.2 The Agency may employ and pay for the services of an independent consultant to verify testing, adjusting, and balancing which was performed by the Contractor.

Article 29
GUARANTEES and WARRANTIES

29.1 Unless expressly provided for otherwise in the Contract Documents, the Contractor shall provide a warranty on the Work for an 18-Month period from the date of Substantial Completion. The Contractor shall warrant that the equipment, materials and workmanship are of good quality and new, unless permitted elsewhere by the Contract Documents, and that the Work shall be free from defects not inherent in the quality required or permitted and that the Work conforms to the Contract Documents.

29.2 Disclaimers and limitations from manufactures, Subcontractors, suppliers or installers to the Contractor shall not relieve the Contractor of the Warranty on the Work. The Contract Documents detail the related damages, reinstatement of warranty, replacement cost and Agency's recourse.

Article 30
CUTTING, FITTING, PATCHING AND DIGGING

30.1 The Contractor will perform or will cause the Subcontractors to perform all cutting, fitting or patching of the portion(s) of the Work that may be required to make the

several parts thereof joined and coordinated in a manner satisfactory to the Agency and in accordance with the Plans and Specifications.

30.2 The responsibility for defective or ill-timed Work shall be with the Contractor, but such responsibility shall not in any way relieve the Subcontractor who performed such Work. Except with the consent of the Agency, neither the Contractor nor any of its Subcontractors shall cut or alter the Work of any other Contractor or Subcontractor.

Article 31
CLEANING UP

31.1 The Contractor shall, on a daily basis, keep the premises free from accumulations of waste material or rubbish.

31.2 Prior to Final Completion of the Work, the Contractor shall remove from and about the site of the Work, all rubbish and all temporary structures, tools, scaffolding and surplus materials, supplies and equipment which may have been used in the performance of the Work. If the Agency in their sole discretion determines that the Contractor has failed to clean the work site, the Agency may remove the rubbish and charge the cost of such removal to the Contractor. A deduct Change Order will be issued by the Agency to recover such cost.

Article 32
ALL WORK SUBJECT TO CONTROL OF THE AGENCY

32.1 The Agency hereby declares that only authorized representatives may act in matters involving the Agency's or Architect's ability to revoke, alter, enlarge or relax any requirement of the Contract Documents; to settle disputes between the Contractor and the Construction Administrator; and act on behalf of the Agency. In all such matters, the provisions of Articles 13 and 14 herein shall guide the Agency.

32.2 In no event may the Contractor act on any instruction of the Agency without written consent of the Agency. In the event the Contractor acts without such consent, he does so at his own risk and at his own expense, not only for the Work performed, but for the removal of such Work as determined necessary by the Agency.

32.3 In the performance of the work, The Contractor shall abide by all orders, directions, and requirements of the Agency at such time and places and by such methods and in such manner and sequence as the Agency may require.

32.4 The Agency shall determine the amount, quality, acceptability and fitness of all parts of the work, shall interpret the plans, specifications, Contract Documents and extra work orders and shall decide all other questions in connection with the Work.

32.5 The Contractor shall employ no plant, equipment, materials, methods or persons to which the Agency objects and shall remove no plant materials, equipment or other facilities from the site of the Work without the permission of the Agency.

Article 33
CONSTRUCTION ADMINISTRATOR

33.1 The Construction Administrator employed by the Agency is authorized to inspect all Work for conformance to the Contract Documents. The Construction Administrator is authorized to reject all Work found to be defective, unacceptable and nonconforming to the Contract Documents. Such inspections and rejections may extend to all or any part of the Work, and to the preparation or manufacture of the material to be used.

33.2 The Construction Administrator is not empowered to revoke, alter, enlarge or relax any requirements of the Contract Documents, or to issue instructions contrary to the Contract Documents. The Construction Administrator shall in no case act as foreman or perform other duties for the Contractor, nor shall the Construction Administrator interfere with the management of the Work by the Contractor. Any advice, which the Construction Administrator may give the Contractor, shall in no way be construed as binding the Agency in any way, nor releasing the Contractor from the fulfillment of the terms of the Contract.

33.3 In any dispute arising between the Contractor and the Construction Administrator with reference to inspection and rejection of the Work, the Construction Administrator may suspend work on the noncompliant portion of the Work until the dispute can be referred to and decided by the Agency.

33.4 The Construction Administrator is referred to in the Contract Documents as "Construction Administrator" or "Construction Manager" or by pronouns which imply it. All communications concerning the project will be directed through the Construction Administrator or a designated representative(s).

33.5 The Construction Administrator is the Agency's Agent who will, among other things, monitor the Project including Contractor's performance, scheduling and construction, process shop drawings, material, and equipment submittals, review and process periodic billings, review and recommend cost changes.

33.6 The Construction Administrator will process all requests for information, interpretations and decisions regard-

ing the meaning and intent of the Contract Documents, consulting with appropriate parties prior to rendering the interpretations or decisions to the Contractor. All such requests and replies shall be in writing.

Article 34
SCHEDULE OF VALUES, APPLICATION FOR PAYMENT

34.1 Immediately after the signing of the Contract, the Contractor shall furnish for the use of the Agency as a basis for estimating partial payments, a certified Schedule of Values, totaling the contract sum and broken down into quantities and unit costs, as outlined in the Contract Documents and as directed by the Agency. The Schedule of Values must reflect true costs and be in sufficient detail to be an effective tool for monitoring the progress of the Work. Upon request of the Agency, the Contractor shall supply copies of signed Contracts, vendor quotations, etc. as back up to the Schedule of Values.

34.2 Submit the "Schedule of Values" to the Construction Administrator at the earliest possible date but no later than (7) seven Calendar Days after the Contract Award. The Schedule of Values is the basis for estimating partial payments. The Contractor shall furnish for the approval of the Construction Administrator and Architect, an accurate and certified Schedule of Values, broken down into quantities and unit costs for the various parts of the Work. The breakdown shall include a complete definition of all activities, systems and components that form the project. The use of lump sum or grouping of activities shall not be allowed without the written consent of the Construction Administrator. It shall be CAD generated, in a format provided by the Construction Administrator, divided as may be directed and it shall aggregate the total sum of the Contract. Also include a 3-1/2" computer diskette of the original and revised schedule to the Construction Administrator. If requested, the Contractor shall submit evidence supporting this Schedule.

34.3 A separate "Schedule of Value" shall be provided for each Phase as identified in the Supplementary General Conditions and General Requirements - Section 01010 Summary of Work, Work Sequence - Phase(s).

34.4 Use the Project Manual Table of Contents as a guide to establish the format for the "Schedule of Values". Provide at least one line item for each of the Specification Section on electronic media printout.

34.5 Identification: Project identification on the Schedule of Values shall include, but not be limited to, the following:

a. Owner
b. Project Number
c. Project Name
d. Project Location
e. Contractor's name and address.

34.6 Arrange the "Schedule of Values" in tabular format as required by the Agency, containing separate columns including, but not limited to, the following Items:

a. Item Number.
b. Description of Work with Related Specification Section or Division Number.
c. Scheduled Values broken down by description number, type material, units of each material.
d. Name of subcontractor.
e. Name of manufacturer or fabricator.
f. Name of supplier.
g. Retainage.
h. Contract sum in sufficient detail.

34.7 Provide for the Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items.

34.8 Round amounts to nearest whole dollar; the total shall equal the Contract Sum.

34.9 Unit-Cost Allowances: Show the line-item value of unit-cost allowances, as a product of the unit cost, multiplied by the measured quantity. Estimate quantities from the best indication in the Contract Documents.

34.10 General Conditions: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.

a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place shall be shown as separate line items in the Schedule of Values.

Article 35
APPLICATION OF PAYMENTS: GENERAL

35.1 Applications for Payment - General: Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and Construction Administrator and paid for by the Agency.

35.1.1 The initial "Application for Payment", the "Application for Payment", at time of "Substantial Completion", and the final "Application for Payment", involve additional requirements.

35.1.2 Payment-Application Terms: The Agency will process monthly progress payments. The Contractor may submit applications for payment on a monthly basis.

35.1.3 Payment-Application Forms: Use the "Application for Payment" form as required by the Agency. Present the required information on electronic media printout in the approved Agency Form, multiple pages should be used if required.

35.1.4 For each item, provide a column including but not limited to the following items:

a. Item Number.
b. Description of Work and Related Specification Section or Division.
c. Scheduled Value, break down by units of material and units of labor.
d. Work completed from previous application.
e. Work completed this period.
f. Materials presently stored.
g. Total completed and stored to date of application.
h. Percentage of Completion.
i. Balance to Finish.
j. Retainage

35.2 Application Preparation: Complete every entry on the form. Include final payment only and execution by a person authorized to sign legal documents on behalf of the Contractor. The Construction Administrator will return incomplete applications without action. Verify that entries match data on the "Schedule of Values" and include amounts of Change Orders.

35.3 Approval of the Schedule of Values by the Agency is required prior to any payment by the Agency.

35.4 The Schedule of Values shall include a breakdown of the Contractor's general condition costs.

35.4.1 Non-recurring costs, (i.e. mobilization costs, utility hook-ups, temporary heat) will be paid at the time of occurrence.

35.4.2 Reoccurring costs will be paid in proportion to the percent of completion of the project.

35.5 The Schedule of Values shall include a breakdown of Contract closeout costs including systems certification testing and acceptance, training, warranties, guarantees, as-builts and attic stock**.**

35.6 The Contractor shall make periodic applications for payment, which shall be subdivided into categories corresponding with the approved Schedule of Values and shall be in such numbers of copies as may be designated by the Agency.

35.7 Applications for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment and all subsequent Application for Payments including, but not limited to, the following items:

a. List of subcontractors and suppliers' name, FEIN/Social Security numbers, and Connecticut Tax Registration Numbers.
b. List of principal suppliers and fabricators.
c. Schedule of Values.
d. Contractor's Construction Schedule.
e. Schedule of principal products.
f. Submittal Schedule.
g. List of Contractor's staff assignments.
h. List of Contractor's principal consultants.
i. Copies of all applicable permits.
j. Copies of authorizations and licenses from governing authorities for performance of the Work.
k. Initial as-built survey and damage report, if required.
l. Certified Payrolls.

Article 36

PARTIAL PAYMENTS

36.1 The Agency and their representatives will examine the Contractor's applications for payments to determine, in the opinion of the Agency, the amounts that properly represent the value of the Work completed and for the materials suitably stored on the site.

36.2 In making such Application For Payment for the Work, there shall be deducted **(7.5%) seven and a half percent** of the amount of each payment to be retained by the Agency until Final Completion.

36.3 At the sole discretion of the Agency, and after completion and acceptance of (50%) fifty percent of the value of the Work, and if the character and progress of the Work remain satisfactory, the retained portion of the Application for Payments may be reduced to five percent (5%) of total payments. The minimum total amount of payment retained, prior to the Final Payment shall not be less than five percent (5%) of the Contract Sum.

36.4 The decision of the Agency to reduce the retainage rate will be based upon the Contractor's performance for completed portions of the Work as set out below and other factors the Agency may find appropriate:

36.4.1 The Contractor's timely submission of an appropriate and complete CPM Schedule or Construction Schedule and Schedule of Values, in compliance with the Contract requirements and the prompt resolution of the Agency's and/or Architect's comments on the submitted material resulting in an appropriate basis for progress of the Work.

36.4.2 The Contractor's timely and proper submission of all Contract required submissions: including but not limited to shop drawings, material certificates and material samples and the prompt resolution of the Agency's and/or Architect's comments on the submitted material resulting in an appropriate progress of the Work.

36.4.3 The Contractor's provision of proper and adequate supervision and home office support of the Project and any Subcontractor Work resulting in coordinated progress and proper quality control for the Work.

36.4.4 The Work completed to date has been installed or finished in an acceptable manner which is satisfactory to the agency.

36.4.5 The progress of the Work is consistent with the approved CPM Schedule or Construction Schedule.

36.5 No payments will be made for improperly stored or protected materials or unacceptable Work.

Article 37
APPLICATION FOR PAYMENT at SUBSTANTIAL COMPLETION

37.1 Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion submit an Application for Payment form, use the form as required by the Agency. Present the required information on electronic media printout.

37.1.1 This application shall reflect Certificates of Partial Substantial Completion issued previously for Agency occupancy of designated portions of the Work.

37.2 Administrative actions and submittals that shall precede or coincide with this application include, but are not limited to, the following:

a. Occupancy permits and similar approvals.
b. Warranties (guarantees) and maintenance agreements.
c. Test/adjust/balance records.
d. Maintenance instructions.
e. Meter readings.
f. Startup performance reports.
g. Changeover information related to Owner's occupancy, use, operation, and maintenance.
h. Final cleaning.
i. Consent of surety.
j. Advice on shifting insurance coverage.
k. Final progress photographs.
l. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.
m. Change of door locks to Owner's access.

Article 38
FINAL APPLICATION FOR PAYMENT

38.1 Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited, to the following:

a. Completion of Project Closeout requirements.
b. Completion of list of items remaining to be completed as indicated on the attachment to the Certificate of Substantial Completion.
c. Ensure that unsettled claims will be settled.
d. Ensure that incomplete Work is not accepted and will be completed without undue delay.
e. Transmittal of required Project construction records to the Owner.
f. Certified property survey.
g. Proof that taxes, fees, and similar obligations were paid.
h. Removal of temporary facilities and services.
i. Removal of surplus materials, rubbish, and similar elements.
j. The requirements of the General Conditions and Supplementary Conditions for Final Acceptance, Final Completion, Final Inspection, and Final Payment.
k. Asbestos, Lead or other hazardous material manifests.
l. Completion of "Building Contractor Reporting Form" for all Contractors, Subcontractors, Vendors, Suppliers, etc. who work on the Contract. The form includes the following information:
m. Contractor/Subcontractor name, FEIN/Social Security Numbers, Connecticut Tax Registration Numbers, Type of work, Name of business and address, Remittance address.

Article 39
DELIVERY OF STATEMENT SHOWING AMOUNTS DUE FOR WAGES, MATERIALS AND SUPPLIES

39.1 For each Application for Payment under this Contract, the Agency reserves the right to require the Contractor and every Subcontractor to submit a written verified statement, in a form satisfactory to the Agency, showing in detail all amounts then due and unpaid by such Contractor or Subcontractor for daily or weekly wages to all laborers employed by him for the performance of the Work or to other persons for materials, equipment or supplies delivered at the site.

39.2 The term laborers as used herein shall include workmen, workwomen, and mechanics.

39.3 Failure to comply with this requirement may result in the Agency withholding the application for payment pursuant to Article 28.

Article 40
CONTRACT CLOSEOUT

40.1 Substantial Completion: Before requesting inspection for Certification of Substantial Completion, complete the following. List exceptions in the request.

a. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
    i. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
    ii. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
b. Advise the Agency of pending insurance changeover requirements.
c. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
d. Obtain and submit releases enabling the Agency unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
e. Submit record drawings, maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
f. Deliver tools, spare parts, extra stock, and similar items.
g. Make final changeover of permanent locks and transmit keys to the Agency.

Advise the Agency's personnel of changeover in security provisions.

h. Demonstration, through operation and testing, the functions of all systems and/or equipment to the satisfaction of the Agency for compliance to the contract. Complete testing of systems, and instruction of the Agency's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.

i. Complete final cleanup requirements, including touchup painting.

j. Touch up and otherwise repair and restore marred, exposed finishes.

40.1.1 Inspection Procedures: The Contractor shall be ready and prepared when they request a Substantial Completion inspection. If the inspection reveals that the work is not complete, there are extensive punchlist items and as the items listed above are not complete, the Construction Administrator, Architect, and Agency will determine the inspection has failed.

40.1.2 The Contractor is responsible for all costs to re-inspect due to a failed inspection. The Agency will issue a deduct change order to cover all costs for re-inspection.

a. The Architect will repeat inspection when requested and assured that the Work is substantially complete.

b. Results of the completed inspection will form the basis of requirements for final acceptance.

40.2 Final Acceptance: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.

a. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.

b. Submit an updated final statement, accounting for final additional changes to the Contract Sum.

c. Submit a certified copy of the Architect's final inspection list of items to be completed or corrected, endorsed and dated by the Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.

d. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Agency took possession of and assumed responsibility for corresponding elements of the Work.

e. Submit consent of surety to Final Payment.

f. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

40.2.1 Reinspection Procedure: The Inspection Group will re-inspect the Work upon receipt of notice from the Construction Administrator that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Agency.

40.2.2 Upon completion of reinspection, the Construction Administrator will prepare a certificate of final acceptance. If the Work is incomplete, the Construction Administrator will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

40.3 Record Document Submittals: Do not use record documents for construction purposes. Protect Record Documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the Architect's reference during normal working hours. Keep documents current; do not permanently conceal any work until required information has been recorded. Failure to keep documents current is sufficient cause to withhold progress payments.

40.3.1 The Contractor shall also hire the services of a Surveyor registered in the State of Connecticut to conduct a final survey to determine the location of exterior underground utility lines and to record the results, and update existing electronic media.

40.3.2 The record of exterior underground utilities shall be made at the time of installation on Mylar film drawing and AutoCAD (latest version) compatible disks. The drawing shall bear the seal of the Land Surveyor and a statement of accuracy.

40.4 Record Drawings: The Contractor shall maintain one clean, complete undamaged set of blue or black line whiteprints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date. The Contractor shall provide the following:

a. Mark record sets with erasable pencil to distinguish between variations in separate categories of the Work.
b. Mark all new information that is not shown on Contract Drawings.
c. Note related change-order numbers where applicable.
d. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.
e. Upon completion of the work, the Contractor shall submit Record Drawings to the Construction Administrator for the Agency's Records who will pass them on to the Architect or Engineer for transferring the changes to the Record Drawing Mylar Tracings.
f. Submit electronic format data of all revised drawings on CD-ROM format and in AutoCAD (latest version) compatible format.

40.5 Record Specifications: The Contractor shall maintain one complete copy of the Project Manual, including Addenda. Include with the Project Manual one copy of other written construction documents, such as Change Orders and modifications issued in printed form during construction. The Contractor shall provide the following:

a. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
b. Give particular attention to equals and substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.
c. Note related record drawing information and Product Data.
d. Upon completion of the Work, submit record Specifications to the Construction Administrator for the Agency's records.

40.6 Record Product Data: The Contractor shall maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications. The Contractor shall provide the following:

a. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.
b. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.
c. Upon completion of markup, submit complete set of Record Product Data to the Construction Administrator for the Agency's records.

40.7 Record Sample Submitted: Immediately prior to Substantial Completion, the Contractor shall meet with the Construction Administrator, Architect and the Agency's personnel at the Project Site to determine which Samples are to be transmitted to the Agency for record purposes. Comply with the Agency's instructions regarding delivery to the Agency's Sample storage area.

40.8 Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous

records properly and bind or file, ready for continued use and reference. Submit to the Construction Administrator for the Agency's records.

40.9 Maintenance Manuals: Organize operation and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual, heavy-duty, 2-inch (51-mm), 3-ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder according to section 01730. Included but not limited to the following types of information:

a. Emergency instructions.
b. Spare parts list.
c. Copies of warranties.
d. Wiring diagrams.
e. Recommended "turn-around" cycles.
f. Inspection procedures.
g. Shop Drawings and Product Data.
h. Fixture lamping schedule.
i. MSDS Sheets for all material used and or placed within the Project.

40.10 Closeout Procedures: Arrange for each Installer of equipment that requires regular maintenance to meet with the Agency's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:

a. Maintenance manuals.
b. Record documents.
c. Spare parts and materials.
d. Tools.
e. Lubricants.
f. Fuels.
g. Identification systems.
h. Control sequences.
i. Hazards and hazardous materials.
j. Cleaning.
k. Warranties and bonds.
l. Maintenance agreements and similar continuing commitments.
m. Copy of all submittals.

40.10.1 As part of instruction for operating equipment, the Contractor shall demonstrate the following procedures:

a. Startup.
b. Shutdown.
c. Emergency operations.
d. Noise and vibration adjustments.
e. Safety procedures.
f. Economy and efficiency adjustments.
g. Effective energy utilization.

40.11 Final Cleaning: The General Conditions requires general cleaning during construction. Regular site cleaning is included in Division 1 Section 01570 “Cleaning”.

40.11.1 The Contractor shall employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion and Certification of Occupancy.

Interior:

a. Remove labels that are not permanent labels.
b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Remove paint spots; wash and polish glass.
c. Clean exposed interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
d. Wash washable surfaces of mechanical, electrical equipment and fixtures and replace filters, clean strainers on mechanical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

e. Clean and polish finish hardware.

f. Clean and polish tile and other glazed surfaces.

g. Clean floors; wax and buff resilient tile. Clean vinyl or rubber base.

h. Vacuum and/or dust walls, ceilings, lighting fixtures, ceiling diffusers and other wall and ceiling items.

i. Remove defacements, streaks, fingerprints and erection marks.

Exterior:

a. Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth, even-textured surface.

b. Clean exposed exterior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances.

c. Clean roofs, gutters and downspouts.

d. Remove waste and surplus materials, rubbish and construction equipment and facilities from the site, and deposit it legally elsewhere.

e. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Remove paint spots; wash and polish glass.

40.12 Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the work of rodents, insects, and other pests.

40.13 Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

40.14 Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Agency's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.

40.15 Where extra materials of value remain after completion of associated Work, they become the Agency's property. Dispose of these materials as directed by the Construction Administrator.

40.16 Leave building clean and ready for occupancy. If the Contractor fails to clean up, the Agency may do so, with the cost charged to the Contractor. The Agency will issue a credit change order to cover the costs.

Article 41
OPERATION AND MAINTENANCE DATA

41.1 The Contractor shall instruct the State's designated personnel in the operation of new equipment and shall provide manuals and provide video tapes of this basic maintenance of the equipment for training purposes. Provide qualified personnel for as long as necessary to instruct the Agency's personnel.

41.2 Submit four copies of the manuals in 3-ring, loose-leaf notebooks to the Architect/Engineer for approval. Manuals may consist of plain paper copies of approved shop drawings and catalog cuts. Upon completion and approval, 3 copies will be forwarded to the Agency and one copy retained by the Architect/Engineer.

41.2.1 Manuals shall include:

41.2.1.1. Operating Procedures:

a. Typewritten procedures for each mode of operation of each piece of equipment. Procedures shall indicate the status of each component of a system in each operating mode.

b. Procedures shall include names, symbols, valve tags, circuit numbers, schematic wiring diagrams, locations of thermostats, manual starters, control cabinets and other controls of each system.

c. Emergency shut-down procedures for each piece of equipment or system, both automatic and manual, as appropriate.

41.2.1.2 Maintenance Schedule:

a. Typewritten schedule describing manufacturers schedule of maintenance and maintenance procedures.

41.2.1.3 Catalog Cuts:

a. To illustrate each piece of installed equipment, including options.

b. Include equipment descriptions including physical, electrical and mechanical; performance characteristics; installation or erection diagrams.

c. Include spare parts numbers and names, address and phone number of manufacturer; name, address and phone number of local representative or service department.

41.3 Typewritten list of all subcontractors on the project, including name, address and phone number of local representative or service department.

41.4 Manuals shall be indexed with dividers indicating each system or piece of equipment.

Article 42
COMPLETION AND ACCEPTANCE

42.1 Substantial Completion:

42.1.1 When the Contractor considers that the Work, or a portion thereof is Substantially Complete, the Contractor shall request an inspection of said Work to the Construction Administrator.

42.1.2 Upon receipt of the request, the Architect, Construction Administrator and Agency, will make an inspection to determine if the Work or designated portion thereof is Substantially Complete. If the inspection discloses any item, whether or not included on the inspection list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item.

42.1.3 The Contractor shall then submit a request for another inspection. The determination of Substantial Completion is solely within the discretion of the Agency.

42.1.4 When the Work or designated portion thereof is determined to be Substantially Complete, the Contractor will be provided a Certificate of Substantial Completion from the Agency. The Certificate of Substantial Completion, shall establish the date when the responsibilities of the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, are transferred to the Agency and shall fix the time within which the Contractor shall finish all items on the inspection list accompanying the Certificate.

42.1.5 The Certificate of Substantial Completion shall be signed by the Contractor, Construction Administrator, Agency, and Architect.

42.1.6 Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Construction Administrator and Architect, the Agency shall make payment reflecting adjustment in retainage, if any, for such Work or portion thereof as provided in the Contract Documents.

42.2 Final Completion:

42.2.1 Upon Final Completion of the Work, the Contractor shall forward to the Construction Administrator a written notice that the Work is ready for Final Inspection and Acceptance and shall also forward to the Construction Administrator, a Final Application for Payment. Upon determination by the Agency that all the Work is complete, the Agency will issue a Certificate of Completion and Acceptance.

42.2.2 When the Work has been completed in accordance with terms and conditions of the Contract Documents a Certificate of Completion shall be issued to be signed by the Contractor, Construction Administrator, Architect and Agency.

Article 43
FINAL PAYMENT

43.1 The Agency reserves the right to retain for a period of thirty (30) days after filing and acceptance of the Certificate

of Completion and Acceptance the amount therein stated less all prior payments and advances whatsoever to or for the account of the Contractor.

43.2 All prior estimates and payments, including those relating to extra or additional Work, shall be subject to correction by the Final Payment.

43.3 No Application for Payment, Final or Partial, shall act as a release to the Contractor or the Contractor's sureties from any obligations under this Contract.

43.4 The Architect and Construction Administrator will promptly issue the Certificate for Payment, stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in said Final Payment is due and payable.

43.5 Final Payment shall not be released until a Certificate of Completion and Acceptance and a Certificate of Compliance have been issued.

43.6 Neither Final Payment nor any remaining retained percentage shall become due until the Contractor submits to the Agency the following:

43.6.1 An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Agency or the Agency's property might be responsible or encumbered (less amounts withheld by Agency) have been paid or otherwise satisfied.

43.6.2 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 without at least 30 days prior written notice to the Agency.

43.6.3 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.

43.6.4 Written consent of surety, if any, to Final Payment.

43.6.5 If required by the Agency, 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 Agency. If a Subcontractor refuses to furnish a release or waiver required by the Agency, the Contractor may furnish a bond satisfactory to the Agency to indemnify the Agency against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Agency all money that the Agency may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

43.6.6 If, after Substantial Completion of the Work, Final Completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting Final Completion and the Construction Administrator and Architect so confirm, the Agency shall, upon application by the Contractor and certification by the Construction Administrator and Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Agency prior to Final Payment. Such payment shall be made under terms and conditions governing Final Payment, except that it shall not constitute a waiver of Claims.

Article 44
AGENCY'S RIGHT TO WITHHOLD PAYMENTS

44.1 The Agency may withhold a portion of any Payment due the Contractor that may, in the judgment of the Agency, be necessary:

44.1.1 To assure the payment of just claims then due and unpaid to any persons supplying labor or materials for the Work.

44.1.2 To protect Agency from loss due to defective, unacceptable or non-conforming Work not remedied by the Contractor.

44.1.3 To protect the Agency from loss due to injury to persons or damage to the Work or property of other Contractors, Subcontractors, or others caused by the act or neglect of the Contractor or any of its Subcontractors.

44.2 The Agency shall have the right to apply any amount withheld under this section as the Agency may deem proper to satisfy protection from claims. The amount withheld shall be considered a payment to the Contractor.

44.3 The Agency has the right to withhold payment if the Contractor fails to provide accurate submissions of submittals, up date the status including but not limited to the following: as-built documents, request for information (RFI) log, Schedule, submittal log, change order log, certified payrolls and daily reports and all other requirement of the Contract Documents.

44.4 Neither Final Payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect through the Construction Administrator:

44.4.1 An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Agency or the Agency's property might be responsible or encumbered (less amounts withheld by Agency) have been paid or otherwise satisfied,

44.4.2 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 30 days' prior written notice has been given to the Agency,

44.4.3 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,

44.4.4 Consent of surety, if any, to Final Payment and

44.4.5 If required by the Agency, 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 Agency.

44.5 If a Subcontractor refuses to furnish a release or waiver required by the Agency, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Agency against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Agency all money that the Agency may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

Article 45
AGENCY'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

45.1 The Agency shall have the authority to suspend the Work wholly or in part, for such period or periods as the Agency considers to be in the best interests of the State, or in the interests of public necessity, convenience or safety. During such periods the Contractor shall store all materials and equipment, in such a manner to prevent the materials and equipment from being damaged in any way, and the Contractor shall take precautions to protect the Work from damage.

45.1.1 If the Agency, in writing, orders the performance of all or any portion of the Work to be suspended or delayed for an unreasonable period of time (i.e. not originally anticipated, customary, or inherent in the construction industry) and the Contractor believes that additional compensation and/or Contract Time is due as a result of such suspension or delay, the Contractor shall submit to the Agency in writing a request for a Contract adjustment within 7 calendar days of receipt of the notice to resume Work. The request shall set forth the specific reasons and support for said adjustment.

45.1.2 The Agency shall evaluate any such requests received. If the Agency agrees that the cost and/or time required for the performance of the Contract has increased as a result of such suspension and that the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or Subcontractors, and was not caused by weather, then the Agency will make a reasonable adjustment, excluding profit, of the Contract terms. The Agency will notify the Contractor of the determination as to what adjustments of the Contract, if any, that the Agency deems warranted.

45.1.3 No Contract adjustment will be made unless the Contractor has submitted the request for adjustment within the time prescribed.

45.1.4 No contract adjustment will be made under this Article to the extent that performance would have been suspended or delayed by any other cause within the Contractor's control or by any factor for which the Contractor is responsible under the Contract; or that such an adjustment is provided for or excluded under other term or condition of this Contract.

45.2 Notwithstanding any provision or language in the Contract to the contrary, the State may terminate the Contract whenever the Agency determines at their sole discretion that such termination is in the best interests of the State. Any such termination shall be effected by delivery to the Contractor of a written Notice of Termination specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination shall be effective.

45.2.1 In the event of such termination, the Contractor shall be entitled to reasonable compensation as determined by the Agency, however, no claim for lost overhead or profits shall be allowed.

45.2.2 Materials obtained by the Contractor for the Work that have been inspected, tested as required, and accepted by the Agency, and that are not incorporated into the Work, shall, at the option of the Agency, be purchased from the Contractor at actual cost as shown by receipted bills. To this cost shall be added all actual costs for delivery at such points of delivery as may be designated by the Agency, as shown by actual cost records.

45.2.3 Termination of the Contract shall not relieve the Contractor or its Surety of their responsibilities for the completed Work, nor shall it relieve the Contractor's Surety of its obligations to ensure completion of the Work and to pay legitimate claims arising out of Work.

Article 46
SUBLETTING OR ASSIGNING OF CONTRACT

46.1 The Contract or any portion thereof, or the Work provided for therein, or the right, title or interest of the Contractor therein may not be sublet, sold, transferred, assigned, or otherwise disposed of to any person, firm or corporation without the written consent of the Agency.

46.2 No person, firm or corporation other than the Contractor to whom the Contract was awarded shall be permitted to commence Work at the site of the Contract until such consent has been granted.

Article 47

CONTRACTOR'S INSURANCE

47.1 The Contractor shall not start Work under the Contract until they have obtained insurance as stated in SECTIONS 00300 CERTIFICATE OF INSURANCE and 00020 BID PROPOSAL FORM, subsections 4.4.2 and 4.4.3, of the Contract Documents and until the insurance has been approved by the Agency. The Contractor shall not allow any Subcontractor to start Work until the same insurance has been obtained by the Subcontractor and approved by the Agency or the Contractor's insurance provides coverage on behalf of the Subcontractor. The Contractor shall send Certificates of Liability Insurance to the Agency unless otherwise directed in writing. Presented below is a narrative summary of the insurance required.

47.1.1 Commercial General Liability insurance including contractual liability, products/completed operations, broad form property damage and independent Contractors. The limits shall be no less than $1,000,000 each occurrence and $2,000,000 annual aggregate. Coverage for hazards of explosion, collapse and underground (X-C-U) must also be included when applicable to the Work to be performed. The State of Connecticut and Eastern Connecticut State University shall be named as an Additional Insured. This coverage shall be provided on a primary basis.

47.1.2 Agency's and Contractor's Protective Liability insurance providing a total limit of $1,000,000 for all damages arising out of bodily injury or death of persons in any one accident or occurrence and for all damages arising out of injury or destruction of property in any one accident or occurrence and subject to a total (aggregate) limit of $2,000,000 for all damages arising out of bodily injury to or death of persons in all accidents or occurrences and out of injury to or destruction of property during the policy period. This coverage shall be for and in the name of the State of Connecticut and Eastern Connecticut State University.

47.1.3 The operation of all motor vehicles including those owned, non-owned and hired or used in connection with the Contract shall be covered by **Automobile Liability** insurance providing for a total limit of $1,000,000 for all damages arising out of bodily injuries to or death of all persons in any one accident or occurrence and for all damages arising out of injury to or destruction of property in any one accident or occurrence. In cases where an insurance policy shows an aggregate limit as part of the automobile liability coverage, the aggregate limit must be at least $2,000,000. This coverage shall be provided on a primary basis. Should the Contractor not own any automobiles, the automobile & liability requirement shall be amended to allow the Contractor to maintain only hired and non-owned liability.

47.1.4 Workers' Compensation and Employer's Liability as required by Connecticut Law and **Employers' Liability** with a limit of not less than $100,000 per occurrence, $500,000 disease policy limit and $100,000 disease each employee. When Work is on or contiguous to navigable bodies of waterways and ways adjoining, the Contractor shall include Federal Act endorsement for U.S. Longshoremen's and Harbor Workers Act.

47.1.5 Special Hazards insurance, if required, will be stated in SECTION 00020 BID PROPOSAL FORM, subsection 4.4.2 of this Project Manual. This includes coverage for explosion, collapse or underground damage and shall be no less than $1,000,000 each occurrence.

47.1.6 Builder's Risk insurance, if required, will be stated in SECTION 00020 BID PROPOSAL FORM, subsection 4.4.3 of this Project Manual.

47.1.7 Inland Marine/Transit Insurance: With respect to property with values in excess of $100,000 which is rigged, hauled or situated at the site pending installation, the Contractor shall maintain inland marine/transit insurance provided

the coverage is not afforded by a Builder's Risk policy.

47.1.8 Satisfying Limits Under an Umbrella Policy: If necessary, the Contractor may satisfy the minimum limits required above for either Commercial General Liability, Automobile Liability, and Employer's Liability coverage under an Umbrella or Excess Liability policy. The underlying limits may be set at the minimum amounts required by the Umbrella or Excess Liability policy provided the combined limits meet at least the minimum limit for each required policy. The Umbrella or Excess Liability policy shall have an Annual Aggregate at a limit not less than two (2) times the highest per occurrence minimum limit required above for any of the required coverages. The State of Connecticut and Eastern Connecticut State University shall be specifically endorsed as an Additional Insured on the Umbrella or Excess Liability policy, unless the Umbrella or Excess Liability policy provides continuous coverage to the underlying policies on a complete "Follow-Form" basis.

47.2 Each insurance policy required to be maintained by the Contractor except Workers' Compensation and Automobile Liability shall endorse the State of Connecticut and Eastern Connecticut State University as an Additional Insured. Additional Insured endorsements shall provide coverage on a primary basis.

47.3 When required to be maintained, the Builder's Risk and Inland Marine/Transit Insurance policy shall endorse the State of Connecticut and Eastern Connecticut State University as a Loss Payee.

47.4 The Contractor shall, at its sole expense, maintain in full force and effect at all times during the life of the Contract or the performance of Work hereunder, insurance coverage as described herein. Certificates shall include a minimum thirty (30) day endeavor to notify requirement to the Agency prior to any cancellation or non-renewal.

47.5 The Contractor shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention, including any loss not covered because of the operation of such deductible, coinsurance penalty, or self-insured retention.

47.6 The requirement contained herein as to types and limits of insurance coverage to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor.

47.7 Hold Harmless Provisions: The Contractor shall at all times indemnify and save harmless the State of Connecticut, Eastern Connecticut State University, and their respective officers, agents, and employees, on account of any and all claims, damages, losses, litigation, expenses, counsel fees and compensation arising out of injuries (including death) sustained by or alleged to have been sustained by the officers, agents, and employees of said State or Department, or of the Contractor, his Subcontractor, or materialmen and from injuries (including death) sustained by or alleged to have been sustained by the public, any or all persons on or near the Work, or by any other person or property, real or personal (including property of said State or Department) caused in whole or in part by the acts, omissions, or neglect or the Contractor including but not limited to any neglect in safeguarding the Work or through the use of unacceptable materials in constructing the Work of the Contractor, any Subcontractor, materialmen, or anyone directly employed by them or any of them while engaged in the performance of the Contract, including the entire elapsed time from the date of the Notice to Proceed or the actual commencement of the Work whichever occurs first until its completion as certified by the Agency.

Article 48
FOREIGN MATERIALS

48.1 Preference shall be given to articles or materials manufactured or produced in the United States, conditions of quality and price with duty being equal.

48.2 Only domestic articles or materials will be used unless a statement is submitted with the proposal that enumerates the foreign articles of materials proposed to be used and such proposal is accepted by the Agency. The foregoing provisions shall not apply to foreign articles or materials required by the Contract Documents.

Article 49
MATERIALS AND EQUIPMENT CONTROLS

49.1 Materials and Equipment: Shall be delivered to the project site, stored and handled to prevent intrusion of foreign matter and damage by weather or breakage. Packaged materials shall be delivered and stored in original, unbroken packages. **DO NOT DELIVER MATERIALS TO THE AGENCY'S SHIPPING & RECEIVING LOADING DOCKS.**

49.1.1 Promptly inspect shipments to assure that products comply with requirements, that quantities are correct and products are undamaged.

49.1.2 Packages, materials and equipment showing evidence of damage will be rejected and replaced at no additional cost to the Agency.

49.2 Storage and Protection: The Contractor shall provide the following:

a. Store products in accordance with manufacturers' instructions with seals and labels intact and legible. Store sensitive products in weathertight enclosures; maintain within temperature and humidity range required by manufacturer.

b. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

c. Store loose granular material on solid surfaces in a well-drained area; prevent mixing with foreign matter.

d. Arrange storage to provide access for inspection. Periodically inspect to insure products are undamaged and are maintained under required conditions. Keep log showing date, time and problems, if any.

e. Stone, masonry units and similar materials shall be stored on platforms or dry skids and shall be adequately covered and protected against damage.

f. The Contractor shall prepare, as directed by the Agency, one area or space in the building for storage of State-owned equipment.

Article 50
IDENTIFICATION BADGES

50.1 Identification Badges for Contractor's Personnel, Visitors & Parking Stickers:

a. The Contractor will provide each person working or visiting at the site with an identification badge, bearing the name of the Contractor and a number. As badges are assigns, a record shall be kept by the Contractor and given to the Construction Administrator. Update and correct the records of all badges issued on a semi-monthly basis.

b. Badges are to be worn on outer garment where visible at all times while at the construction site, return them to the Contractor's field office at the end of each day and pick them up there each morning.

c. All vehicles parking in the Contractor's parking lot and those used around the site require an ID sticker. They will be issued by the Agency. Each contractor shall apply for parking stickers through the Construction Administrator no more than semi-monthly and shall keep record of all stickers issued.

Article 51
HOURS OF WORK

51.1 No person shall be employed to work or be permitted to work more than eight (8) hours in any day or more than forty (40) hours in any week for any Work provided in the Contract, in accordance with Connecticut General Statute Section 31-57.

51.2 The operation of such limitation of hours of work may be suspended during an emergency, upon the approval of the Agency, in accordance with Connecticut General Statute Section 31-57.

Article 52
DAYS OF WORK

52.1 Working Calendar Days include all days that the Contractor is permitted to execute the Work or employ any person to execute the Work within the Contract Time.

52.2 Non-working Calendar Days include all Saturdays, Sundays, Legal State Holidays and any other days identified in the Contract Documents that the Contractor is not permitted to execute the Work or employ any person to execute the Work. The restriction of non-working Calendar Days may be suspended upon the approval or direction of the Agency.

Article 53
CONTRACT TIME

53.1 The Contract Time is the number of calendar days, allotted in the Bidding Documents, for execution and Substantial Completion of the Work, including authorized ad-

justments thereto. The Contract Time is the sum of all working and non-working calendar days.

53.2 If weather conditions prevent the Contractor from executing the Work, the Contract Time may be extended by Change Order, for such reasonable time as may be determined by the Agency.

Article 54
CALENDAR DAY

54.1 This is each day of the calendar.

End of Section

01000 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Number **2019** is entitled **Sports Center Gymnasium Bleacher Replacement and Floor Refinishing**. It is to be located in **Willimantic**, Connecticut. It is to be completed and ready for use by the Owner and Agency within the Contract Time specified in Section 00020 Bid Proposal Form.

B. The Project Description:

1. Refinishing gymnasium floor, including patching, repair, sanding, removal of existing finish, lines and logos, and refinishing with new stains, game lines, logos, 2 coats of sealer, and 2 coats of floor finish.
2. Remove existing bleachers and replace with new telescopic bleachers as shown in drawings fully automated with motor driven system for opening and closing bleachers. New bleachers to include stairs and landings to existing press box.
3. Renovate the existing press box, including new doors, door hardware, finish floor, countertop, built-in cabinets, and electrical work.

4. This Project **does not** exceed the Threshold Limits as defined by the Connecticut General Statutes.

01001 OWNER AND AGENCY

A. Owner: The Owner is the Eastern Connecticut State University.

1. The authorized representative for the Owner is **Renee Theroux-Keech, Director of Facilities Management & Planning**. Facilities Management & Planning office is located at Eastern Connecticut State University, Facilities Building, 83 Windham Street, Willimantic, Connecticut 06226. Phone: **860-465-**4596 Fax: **860-465-5318**; E-mail: **keechr@easternct.edu**.

01002 ARCHITECT AND ENGINEER:

A. The designer of record is **Facilities Management and Planning Department**, and is located at **ECSU.** The Architect representing the agency for this project is **James P. Dixon**. Phone: **860-465-4500**; Fax: **465-5318**; E-mail: **dixonjam@easternct.edu**.

1. The Architect and Engineer or their accredited representative is referred to in the Contract Documents as "Architect" or "Architects" or "Engineer" or "Engineers" or by pronouns which imply them. As information for the Contractor, the Architect's or Engineer's status is defined as follows:
   a. The Architect and Engineer will not make interpretations or decisions directly to the Contractor. All interpretations or decisions will be conveyed through the Construction Administrator.
   b. As the authorized representative of the Owner, the Architect and Engineer is responsible for review of shop drawings, materials, and equipment intended for the work, in accordance with the "General Conditions", and the "Supplementary Conditions".
3. Wherever the Architect or Engineer is mentioned in the documents in connection with an administrative function, it shall include the Construction Administrator in that function except for shop drawings.

01003 CONSTRUCTION ADMINISTRATOR:

A. The Construction Administrator is **James Fielding**, and is located at **Eastern Connecticut State University, Facilities Building, 83 Windham Street,, Willimantic Connecticut, 06226**,

Phone: **869-465-0239**; Fax: **860-465-5318**; E-mail: **fieldingj@easternct.edu**.

1. The Construction Administrator is referred to in the Contract Documents as "Construction Administrator" or "Construction Manager" or by pronouns which imply it. All communications concerning the project will be directed through the Construction Administrator or a designated representative(s).
2. As information to the Contractor, the Construction Administrator's status is defined as follows:
   a. The Construction Administrator is the Owner's Agent who will, among other thing's, monitor the General Contractor's performance, scheduling and construction, process shop drawings, material, and equipment submittals, review and process periodic billings, review and recommend cost changes.

b. The Construction Administrator will process all requests for information, interpretations and decisions regarding the meaning and intent of the Contract Documents, consulting with appropriate parties prior to rendering the interpretations or decisions to the Contractor. All such requests and replies shall be in writing.

01010 SUMMARY OF WORK

A. Summary of Work includes but is not limited to the following:

1. Refinishing gymnasium floor, including patching, repair, sanding, removal of existing finish, lines and logos, and refinishing with new stains, game lines, logos, 2 coats of sealer, and 2 coats of floor finish.
2. Remove existing bleachers and replace with new telescopic bleachers as shown in drawings fully automated with motor driven system for opening and closing bleachers. New bleachers to include stairs and landings to existing press box.
3. Renovate the existing press box, including new doors, door hardware, finish floor, countertop, built-in cabinets, and electrical work.

B. The Contractor will include in his bid, all items required in order to carry out the intent of the work as described, shown and implied in the Contract Documents.

C. It shall be the Contractor's responsibility upon discovery to immediately notify the Construction Administrator, in writing, of errors, omissions, discrepancies, and instances of noncompliance with applicable codes and regulations within the documents, and of any work which will not fit or properly function if installed as indicated on the Contract Documents. Any additional costs arising from the Contractor's failure to provide such notification shall be borne by the Contractor.

D. The Work will be constructed under a single lump.

E. Work Sequence - Phase(s):

1. The entire Project shall be constructed in **1** Phase(s). Work of these Phase(s) shall be substantially complete, ready for occupancy within **90** Calendar Days of commencement of the Work.

01011 EXAMINATION OF SITE

A. It is not the intent of the Documents to show all existing conditions. All contractors are advised to visit and examine the site with the Construction Administrator prior to submitting bids.

B. Contractors should investigate and satisfy themselves as to the conditions affecting the work, including but no restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, uncertainties of weather, roads or similar physical conditions of the ground, the character of equipment, and facilities needed preliminary to and during the prosecution of the Work. The Contractor should further satisfy himself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the Contract Documents. Any failure by the Contractor to acquaint himself with the available information shall not relieve him from the responsibility for estimating properly the difficulty and cost of successfully performing the Work.

D. Mandatory Pre-Bid Conference:

1. A Mandatory Pre-Bid Conference and tour of the site will be conducted as scheduled in the Notice to Bidders. This scheduled conference is the only official opportunity for the bidders to tour the site with the Owner, Architect, Engineer, Construction Administrator, and Agency.

01012 PROJECT DOCUMENTS

A. The Specifications and Drawings are intended to describe and illustrate the materials and labor necessary for the work of this Project.

B. Throughout the Technical Specifications, the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 816, current addition including any

interim and supplemental specifications are referenced. Where so referenced the requirements set forth therein are applicable and made a part hereof Copies of Form 814A are available from the Connecticut Department of Transportation at a nominal charge.

01013 DOCUMENTS FURNISHED

A. The General Contractor will be given **4** sets of the Contract Documents on or about the time of execution of Contract, free of charge. If additional copies are wanted, they will be available at the direct additional cost of their reproduction, to the contractor.

B. The Contractor shall receive one (1) set of AutoCAD compatible (latest version) Floor Plans on disks at no cost on or about the time of execution of the Contract from the Architect. Additional sets of AutoCAD compatible (latest version) Floor Plans on disks from the Architect at the cost of their reproduction, to the contractor.

01014 CONTRACTOR'S USE OF PREMISES

A. The Contractor shall confine his operations, including storage of apparatus, equipment and materials to the contract limit lines as directed by the Construction Administrator.

B. The areas and/or spaces, including their access, shall be maintained free and clear throughout the contract term.

C. Parking for Contractor's employees will be limited to an area (or areas) designated by the Construction Administrator. The Contractor may be required to provide identification stickers for employees' cars.

01015 OCCUPANCY REQUIREMENTS

A. Full Agency Occupancy During Construction: The Agency will occupy the existing building during the entire construction period. Cooperate with the Agency during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Agency's operations.

01019 CONTRACT CONSIDERATIONS (NOT USED)

A. Allowances:

1. The Contractor's costs for unloading and handling, labor, installation costs, storage, insurance, overhead and profit and other expense related to the Allowance item shall be included in the Lump Sum Bid Amount and not in the Allowance unless stated otherwise is the Allowance Schedule of this section.
2. Architect/Engineer:
   a. Consult with Contractor for consideration of Products, suppliers and installers.
   b. Select Products in consultation with the Project Manager and Agency Representatives and transmit decision to Construction Administrator.
   c. Prepare Change Order.
3. Construction Administrator Responsibilities:
   a. Consult with Architect/Engineer, Contractor, Project Manager and Agency Representatives for consideration of Products, suppliers and installers.
   b. Select Products in consultation with Architect/Engineer, Project Manager and Agency Representatives and transmit decision to Contractor
   c. Prepare Change Order.
4. Contractor Responsibilities:
   a. Assist Architect/Engineer and Construction Administrator in selection of Products and Suppliers.
   b. Obtain proposals from Suppliers and offer recommendations.
   c. On notification of selection by Construction Administrator execute purchase agreement with designated supplier.
   d. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
   e. If the actual cost of an Allowance item is more or less than the given amount, the Contract Sum will be adjusted by Change Order.

5. Allowance Schedule:
   a. Section ___ - "___": Include the Stipulated sum of $ ___ for delivery of ___.
   b. Section ___ - "___": Include the Stipulated sum of $ ___ for purchase of ___.
   c. Section ___ - "___": Include the Stipulated sum of $ ___ for purchase and delivery of ___.
   d. Section ___ - "___": Include the Unit Price of $ ___ for purchase and delivery of ___.

B. Unit Prices - General:

1. Definition - Unit Price: Amount the General Contractor acknowledges in the Bid Proposal Form as a price per unit of measurement for materials or services as described in the Bidding Documents or in the Contract Documents.
2. Procedures:
   a. Unit Prices included in the Contract Documents are to be used for determining compensation to the Contractor or Owner for changes to the scope of the work indicated in the Contract Documents, and included in the Lump Sum Contract Price. Special Unit Prices are for items complete, in place, and shall be inclusive of furnishing and installing of all material, labor, trucking, overhead, profit, equipment, hoisting, engineering, scaffolding, power hookups, protection, shop drawings, taxes, permits, appliances, delivery, insurance, supervision, cost of bond, etc. and shall remain in effect until completion of the Contract.
   b. Unit Price: Is identified by the Owner as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if the estimated quantities of Work required by the Contract Documents are increased or decreased.
   c. Increases or Decreases: Should the amount of the Work required be increased or decreased because of changes in the work ordered in writing by the Project Manager, the Undersigned agrees that the following supplemental UNIT PRICES will be decreased 10% for a reduction of work. Each Unit Price shall include all equipment, tools, labor, permits, fees, etc., incidental to the completion of the work involved. All items marked with an asterisk (*) in the unit price schedules shall include the completion of the excavation, formation and compaction of sub-grade and the disposal of surplus or unsuitable materials in accordance with the Plans and Specifications or as directed by the Construction Administrator.
3. The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this work measured, at the Owner's expense, by an independent surveyor acceptable to the Contractor.
4. Defect Assessment: Replace the Work, or portions of the Work, not conforming to the specified requirements, If, in the opinion of the Architect/Engineer it is not practical to remove and replace the work the Architect/Engineer will direct an appropriate remedy or adjust the payment.
5. Unit Price Schedule: A "Unit Price Schedule" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials described under each unit price.

C. Unit Price Schedule - Earth and Rock Excavation: This Section includes administrative and procedural requirements for the following unit prices and provisions are to be included in and become part of this Contract to be used in evaluating additions to or deductions from the work called for in the specifications and/or plans.

1. Unless otherwise specified elsewhere in these documents, Contractors are to assume that all excavation is earth; however, if unspecified rock is encountered, it will be paid for at the given unit prices listed in paragraph "F". Rock prices are net in that allowances for reduced quantities of earth are also included in the unit prices. The prices given include all costs for overhead, profit and rock surveys.
2. Wherever rock to be excavated is encountered, the Contractor shall strip or expose the rock to such an extent that in the Owner's opinion the necessary measurements can be taken. The Contractor shall provide the Owner with a survey by a licensed land surveyor indicating top of rock elevations at points of intersection on a rectilinear grid with lines spaced sufficiently close to show accurately the rock surface contours. At the Owner's option, an additional survey may be furnished by the Owner from a licensed surveyor.

3. If the conditions of the excavation work indicated are clearly of a special nature, the Contractor may ask the Owner for reconsideration of the established unit prices and if granted, the unit prices will not apply, and prices will be negotiated in accordance with Article 13 of the General Conditions.

D. Definitions:

1. "EARTH" - is defined, as excavation shall include removal of all materials other than 'water' and 'rock'.
2. "ROCK" - is defined as a boulder of 1 cubic yard or more in volume (1/2 cubic yard for a boulder in trenches), and rock in definite ledge formation and masonry structures of one cubic yard or more in volume, the removal of which requires the use of mechanical equipment or the use of explosives. Rock removed by scarification or ripping method is considered as a separate classification under paragraph 4.a.(1)
3. "ORIGINAL GRADE" - is defined as being the grade which exists at the time of Contract Award.
4. "ROUGH GRADE" - is defined as being the completed surface of required excavations greater than 13' in width.
5. "MASS" - excavation is to be considered as an open area whose minimum horizontal dimensions exceed 13'.
6. "TRENCH" - is defined as excavation is defined as the removal of material from areas 13 feet or less in its minimal horizontal dimensions and below the elevation of rough grade or original grade, whichever is lower.

E. Procedures:

1. Rock Excavation In Trenches: Basis For Horizontal Measurement:
   a. Horizontal Measurements: Will be taken between the vertical planes as defined below.
   b. The Minimum Width Of Trenches In Rock: Will be taken as 3' 0".
   c. Excavation - For Walls Or Piers With Footings: The measurements will be taken parallel to and one foot outside of the edges of the concrete footings as called for in the plans (i.e. for 4' 0" footing, rock will be taken as 6' 0" in width).
   d. Excavation For Walls Or Piers Without Footings: The limits of the excavation will be 1' 6" outside of the line of concrete at bottom as shown or called for in the plans (i.e. for a wall with a bottom thickness of 1' 0", the width of the trench will be considered to be 4' 0"). (Caissons are excluded from these measurements).
   e. Excavation For Pipe Lines: Will be measured at 2' 0" more than the nominal inside diameter of the pipe but in no case less than 3' 0" wide.
   f. Excavation For Tanks, Vaults, Manholes, Pits, Etc.: Will be measured as 2' 0" greater in both length and width or diameter than the actual exterior dimensions of the structures and this excavation is considered to be trench only if any measured horizontal dimensions is 13' or less.
   g. No allowance will be made for rock removed beyond the above limits.
2. Rock Excavation In Trenches - Basis for Vertical Measurement:
   a. To determine depth of trench, vertical measurements will be taken from original grade or rough grade, (whichever is applicable), to the bottom of required excavation. These measurements will define the maximum depths for payments.
   b. To determine quantity of rock in trench, vertical measurements will be taken from the top of rock as encountered in the trench to 12" below the bottom of required rock excavation. Any over excavation below the required elevation shall be filled with concrete or other material as specified at no cost to the Owner.
   c. No allowance will be made for rock removed beyond the above limits.
3. Earth Excavation In Trenches - Basis Of Measurement: (Horizontal & Vertical): The basis of measurements and allowance limit for earth excavation in trenches is identical to that indicated for rock excavation in trenches, except that there will be no allowance for 12" below the required elevation. In addition the following will prevail:
   a. Maximum allowable widths for earth excavation in trenches without shoring:

Trench Depth - Classification	Add To Nominal ID Of Pipe Or To Footing Width
0 ft. - 6 ft.	3 ft.
Over 6 ft. - 10 ft.	5 ft.
Over 10 ft. - 15 ft.	7 ft.
Below 15 ft. deep the width of the trench shall be based on the individual case. The final depth of trench will determine the actual width for payment.	

b. If shoring is required the measurement shall be taken between the exterior walls of the shoring not to exceed 4' plus the I.D. of the pipe (for all depths).

c. To determine quantity of earth in trench, vertical measurements will be taken from the original or rough grade to actual bottom of earth excavation required.

4. Unit Prices - Earth and Rock Excavation (Basis For Payment): Prices include backfill with excavated material if it is suitable. Prices also include all excavation and disposal of all surplus or unsuitable material. Where replacement with the excavated material is prohibited or a particular backfill material is specified, the cost of the delivered replacement material in a volume equal to the above excavation pay limits minus the volume of the items installed in the trench shall be paid for a prior negotiated price. Prices do not include costs of shoring and de-watering but do include sloping for sides of excavation. Payment and credit amounts shall be determined in the following manner: Widths and depths of trench excavation as indicated. The total quantity of earth or rock excavation encountered in each depth payment category shall be paid for at its respective unit price as shown below. For example, in a 15' trench the first 6' will be paid for at the 0' - 6' price; the next 4' will be paid for at the over 6' - 10' price and the next 5' will be paid for at the over 10' - 15' price. Thus three different price brackets will prevail.

a.	EARTH EXCAVATION - HAND			UNIT	$ ADD	$ DEDUCT
	(1)	In Trenches - 0'. - 6'.		C.Y.	36.00	28.80
	(2)	In Trenches Below 6' Deep,		Prices Must Be Negotiated Before Work Is Started.		
b.	EARTH EXCAVATION - MACHINE			UNIT	$ ADD	$ DEDUCT
	(1)	Open Area	All Depths	C.Y.	7.40	5.92
	(2)	In trenches	0' - 4' deep	C.Y.	4.25	3.40
		Over	0' - 10' deep	C.Y.	9.00	7.20
		Over	0' - 15' deep	C.Y.	4.75	3.80
		Over	0 - 20' deep	C.Y.	5.75	4.60
c.	ROCK EXCAVATION			UNIT	$ ADD	$ DEDUCT
	(1)	Open Areas, Rock Removed By Ripping (Any Amount),				
		Net Rock		C.Y.	9.20	7.30
	(2)	Open Areas, With Explosives -				
		Net Rock -	Total Quantity Up To 100	C.Y.	27.00	21.60
			Total Quantity Up To 500	C.Y.	21.30	17.00
c.	ROCK EXCAVATION (cont.)			UNIT	$ ADD	$ DEDUCT
			Total Quantity Up To 500 or more	C.Y.	17.00	13.60
	(3)	In Trenches, Boulders, Remove By Machine		C.Y.	14.00	11.20
	(4)	In Trenches, Ripping Of Rock By Machine		C.Y.	16.00	12.80
	(5)	In trenches, with explosives				
		Net Rock	0' - 4' Deep	C.Y.	20.60	16.48
	(6)	In trenches, with explosives				
		Net Rock	0' - 10' Deep	C.Y.	36.75	29.40
	(7	In trenches, with explosives				
		Net Rock	0 - 15' Deep	C.Y.	28.60	22.88

	(8)	In trenches, with explosives				
		Net Rock	Over 15' - 10' Deep	C.Y.	60.00	48.00
	(9)	In trenches, with explosives -				
		Net Rock	0 - 20' Deep,	Prices Must Be Negotiated Before Start Of Work.		
	(10)	Jack Holes (For Hydraulic Lift/Elevators)		L.F.	95.00	76.00
	(11)	Open Or Mass Areas - If Explosives Are Prohibited				
		Net Rock		C.Y.	80.00	64.00
	(12)	Trench Excavation - If Explosives Are Prohibited				
		Net Rock/With Rock Splitters And Jack Hammer or Hoe Ram		C.Y.	120.00	96.00

F. Unit Price Schedule – Miscellaneous:

1. Unit Price - Miscellaneous:

A.	MISCELLANEOUS Items		UNIT	$ ADD	$ DEDUCT
	a.	*Structural fill			
	b.	*Footing forms, contact area			
	c.	*Footing concrete, in place			
	d.	*Wall forms, contact area			
	e.	*Wall concrete, in place			
	f.	*Reinforcing steel bars, in place			
	g.	*Structural steel, in place			

G. Unit Price Schedule - Alterations

1. Unit Price - Alterations:

A.	ALTERATION ITEMS		UNIT	$ ADD	$ DEDUCT
	a.	Roof Blocking			
	b.	Roof Planking			
	c.	Flashing			
	d.	Roof Sheathing			
	e.	Roof Flashing			
	f.	Structural Deck			
	g.	Roof Drain Assemblies			

2. Unit prices shall be negotiated if there is a change in scope of work.

01027 APPLICATION FOR PAYMENT

A. Schedule of Values: Submit the "Schedule of Values" to the Construction Administrator at the earliest possible date but no later than (21) twenty Calendar Days after the Contract Start Date. A separate "Schedule of Value" shall be provided for each Phase of identified in Section 01010 Summary of Work, Work Sequence - Phase(s).

1. Format and Content: Use the Project Manual Table of contents as a guide to establish the format for the "Schedule of Values". Provide at least one line item for each of the Specification Section on electronic media printout.
2. Identification: Project identification on the Schedule of Values shall include, but not be limited to, the following:
   a. Owner
   b. Project Number
   c. Project Name

d. Project Location

e. Contractor's name and address.

3. Arrange the "Schedule of Values" in tabular format as required by the Owner, containing separate columns including, but not limited to, the following Items:

   a. Item Number.

   b. Description of Work with Related Specification Section or Division Number.

   c. Scheduled Values broken down by description number, type material, units of each material.

   d. Name of subcontractor.

   e. Name of manufacturer or fabricator.

   f. Name of supplier.

   g. Retainage.

   h. Contract sum in sufficient detail.

4. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

5. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items.

6. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.

7. Unit-Cost Allowances: Show the line-item value of unit-cost allowances, as a product of the unit cost, multiplied by the measured quantity. Estimate quantities from the best indication in the Contract Documents.

8. General Conditions: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.

   a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at the Contractor's option.

B **Applications for Payment - General:** Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and Construction Administrator and paid for by the Owner.

1. The initial "Application for Payment", the "Application for Payment", at time of "Substantial Completion", and the final "Application for Payment", involve additional requirements.

2. Payment-Application Terms: The Owner will process monthly progress payments. The Contractor may submit applications for payment on a monthly basis.

3. Payment-Application Forms: Use the "Application for Payment*"* form as required by the Owner. Present the required information on electronic media printout or approved Owner Form, multiple pages should be used if required.

4. For each item, provide a column including but not limited to the following items:

   a. Item Number.

   b. Description of Work and Related Specification Section or Division.

   c. Scheduled Value, break down by units of material and units of labor.

   d. Work completed from previous application.

   e. Work completed this period.

   f. Materials presently stored.

   g. Total completed and stored to date of application.

   h. Percentage of Completion.

i. Balance to Finish.

j. Retainage

5. Application Preparation: Complete every entry on the form. Include final payment only and execution by a person authorized to sign legal documents on behalf of the Contractor. The Construction Administrator will return incomplete applications without action.
   a. Entries shall match data on the "Schedule of Values".
   b. Include amounts of Change Orders issued prior to the last day of the construction period covered by the application.
6. Transmittal: Submit **3** signed and notarized original copies of each Application for Payment to the Construction Administrator. One copy shall be complete, including waivers of lien and similar attachments, when required.
   a. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the Architect.
7. Applications for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment and all subsequent Application for Payments including, but not limited to, the following items:
   a. List of subcontractors and suppliers' name, FEIN/Social Security numbers, and Connecticut Tax Registration Numbers.
   b. List of principal suppliers and fabricators.
   c. Schedule of Values.
   d. Contractor's Construction Schedule (preliminary if not final).
   e. Schedule of principal products.
   f. Submittal Schedule (preliminary if not final).
   g. List of Contractor's staff assignments.
   h. List of Contractor's principal consultants.
   i. Copies of all applicable permits.
   j. Copies of authorizations and licenses from governing authorities for performance of the Work.
   k. Initial as-built survey and damage report, if required.

C. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion submit an Application for Payment form, use the form as required by the Owner. Present the required information on electronic media printout.

1. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work..
2. Administrative actions and submittals that shall precede or coincide with this application include, but are not limited to, the following:
   a. Occupancy permits and similar approvals.
   b. Warranties (guarantees) and maintenance agreements.
   c. Test/adjust/balance records.
   d. Maintenance instructions.
   e. Meter readings.
   f. Startup performance reports.
   g. Changeover information related to Owner's occupancy, use, operation, and maintenance.
   h. Final cleaning.
   i. Application for reduction of retainage and consent of surety.
   j. Advice on shifting insurance coverage.

k. Final progress photographs.

l. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.

D. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited, to the following:

Completion, Final Inspection, and Final Payment, in the General Conditions and Supplementary Conditions.

1. *Completion of Project Closeout requirements.*
2. *Completion of list of items remaining to be completed as indicated on the attachment to the Certificate of Substantial Completion.*
3. *Ensure that unsettled claims will be settled.*
4. *Ensure that incomplete Work is not accepted and will be completed without undue delay.*
5. *Transmittal of required Project construction records to the Owner.*
6. *Certified property survey.*
7. *Proof that taxes, fees, and similar obligations were paid.*
8. *Removal of temporary facilities and services.*
9. *Removal of surplus materials, rubbish, and similar elements.*
10. *Change of door locks to Owner's access.*
11. *The requirements of the General Conditions and Supplementary Conditions for Final Acceptance, Final Completion, Final Inspection, and Final Payment.*
12. *Asbestos, Lead or other hazardous material manifests.*
13. *Completion of "Building Contractor Reporting Form" as supplied by Department of Public Works, for all Contractors, Subcontractors, Vendors, Suppliers, etc. who work on the Contract. The form includes the following information:*
14. *Contractor/Subcontractor name.*
15. *FEIN/Social Security Numbers*
16. *Connecticut Tax Registration Numbers*
17. *Type of work*
18. *Name of business and address*
19. *Remittance address.*

01030 SUPPLEMENTAL BIDS (NOT USED)

A. Definition: A Supplemental Bid is an amount proposed by bidders and stated on the Bid Proposal Form for certain work defined in the Bidding Documents that may be added to the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. The cost for each supplemental bid is the net addition to the Contract Sum to incorporate the Supplemental Bid into the Work. Supplemental Bids are only accepted in the numerical order that they are listed on the Bid Proposal Form and never accepted out of numerical sequence. No other adjustments are made to the Contract Sum.

B. Procedures:

1. Coordination: Modify or adjust affected adjacent Work as necessary to completely and fully integrate that Work into the Project.
   a. Include as part of each Supplemental Bid, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Supplemental Bid.
2. Execute accepted Supplemental Bids under the same conditions as other Work of this Contract.

2. Schedule: A "Schedule of Supplemental Bids" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials necessary to achieve the Work described under each Supplemental Bid.

C. Schedule of Supplemental Bids:

1. Supplemental Bid No. 1: ADD the complete Glycol Foil Heat Recovery Loops into the Project as specified in Section 15600. It is not included in the Base Bid.

2. Supplemental Bid No 2: ADD the complete space improvements of the 4 laboratory quadrants and the support area as shown on ___ Drawing ___ for Floor Level ___ including all related mechanical and electrical systems, casework, finishes, etc. in order to fully complete the floor. The Base Bid has this area as being left unfinished.

1 Supplemental Bid No 3: ADD the complete space improvements of the 4 laboratory quadrants and the support area as shown on ___ Drawing ___ but for Floor Level ___ including all related mechanical and electrical systems, casework, finishes, etc. in order to fully complete the floor. The Base Bid has this area as being fully completed.

01035 MODIFICATION PROCEDURES

A. Summary: This Section specifies administrative and procedural requirements for handling and processing contract modifications.

B. Minor Changes in the Work:

1. The Architect, through the Construction Administrator, will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on the "Supplemental Instructions" form as required by the Owner.

C. Proposal Request:

1. Architect/Owner-Initiated Requests For Proposals: The Architect or Owner will issue a detailed description of proposed changes in the Work via the Construction Administrator that will require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications. Such requests shall be on a "Proposal Request" form as required by the owner.

2. "Proposal Request" is issued for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.

3. Within Fourteen (14) Calendar Days of receipt of a "Proposal Request", submit a "Change Order Proposal" with the required information necessary to execute the change to the Construction Administrator for the Architect's/Owner's review.

4. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

   a. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.

   b. Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.

   c. The Agency is tax exempt. All Contractor and Subcontractor services provided under your contract with the State of Connecticut may not be exempt from taxes. The Department of Revenue Services can guide you as to which services are exempt and which are not. Please contact the State of Connecticut, Department of Revenue Services at 1-800-382-9463 or 566-7033.

   d. Dollar values shown on the Schedule of Values shall not be the governing (or deciding) final amounts for change orders involving either additional charges or deletions.

D. Requests for Information:

1. In the event that the contractor or subcontractor, at any tier, determines that some portion of the drawings, specifications, or other contract documents requires clarification or interpretation by the Architect, the contractor shall submit a "Request for Information" in writing to the Architect via Construction Administrator. "Requests for Information" may only be submitted by the contractor and shall only be

submitted on the "Request for Information" forms as required by the owner. In the "Request for Information", the contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed from the Architect.

a. In the "Request for Information", the contractor shall set forth an interpretation or understanding of the requirement along with reasons why such an understanding was reached.

b. The owner acknowledges that this is a complex project. Based upon the owner's past experience with projects of similar complexity, the owner anticipates that there will probably be some "Requests for Information" on this project.

c. The Architect will review all "Requests for Information" to determine whether they are "Requests for Information" within the meaning of this term. If it is determined that the document is not a "Request for Information", it will be returned to the contractor, unreviewed as to content, for resubmittal on the proper form and in the proper manner.

d. A "Requests for Information Response" shall be issued within seven (7) Calendar Days of receipt of the request from the contractor unless the owner determines that a longer time is necessary to provide an adequate response. If a longer time is determined necessary by the owner, the owner will, within seven (7) Calendar Days of receipt of the request, notify the contractor of the anticipated response time. If the contractor submits a "Request for Information" on an activity with seven (7) Calendar Days or less of float on the current project schedule, the contractor shall not be entitled to any time extension due to the time it takes the Architect to respond to the request provided that the Architect responds within the seven (7) Calendar Days set forth above.

e. A "Requests for Information Response" from Architect will not change any requirement of the contract documents. In the event the contractor believes that the "Requests for Information Response" will cause a change to the requirements of the contract document, the contractor shall immediately give written notice to the Construction Administrator stating that the contractor believes the "Requests for Information Response" will result in "Change Order" and the Contractor intends to submit a "Change Order Proposal" request. Failure to give such written notice immediately shall waive the contractor's right to seek additional time or cost under the requirement these Requirements.

E. Change Order Proposal:

1. When either a "Request for Information" from the Contractor or a "Proposal Request" from the Architect or Owner results in conditions that may require modifications to the Contract, the Contractor may propose changes by submitting a request for a "Change Order Proposal" to the Architect via the Construction Administrator on forms as required by the Owner. These forms shall also include "Change Order Proposal Worksheets" as required by the Owner.

   a. Include statements outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.

   b. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities as directed by Article 13 of the General Conditions of the Contract for Construction.

   c. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.

   d. Comply with requirements in Section 01631 Equals and Substitutions if the proposed change requires an equal or substitution of one product or system for a product or system specified.

2. The State of Connecticut construction contract has the following tax exemptions:

   a. Purchasing of materials which will be physically incorporated and become a permanent part of the project.

   b. Tools, supplies and equipment used in fulfilling the construction contract are not exempt.

   c. Services that are resold by the contractor are exempt, i.e. if a General Contractor hires a plumber, carpenter or electrician, a resale certificate may be issued to the subcontractor because these services are considered to be integral and inseparable component parts of the building contract

3. "Change Order Request" Forms: Use "Change Order Proposal" and "Change Order Proposal Worksheets" forms as required by Owner.

4. "Change Order Proposal" cannot be submitted without the Contractor either prior submission of a "Request for Information" from the Contractor or as a response to a "Proposal Request" submitted by the Architect or Owner.
5. Any "Change Order Request " submitted without a prior submittal of a "Request for Information" or as a response to a "Proposal Request" will be immediately rejected and returned to the Contractor.

F. Construction Change Directive:

1. "Construction Change Directive": When the Owner and the Contractor disagree on the terms of a "Change Order Proposal" resulting from either a "Request for Information" or "Proposal Request", then the Architect through the Construction Administrator may issue a "Construction Change Directive" on a "Construction Change Directive" as authorized by the Owner on the form required by the Owner. The "Construction Change Directive" instructs the Contractor to proceed with a change in the Work, for subsequent inclusion in a "Change Order".
    a. The "Construction Change Directive" contains a complete description of the change in the Work. It also designates the method to be followed to determine change in the Contract Sum or Contract Time.
2. Documentation: The Contractor shall maintain detailed records on a time and material basis of work required by the "Construction Change Directive".
    a. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
    b. The final value shall be negotiated based on the supporting data to determine the value of the work.

G. Change Order Procedures:

1. Upon the Owner's approval of a Contractor's "Change Order Proposal", the Construction Administrator will issue a "Change Order" for signatures of the Architect, Owner and the Contractor on "Change Order" form as required by the Owner.

01040 COORDINATION

A. Construction Administrator:

1. The Construction Administrator is identified in Section 01003 Construction Administrator.
2. Construction Mobilization:
    a. Cooperate with the Construction Administrator in the allocation of mobilization areas of the site, for field offices and sheds, for agency facility access, traffic, and parking facilities.
    b. During Construction, coordinate use of site and facilities through the Construction Administrator.
    c. Comply with Construction Administrators procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
    d. Comply with instructions of the Construction Administrator for use of temporary utilities and construction facilities.
    e. Coordinate field engineering layout as specified in Section 01050 "Field Engineering" for work under the instructions of the Construction Administrator.

B Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
3. Make provisions to accommodate items scheduled for later installation.

C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

1. Prepare similar memoranda for the Construction Administrator, Owner and separate contractors where coordination of their work is required.

D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. *Preparation of schedules.*
2. *Installation and removal of temporary facilities.*
3. *Delivery and processing of submittals.*
4. *Progress meetings.*
5. *Project closeout activities.*

E. General Coordination Provisions:

1. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed and coordinate such inspections with the Construction Administrator and authorities having jurisdictions. If unsatisfactory conditions exist notify the Construction Administrator immediately. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
2. The Contractor shall coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.
3. Coordination Drawings:
   a. The HVAC Subcontractor will initiate mylar at 1/4" scale drawings done on AutoCAD showing ducts and piping in plan and section. Sheet metal shop drawings must be approved prior to starting coordination drawings.
   b. The Sprinkler Subcontractor will then superimpose his piping layout on the tracing.
   c. The Electrical subcontractor will superimpose all the electrical information on the tracing. Said information to include but not necessary limited to cable trays, equipment, lighting, conduits, bus duct, etc.
   e. The sprinkler subcontractor will complete the coordination drawing by drawing his piping (include pitch) on the tracing.
   f. The Construction Administrator will review the completed coordination drawing for general compliance and then submit it to the Architect for his review. All subcontractors shall rework the mylar drawings until all systems are properly coordinated.
4. The Construction Administrator will meet with the Contractor on all major items of coordination.
5. See also General Conditions Article 7.

01045 CUTTING AND PATCHING

A. Openings and chases may not be shown on the Drawings. It is the responsibility of the Contractor to examine the Architectural, Electrical, Heating, Cooling, Ventilating and Plumbing Drawings and to provide chases, channels or openings where needed.

B The Contractor shall install sleeves, inserts and hangers furnished by the trades needing same.

C. After installing work into openings, channels and/or chases, the Contractor shall close same. If finishes are to be restored, the new work shall match the original and shall be done by the trade customarily responsible for the particular kind of work.

D. Permission shall be obtained from the Construction Administrator before cutting beams, arches, lintels or other structural members.

E. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.

1. Obtain approval from the Architect/Engineer's of the cutting and patching proposal before cutting and patching the following structural elements:

a. Foundation construction.

b. Bearing and retaining walls.

c. Structural concrete.

d. Structural steel.

e. Lintels.

g. Structural decking.

i. Miscellaneous structural metals.

j. Exterior curtain-wall construction.

k. Equipment supports.

l. Piping, ductwork, vessels, and equipment.

m. Structural systems of special construction in Division 13 Sections.

F. Do cutting and patching to integrate all elements of the work. Provide penetrations of existing surfaces. Provide samples for testing. Seal penetrations through floors, walls, ceilings and roofs, as applicable; restore or preserve fire-rated and smoke-barrier construction. Construction and finishes shall match original work.

G. The Contractor shall verify dimensions for built-in work and/or work adjoining that of other trades before ordering any material or doing any work. Discrepancies shall be submitted to the Construction Administrator before proceeding with the work.

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

I. See also General Conditions Article 23.

01050 FIELD ENGINEERING

A. Provide field engineering services to establish and record grades, lines and elevations.

B. The Contractor shall retain a Professional Engineer or Land Surveyor registered by the State of Connecticut to lay out the building, underground utility lines and other site work from the horizontal and vertical control information furnished by the Owner and to establish and record the necessary elevations, at no additional cost to the State.

C. The Contractor shall forward a letter from his Land Surveyor or Professional Engineer stating that the control information furnished by the Owner, is accurate or shall identify inaccuracies, if they exist. The Contractor shall not take advantage of errors, which may be included in the control information. Stakes and markings shall be preserved.

01095 REFERENCE STANDARDS & DEFINITIONS

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

B. References to standard specifications and codes refer to the editions current at the bid due date. An exception is, buildings exceeding the threshold limit must be in substantial compliance with the requirements of the effective code at the time of receipt of completed application to the Office of State Building Inspector (OSBI). References include their addenda and errata, if any, and shall be considered a part of these specifications as if they were printed herein in full.

C. The manufacturers' standard warranties or guarantees shall apply when their products are used on this project.

D. Flame Spread Ratings - all materials that are required of obligated to meet specified standards shall be submitted to the owner for their records as part of the shop drawing submittal process for their construction records.

01120 RENOVATION/DEMOLITION PROJECT PROCEDURES

A. Products For Patching And Extending Work:

1. New materials: As specified in product sections; match existing Products and Work for patching and extending Work.
2. Type and Quality of Existing Products: Determine by inspecting and testing Products where necessary, referring to existing Work as a standard.

B. Inspection- General:

1. Verify that demolition is complete and areas are ready for installation of new Work.
2. Beginning of restoration Work means acceptance of existing conditions.

C. Project Procedures for Work Involving Asbestos Containing Material (ACM):

1. The Construction Administrator is responsible for abating all ACM that is visible and accessible. This is to be accomplished through a separate project prior to the start of the renovation project. In demolition projects, every attempt should by the owner to remove all ACM.
2. If the Contractor should encounter any material suspect or known to contain ACM, he should immediately notify the Construction Administrator of same. It is the State's responsibility to have the material tested and abated (if necessary). The Owner will respond within twenty-four (24) hours after receiving the Contractor's written request to the Construction Administrator for testing the suspect material. The Owner will abate ACM (if necessary) within a reasonable time period, i.e. with seven (7) Calendar Days.
3 Testing for asbestos has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the asbestos testing are for information purposes only. The testing results are in a separate Volume of this Project Manual. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of asbestos. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
4. See also General Conditions Article 23.

D. Project Procedures for Work Involving Lead Containing Material:

1. Exposure levels for lead in the construction industry are regulated by 29 CFR 1926.62. Construction activities disturbing surfaces containing lead-based paint (LBP) which are likely to be employed, such as sanding, grinding, welding, cutting and burning, have been known to expose workers to levels of lead in excess of the Permissible Exposure Limit (PEL). Conduct demolition and removal Work specified in the technical sections of this specification in conformance with these regulations. In addition, construction debris/waste may be classified as hazardous waste. Disposal of hazardous waste material shall be in accordance with 40 CFR Parts 260 through 271 and Connecticut Hazardous Waste Management Regulations Section 22a-209-1; 22a-209-8(c); 22a-449(c)-11; and 22a-449(c)-100 through 110.
2. The Contractor's Work shall be based on a child under the age of six (6) in residence; the Work shall also be in accordance with Connecticut Regulations Section 19a-111-1 through 11.
3. This facility was constructed prior to 1978 and is likely to have painted surfaces containing lead-based paint.
4. Testing for lead-based paint has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the LBP testing are for information purposes only. The testing results are in a separate Volume of this Project Manual. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of LBP. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

E. Preparation:

1. Cut, move, or remove items as are necessary for access to alterations and renovation Work. Replace and restore at completion.
2. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work..
3. Remove debris and abandoned items from area and from concealed spaces.
4. Prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
5. Close openings in exterior surfaces to protect existing Work and salvage items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

F. Installation:

1. Coordinate Work of alterations and renovations to expedite completion and if required sequence Work to accommodate Owner occupancy.
2. Remove, cut and patch Work in a manner to minimize damage and to provide restoring Products and finishes to original and or specified condition in accordance with Section 01045 "Cutting and Patching".
3. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with neat transition to adjacent finishes in accordance with Section 01045 "Cutting and Patching".
4. In addition to specified replacement of *equipment* and *fixtures,* restore existing *plumbing, heating, ventilation, air conditioning, electrical*, systems to full operational condition.
5. Recover and refinish Work that exposes mechanical and electrical Work exposed accidentally during the Work.
6. Install Products as specified in individual sections.

G. Transitions:

1. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patch work to match existing adjacent Work in texture and appearance.
2. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect/Engineer.

H. Adjustments:

1. Where removal of partitions or walls result in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
2. Where a change of plane of _____inch in _____ or more occurs, request recommendation from Architect/Engineer for providing a smooth transition.
3. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.
4. Fit Work at penetrations of surfaces as specified in Section 01045 "Cutting and Patching".

I. Repair of Damaged Surfaces:

1. Patch or replace portions of existing surfaces that are damaged, lifted, discolored, or showing imperfections.
2. Repair substrate prior to patching finish.

J. Finishes:

1. Finish surfaces as specified in individual Product sections.
2. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

K. Cleaning:

1. In addition cleaning specified in Section 01700 "Project Closeout", clean Agency occupied areas of Work

01121 SALVAGEABLE MATERIALS (NOT APPLICABLE)

A. The Contractor shall be responsible for removing the following salvageable items from premises and transporting said items to ___on ___, CT___.

1. *Equipment:*
2. *Windows:*
3. *Doors:*
4. *Door Hardware:*
5. *Fixtures:*

6. Art:

B. The Contractor shall notify the Construction Administrator in writing seven (7) Calendar Days prior to removing all salvageable items from the existing alteration project location and unloading all salvageable items at ___ , ___, Connecticut ___ and store items in the appropriate location as directed by ___ personnel.

01200 PROJECT MEETINGS

A. Pre-construction Conference:

1. The Contractor will attend a Pre-construction Conference before starting construction, as scheduled by the Construction Administrator convenient to the Owner, the Construction Administrator, Architect, and Contractor. This meeting will take place within fourteen (14) Calendar Days after the written Notice to Proceed and before the Contract Start Date. Hold the conference at the Project Site or another convenient location as directed by the Construction Administrator. The Construction Administrator shall conduct the Pre-construction Conference to review the Contractor and Subcontractor responsibilities and personnel assignments.
2. Attendees: Authorized representatives of the Construction Administrator, Owner, Architect, and their consultants; the Contractor and its superintendent; major subcontractors; agency; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect progress, including the following:
   a. Tentative construction schedule.
   b. Critical work sequencing.
   c. Progress meeting schedule.
   d. Designation of responsible personnel.
   e. Procedures for processing field decisions and Change Orders.
   f. Procedures for processing Applications for Payment.
   g. Distribution of Contract Documents.
   h. Submittal of Shop Drawings, Product Data, and Samples.
   i. Preparation of record documents.
   j. Use of the premises.
   k. Parking availability.
   l. Office, work, and storage areas.
   m. Equipment deliveries and priorities.
   n. Safety procedures.
   o. First aid.
   p. Security.
   q. Housekeeping.
   r. Working hours.
   s. Coordination with Audio-Visual and Telecommunications.

B. Progress Meetings:

1. The Construction Administrator will conduct progress meetings, bi-weekly, at the Project Site or at regular intervals as agreed upon at the Pre-construction Conference. The Construction Administrator will notify the Owner, the Architect, and the Contractor of the scheduled Progress Meeting dates. Coordinate dates of Progress Meetings with preparation of Application for Payment requests.
2. Attendees: In addition to representatives of the Contractor, Construction Administrator, Owner and the Architect, subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities may be requested to attend these meetings on an as needed

basis. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work. The Contractor shall include the site superintendent as a minimum.

3. Agenda: Progress Meetings shall review and correct or approve minutes of the previous Progress Meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
    a. Construction Schedule: Review progress since the last Progress Meeting. Determine where each activity is in relation to the required Contractor's "Construction Schedule" and whether each activity is on time or ahead or behind Schedule. Determine how Work that is behind Schedule will be expedited; secure commitments from parties involved to do so. Discuss whether Schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.
    b. Review the present and future needs of each entity present
4. Reporting: The Construction Administrator will distribute minutes of the meeting to each party present, promptly and before the next scheduled meeting, and to parties who should have been present.
5. A schedule of regular Project Meetings will be established at the Pre-construction Conference.

01300 SUBMITTALS

A. Summary:

1. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including but not limited to the following:
    a. Submittal schedule.
    a. Shop Drawings.
    c. Product Data.
    d. Samples.
    e. Quality assurance submittals.
    f. Proposed "Substitutions Request"form.
    g. Warrantee samples.
    h. Coordination Drawings.
    i. O & M Manuals

B. Administrative Submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

1. Permits.
2. Applications for Payment.
3. Performance and payment bonds.
4. Contractor's construction schedule.
5. Daily construction reports.
6. Construction Photographs.
7. Insurance certificates.
8. List of subcontractors.
9. Subcontractors/Suppliers FEIN #'s and Connecticut tax registration #.

C. Definitions:

1. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended and as identified in the Specification Division 2 through 16.
    a. Preparation of Coordination Drawings is specified in Division 1 Section "Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.

2. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.
3. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

D. Submittal Procedures:

1. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
2. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that requires sequential activity.
3. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
4. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
5. The Architect reserves the right to reject incomplete submitted packages.
6. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
    a. Allow (2) two weeks for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals.
    b. If an intermediate submittal is necessary, process the same as the initial submittal.
    c. Allow (2) two for reprocessing each submittal.
    d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.

E. Submittal Preparation: Place a permanent label, title block or 8-1/2 inches x 11 inches cover page approved by the Architect, on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. The minimum number of copies required for each submittal shall be at a minimum 7 copies or as determine otherwise at the pre-construction conference or by the Construction Administrator.
2. Provide a space approximately 4 inches by 5 inches on the label, beside the title block or on the cover page on Shop Drawings to record the Contractor's review and approval markings and the action taken.
3. Include the following information on the label for processing and recording action taken.
    a. Project Name and State of Connecticut Project Number.
    b. Date.
    c. Name and address of the Architect, Construction Administrator, and Owner Representative.
    d. Name and address of the Contractor.
    e. Name and address of the subcontractor.
    f. Name and address of the supplier.
    g. Name of the manufacturer.
    h. Number and title of appropriate Specification Section.
    i. Drawing number and detail references, as appropriate.
    j. Indicate either initial or resubmittal.
    k. Indicate deviations from Contract Documents.
    l. Indicate if "equal" or "substitution".

F. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Architect using a transmittal form. Copy the Construction Administrator on the transmittal. The Architect will return all submittals to the Contractor after action is taken with a

complete copy of the submittal package and one complete copy of the submittal package. The Architect will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

G Submittal Schedule:

1. After development and review by the Owner and Architect acceptance of the Contractor's Construction Schedule prepare a complete schedule of submittals. Submit the schedule to the Construction Administrator within 30 days of Contract Award.
2. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule
3. Prepare the schedule in chronological order. Provide the following information:
    a. Schedule date for the initial submittal.
    b. Related section number.
    c. Submittal category (Shop Drawings, Product Data, or Samples).
    d. Name of Subcontractor.
    e. Description of the part of Work covered.
    f. Scheduled date for resubmittal.
    g. Scheduled date for the Architect's final release of approval.

H. Distribution: Following response to the initial submittal, print and distribute copies to the Construction Administrator, Architect, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.

1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

I. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

J. Daily Construction Reports

1. Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the Construction Administrator at weekly intervals:
    a. List of subcontractors at the site.
    b. Approximate count of personnel at the site.
    c. High and low temperatures, general weather conditions.
    d. Accidents and unusual events.
    e. Meetings and significant decisions.
    f. Stoppages, delays, shortages, and losses.
    g. Meter readings and similar recordings.
    h. List of equipment on site and identify if idle or in use.
    i. Orders and requests of governing authorities.
    j. Change Orders received, start and end dates.
    k. Services connected, disconnected.
    l. Equipment or system tests and startups.
    m. Partial Completion's, occupancies.
    n. Substantial Completion's authorized.
    o. Equals or Substitutions approved or rejected.

K. Shop Drawings:

1. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
2. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:
   a. Dimensions:
   b. Identification of products and materials included by sheet and detail number.
   c. Compliance with specified standards.
   d. Notation of coordination requirements.
   e. Notation of dimensions established by field measurement.
   f. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 36 by 48 inches.
   g. Submit one (1) reproducible media and seven (7) prints as directed by the Construction Administrator. The Contractor's submittal shall identify the specification section and/or drawing number applicable to the submittal.
   h. Details shall be large scale and/or full size.
3. The Contractor shall review the Shop Drawings, stamp with this approval, and submit them with reasonable promptness and in orderly sequence so as to cause no delay in his Workor in the Workof any subcontractor. Shop Drawings shall be properly identified as specified for item, material, workmanship, and project number. At the submission, the Contractor shall inform the Architect, in writing of any deviation in the shop drawings from the requirements of the Contract Documents.
4. The Architect will review and comment on shop drawings with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the project and with the information given in the Contract Documents. Refer to Article 5 of General Conditions. Shop Drawings received by the Architect that indicate insufficient study of drawings and specifications, illegible portions or gross errors, will be rejected outright. Such rejections shall not constitute an acceptable reason for granting the Contractor additional time to perform the work.
5. The Contractor shall make any corrections required by the Architect and shall resubmit the required number of corrected copies of shop drawings until fully reviewed.
6. Upon final review submit four (4) additional prints, same as submitted, to the Construction Administrator for his use.
7. The Architect's review and comments on shop drawings shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents.
8. Only final reviewed shop drawings are to be used on the project site.
9. The Work installed shall be reviewed in accordance with the shop drawings and the drawings and specifications. Final Review of the shop drawings by the Architect shall constitute acceptance by the State and the Architect of a variation or departure that is clearly identified. Final reviewed shop drawings shall not replace or be used as a vehicle to issue or incorporate change orders.

L. Product Data:

1. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, schedules, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
2. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
   a. Manufacturer's printed recommendations.

b. Compliance with trade association standards.

c. Compliance with recognized testing agency standards.

d. Application of testing agency labels and seals.

e. Notation of dimensions verified by field measurement.

f. Notation of coordination requirements.

3. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
4. Preliminary Submittal: Submit a preliminary single copy of Product Data where selection of options is required.
5. Submittals: Submit 7 copies of each required submittal; submit 5 copies where required for maintenance manuals. The Architect will retain one and will return the other marked with action taken and corrections or modifications required.
   a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
6. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
   a. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
   b. Do not permit use of unmarked copies of Product Data in connection with construction.

M. Samples:

1. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
2. Store, mount or display Samples on site in the manner to facilitate review of qualities indicated. Prepare Samples to match the Architect's sample. Include the following:
   a. Specification Section number and reference.
   b. Generic description of the Sample.
   c. Sample source.
   d. Product name or name of the manufacturer.
   e. Compliance with recognized standards.
   f. Availability and delivery time.
3. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
   a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show approximate limits of the variations.
   b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
   c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
   d. Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.
4. Preliminary Submittals: Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices, unless otherwise noted in specification section.

a. The Architect will review and return preliminary submittals with the Architects notation, indicating selection and other action.

5. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit three (3) sets. The Architect will return one set marked with the action taken.

6. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.

   a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

   b. Sample sets may be used to obtain final acceptance of the construction associated with each set.

7. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

   a. Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.

N. Quality Assurance Submittals:

1. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.

2. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

   a. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

3. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 1 Section "Quality Control."

O. Architect's Action:

1. Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken, and return promptly.

   a. Compliance with specified characteristics is the Contractor's responsibility.

2. Action Stamp: The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:

   a. Final Unrestricted Release: When the Architect marks a submittal "Approved for fabrication," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

   b. Final-But-Restricted Release: When the Architect marks a submittal "Incorporate Notations," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Submit corrected copies for record. Final payment depends on that compliance.

   c. Returned for Resubmittal: When the Architect marks a submittal "Rejected, or Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.

      i. Do not use, or allow others to use, submittals marked "Rejected, or Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.

   d. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the Architect will return the submittal marked "Action Not Required."

3. Unsolicited Submittals: The Architect will discard unsolicited submittals without action.

01310 CONSTRUCTION SCHEDULE

A. Definitions:

1. Construction Schedule: A method of planning and scheduling a construction project utilizing a horizontal bar chart with a separate bar for each major portion of the Work or operation to make the schedule an effective tool for planning and monitoring the progress of the work

B. Format:

1. Format: Utilize a horizontal bar chart (gantt) with a separate bar for each major portion of the Work or operation, identifying first work day of each week.
2. Program: Use **Microsoft Project**, latest version.
3. Sequence of Listings: Utilize the Table of Contents of this Project Manual and the chronological order of the start of each item of work.
4. Scale and Spacing: Provide space for notations and revisions.
5. Sheet Size: To be coordinated with Construction Administrator.

C. Quality Assurance: The Contractor's Consultant: Retain a consultant to provide planning, evaluating, and reporting by CPM scheduling.

1. In-House Option: The Owner may waive the requirement to retain a consultant if the Contractor can demonstrate that:
   a. The Contractor has the computer equipment required to produce construction schedules.
   b. The Contractor employs skilled personnel with experience in construction scheduling and reporting techniques.
2. Program: Use **"Microsoft Project**" compatible, latest version.
3. Standards: Comply with procedures contained in AGC's "Construction Planning & Scheduling."

D. Content:

1. Show complete sequence of construction by activity, with dates beginning and completion of each element of construction.
2. Identify each item by specification section number.
3. Identify work of separate phases other and other logically grouped activities.
4. Show accumulated percentages of completion of each item, and total percentage of Work completed, as of the first day of each month.
5. Provide separate schedule of submittal dates for shop drawings, product data, and samples, Owner/Agency furnished products and any products identified as under Allowances, and dates reviewed submittals will be required from Architect/Engineer. Indicate decision dates for selection of finishes.
6. Indicate delivery dates for Owner/Agency furnished products and any products identified as under Allowances.
7. Coordinate content with Schedule of Values specified in Section 01027.

E. Submittals And Revisions To Schedules:

1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
2. Identify activities modified since previous submittal, major changes in scope, other identifiable changes.
3. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.
4. An initial bar graph (gantt) schedule is to be prepared by the General Contractor and submitted to the Construction Administrator within seven (7) calendar days of award of contract. This schedule is to cover all items of work from the start of the project up to the completion of the project. After review, resubmit required revised data within five (5) calendar days. This schedule must be revised monthly and when the actual schedule of significant items varies more than one (1) week from the proposed schedule.

5. Submit revised Construction Schedules each Application for Payment.
6. Submit four (4) copies of the Construction Schedule to the Construction Administrator..

F. Distribution:

1. Distribute copies of the Construction Schedules to Construction Administrator, Architect, Owner, Subcontractors, suppliers, and other concerned parties.
2. Instruct recipients to promptly report, in writing, problem anticipated by projections indicated in schedules.

01380 CONSTRUCTION PHOTOGRAPHS

A. On the date the work is begun and every thirty (30) days thereafter (until the work is at least 95 percent complete), the Contractor shall have photographs of the construction taken by a professional photographer.

B. Take 24-35 mm color digital photos each time. Note on each photo frame the date the picture was taken and the project number. Deliver digital photographs to the Construction Administrator in both digital and hard copy form.

C. As photographs are a record of the work progress, they shall be taken each month, whether or not they show work done during the preceding month. Deliver digital photos to the Construction Administrator, in both digital and hard copy form, within 10 days of their taking.

01400 QUALITY CONTROL

A. Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, the Owner, through the Construction Administrator, shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. All tests required by the individual specification sections are required to be scheduled and notification given to the Construction Administrator forty-eight (48) hours in advance to the test/inspection as applicable. Costs for these services are not included in the Contract Sum.

1. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.
2. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services.
    a. Such services include Special Inspections as required by the latest adoption of the “Connecticut State building Code”.
    b. Where the Owner has engaged a testing agency for testing and inspecting part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner. The Owner will engage the services of a qualified Special Inspector for this project. The Special Inspector, as a representative of the Owner, shall document and confirm compliance with the provisions of the Connecticut State Building Code for Special Inspections.
    c. Materials and assemblers for this project will be tested and construction operations inspected as the work progresses. Failure to detect any defective work or material shall not in any way prevent later rejection when such defect is discovered nor shall it obligate the State for final acceptance.
    d. The Owner use of testing and inspection services shall in no way relieve the contractor of the responsibility to furnish materials and finished construction in full compliance with the Contract Documents and the Connecticut State Building Codes.

B. Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

1. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.
2. The Owner will issue a credit change order to cover all costs incurred related to all re-tests/re-inspection due to non-compliance to the contract documents, including but not limited to the Owners costs and the Consultants costs.

C. Associated Services: Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:

1. Provide access to the Work.
2. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
4. Provide facilities for storage and curing of test samples.
5. Deliver samples to testing laboratories.
6. Provide an approved design mix proposed for use for material mixes that require control by the testing agency.
7. Provide security and protection of samples and test equipment at the Project Site.

D. Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Construction Administrator, Architect and the Contractor in performance of the testing agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.

1. The testing agency shall notify the Construction Administrator and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. The testing agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.
3. The testing agency shall not perform any duties of the Contractor.

E. Owner will pay for the services of an independent testing agency laboratory to perform inspections, tests and other services required by the Specifications except as noted below, listed for which the Owner will issue a deduct change order to cover the cost associated with these tests:

a) When the Contractor notifies the Construction Administrator and/or Testing Agency less than twenty-four (24) hours before the expected time of testing.

b) When the Contractor requires testing for his own convenience.

c) When the Contractor schedules a test and is not ready for the required test.

F. Reports of test that are part of the submittal requirements which indicate compliance or non-compliance with the specified standard.

G. See also General Conditions Article 16.

H. Fire Alarm/Acceptance Testing Procedures:

1. The Department of Public Works has been given the Authority Having Jurisdiction with regards to construction Projects which do not exceed Threshold Limit Laws. The Contractor shall follow the “Department of Public Works "Acceptance Testing Procedures" as provided by the Owner prior to Acceptance Testing.

I. Submittals:

1. Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the Construction Administrator. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.

2. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
3. Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
    a. Date of issue.
    b. Project title and number.
    c. Name, address, and telephone number of testing agency.
    d. Dates and locations of samples and tests or inspections.
    e. Names of individuals making the inspection or test.
    f. Designation of the Work and test method.
    g. Identification of product and Specification Section.
    h. Complete inspection or test data.
    i. Test results and an interpretation of test results.
    j. Ambient conditions at the time of sample taking and testing.
    k. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
    l. Name and signature of laboratory inspector.
    m. Recommendations on re-testing.

J. Quality Assurance:

1. Qualifications for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, that are pre-qualified as complying with the National Voluntary Laboratory Accreditation Program and that specialize in the types of inspections and tests to be performed.
    a. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.

K. Repair and Protection:

1. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes. Comply with Contract Document requirements for Division 1 Section "Cutting and Patching."
2. Protect constructions exposed by or for quality-control service activities, and protect repaired construction.
3. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

01505 TEMPORARY ELECTRICITY AND LIGHTING

A. Connect to existing service, and provide branch wiring and distribution boxes located to provide power and lighting by construction-grade extension cords. Owner will pay cost of energy used. Take measures to conserve energy. Provide lighting for construction operations. At the termination of construction, return the facilities to their original condition.

01510 TEMPORARY HEATING, COOLING AND VENTILATING AND LIGHTING

A. The General Contractor may use the existing heating system with temporary extensions, radiators or unit heaters, but such use is subject to the Owner's approval. Coordinate use of existing facilities with Owner. Provide additional, temporary extensions and units to satisfy the criteria given in the preceding paragraph. Owner will pay cost of energy used. Take measures to conserve energy. At the termination of construction, return the facilities to their original condition. Before operation of permanent facilities, verify that installation is approved for operation and that filters are in place.

01515 TEMPORARY TELEPHONE

A. General Contractor shall provide telephone service in his office. It is preferred the Contractor use a cellular phone. Local calls will be paid by the Contractor and toll calls by the respective users.

01520 TEMPORARY WATER

A. Water for construction purposes may be taken from the existing service. The Contractor shall provide connections, approved backflow prevention device, meter and pipe to the water main or nearest hydrant, subject to the approval of the Owner. Upon completion of work, the Contractor shall remove the temporary connections and backfill if necessary. If new water service is installed before construction is complete, the new system may be used provided it is returned to the Owner in as-new condition. The Contractor shall pay for the water used, as metered.

01525 TEMPORARY SANITARY FACILITIES

A. Designated existing toilets may be used during construction. It is the responsibility of the Contractor to maintain the facilities in a clean and sanitary condition and return them to their original condition after use. No loitering or smoking will be permitted in these areas.

01530 FIRE PROTECTION

A. The Contractor, during construction, shall be responsible for loss or damage by fire to the work of the Contract until completion. Any fire used within the structure for working purposes shall be extinguished when not in use. Bitumen or tar shall be melted on the ground only. No flammable material shall be stored in the structure in excess of amounts allowed by the authorities. No gasoline shall be stored in or close to the building at any time. The Contractor shall assign a responsible employee to be in charge of fire protection measures.

B. If an EPDM or other single-ply roof is included in the work that requires cleaning of mating surfaces of laps with gasoline, limit amount of gasoline on roof to 2 gallons which shall be in U.L. listed containers. Also provide one 30 B:C fire extinguisher within 75 feet of any point on the roof.

01535 CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and similar work or material necessary to insure convenience and safety in the execution of the Contract except where this is otherwise specified in any Specification Section. All such items shall meet the approval of the Owner but responsibility for design, strength and safety shall remain with the Contractor. All such items shall comply with Federal OSHA regulations and applicable codes, statutes, rules and regulations, including compliance with the requirements of the current edition of the "Manual of Accident Prevention in Construction" published by the A.G.C. and the standards of the State Labor Department.

B. Staging, exterior and interior, required for the execution of this Contract, shall be furnished, erected, relocated if necessary and removed by the General Contractor. Staging shall be maintained in a safe condition without charge to and for the use of all trades as needed.

01540 BARRIERS AND ENCLOSURES

A. Provide barriers to prevent public entry into construction areas and to protect existing facilities from damage by construction operations.

B. Provide a fence around construction site; equip with vehicular and pedestrian gates with locks.

C. Provide covered walkways as required by governing authorities for public rights-of-way and for public access to existing buildings.

D. Provide barriers around trees and plants designated to remain. Protect against vehicular traffic, materials' dumping, chemically injurious materials, puddling or running water.

E. Provide temporary, insulated, weathertight closures at openings to the exterior to provide acceptable working conditions and protection for materials, to allow for temporary heating and to prevent entry of unauthorized persons. Provide doors with self-closing hardware and locks.

F. Barriers and enclosures shall be in conformance with code requirements. Do not block egress from occupied buildings unless necessary to further the work of the Contract. In this case, secure the Department's approval of an alternate egress plan.

G. See also General Conditions Article 19.

01545 PROTECTION

A. Protect buildings, equipment, furnishings, grounds and plantings from damage. Any damage shall be repaired or otherwise made good at no expense to the State.

B. Provide protective coverings and barricades to prevent damage. The Contractor shall be held responsible for, and must make good at his own expense, any water or other type of damage due to improper coverings. Protect the public and building personnel from injury.

C. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.

D. Provide protective coverings for walls, projections, jambs, sills and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects and storage. Prohibit traffic and storage on waterproofed and roofed surfaces and on lawn and landscaped areas.

E. Provide temporary partitions and ceilings to separate work areas from Owner-occupied areas to prevent penetration of dust and moisture into Owner-occupied areas and equipment. Erect framing and sheet materials with closed joints and sealed edges at intersections with existing surfaces.

F. See also General Conditions Article 19.

01550 SECURITY

A. Provide security program and facilities to protect work, existing facilities and Owner's operations from unauthorized entry, vandalism and theft. Coordinate with Owner's security program.

B. The Contractor shall be solely responsible for damage, loss or liability due to theft or vandalism.

01555 TRAFFIC WAYS

A. The Contractor may use on-site paved roads and parking areas but shall not encumber same or their access. Public highways shall not be blocked by standing trucks, parked cars, material storage, construction operations or in any other manner.

B. Public roads and existing paved roads, drives and parking areas on Owner's property shall be kept free from scrap or debris due to construction operations and any damage to their surface caused by the Contractor shall be repaired by him at his own expense.

C. If the work of the Contract affects public use of any street, road, highway or thoroughfare, the G. C. shall confer with the police authority having jurisdiction to determine if and how many police are needed for public safety in addition to any barriers and signals that may be needed. The G.C. will be responsible for payment of any needed police services.

01560 TEMPORARY CONTROLS

A. Temporary Environmental Controls: Contractor is to provide the following controls.

1. Rodent and Pest Control: Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the Project will be free of pests and their residues at materials.
2. *Dust Control (construction and demolition).*
3. *Noise Control, Pest Control.*
4. *Erosion and Sediment Control.*
5. *Pollution Control.*
6. *Traffic Control.*

01565 STORM WATER CONTROL (NOT APPLICABLE)

A. Assume responsibility for Storm Water pollution control by submitting to the Connecticut Department of Environmental Protection (DEP) a "General Permit for the Discharge of Storm Water and Dewatering Wastewaters from Construction Activities" registration; conform to the permit requirements.

B. Conform to the Storm Water Pollution Control Plan included in the Contract Documents or have another plan, prepared at the General Contractor's expense, which has been approved by the Owner and Environmental Protection.

C. The "General Permit for the Discharge of Storm Water and Dewatering Wastewater from Construction Activities" "draft" registration is attached to the technical Section 0227___Storm Water Pollution Control.

D. Sign, and cause to be signed by each appropriate subcontractor, the Certification Statement required by the General Permit.

E. Provide, maintain, and monitor a rain gauge on the site; monitoring shall include maintaining a log of the readings. The rain gauge shall remain the property of the General Contractor.

01570 CLEANING

A. Maintain areas under Contractor's control free of waste materials, debris and rubbish. Maintain in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces before closing the space.

C. Periodically clean interior areas before start of surface finishing and continue cleaning on an as-needed basis.

D. Control cleaning operations so that dust and other particulates will not adhere to wet or newly-coated surfaces.

E. Remove waste materials, debris and rubbish from site daily and dispose of legally off-site. No scrap/debris shall remain inside the building or anywhere on site upon final acceptance of the project.

F. See also General Conditions Article 24.

01575 PROJECT SIGNS (NOT APPLICABLE)

A. Project Signs: Engage an experienced sign painter to apply graphics. Comply with details to be furnished by the Construction Administrator.

1. Project Sign: The Contractor shall contact the Construction Administrator for the proper wording for the project sign. Fabricate sign of 3/4", exterior grade, A-B Fir plywood. Mount sign on preservative treated Fir posts. The Owner shall provide design, color selection and illustration of the Project Sign. Paint both sides and all edges of sign and the posts with two coats of exterior, white, alkyd primer. Paint the border and letters with "bulletin" (sign) paint. Letter sizes, colors and related information is given on the illustration from the Owner. A self-adhesive decal of the State seal will be furnished at the Contract signing. Erect the sign within two weeks after execution of the Contract and remove the sign within one week after completion of the project.

2. The contractor shall contact the Construction Administrator for the proper wording for the project sign.

01580 FIELD OFFICES AND SHEDS (NOT APPLICABLE)

A. Field Offices:

1. The Contractor shall provide an office for his own use which may be a trailer type facility with electric lighting, air conditioning, and heat. It shall have ample natural light, a table, chairs, counter, shelf, plan racks and file cabinets. Provide a 5 lb. ABC fire extinguisher and an OSHA-approved first aid kit. If the contract amount is $2,500,000 or more, the Contractor shall provide a facsimile machine in his office and shall also provide his superintendent with a message beeper.

2. The Contractor shall provide a field office for the Construction Administrator of not less than 150 sq. ft. which may be a trailer type facility. The field office shall have ample natural light, a heater of sufficient capacity to maintain 70 degrees (F) in winter and an air conditioner of sufficient capacity to maintain 75 degrees (F) in summer. The Contractor shall provide a 5-lb. ABC fire extinguisher, and an OSHA-

approved first aid kit. The contractor shall furnish the following furniture, which will remain his property. Furniture may be used but shall be in good condition, as judged by the Construction Administrator.

a. (1) one two pedestal desk

b. (1) One plan table.

c. (1) One plan rack.

d. (5) Five chairs.

e. (2) Two file cabinets (lockable four drawer letter size).

f. (2) Two bookshelves w/10 L.F. of 12" wide shelving.

g. (2) Two large capacity waste receptacles.

h. (1) One Fax Machine with telephone line.

i. (1) One telephone with telephone line.

J. (1) One Answering Machine with telephone line.

k. (1) One Computer having PC with telephone line and E-mail connection capabilities: 200 MHz, (minimum) Pentium II with operating software, including but not limited to, Windows 95, AutoCAD (latest version), Microsoft Office 97, Microsoft Project (latest version) File Maker.

l. (1) One Laser printer with supplies.

m. (1) One Copy Machine with supplies.

2. The Agency will furnish, without charge, one room for the Contractor's use and one room for the Construction Administrator's use as an office in an existing building. The Contractor shall be responsible for furniture and shall keep these areas clean and return them to their original condition after use. The Contractor shall provide and install a 5-lb. ABC fire extinguisher and an approved first aid kit in both rooms.

B. Storage and Fabrication Sheds: Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.

1. Storage sheds for tools, materials and equipment shall be weathertight with heat, lighting and ventilation for products requiring controlled conditions.

2. Remove temporary materials, equipment services and construction before Substantial Completion.

3. Clean and repair damage caused by installation or use of temporary facilities. Restore existing facilities used during construction to specified or to original condition.

01585 IDENTIFICATION BADGES

A. Identification Badges for Contractor's Personnel, Visitors & Parking Stickers:

1. The Contractor will provide each person working or visiting at the site with an identification badge, bearing the name of the Contractor and a number. As badges are assigns, a record shall be kept by the Contractor and given to the Construction Administrator and Agency Administrator. Update and correct the records of all badges issued on a semi-monthly basis.

2. Badges are to be worn on outer garment where visible at all times while at the construction site, return them to the Contractor's field office at the end of each day and pick them up there each morning.

3. All vehicles parking in the Contractor's parking lot and those used around the site require an ID sticker. They will be issued by the Agency. Each contractor shall apply for parking stickers through the Construction Administrator no more than semi-monthly and shall keep record of all stickers issued.

01600 MATERIALS AND EQUIPMENT CONTROLS

A. Materials and Equipment: Shall be delivered, stored and handled to prevent intrusion of foreign matter and damage by weather or breakage. Packaged materials shall be delivered and stored in original, unbroken packages.

1. Promptly inspect shipments to assure that products comply with requirements, that quantities are correct and products are undamaged.
2. Packages, materials and equipment showing evidence of damage will be rejected and replaced at no additional cost to the Owner.

B. Storage and Protection:

1. Store products in accordance with manufacturers' instructions with seals and labels intact and legible. Store sensitive products in weathertight enclosures; maintain within temperature and humidity range required by manufacturer.
2. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
3. Store loose granular material on solid surfaces in a well-drained area; prevent mixing with foreign matter.
4. Arrange storage to provide access for inspection. Periodically inspect to insure products are undamaged and are maintained under required conditions. Keep log showing date, time and problems, if any.
5. Stone, masonry units and similar materials shall be stored on platforms or dry skids and shall be adequately covered and protected against damage.
6. The Contractor shall prepare, as directed by the Owner, one area or space in the building for storage of State-owned equipment.

01631 EQUALS AND SUBSTITUTIONS

A. Definitions: Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.

1 Equals or Substitutions General: Changes in products, materials, equipment, and methods of construction required by the Contract Documents proposed by the Contractor after award of the Contract.

2. Equal: Any deviation from the specification which is defined as follows: A replacement for the specified material, device, procedure, equipment, etc., which is recognized and accepted as substantially equal to the first listed manufacturer or first listed procedure specified, after review, by the Architect and may be rejected or approved at the sole discretion of the owner. All equals must be substantially equivalent to the first manufacturer or first procedure listed in the Specifications with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended; size, rating and cost. The equal does not constitute a modification in the scope of Work, the Schedule or Architect/Engineer’s design intent of the specified material, device, procedure, equipment, etc.

3. Substitution: Any deviation from the specified requirements, which is defined as follows: A replacement for the specified material, device, procedure, equipment, etc., which is not recognized or accepted as equal to the first manufacturer or procedure listed in the Specification after review by the Architect and may be rejected or approved by the Owner. The Substitution is not equal to the specified requirement in comparison to the first manufacture or first procedure listed in the Specifications in one or more of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended; size; cost and rating. The Substitution constitutes a modification in the scope of Work, the Schedule or the Architect/Engineer’s design intent of the specified material, device, procedure, equipment, etc.

4. The following are not considered to be requests for Equals or Substitutions:

   a. Revisions to the Contract Documents requested by the Owner or Architect.

   b. Specified options of products and construction methods included in the Contract Documents.

   c. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities having jurisdiction.

B. Submittals:

1. Equals and Substitution Request Submittals: The Owner will consider requests for equals or substitutions if received within time period designated in the General Conditions Article 15. Requests received more than the days specified in Article 15 after the start date of the contract will be rejected.
   a. The Contractor is required to prepare and submit 3 copies of the required data for the first manufacturer listed or procedure listed in the specifications section with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended including the size, rating and cost. All submissions must include all the required data for the first listed manufacturer or procedure as specified, as well as the required data for the proposed Equal or Substitution. This will enable the Owner and Architect to determine that the proposed Equal or Substitution is or is not substantially equal to the first listed manufacturer or procedure.
2. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.
3. Provide complete documentation showing compliance with the requirements for equals or substitutions, and the following information, as appropriate on a "Substitution Request" form as required by the Owner:
   a. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate contractors, that will be necessary to accommodate the proposed Equal or Substitution.
   b. A detailed comparison chart of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.
   c. Product Data, including Shop Drawings and descriptions of products and fabrication and installation procedures.
   d. Samples, where applicable or requested.
   e. A statement indicating the effect on the Contractor's Construction Schedule or CPM Schedule compared to the schedule without approval of the Equal or Substitution. Indicate the effect on overall Contract Time.
   f. Cost information, broken down, including a proposal of the net change, if any in the Contract Sum.
   g. The Contractor's certification that the proposed Equal or Substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.
   h. The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the Equal or Substitution to perform adequately.
4. Architect's Action: If necessary, the Architect will request additional information or documentation for evaluation within one week of receipt of the original request for equal or substitution request. The Architect will notify the Construction Administrator who will notify the Owner of recommended acceptance or rejection of the proposed equal or substitution, within two (2) weeks of receipt of the request, or one (1) week of receipt of additional information or documentation, whichever is later. The Construction Administrator will give final acceptance or rejection by the Owner not less than one (1) week after notification.
   a. Any request deemed an "Equal" and accepted by the Construction Administrator, Architect, Owner, and Agency will result in written notification to the Contractor and will <u>not</u> be in the form of a change order for an "Equal".
   b. Any request deemed a "Substitution" and rejected or approved by Construction Administrator, Architect, and Owner may result in written notification to the Contractor and <u>may</u> be in the form of a change order if the "Substitution" is approved.

C. Equal or Substitutions:

1. Conditions: The Architect will consider the Contractor's request for Equal or Substitution of a product or method of construction when one or more of the following conditions are satisfied, as determined by the Architect. If the following conditions are not satisfied, the Architect will return the requests to the Construction Administrator without action except to record noncompliance with these requirements.

a. The proposed request does not require extensive revisions to the Contract Documents.

b. The proposed request is in accordance with the general intent of the Contract Documents.

c. The proposed request is timely, fully documented, and/or properly submitted.

d. The proposed request can be provided within the Contract Time. However, the Architect will not consider the proposed request if it is a result of the Contractor's failure to pursue the Work promptly or coordinate activities properly.

e. The proposed request will offer the Owner a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. However, if the proposed request requires the Owner to incur additional responsibilities, including but not limited to, additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or similar considerations, then the Owner will have just cause to reject the request for Equal or Substitution.

f. The proposed request can receive the necessary approvals, in a timely manner, required by governing authorities having jurisdiction.

g. The proposed request can be provided in a manner that is compatible with the Work as certified by the Contractor.

h. The proposed request can be coordinated with the Work as certified by the Contractor.

i. The proposed request can uphold the warranties required by the Contract Documents as certified by the Contractor.

2. The Contractor's submission and the Architect's review of Submittals, including but not limited to, Samples, Manufacturer's Data, Shop Drawings, or other such items, which are not clearly identified as a request for an Equal or Substitution, will not be considered or accepted as a valid request for an Equal or Substitution, nor does it constitute an approval.

01650 STARTING OF SYSTEMS (NOT APPLICABLE)

A. General:

1. Coordinate schedule for start-up of various equipment and systems.
2. Provide written notification the Construction Administrator thirty (30) Calendar Days prior to start-up of each item.
3. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, and control sequence for other conditions that may cause damage.
4. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
5. Verify in wiring and support components are complete and tested.
6. Execute the start-up under supervision of manufacturer's representative, in accordance with manufacturer's instructions.
7. When referenced in individual specification sections, require manufacturer to provide an authorized representative to be present at the site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
8. Submit a written report in accordance Section 01400 "Quality Control" that the equipment or system has been properly installed and is functioning properly.

B. Demonstration and Instructions:

1. Demonstrate operation and maintenance of Products to Owner and Agency Personnel two (2) weeks prior to substantial completion.
2. Demonstrate Project equipment and instruct in a classroom environment at location designated by the Construction Administrator and instructed by a qualified manufacturer's representative who is knowledgeable about the project.
3. For equipment or systems requiring seasonal operation perform demonstration for season within six (6) months.

4. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner and Agency Personnel in detail to explain all aspects of operation and maintenance.
5. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, and maintenance, and shutdown of each item at agreed upon scheduled time and at equipment or designated location.
6. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during demonstration.

C. Testing Adjusting, and Balancing:

1. The Contractor will employ and pay for the testing services of an independent consultant to verify the testing, adjusting, and balancing.
2. Reports will be submitted by the independent testing consultant to the Construction Administrator indicating observations and results of tests and indicating compliance or non-compliance with the requirements of the Contract Documents.
3. The Owner may employ and pay for the services of an independent consultant to verify testing, adjusting, and balancing which was performed by the Contractor.

01700 CONTRACT CLOSEOUT

A. Substantial Completion:

1. Preliminary Procedures: Before requesting inspection for Certification of Substantial Completion, complete the following. List exceptions in the request.
   a. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
      i. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
      ii. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
   b. Advise the Owner of pending insurance changeover requirements.
   c. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
   d. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
   e. Submit record drawings, maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
   f. Deliver tools, spare parts, extra stock, and similar items.
   g. Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.
   h. Demonstration, thru operation and testing, the functions of all systems and/or equipment to the satisfaction of the Owner for compliance to the contract. Complete testing of systems, and instruction of the Owner's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.
   i. Complete final cleanup requirements, including touchup painting.
   j. Touch up and otherwise repair and restore marred, exposed finishes.
2. Inspection Procedures: The Contract shall be ready and prepared when they request a Substantial Completion inspection. If the inspection reveals that the work is not complete, there are extensive punchlist items and as the items listed above are not complete, the Construction Administrator, Architect, and Owner will determine the inspection has failed.
3. The Contractor is responsible for all costs to re-inspect due to a failed inspection. The Owner will issue a deduct change order to cover all costs for re-inspection.

a. The Architect will repeat inspection when requested and assured that the Work is substantially complete.

b. Results of the completed inspection will form the basis of requirements for final acceptance.

B. Final Acceptance:

1. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.

   a. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.

   b. Submit an updated final statement, accounting for final additional changes to the Contract Sum.

   c. Submit a certified copy of the Architect's final inspection list of items to be completed or corrected, endorsed and dated by the Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.

   d. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Owner took possession of and assumed responsibility for corresponding elements of the Work.

   e. Submit consent of surety to Final Payment.

   f. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

2. Reinspection Procedure: The Inspection Group will re-inspect the Work upon receipt of notice from the Construction Administrator that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Owner.

   a. Upon completion of reinspection, the Construction Administrator will prepare a certificate of final acceptance. If the Work is incomplete, the Construction Administrator will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

C. Record Document Submittals:

1. General: Do not use record documents for construction purposes. Protect Record Documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the Architect's reference during normal working hours. Keep documents current; do not permanently conceal any work until required information has been recorded. Failure to keep documents current is sufficient cause to withhold progress payments.

   a. The Contractor shall also hire the services of a Surveyor registered in the State of Connecticut to conduct a final survey to determine the location of exterior underground utility lines and to record the results, and update existing electronic media

   b. The record of exterior underground utilities shall be made at the time of installation on Mylar film drawing and AutoCAD (latest version) compatible disks. The drawing shall bear the seal of the Land Surveyor and a statement of accuracy.

2. Record Drawings: The Contractor shall maintain one clean, complete undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

   a. Mark record sets with erasable pencil to distinguish between variations in separate categories of the Work.

   b. Mark all new information that is not shown on Contract Drawings.

   c. Note related change-order numbers where applicable.

   d. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.

e. Upon completion of the work, the Contractor shall submit Record Drawings to the Construction Administrator for the Owner's Records who will pass them on to the Architect or Engineer for transferring the changes to the Record Drawing Mylar Tracings.

g. Submit electronic format data of all revised drawings on CD-ROM format and in AutoCAD (latest version) compatible format.

3. **Record Specifications:** The Contractor shall maintain one complete copy of the Project Manual, including Addenda. Include with the Project Manual one copy of other written construction documents, such as Change Orders and modifications issued in printed form during construction.

   a. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.

   b. Give particular attention to equals and substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.

   c. Note related record drawing information and Product Data.

   d. Upon completion of the Work, submit record Specifications to the Construction Administrator for the Owner's records.

4. **Record Product Data:** The Contractor shall maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications.

   a. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.

   b. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.

   c. Upon completion of markup, submit complete set of Record Product Data to the Construction Administrator for the Owner's records.

5. **Record Sample Submitted:** Immediately prior to Substantial Completion, the Contractor shall meet with the Construction Administrator, Architect and the Owner's personnel at the Project Site to determine which Samples are to be transmitted to the Owner for record purposes. Comply with the Owner's instructions regarding delivery to the Owner's Sample storage area.

6. **Miscellaneous Record Submittals:** Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to the Construction Administrator for the Owner's records.

7. **Maintenance Manuals:** Organize operation and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual, heavy-duty, 2-inch (51-mm), 3-ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder according to section 01730. Included but not limited to the following types of information:

   a. Emergency instructions.

   b. Spare parts list.

   c. Copies of warranties.

   d. Wiring diagrams.

   e. Recommended "turn-around" cycles.

   f. Inspection procedures.

   g. Shop Drawings and Product Data.

   h. Fixture lamping schedule.

D. Closeout Procedures:

1. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and

maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:

a. Maintenance manuals.

b. Record documents.

c. Spare parts and materials.

d. Tools.

e. Lubricants.

f. Fuels.

g. Identification systems.

h. Control sequences.

i. Hazards.

j. Cleaning.

k. Warranties and bonds.

l. Maintenance agreements and similar continuing commitments.

2. As part of instruction for operating equipment, demonstrate the following procedures:

a. Startup.

b. Shutdown.

c. Emergency operations.

d. Noise and vibration adjustments.

e. Safety procedures.

f. Economy and efficiency adjustments.

g. Effective energy utilization.

E. Final Cleaning:

1. General: The General Conditions requires general cleaning during construction. Regular site cleaning is included in Division 1 Section 01570 “Cleaning”".

2. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion and Certification of Occupancy.

3. Interior:

a. Remove labels that are not permanent labels.

b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Remove paint spots; wash and polish glass

c. Clean exposed interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.

d. Wash washable surfaces of mechanical, electrical equipment and fixtures and replace filters, clean strainers on mechanical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

e. Clean and polish finish hardware.

f. Clean and polish tile and other glazed surfaces.

g. Clean floors; wax and buff resilient tile. Clean vinyl or rubber base.

h. Vacuum and/or dust walls, ceilings, lighting fixtures, ceiling diffusers and other wall and ceiling items.

i. Remove defacements, streaks, fingerprints and erection marks.

4. Exterior:

a. Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth, even-textured surface.

b. Clean exposed exterior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances

c. Clean roofs, gutters and downspouts.

d. Remove waste and surplus materials, rubbish and construction equipment and facilities from the site, and deposit it legally elsewhere.

e. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Remove paint spots; wash and polish glass.

5. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the work of rodents, insects, and other pests.

6. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

7. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.

a. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Construction Administrator.

b. Leave building clean and ready for occupancy. If the Contractor fails to clean up, the Owner may do so, with the cost charged to the Contractor. The Owner will issue a credit change order to cover the costs.

01730 OPERATION AND MAINTENANCE DATA

A. The Contractor shall instruct the State's designated personnel in the operation of new equipment and shall provide manuals and if required, provide video tapes of this basic maintenance of the equipment for training purposes. Provide qualified personnel for as long as necessary to instruct the State's personnel.

B. Submit four copies of the manuals in 3-ring, loose-leaf notebooks to the Architect/Engineer for approval. Manuals may consist of plain paper copies of approved shop drawings and catalog cuts. Upon completion and approval, 3 copies will be forwarded to the State and one copy retained by the Architect/Engineer.

C Manuals shall include:

1. Operating Procedures:

a. Typewritten procedures for each mode of operation of each piece of equipment. Procedures shall indicate the status of each component of a system in each operating mode.

b. Procedures shall include names, symbols, valve tags, circuit numbers, schematic wiring diagrams, locations of thermostats, manual starters, control cabinets and other controls of each system.

c. Emergency shut-down procedures for each piece of equipment or system, both automatic and manual, as appropriate.

2. Maintenance Schedule:

a. Typewritten schedule describing manufacturers schedule of maintenance and maintenance procedures.

3. Catalog Cuts:

a. To illustrate each piece of installed equipment, including options.

b. Include equipment descriptions including physical, electrical and mechanical; performance characteristics; installation or erection diagrams.

c. Include spare parts numbers and names, address and phone number of manufacturer; name, address and phone number of local representative or service department.

d. Typewritten list of all subcontractors on the project, including name, address and phone number of local representative or service department.

4. Manuals shall be indexed with dividers indicating each system or piece of equipment.

01740 WARRANTIES AND GUARANTEES

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

C. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

E. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

F. The Contractor shall guarantee all materials and workmanship for a period of eighteen months from the date of acceptance of the Work. In addition, the Contractor shall furnish the warranties listed below. Submit four copies of each to the Construction Administrator in the supplier's standard form or in the form given below if there is no standard form available.

1. Bleachers manufacturers warrantee

G. Submit certification that finish materials are fire rated as specified.

H. Form of Guarantees and Warranties:

Director
Facilities Management & Planning
83 Windham Street
Willimantic, Connecticut 06226
(Project Title and Number)

I (We) hereby guarantee and warranty)

the _____ work on the referenced project for a period of _____ years

from _____, 2020 against failures of workmanship and materials in accordance

with the requirements of Section ____, Page ____, Paragraph ____, of the Specifications.

Signed _____

General Contractor _____
(or authorized agent)

I. Bonds shall be by approved Surety Companies, made out to the Director of Facilities Management & Planning, Eastern Connecticut State Univerisity on companies standard form.

J. Guarantees, warranties or bonds supplied by Subcontractors, Suppliers or Manufacturers shall reference the project name, number, and location and be certified by the General Contractor to be for the product and installation on the project and must be countersigned by the General Contractor.

G. Submittals:

1. Submit written warranties prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
2. Forms for special warranties are included in this Section. Prepare a written document utilizing the appropriate form, ready for execution by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Submit a draft to the Owner, through the Construction Administrator, for approval prior to final execution.
    a. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
3. Form of Submittal: At Final Completion compile 2 copies of each required warranty properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
4. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (115-by-280-mm) paper.
    a. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the Installer.
    b. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title or name, and name of the Contractor.
    c. When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

END OF DIVISION 1- GENERAL REQUIREMENTS

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected site elements.

B. Related Requirements:

1. Section 011200 "RENOVATION/DEMOLITION PROJECT PROCEDURES"

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.

B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and store.

C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

E. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.3 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.4 PREINSTALLATION MEETINGS

A. Predemolition Conference: Conduct conference at Project site.

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review structural load limitations of existing structure.
3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
5. Review areas where existing construction is to remain and requires protection.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For refrigerant recovery technician.

B. Engineering Survey: Submit engineering survey of condition of building.

C. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.

D. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's and other tenants' on-site operations are uninterrupted.
2. Interruption of utility services. Indicate how long utility services will be interrupted.
3. Coordination for shutoff, capping, and continuation of utility services.
4. Use of elevator and stairs.
5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

E. Predemolition Photographs or Video: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by demolition operations. Comply with Section 013233 "Photographic Documentation." Submit before Work begins.

F. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

G. Warranties: Documentation indicating that existing warranties are still in effect after completion of selective demolition.

1.6 CLOSEOUT SUBMITTALS

A. Inventory: Submit a list of items that have been removed and salvaged.

1.7 QUALITY ASSURANCE

A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

1.8 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

1. Before selective demolition, Owner will remove the following items:

a. No items.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. Hazardous materials will be removed by Owner before start of the Work.
2. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.

E. Hazardous Materials: Present in buildings and structures to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.

1. Hazardous material remediation is specified elsewhere in the Contract Documents.
2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
3. Owner will provide material safety data sheets for suspected hazardous materials that are known to be present in buildings and structures to be selectively demolished because of building operations or processes performed there.

F. Historic Areas: Demolition and hauling equipment and other materials shall be of sizes that clear surfaces within historic spaces, areas, rooms, and openings, including temporary protection, by 12 inches (300 mm) or more.

G. Storage or sale of removed items or materials on-site is not permitted.

H. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

1.9 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties. Notify warrantor before proceeding. Existing warranties include the following:

1. Any warranted products installed as part of floor refinishing if floor is refinished before other work.

B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

1.10 COORDINATION

A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

C. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.

1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

D. Steel Tendons: Locate tensioned steel tendons and include recommendations for de-tensioning.

E. Verify that hazardous materials have been remediated before proceeding with building demolition operations.

F. Survey of Existing Conditions: Record existing conditions by use of measured drawings and preconstruction photographs or video.

1. Comply with requirements specified in Section 013233 "Photographic Documentation."
2. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.
3. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 PREPARATION

A. Refrigerant: Before starting demolition, remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction.

3.3 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.

1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
2. Arrange to shut off utilities with utility companies.
3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.

    a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
    b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
    c. Equipment to Be Removed: Disconnect and cap services and remove equipment.

d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

3.4 PROTECTION

A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
4. Cover and protect furniture, furnishings, and equipment that have not been removed.
5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."

B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of selective demolition.

C. Remove temporary barricades and protections where hazards no longer exist.

3.5 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.

3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
5. Maintain fire watch during and for at least 1 hour after flame-cutting operations.
6. Maintain adequate ventilation when using cutting torches.
7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
10. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."

B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

C. Work in Historic Areas: Selective demolition may be performed only in areas of Project that are not designated as historic. In historic spaces, areas, and rooms, or on historic surfaces, the terms "demolish" or "remove" shall mean historic "removal" or "dismantling" as specified in Section 024296 "Historic Removal and Dismantling."

D. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

E. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

F. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.6 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch (19 mm) at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.

B. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, and then remove concrete between saw cuts.

C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.

D. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.

E. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI's "Recommended Work Practices for the Removal of Resilient Floor Coverings." Do not use methods requiring solvent-based adhesive strippers.

3.7 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove demolition waste materials from Project site and recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

3.8 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel railings.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Manufacturer's product lines of mechanically connected railings.
2. Handrail brackets.
3. Shop primer.
4. Intermediate coats and topcoats.
5. Anchoring cement.
6. Metal finishes.
7. Paint products.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

C. Samples: For each type of exposed finish.

D. Delegated-Design Submittal: For railings, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For delegated-design professional engineer.

B. Welding certificates.

C. Product Test Reports: For tests on railings performed by a qualified testing agency, in accordance with ASTM E894 and ASTM E935.

1.4 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with the following:

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design railings, including attachment to building construction.

B. Structural Performance: Railings, including attachment to building construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Handrails and Top Rails of Guards:

   a. Uniform load of 50 lbf/ ft. (0.73 kN/m) applied in any direction.
   b. Concentrated load of 200 lbf (0.89 kN) applied in any direction.
   c. Uniform and concentrated loads need not be assumed to act concurrently.

2. Infill of Guards:

   a. Concentrated load of 50 lbf (0.22 kN) applied horizontally on an area of 1 sq. ft. (0.093 sq. m).
   b. Infill load and other loads need not be assumed to act concurrently.

2.2 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

1. Provide type of bracket with predrilled hole for exposed bolt anchorage and that provides 1-1/2-inch (38-mm) clearance from inside face of handrail to finished wall surface.

2.3 STEEL RAILINGS

A. Pipe: ASTM A53/A53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.

B. Plates, Shapes, and Bars: ASTM A36/A36M.

C. Cast Iron Fittings: Either gray iron, ASTM A48/A48M, or malleable iron, ASTM A47/A47M, unless otherwise indicated.

2.4 FASTENERS

A. Fastener Materials:

1. Ungalvanized-Steel Railing Components: Plated steel fasteners complying with ASTM F1941 (ASTM F1941M), Class Fe/Zn 5 for zinc coating.

B. Post-Installed Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC193 or ICC-ES AC308.

1. Material for Interior Locations: Carbon-steel components zinc-plated to comply with ASTM B633 or ASTM F1941/F1941M, Class Fe/Zn 5, unless otherwise indicated.

2.5 MISCELLANEOUS MATERIALS

A. Handrail Brackets: Cast iron center of handrail 2-1/2 inches (63.5 mm) from wall.

B. Welding Rods and Bare Electrodes: Select in accordance with AWS specifications for metal alloy welded.

C. Shop Primers: Provide primers that comply with Section 099123 "Interior Painting."

D. Intermediate Coats and Topcoats: Provide products that comply with Section 099123 "Interior Painting."

2.6 FABRICATION

A. Cut, drill, and punch metals cleanly and accurately.

1. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated.
2. Remove sharp or rough areas on exposed surfaces.

B. Form work true to line and level with accurate angles and surfaces.

C. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove flux immediately.
4. At exposed connections, finish exposed welds to comply with NOMMA's "Voluntary Joint Finish Standards" for Finish #1 welds; ornamental quality with no evidence of a welded joint

D. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.

E. Form changes in direction as follows:

1. As detailed.
2. By bending or by inserting prefabricated elbow fittings.

F. Bend members in jigs to produce uniform curvature for each configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

G. Close exposed ends of hollow railing members with prefabricated cap and end fittings of same metal and finish as railings.

H. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch (6 mm) or less.

I. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.

J. Toe Boards: provide toe boards at railings around openings and at edge of open-sided floors and platforms. Fabricate to dimensions and details indicated.

2.7 STEEL AND IRON FINISHES

A. For nongalvanized-steel railings, provide nongalvanized ferrous-metal fittings, brackets, fasteners, and sleeves; however, hot-dip galvanize anchors to be embedded in exterior concrete or masonry.

B. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with SSPC-SP 3.

C. Primer Application: Apply shop primer to prepared surfaces of railings unless otherwise indicated. Comply with requirements in SSPC-PA 1 for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.

1. Shop prime uncoated railings with primers specified in Section 099123 "Interior Painting".

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Perform cutting, drilling, and fitting required for installing railings.

1. Fit exposed connections together to form tight, hairline joints.
2. Install railings level, plumb, square, true to line; without distortion, warp, or rack.

3. Set railings accurately in location, alignment, and elevation; measured from established lines and levels.
4. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
5. Set posts plumb within a tolerance of 1/16 inch in 3 feet (2 mm in 1 m).
6. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet (6 mm in 3.5 m).

B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

3.2 ATTACHING RAILINGS

A. Attach handrails to walls with wall brackets, except where end flanges are used. Provide brackets with 1-1/2-inch (38-mm) clearance from inside face of handrail and finished wall surface.

B. Secure wall brackets to building construction as follows:

1. For concrete and solid masonry anchorage, use drilled-in expansion shields and hanger or lag bolts.
2. For hollow masonry anchorage, use toggle bolts.

C. Touchup Painting:

1. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

3.3 CLEANING

A. Clean by washing thoroughly with clean water and soap and rinsing with clean water.

END OF SECTION 055213

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood blocking and nailers.
2. Wood furring.
3. Wood sleepers.
4. Utility shelving.

1.2 DEFINITIONS

A. Boards or Strips: Lumber of less than 2 inches nominal (38 mm actual) size in least dimension.

B. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) or greater size but less than 5 inches nominal (114 mm actual) size in least dimension.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
3. For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D5664.
4. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

B. Sustainable Design Submittals:
1. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
2. Product Data: For installation adhesives, indicating VOC content.
3. Laboratory Test Reports: For installation adhesives, indicating compliance with requirements for low-emitting materials.

1.4 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For the following, from ICC-ES:

1. Preservative-treated wood.
2. Fire-retardant-treated wood.
3. Power-driven fasteners.
4. Post-installed anchors.
5. Metal framing anchors.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant-treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Certified Wood: Verify lumber and plywood contain not less than 60 percent certified wood tracked through a chain-of-custody process. Provide certified wood documentation from sources certified through a forest certification system with principles, criteria, and standards developed using ISO/IEC Guide 59 or the World Trade Organization's "WTO Agreement on Technical Barriers to Trade."

B. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece or omit grade stamp and provide certificates of grade compliance issued by grading agency.
3. Dress lumber, S4S, unless otherwise indicated.

C. Maximum Moisture Content of Lumber: 15 percent unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.
2. For exposed items indicated to receive a stained or natural finish, chemical formulations shall not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by inspection agency.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, and similar concealed members in contact with masonry or concrete.
3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
4. Wood framing members that are less than 18 inches (460 mm) above the ground in crawlspaces or unexcavated areas.
5. Wood floor plates that are installed over concrete slabs-on-grade.

2.3 FIRE-RETARDANT-TREATED MATERIALS

A. General: Where fire-retardant-treated materials are indicated, materials shall comply with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested according to ASTM E84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet (3.2 m) beyond the centerline of the burners at any time during the test.

1. Treatment shall not promote corrosion of metal fasteners.

2. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D2898. Use for exterior locations and where indicated.
3. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D3201 at 92 percent relative humidity. Use where exterior type is not indicated.
4. Design Value Adjustment Factors: Treated lumber shall be tested according to ASTM D5664, and design value adjustment factors shall be calculated according to ASTM D6841.

C. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent.

D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.

1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by inspection agency.

E. For exposed items indicated to receive a stained or natural finish, chemical formulations shall not bleed through, contain colorants, or otherwise adversely affect finishes.

F. Application: Treat items indicated on Drawings, and the following:

1. Framing for raised platforms.
2. Concealed blocking.
3. Roof framing and blocking.
4. Wood cants, nailers, curbs, equipment support bases, blocking, and similar members in connection with roofing.
5. Plywood backing panels.

2.4 DIMENSION LUMBER FRAMING

A. Other Framing: No. 2 grade of any of the following the following species:

1. Hem-fir (north); NLGA.
2. Southern pine; SPIB.
3. Douglas fir-larch; WCLIB or WWPA.
4. Southern pine or mixed southern pine; SPIB.
5. Spruce-pine-fir; NLGA.
6. Douglas fir-south; WWPA.
7. Hem-fir; WCLIB or WWPA.
8. Douglas fir-larch (north); NLGA.
9. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

2.5 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Rooftop equipment bases and support curbs.
4. Cants.
5. Furring.
6. Grounds.
7. Utility shelving.

B. Dimension Lumber Items: Construction or No. 2 grade lumber of any of the following species:

1. Hem-fir (north); NLGA.
2. Mixed southern pine or southern pine; SPIB.
3. Spruce-pine-fir; NLGA.
4. Hem-fir; WCLIB or WWPA.
5. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.
6. Western woods; WCLIB or WWPA.
7. Northern species; NLGA.
8. Eastern softwoods; NeLMA.

C. Concealed Boards: 15 percent maximum moisture content of any of the following species and grades:

1. Mixed southern pine or southern pine, No. 2 grade; SPIB.
2. Hem-fir or hem-fir (north), Construction or No. 2 Common grade; NLGA, WCLIB, or WWPA.
3. Spruce-pine-fir (south) or spruce-pine-fir, Construction or No. 2 Common grade; NeLMA, NLGA, WCLIB, or WWPA.
4. Eastern softwoods, No. 2 Common grade; NELMA.
5. Northern species, No. 2 Common grade; NLGA.
6. Western woods, Construction or No. 2 Common grade; WCLIB or WWPA.

D. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

E. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

F. For furring strips for installing plywood or hardboard paneling, select boards with no knots capable of producing bent-over nails and damage to paneling.

2.6 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: Plywood, DOC PS 1, Exterior, A-C, in thickness indicated or, if not indicated, not less than 3/4-inch (19-mm) nominal thickness.

2.7 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M.

B. Nails, Brads, and Staples: ASTM F1667.

C. Screws for Fastening to Metal Framing: ASTM C1002, length as recommended by screw manufacturer for material being fastened.

D. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

E. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 ICC-ES AC58 ICC-ES AC193 or ICC-ES AC308 as appropriate for the substrate.

1. Material: Carbon-steel components, zinc plated to comply with ASTM B633, Class Fe/Zn 5.
2. Material: Stainless steel with bolts and nuts complying with ASTM F593 and ASTM F594, Alloy Group 1 or 2 (ASTM F738M and ASTM F836M, Grade A1 or A4).

2.8 METAL FRAMING ANCHORS

A. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 (Z180) coating designation.

1. Use for interior locations unless otherwise indicated.

B. Hot-Dip, Heavy-Galvanized Steel Sheet: ASTM A653/A653M; Structural Steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G185 (Z550) coating designation; and not less than 0.036 inch (0.9 mm) thick.

1. Use for wood-preservative-treated lumber and where indicated.

C. Stainless-Steel Sheet: ASTM A666, Type 304.

1. Use for exterior locations and where indicated.

2.9 MISCELLANEOUS MATERIALS

A. Adhesives for Gluing Furring and Sleepers to Concrete or Masonry: Formulation complying with ASTM D3498 that is approved for use indicated by adhesive manufacturer.

1. Verify adhesives have a VOC content of 70 g/L or less.
2. Verify adhesive complies with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

B. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch (0.6 mm).

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry accurately to other construction. Locate nailers, blocking,and similar supports to comply with requirements for attaching other construction.

C. Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

D. Do not splice structural members between supports unless otherwise indicated.

E. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches (406 mm) o.c.

F. Sort and select lumber so that natural characteristics do not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

G. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

1. Use inorganic boron for items that are continuously protected from liquid water.

2. Use copper naphthenate for items not continuously protected from liquid water.

H. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

I. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
2. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.
3. ICC-ES evaluation report for fastener.

J. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 WOOD BLOCKING AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

C. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches (38 mm) wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.

3.3 WOOD FURRING INSTALLATION

A. Install level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.

B. Furring to Receive Plywood or Hardboard Paneling: Install 1-by-3-inch nominal- (19-by-63-mm actual-) size furring at 24 inches (610 mm) 600 mm o.c.

3.4 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

B. Protect miscellaneous rough carpentry from weather. If, despite protection, miscellaneous rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061053

SECTION 064113 - WOOD-VENEER-FACED ARCHITECTURAL CABINETS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood-veneer-faced architectural cabinets.
2. Wood furring, blocking, shims, and hanging strips for installing architectural cabinets that are not concealed within other construction.
3. Shop finishing of architectural cabinets.

B. Related Requirements:

1. Section 061053 "Miscellaneous Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing cabinets that are concealed within other construction before cabinet installation.

1.2 ALLOWANCES

A. Wood Veneer Allowance: Wood veneer for architectural cabinets is part of Wood Veneer Allowance. Allowance includes the cost of veneer that is wasted due to selection, cutting, and trimming.

1.3 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to support loads imposed by installed and fully loaded cabinets.

B. Hardware Coordination: Distribute copies of approved hardware schedule specified in Section 087100 "Door Hardware" to manufacturer of architectural cabinets; coordinate Shop Drawings and fabrication with hardware requirements.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include data for fire-retardant treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements.

B. Sustainable Design Submittals:

1. "Product Certificates" Subparagraph below applies to IgCC, which requires that a minimum of 55 percent of building materials or products be extracted, harvested, manufactured, or recovered within 500 miles (800 km) of Project. See IgCC-2012, 505.2.5.
2. Product Certificates: For indigenous materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include distance to Project, means of transportation, and cost for each indigenous material.
3. Environmental Product Declaration: For each product.
4. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
5. Product Data: For adhesives, indicating that product contains no urea formaldehyde.

C. Shop Drawings: For architectural cabinets.

1. Include plans, elevations, sections, and attachment details.
2. Show large-scale details.
3. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
4. Show locations and sizes of cutouts and holes for items installed in architectural cabinets.
5. Show veneer leaves with dimensions, grain direction, exposed face, and identification numbers indicating the flitch and sequence within the flitch for each leaf.
6. Apply AWI Quality Certification Program label to Shop Drawings.

D. Samples: For each exposed product and for each color and finish specified, in manufacturer's standard size.

E. Samples for Initial Selection: For each type of exposed finish.

F. Samples for Verification: For the following:

1. Lumber for Transparent Finish: Not less than 5 inches (125 mm) wide by 24 inches (600 mm) long, for each species and cut, finished on one side and one edge.
2. Veneer Leaves: Representative of and selected from flitches to be used for transparent-finished cabinets.

    a. Provide edge banding on one edge.

3. Corner Pieces:

    a. Cabinet-front frame joints between stiles and rails and at exposed end pieces, 18 inches (450 mm) high by 18 inches (450 mm) wide by 6 inches (150 mm) deep.
    b. Miter joints for standing trim.

4. Exposed Cabinet Hardware and Accessories: One full-size unit for each type and finish.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer and Installer.

B. Product Certificates: For the following:

1. Composite wood and agrifiber products.
2. Adhesives.

C. Evaluation Reports: For fire-retardant-treated materials, from ICC-ES.

D. Field quality-control reports.

1.7 CLOSEOUT SUBMITTALS

A. Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

1.8 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.

1. Manufacturer's Certification: Licensed participant in AWI's Quality Certification Program.

B. Installer Qualifications: Manufacturer of products or Licensed participant in AWI's Quality Certification Program.

C. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.

1. Build mockups of typical architectural cabinets as shown on Drawings.
2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver cabinets until painting and similar finish operations that might damage architectural cabinets have been completed in installation areas. Store cabinets in installation areas or in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.10 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.

B. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F (16 and 32 deg C) and relative humidity between 43 and 70 percent during the remainder of the construction period.

C. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed/concealed by construction, and indicate measurements on Shop Drawings.

D. Established Dimensions: Where cabinets are indicated to fit to other construction, establish dimensions for areas where cabinets are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.1 ARCHITECTURAL CABINET MANUFACTURERS

A. Source Limitations: Engage a qualified woodworking firm to assume responsibility for production of architectural cabinets with sequence-matched wood veneers wood paneling wood doors with face veneers that are sequence matched with architectural cabinets and transparent-finished wood doors that are required to be of same species as architectural cabinets.

2.2 CABINETS, GENERAL

A. Quality Standard: Unless otherwise indicated, comply with the Architectural Woodwork Standards for grades of architectural cabinets indicated for construction, finishes, installation, and other requirements.

1. Provide labels and certificates from AWI certification program indicating that woodwork and installation complies with requirements of grades specified.

2. The Contract Documents contain requirements that are more stringent than the referenced woodwork quality standard. Comply with requirements of Contract Documents in addition to those of the referenced quality standard.

2.3 WOOD CABINETS FOR TRANSPARENT FINISH

A. Architectural Woodwork Standards Grade: Custom.

B. Certified Wood: Wood products shall be labeled according to the AF&PA's Sustainable Forestry Initiative, be certified as "FSC Pure" according to FSC STD-01-001 and FSC STD-40-004, or be certified and labeled according to the standards of the Programme for Endorsement of Forest Certification.

C. Type of Construction: Frameless.

D. Door and Drawer-Front Style: Flush overlay.

1. Reveal Dimension: As indicated on Drawings.

E. Wood for Exposed Surfaces:

1. Species: White maple.
2. Blueprint Matching: Comply with veneer and other matching requirements indicated for blueprint-matched paneling.
3. Cut: Plain sliced/plain sawn.
4. Grain Direction: Vertically for drawer fronts, doors, and fixed panels.
5. Matching of Veneer Leaves: Random match.
6. Veneer Matching within Room: Provide cabinet veneers in each room or other space from a single flitch with doors, drawer fronts, and other surfaces matched in a sequenced set with continuous match where veneers are interrupted perpendicular to the grain.

F. Semiexposed Surfaces:

1. Surfaces Other Than Drawer Bodies: Same species and cut indicated for exposed surfaces Compatible species to that indicated for exposed surfaces, stained to match.

2. Drawer Subfronts, Backs, and Sides: Solid-hardwood lumber.
3. Drawer Bottoms: Hardwood plywood.

G. Dust Panels: 1/4-inch (6.4-mm) plywood or tempered hardboard above compartments and drawers unless located directly under tops.

H. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.

1. Join subfronts, backs, and sides with glued rabbeted joints supplemented by mechanical fasteners or glued dovetail joints.

2.4 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets except for items specified in Section 087100 "Door Hardware."

B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 170 degrees of opening.

C. Back-Mounted Pulls: BHMA A156.9, B02011.

D. Wire Pulls: Back mounted, solid metal, 4 inches (100 mm) long, 5/16 inch (8 mm) in diameter.

E. Catches: Magnetic catches, BHMA A156.9, B03141.

F. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081.

G. Shelf Rests: BHMA A156.9, B04013; metal.
1. For drawers not more than 3 inches (75 mm) high and not more than 24 inches (600 mm) wide, provide Grade 1.
2. For drawers more than 3 inches (75 mm) high, but not more than 6 inches (150 mm) high and not more than 24 inches (600 mm) wide, provide Grade 1.
3. For drawers more than 6 inches (150 mm) high or more than 24 inches (600 mm) wide, provide Grade 1HD-100.

H. Door Locks: Cabinet door locks shall be ASSA ABLOY Non-Key Retaining Cam Lock keyed alike with new room door hardware. All lock hardware specifications and keying shall be coordinated with the ECSU Locksmith at (860)-465-5341.

I. Door and Drawer Silencers: BHMA A156.16, L03011.

J. Grommets for Cable Passage: 2-inch (51-mm) OD, molded-plastic grommets and matching plastic caps with slot for wire passage.

1. Color: Black.

K. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
1. Satin Stainless Steel: BHMA 630.

L. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.

2.5 MISCELLANEOUS MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.

B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

C. Adhesives: Do not use adhesives that contain urea formaldehyde.

2.6 FABRICATION

A. Fabricate architectural cabinets to dimensions, profiles, and details indicated. Ease edges and corners to 1/16-inch (1.5-mm) radius unless otherwise indicated.

B. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

1. Notify Architect seven days in advance of the dates and times architectural cabinet fabrication will be complete.
2. Trial fit assemblies at manufacturer's shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements before disassembling for shipment.

C. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

2.7 SHOP FINISHING

A. General: Finish architectural cabinets at manufacturer's shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.

B. General: Shop finish transparent-finished architectural cabinets at manufacturer's shop as specified in this Section. See Section 099123 "Interior Painting" for field finishing of opaque-finished architectural cabinets.

C. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural cabinets, as applicable to each unit of work.

1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of cabinets.

D. Transparent Finish:

1. Architectural Woodwork Standards Grade: Same as item to be finished.
2. Finish: System - 10, water-based UV curable.
3. Wash Coat for Closed-Grain Woods: Apply wash-coat sealer to cabinets made from closed-grain wood before staining and finishing.
4. Staining: As selected by Architect from manufacturer's full range.
5. Open Finish for Open-Grain Woods: Do not apply filler to open-grain woods.
6. Sheen: Satin, 31-45 gloss units measured on 60-degree gloss meter per ASTM D523.

PART 3 - EXECUTION

3.1 PREPARATION

A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.

3.2 INSTALLATION

A. Architectural Woodwork Standards Grade: Install cabinets to comply with quality standard grade of item to be installed.

B. Assemble cabinets and complete fabrication at Project site to extent that it was not completed in the shop.

C. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with cabinet surface.

1. For shop-finished items, use filler matching finish of items being installed.

D. Install cabinets level, plumb, and true in line to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm)using concealed shims.

1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
3. Maintain veneer sequence matching of cabinets with transparent finish.

E. Shop Finishes: Touch up finishing after installation of architectural cabinets. Fill nail holes with matching filler.

1. Apply specified finish coats, including stains and paste fillers if any, to exposed surfaces where only sealer/prime coats are shop applied.

3.3 FIELD QUALITY CONTROL

A. Inspections: Provide inspection of installed Work through AWI's Quality Certification Program certifying that woodwork, including installation, complies with requirements of the Architectural Woodwork Standards for the specified grade.

1. Inspection entity shall prepare and submit report of inspection.

3.4 ADJUSTING AND CLEANING

A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.

B. Clean, lubricate, and adjust hardware.

C. Clean cabinets on exposed and semiexposed surfaces. Touch up finishes to restore damaged or soiled areas.

END OF SECTION 064113

SECTION 081416 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Five-ply flush wood veneer-faced doors for transparent finish.
2. Factory fitting flush wood doors to frames and factory machining for hardware.
3. Factory finishing flush wood doors.

B. Related Requirements:
1. Section 099123 "Interior Painting"

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product, including the following:

1. Door core materials and construction.
2. Door edge construction
3. Door face type and characteristics.
4. Door frame construction.
5. Factory-machining criteria.
6. Factory-priming and finishing specifications.

B. Sustainable Design Submittals:

1. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
2. Product Data: For adhesives, indicating that product contains no urea formaldehyde.
3. Product Data: For composite wood products, indicating compliance with requirements for formaldehyde emissions.

C. Shop Drawings: Indicate location, size, and hand of each door; elevation of each type of door; construction details not covered in Product Data; and the following:

1. Door schedule indicating door location, type, size, fire protection rating, and swing.
2. Door elevations, dimension and locations of hardware, lite and louver cutouts, and glazing thicknesses.
3. Details of frame for each frame type, including dimensions and profile.
4. Dimensions and locations of blocking for hardware attachment.
5. Dimensions and locations of mortises and holes for hardware.
6. Clearances and undercuts.

7. Requirements for veneer matching.
8. Doors to be factory primed finished and application requirements.
9. Apply AWI Quality Certification Program label to Shop Drawings.

D. Samples for Initial Selection: For edging and factory-finished doors.

E. Samples for Verification:

1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches (200 by 250 mm), for each material and finish. For each wood species and transparent finish, provide set of three Samples showing typical range of color and grain to be expected in finished Work.
2. Edging, in manufacturer's standard colors.
3. Corner sections of doors, approximately 8 by 10 inches (200 by 250 mm), with door faces and edges representing actual materials to be used.
4. Louver blade and frame sections, 6 inches (150 mm) long, for each material and finish specified.
5. Frames for light openings, 6 inches (150 mm) long, for each material, type, and finish required.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For door inspector.
1. Egress Door Inspector: Submit documentation of compliance with NFPA 101, Section 7.2.1.15.4.
2. Submit copy of DHI's Fire and Egress Door Assembly Inspector (FDAI) certificate.

B. Field quality-control reports.

C. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Special warranties.

B. Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

C. Record Documents: For fire-rated doors, list of door numbers and applicable room name and number to which door accesses.

1.6 QUALITY ASSURANCE

A. Manufacturer's Certification: Licensed participant in AWI's Quality Certification Program.

B. Egress Door Inspector Qualifications: Inspector for field quality-control inspections of egress door assemblies shall comply with qualifications set forth in NFPA 101, Section 7.2.1.15.4 and the following:

1. DHI's Fire and Egress Door Assembly Inspector (FDAI) certification.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Comply with requirements of referenced standard and manufacturer's written instructions.

B. Package doors individually in cardboard cartons.

C. Mark each door on bottom rail with opening number used on Shop Drawings.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, and HVAC system is operating and maintaining temperature and relative humidity at levels designed for building occupants for the remainder of construction period.

B. Environmental Limitations: Do not deliver or install doors until building is enclosed and weathertight, wet work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F (16 and 32 deg C) and relative humidity between 43 and 70 percent during remainder of construction period.

1.9 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Delamination of veneer.
b. Warping (bow, cup, or twist) more than 1/4 inch (6.4 mm) in a 42-by-84-inch (1067-by-2134-mm) section.
c. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch (0.25 mm in a 76.2-mm) span.

2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
3. Warranty Period for Solid-Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Eggers Industries, Architectural Door Division
2. Oshgosh Architectural Door Company
3. VT Industries

2.2 PERFORMANCE REQUIREMENTS (NOT USED)

2.3 FLUSH WOOD DOORS, GENERAL

A. Quality Standard: In addition to requirements specified, comply with AWI/AWMAC/WI's "Architectural Woodwork Standards."

1. Provide labels and certificates from AWI certification program indicating that doors comply with requirements of grades specified.

2. The Contract Documents contain requirements that are more stringent than the referenced quality standard. Comply with the Contract Documents in addition to those of the referenced quality standard.

B. Certified Wood: Wood doors shall be labeled according to the AF&PA's Sustainable Forestry Initiative, be certified as "FSC Pure" according to FSC STD-01-001 and FSC STD-40-004, or be certified and labeled according to the standards of the Programme for Endorsement of Forest Certification.

C. Adhesives: Do not use adhesives that contain urea formaldehyde.

D. Composite Wood Products: Formaldehyde emission rates shall not be greater than the following when tested according to ASTM D 6007 or ASTM E 1333:

1. Hardwood Plywood: 0.05 ppm.
2. Particleboard: 0.09 ppm.
3. MDF More Than 5/16 Inch (8 mm) Thick: 0.11 ppm.
4. MDF 5/16 Inch (8 mm) or Less in Thickness: 0.13 ppm.

2.4 FIVE-PLY FLUSH WOOD VENEER-FACED DOORS FOR TRANSPARENT FINISH

A. Interior Doors:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

a. Eggers Industries.
b. Oshkosh Door Company.
c. VT Industries Inc.

2. Performance Grade: WDMA I.S. 1A Heavy Duty.

3. Architectural Woodwork Standards WDMA I.S. 1A Grade: Premium.

4. Faces: Single-ply wood veneer not less than 1/50 inch (0.508 mm) thick.

    a. Species: White maple.
    b. Cut: Plain sliced (flat sliced).
    c. Match between Veneer Leaves: Random match.
    d. Assembly of Veneer Leaves on Door Faces: Balance match.
    e. Room Match: Provide door faces of compatible color and grain

5. Exposed Vertical Edges: Same species as faces - Architectural Woodwork Standards edge Type A.

6. Core for Non-Fire-Rated Doors: ANSI A208.1, Grade LD-1 particleboard.

7. Construction: Five plies, hot-pressed bonded (vertical and horizontal edging is bonded to core), with entire unit abrasive planed before veneering.

2.5 FABRICATION

A. Factory fit doors to suit existing frame-opening sizes.

1. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
2. Comply with NFPA 80 requirements for fire-rated doors.

B. Factory machine doors for hardware that is not surface applied.

1. Locate hardware to comply with DHI-WDHS-3.
2. Comply with final hardware schedules, door frame Shop Drawings, BHMA-156.115-W, and hardware templates.
3. Coordinate with hardware mortises in metal frames, to verify dimensions and alignment before factory machining.

2.6 FACTORY FINISHING

A. Comply with referenced quality standard for factory finishing.

1. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
2. Finish faces, all four edges, edges of cutouts, and mortises.
3. Stains and fillers may be omitted on top and bottom edges, edges of cutouts, and mortises.

B. Factory finish doors.

C. Transparent Finish:

1. Architectural Woodwork Standards WDMA I.S. 1A Grade: Premium.
2. Finish: Architectural Woodwork Standards System-10, UV Curable, Water Based.
3. Staining: As selected by Architect from manufacturer's full range.

4. Sheen: Satin.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine doors and frames, with Installer present, before hanging doors.

1. Verify that doors will fit in existing door frames.
2. Reject doors with defects.

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

3.2 INSTALLATION

A. Hardware: For installation, see Section 087100 "Door Hardware."

B. Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.

C. Job-Fitted Doors:

1. Align and fit doors in frames with uniform clearances and bevels as indicated below.

a. Do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors.

2. Machine doors for hardware.
3. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.
4. Clearances:

a. Provide 1/8 inch (3.2 mm) at heads, jambs, and between pairs of doors.
b. Provide 1/8 inch (3.2 mm) from bottom of door to top of decorative floor finish or covering unless otherwise indicated on Drawings.
c. Where threshold is shown or scheduled, provide1/4 inch (6.4 mm) from bottom of door to top of threshold unless otherwise indicated.
d. Comply with NFPA 80 for fire-rated doors.

5. Bevel non-fire-rated doors 1/8 inch in 2 inches (3-1/2 degrees) at lock and hinge edges.

D. Factory-Finished Doors: Restore finish before installation if fitting or machining is required at Project site.

3.3 FIELD QUALITY CONTROL

A. Inspection Agency: Engage a qualified inspector to perform inspections and to furnish reports to Architect.

B. Inspections:

1. Provide inspection of installed Work through AWI's Quality Certification Program, certifying that wood doors and frames, including installation, comply with requirements of AWI/AWMCA/WI's "Architectural Woodwork Standards" for the specified grade.
2. Fire-Rated Door Inspections: Inspect each fire-rated door in accordance with NFPA 80, Section 5.2.
3. Egress Door Inspections: Inspect each door equipped with panic hardware, each door equipped with fire exit hardware, each door located in an exit enclosure, each electrically controlled egress door, and each door equipped with special locking arrangements in accordance with NFPA 101, Section 7.2.1.15.

C. Repair or remove and replace installations where inspections indicate that they do not comply with specified requirements.

D. Reinspect repaired or replaced installations to determine if replaced or repaired door assembly installations comply with specified requirements.

3.4 ADJUSTING

A. Operation: Rehang or replace doors that do not swing or operate freely.

B. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081416

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Mechanical door hardware for the following:

   a. Swinging doors.
   b. Cabinet doors

2. Cylinders for door hardware shall be coordinated with the ECSU Locksmith at (860)-465-5341.

B. Related Requirements:

1. Section 064113 "Wood-Veneer-Faced Architectural Cabinets" for cabinet door hardware provided with cabinets.
2. Section 081416 "Flush Wood Doors"

1.2 ALLOWANCES

A. Door hardware is part of Door Hardware Allowance.

1.3 COORDINATION

A. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

B. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

C. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

D. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation and Keying Conference: Conduct conference at Project site.

1. Conference participants shall include Installer's Architectural Hardware Consultant and Owner's Locksmith.
2. Incorporate conference decisions into keying schedule after reviewing door hardware keying system including, but not limited to, the following:

    a. Flow of traffic and degree of security required.
    b. Preliminary key system schematic diagram.
    c. Requirements for key control system.
    d. Requirements for access control.
    e. Address for delivery of keys.
    f. ECSU requirements for standard hardware compatibility.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Samples: For each exposed product in each finish specified, in manufacturer's standard size.

1. Tag Samples with full product description to coordinate Samples with door hardware schedule.

    a. Full-size Samples will be returned to Contractor. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated into the Work, within limitations of keying requirements.

C. Door Hardware Schedule: Prepared by or under the supervision of Installer's Architectural Hardware Consultant. Coordinate door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Submittal Sequence: Submit door hardware schedule after or concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
2. Format: Use same scheduling sequence and format as in door hardware schedule in the Contract Documents.
3. Content: Include the following information:

    a. Identification number, location, hand, fire rating, size, and material of each door and frame.
    b. Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
    c. Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
    d. Description of electrified door hardware sequences of operation and interfaces with other building control systems.

e. Fastenings and other installation information.
f. Explanation of abbreviations, symbols, and designations contained in door hardware schedule.
g. Mounting locations for door hardware.
h. List of related door devices specified in other Sections for each door and frame.

D. Keying Schedule: Prepared by or under the supervision of Installer's Architectural Hardware Consultant, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations that are coordinated with the Contract Documents.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer and Architectural Hardware Consultant.

B. Product Test Reports: For compliance with accessibility requirements, for tests performed by manufacturer and witnessed by a qualified testing agency, for door hardware on doors located in accessible routes.

C. Field quality-control reports.

D. Sample Warranty: For special warranty.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of door hardware to include in maintenance manuals.

B. Schedules: Final door hardware and keying schedule.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and of an Architectural Hardware Consultant who is available during the course of the Work to consult Contractor, Architect, and Owner about door hardware and keying.

1. Warehousing Facilities: In Project's vicinity.
2. Scheduling Responsibility: Preparation of door hardware and keying schedule.

B. Architectural Hardware Consultant Qualifications: A person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and who is currently certified by DHI as an Architectural Hardware Consultant (AHC).

1.9 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.

B. Tag each item or package separately with identification coordinated with the final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

C. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

D. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including excessive deflection, cracking, or breakage.
b. Faulty operation of doors and door hardware.
c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.

2. Warranty Period: Three years from date of Substantial Completion unless otherwise indicated below:
a. Exit Devices: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of door hardware from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.

2.3 SCHEDULED DOOR HARDWARE

A. Provide products for each door that comply with requirements indicated in Part 2 and door hardware schedule.

1. Door hardware is scheduled in Part 3.

2.4 HINGES

A. Hinges: BHMA A156.1. Coordinate hinge specifications to fit with existing structural steel frames. Match existing size and installation if feasible.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

a. Bommer Industries.
b. Stanley Hardware.
c. McKinney Products Company; an ASSA ABLOY Group company.

2.5 CONTINUOUS HINGES

A. Continuous Hinges: BHMA A156.26; minimum 0.120-inch- (3.0-mm-) thick, hinge leaves with minimum overall width of 4 inches (102 mm); fabricated to full height of door and frame and to template screw locations; with components finished after milling and drilling are complete.

B. Pin-and-Barrel-Type Hinges:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Markar Products.
b. Stanley Hardware.
c. McKinney Products Company; an ASSA ABLOY Group company.

2.6 MECHANICAL LOCKS AND LATCHES

A. Lock Functions: As indicated in door hardware schedule.

B. Lock Throw: Comply with testing requirements for length of bolts required for labeled fire doors, and as follows:
1. Mortise Locks: Minimum 3/4-inch (19-mm) latchbolt throw.

C. Lock Backset: 2-3/4 inches (70 mm) unless otherwise indicated.

D. Lock Trim: See door schedule at the end of part 3.

E. Strikes: Provide manufacturer's standard strike for each lock bolt or latchbolt complying with requirements indicated for applicable lock or latch and with strike box and curved lip extended to protect frame; finished to match lock or latch.

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.

F. Mortise Locks: BHMA A156.13; Operational Grade 1; stamped steel case with steel or brass parts; Series 1000.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

    a. Arrow USA; an ASSA ABLOY Group company.
    b. Corbin Russwin, Inc.; an ASSA ABLOY Group company.
    c. SARGENT Manufacturing Company; ASSA ABLOY.

2.7 EXIT DEVICES AND AUXILIARY ITEMS

A. Exit Devices and Auxiliary Items: BHMA A156.3.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

    a. SARGENT Manufacturing Company; ASSA ABLOY.
    b. Yale Security Inc; an ASSA ABLOY Group company.
    c. Arrow USA; an ASSA ABLOY Group company.

2.8 LOCK CYLINDERS

A. Lock Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver.

2.9 KEYING

A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, appendix. Provide one extra key blank for each lock. Incorporate decisions made in keying conference.

1. Existing System:

    a. Master key or grand master key locks to Owner's existing system.
    b. Keying shall be coordinated with the ECSU Locksmith at (860)-465-5341.

2. Keyed Alike: Key all cylinders to same change key.

B. Keys: Brass.

1. Stamping: Permanently inscribe each key with a visual key control number and include the following notation:

    a. Notation: Incorporate decisions made in keying conference.

2.1 Key Control System: Use existing system.

2.2 OPERATING TRIM

A. Operating Trim: BHMA A156.6; stainless steel unless otherwise indicated.

B. Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Hager Companies.
2. Ives Hardware; an Ingersoll-Rand company.
3. Arrow USA; an ASSA ABLOY Group company

2.3 MECHANICAL STOPS AND HOLDERS

A. Wall- and Floor-Mounted Stops: BHMA A156.16.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Rixon.
b. Sargent

2.4 FABRICATION

A. Manufacturer's Nameplate: Do not provide products that have manufacturer's name or trade name displayed in a visible location except in conjunction with required fire-rating labels and as otherwise approved by Architect.

1. Manufacturer's identification is permitted on rim of lock cylinders only.

B. Base Metals: Produce door hardware units of base metal indicated, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18.

C. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware unless otherwise indicated.

1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
2. Fire-Rated Applications:

a. Wood or Machine Screws: For the following:

1) Hinges mortised to doors or frames; use threaded-to-the-head wood screws for wood doors and frames.
2) Strike plates to frames.
3) Closers to doors and frames.

b. Steel Through Bolts: For the following unless door blocking is provided:

1) Surface hinges to doors.
2) Closers to doors and frames.
3) Surface-mounted exit devices.

3. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
4. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.5 FINISHES

A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance of the Work.

B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

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

3.2 PREPARATION

A. Steel Doors and Frames: For surface-applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.

B. Wood Doors: Comply with door and hardware manufacturers' written instructions.

3.3 INSTALLATION

A. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.
   1. Wood Doors: DHI's "Recommended Locations for Architectural Hardware for Wood Flush Doors."

B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work. Do not install surface-mounted items until finishes have been completed on substrates involved.

   1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
   2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

C. Hinges: Install types and in quantities indicated in door hardware schedule, but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

D. Stops: Install new wall mounted stops.

3.4 FIELD QUALITY CONTROL

A. Independent Architectural Hardware Consultant: Engage a qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.

   1. Independent Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.

3.7 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

3.8 DOOR HARDWARE SCHEDULE

A. Both (2) new doors to Press Box to receive:
   1. New latchset. Basis for design: Arrow BM22-BRL-32D-463. One RH, one LH. Keyed in coordination with ECSU Locksmith at (860)-465-5341.
   2. New hinges. Basis for design: McKinney TA2714 – coordinate hinge with requirements of new door and existing door frame.

B. All new cabinet doors to receive:
   1. New cam locks to prevent unauthorized access. One lock per pair. Basis for design: ASSA ABLOY Twin Exclusive E7571 key alike with Press Box doors. Coordinate catches or other lock accessories with cabinet construction.

   2. See section Section 064113 "Wood-Veneer-Faced Architectural Cabinets" for other cabinet door hardware provided with cabinets.

END OF SECTION 087100

SECTION 090190.52 - MAINTENANCE REPAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes maintenance repainting to the Press Box and gymnasium walls exposed or disturbed during bleacher removal as follows:

1. Removing existing loose paint.
2. Patching substrates.
3. Repainting.

1.2 UNIT PRICES

A. Work of this Section is affected by unit prices specified in Section 012200 "Unit Prices."

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

B. Sustainable Design Submittals:

1. Product Data: For paints and coatings, indicating VOC content.
2. Laboratory Test Reports: For paints and coatings, indicating compliance with requirements for low-emitting materials.

C. Samples: For each type of paint system and each pattern, color, and gloss.

1. For each painted color being matched to a standardized color-coding system, include the color chips from the color-coding-system company with Samples.
2. Label each Sample for location and application.

1.5 INFORMATIONAL SUBMITTALS

A. Color Matching Certificate: For computer-matched colors.

1.6 QUALITY ASSURANCE

A. Color Matching: Custom computer-match paint colors to colors indicated in maintenance repainting schedule(s) at the end of Part 3. For colors indicated by a standardized coding system, obtain a color chip for each color indicated from the color-coding-system company; computer match paint colors to the color chips.

B. Mockups: Prepare mockups of maintenance repainting processes for each type of coating system and substrate indicated and each color and finish required to demonstrate aesthetic effects and to set quality standards for materials and execution. Duplicate appearance of approved Sample submittals.

1. Surface-preparation mockups using applicable specified methods of cleaning and other surface preparation.
2. Coating mockups to represent surfaces and conditions for application of each type of coating system.

PART 2 - PRODUCTS

2.1 PREPARATORY CLEANING MATERIALS

A. Water: Potable.

B. Hot Water: Water heated to a temperature of 140 to 160 deg F (60 to 71 deg C).

C. Detergent Solution: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium pyrophosphate (TSPP), 1/2 cup (125 mL) of laundry detergent that contains no ammonia, 5 quarts (5 L) of 5 percent sodium hypochlorite bleach, and 15 quarts (15 L) of warm water for every 5 gal. (20 L) of solution required.

D. Mildewcide: Commercial proprietary mildewcide or a job-mixed solution prepared by mixing 1/3 cup (80 mL) of household detergent that contains no ammonia, 1 quart (1 L) of 5 percent sodium hypochlorite bleach, and 3 quarts (3 L) of warm water.

E. Abrasives for Ferrous Metal Cleaning: Aluminum oxide paper, emery paper, fine steel wool, steel scrapers, and steel-wire brushes of various sizes.

F. Rust Remover: Manufacturer's standard phosphoric acid-based gel formulation, also called "naval jelly," for removing corrosion from iron and steel.

2.2 PAINT, GENERAL

A. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. Colors: Match Existing. Existing colors: White, Pantone 289 (Navy), Pantone 188 (Burgundy), and Pantone 427 (Gray). Verify existing colors.

2.3 PAINT MATERIALS, GENERAL

A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."

B. Emissions Requirements: Verify field-applied paints and coatings that are inside the weatherproofing system comply with one of the following:

1. Low-Emitting Materials: Verify VOC emissions comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
2. Verify VOC content does not exceed limits of authorities having jurisdiction and the following:

a. Flat Coatings: 50 g/L.
b. Nonflat Coatings: 100 g/L.
c. Primers, Sealers, and Undercoats: 100 g/L.
d. Floor Coatings: 100 g/L.
e. Shellacs, Clear: 730 g/L.
f. Shellacs, Pigmented: 550 g/L.
g. Stains: 250 g/L.
h. Clear Wood Finishes (Varnishes, Sanding Sealers, and Lacquers): 275 g/L.

C. Transition Coat: Paint manufacturer's recommended coating for use where a residual existing coating is incompatible with the paint system.

2.4 PAINT MATERIAL MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Sherwin-Williams Company (The).

2.5 PAINT MATERIALS

1. See Part 3.

2.6 PATCHING MATERIALS

A. Wood-Patching Compound: Two-part, epoxy-resin, wood-patching compound; knife-grade formulation as recommended in writing by manufacturer for type of wood repair indicated,

tooling time required for the detail of work, and site conditions. Compound shall be designed for filling voids in damaged wood materials that have deteriorated from weathering and decay. Compound shall be capable of filling deep holes and spreading to feather edge.

B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. ConServ Epoxy LLC.

C. Metal-Patching Compound: Two-part, polyester-resin, metal-patching compound; knife-grade formulation as recommended in writing by manufacturer for type of metal repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be produced for filling metal that has deteriorated from corrosion. Filler shall be capable of filling deep holes and spreading to feather edge.

D. Cementitious Patching Compounds: Cementitious patching compounds and repair materials specifically manufactured for filling cementitious substrates and for sanding or tooling prior to repainting; formulation as recommended in writing by manufacturer for type of cementitious substrate indicated, exposure to weather and traffic, the detail of work, and site conditions.

E. Gypsum-Plaster Patching Compound: Finish coat plaster and bonding compound according to ASTM C842 and manufacturer's written instructions.

PART 3 - EXECUTION

3.1 MAINTENANCE REPAINTING, GENERAL

A. Execution of the Work: In repainting surfaces, disturb them as minimally as possible and as follows:

1. Remove failed coatings and corrosion and repaint.
2. Verify that substrate surface conditions are suitable for repainting.
3. Allow other trades to repair items in place before repainting.

B. Mechanical Abrasion: Where mechanical abrasion is needed for the work, use gentle methods, such as scraping and lightly hand sanding, that will not abrade softer substrates, reducing clarity of detail.

C. Heat Processes: Do not use torches, heat guns, or heat plates.

3.2 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of painting work. Comply with paint manufacturer's written instructions for inspection.

B. Maximum Moisture Content of Substrates: Do not begin application of coatings unless moisture content of exposed surface is below the maximum value recommended in writing by paint

manufacturer and not greater than the following maximum values when measured with an electronic moisture meter appropriate to the substrate material:

1. Concrete: 12 percent.
2. Gypsum Board: 12 percent.
3. Gypsum Plaster: 12 percent.
4. Masonry (Clay and CMU): 12 percent.
5. Portland Cement Plaster: 12 percent.
6. Wood: 15 percent.

C. Alkalinity: Do not begin application of coatings unless surface alkalinity is within range recommended in writing by paint manufacturer. Conduct alkali testing with litmus paper on exposed plaster, cementitious, and masonry surfaces.

3.3 PREPARATORY CLEANING

A. General: Use the gentlest, appropriate method necessary to clean surfaces in preparation for painting. Clean all surfaces, corners, contours, and interstices.

B. Detergent Cleaning: Wash surfaces by hand using clean rags, sponges, and bristle brushes. Scrub surface with detergent solution and bristle brush until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that surface remains wet. Rinse with water applied by clean rags or sponges.

C. Solvent Cleaning: Use solvent cleaning to remove oil, grease, smoke, tar, and asphalt from painted or unpainted surfaces before other preparation work. Wipe surfaces with solvent using clean rags and sponges. If necessary, spot-solvent cleaning may be employed just prior to commencement of paint application, provided enough time is allowed for complete evaporation. Use clean solvent and clean rags for the final wash to ensure that all foreign materials have been removed. Do not use solvents, including primer thinner and turpentine, that leave residue.

D. Mildew: Clean off existing mildew, algae, moss, plant material, loose paint, grease, dirt, and other debris by scrubbing with bristle brush or sponge and detergent solution. Scrub mildewed areas with mildewcide. Rinse with water applied by clean rags or sponges.

E. Chemical Rust Removal:

1. Remove loose rust scale with specified abrasives for ferrous-metal cleaning.
2. Apply rust remover with brushes or as recommended in writing by manufacturer.
3. Allow rust remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing. Do not allow extended dwell time.
4. Wipe off residue with mineral spirits and either steel wool or soft rags, or clean with method recommended in writing by manufacturer to remove residue.
5. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
6. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed.

F. Mechanical Rust Removal:

1. Remove rust with specified abrasives for ferrous-metal cleaning. Clean to bright metal.
2. Wipe off residue with mineral spirits and either steel wool or soft rags.
3. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
4. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed.

3.4 PAINT REMOVAL

A. General: Remove paint where indicated. Where cleaning methods have been attempted and further removal of the paint is required because of incompatible or unsatisfactory surfaces for repainting, remove paint to extent required by conditions.

1. Brushes: Use brushes that are resistant to chemicals being used.

a. Metal Substrates: If using wire brushes on metal, use brushes of same metal composition as metal being treated.
b. Wood Substrates: Do not use wire brushes.

B. Paint Removal with Hand Tools: Remove paint manually using hand-held scrapers, wire brushes, sandpaper, and metallic wool as appropriate for the substrate material.

3.5 SUBSTRATE REPAIR

A. General: Repair substrate surface defects that are inconsistent with the surface appearance of adjacent materials and finishes.

B. Wood Substrate:

1. Repair wood defects including dents and gouges more than 1/8 inch (3 mm) in size and all holes and cracks by filling with wood-patching compound and sanding smooth. Reset or remove protruding fasteners.
2. Where existing paint is allowed to remain, sand irregular buildup of paint, runs, and sags to achieve a uniformly smooth surface.

C. Cementitious Material Substrate:

1. General: Repair defects including dents and chips more than 1/2 inch (13 mm) in size and all holes and cracks by filling with cementitious patching compound and sanding smooth. Remove protruding fasteners.
2. New and Bare Plaster: Neutralize surface of plaster with mild acid solution as recommended in writing by paint manufacturer. In lieu of acid neutralization, follow manufacturer's written instruction for primer or transition coat over alkaline plaster surfaces.
3. Concrete, Cement Plaster, and Other Cementitious Products: Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. If surfaces are too alkaline to paint, correct this condition before painting.

D. Gypsum-Plaster and Gypsum-Board Substrates:

1. Repair defects including dents and chips more than 1/4 inch (6 mm) in size and all holes and cracks by filling with gypsum-plaster patching compound and sanding smooth. Remove protruding fasteners.
2. Rout out surface cracks to remove loose, unsound material; fill with patching compound and sand smooth.

E. Metal Substrate:

1. Preparation: Treat repair locations by wire-brushing and solvent cleaning. Use chemical or mechanical rust removal method to clean off rust.
2. Defects in Metal Surfaces: Repair non-load-bearing defects in existing metal surfaces, including dents and gouges more than 1/8 inch (3 mm) deep or 1/2 inch (13 mm) across and all holes and cracks by filling with metal-patching compound and sanding smooth. Remove burrs and protruding fasteners.
3. Priming: Prime iron and steel surfaces immediately after repair to prevent flash rusting. Stripe paint corners, crevices, bolts, welds, and sharp edges. Apply two coats to surfaces that are inaccessible after completion of the Work.

3.6 PAINT APPLICATION, GENERAL

A. Prepare surfaces to be painted according to the Surface-Preparation Schedule and with manufacturer's written instructions for each substrate condition.

B. Apply a transition coat over incompatible existing coatings.

C. Metal Substrate: Stripe paint corners, crevices, bolts, welds, and sharp edges before applying full coat. Apply two coats to surfaces that are inaccessible after completion of the Work. Tint stripe coat different than the main coating and apply with brush.

D. Blending Painted Surfaces: When painting new substrates patched into existing surfaces or touching up missing or damaged finishes, apply coating system specified for the specific substrate. Apply final finish coat over entire surface from edge to edge and corner to corner.

3.7 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage paint-remover manufacturer's factory-authorized service representative for consultation and Project-site inspection and to provide on-site assistance when requested by Architect.

3.8 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

C. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.9 SURFACE-PREPARATION SCHEDULE

A. General: Before painting, prepare surfaces of Press Box for painting according to applicable requirements specified in this schedule.

1. Examine surfaces to evaluate each surface condition according to paragraphs below.
2. Where existing degree of soiling prevents examination, preclean surface and allow it to dry before making an evaluation.
3. Repair substrate defects according to "Substrate Repair" Article.

B. Surface Preparation for MPI DSD 0 Degree of Surface Degradation:

1. Surface Condition: Existing paint film in good condition and tightly adhered.
2. Paint Removal: Not required.
3. Preparation for Painting: Wash surface by detergent cleaning; use solvent cleaning where needed. Roughen or degloss cleaned surfaces to ensure paint adhesion according to paint manufacturer's written instructions.

C. Surface Preparation for MPI DSD 1 Degree of Surface Degradation:

1. Surface Condition: Paint film cracked or broken but adhered.
2. Paint Removal: Scrape by hand-tool cleaning methods to remove loose paint until only tightly adhered paint remains.
3. Preparation for Painting: Wash surface by detergent cleaning; use other cleaning methods for small areas of bare substrate if required. Roughen, degloss, and sand the cleaned surfaces to ensure paint adhesion and a smooth finish according to paint manufacturer's written instructions.

D. Surface Preparation for MPI DSD 2 Degree of Surface Degradation:

1. Surface Condition: Paint film loose, flaking, or peeling.
2. Paint Removal: Remove loose, flaking, or peeling paint film by hand-tool or chemical paint-removal methods.
3. Preparation for Painting: Wash surface by detergent cleaning; use solvent cleaning where needed. Use other cleaning methods for small areas of bare substrate if required. Sand surfaces to smooth remaining paint film edges. Prepare bare cleaned surface to be painted according to paint manufacturer's written instructions for substrate construction materials.

E. Surface Preparation for MPI DSD 3 Degree of Surface Degradation:

1. Surface Condition: Paint film severely deteriorated.
2. Paint Removal: Completely remove paint film by hand-tool or chemical paint-removal methods. Remove rust.
3. Preparation for Painting: Prepare bare cleaned surface according to paint manufacturer's written instructions for substrate construction materials.

F. Surface Preparation for MPI DSD 4 Degree of Surface Degradation:

1. Surface Condition: Missing material, small holes and openings, and deteriorated or corroded substrate.
2. Substrate Preparation: Repair, replace, and treat substrate according to "Substrate Repair" Article and requirements in other Specification Sections.
3. Preparation for Painting: Sand substrate surfaces to smooth remaining paint film edges and prepare according to paint manufacturer's written instructions for substrate construction materials. Remove rust.
4. Painting: Paint as required for MPI DSD 2 degree of surface degradation.

3.10 INTERIOR MAINTENANCE REPAINTING SCHEDULE

A. Ferrous Metal Substrates: Metal elements of the Press Box:

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer, rust inhibitive, water based MPI #107.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

B. Wood (if any exposed elements):

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer, latex, for interior wood, MPI #39.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

C. Cement Board Substrates:

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

D. CMU Substrates:

1. Institutional Low-Odor/VOC Latex System:

a. Block Filler: Block filler, latex, interior/exterior.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

E. Gypsum Board and Plaster Substrates (if any exposed elements):

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

END OF SECTION 090190.52

SECTION 096466 - WOOD ATHLETIC FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes wood athletic flooring.

1.2 COORDINATION

A. Coordinate layout and installation of slab depressions to accommodate layout and height of wood athletic flooring assembly.

B. Coordinate layout and installation of flooring with floor inserts for gymnasium equipment.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, game line paint, marker paint, and finishes for wood athletic flooring.

B. Sustainable Design Submittals:

1. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
2. Product Data: For adhesives, indicating VOC content.
3. Laboratory Test Reports: For adhesives, indicating compliance with requirements for low-emitting materials.
4. Product Data: For composite wood products, indicating that product contains no urea formaldehyde.
5. Laboratory Test Reports: For finish system, indicating compliance with requirements for low-emitting materials.

C. Shop Drawings: For each type of floor assembly, include the following:

1. Plans, sections, and attachment details.
2. Details of concrete-slab depressions.
3. Locations of different grades of wood flooring.
4. Expansion provisions and trim details.
5. Layout, colors, widths, and dimensions of game lines and markers.
6. Locations of floor inserts for athletic equipment installed through flooring assembly.

D. Samples: For each exposed product and for each color and texture specified, approximately 12 inches (300 mm) long in size.

1. Include Sample sets showing the full range of normal color and texture variations expected in wood flooring.

2. Include Sample sets showing finishes and game-line and marker paints applied to wood flooring.

E. Samples for Initial Selection: For each type of wood athletic flooring and accessory in each type of exposed color and finish.

1. Include manufacturer's color charts showing colors and glosses available for the following:

a. Floor stains and finishes.
b. Game-line and marker paints.

F. Samples for Verification: For each type of wood athletic flooring and accessory required; approximately 12 inches (300 mm) long and of same thickness and material indicated for the Work.

1. Include Sample sets showing the full range of normal color and texture variations expected in wood flooring.
2. Include Sample sets showing finishes and game-line and marker paints applied to wood flooring.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For each wood athletic flooring system, for tests performed by a qualified testing agency.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For wood athletic flooring and finish systems to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: A firm or individual that has been approved by MFMA as an accredited Installer according to the MFMA Accreditation Program.

1. Installer responsibilities include installation and field finishing of wood athletic flooring components and accessories, and application of game lines and markers.

B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for installation.

1. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver floor assembly materials in unopened cartons or bundles.

B. Protect wood from exposure to moisture. Do not deliver wood components until after concrete, masonry, plaster, ceramic tile, and similar wet-work is complete and dry.

C. Store wood components in a dry, warm, well-ventilated, weathertight location and in a horizontal position.

1.8 FIELD CONDITIONS

A. Conditioning period begins not less than seven days before wood athletic flooring installation, is continuous through installation, and continues not less than seven days after installation.

1. Environmental Conditioning: Maintain ambient temperature between 65 and 75 deg F (18 and 24 deg C) and relative humidity planned for building occupants, but not less than 35 percent or more than 50 percent, in spaces to receive wood athletic flooring during the conditioning period.
2. Wood Conditioning: Move wood components into spaces where they will be installed, no later than beginning of the conditioning period.

a. Do not install wood athletic flooring until wood components adjust to relative humidity of, and are at same temperature as, spaces where they are to be installed.
b. Open sealed packages to allow wood components to acclimatize immediately on moving wood components into spaces in which they will be installed.

B. After conditioning period, maintain relative humidity and ambient temperature planned for building occupants.

C. Install wood athletic flooring after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Bona

2.2 SYSTEM DESCRIPTION

A. Floor Finish System: System of compatible components recommended in writing by flooring manufacturer and MFMA approved.

1. Type: MFMA **Group 3, Gymnasium Type Surface Finishes; urethane-oil type**
2. Floor-Sealer Formulation: **SportSeal 275 or equal, 2 coats**
3. Finish-Coat Formulation: Formulated for gloss finish and multicoat application. **Bona Sport Poly 257 or equal, 2 coats.**
4. Game-Line and Marker Paint: Industrial enamel compatible with finish coats and recommended in writing by manufacturers of finish coats, and paint for this use. **Bona Sport Courtlines Sport Flooring Paint.**
5. **Wood Floor Stain – Bona DriFast Stain –** Semi transparent, solids 35-47%, Density Wood tones : 7.2-7.5LBS/GALLON, us Regulatory VOC – 550 g/l
6. Chemical Components: Provide products that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

a. Floor Sealers and Finish Coats: VOC content of not more than 275 g/L.
b. Game-Line and Marker Paint: VOC content of not more than 150 g/L.

B. Options in "Overall System Height" Paragraph below are examples only. Systems are available in various heights; coordinate system heights with slab depressions.

2.3 PERFORMANCE REQUIREMENTS

A. Certified Wood: Verify wood products are made from certified wood tracked through a chain-of-custody process. Provide certified wood documentation from sources certified through a forest certification system with principles, criteria, and standards developed using ISO/IEC Guide 59 or the World Trade Organization's "WTO Agreement on Technical Barriers to Trade."

B. Composite Wood Products: Verify products are made without added urea formaldehyde.

2.4 FLOORING MATERIALS

A. Maple Flooring: Comply with MFMA grading rules for species, grade, and cut.

1. Certification: Provide flooring that carries MFMA mark on each bundle or piece.

B. Random-Length Strip Flooring: Northern hard maple (Acer saccharum), kiln dried, random length, tongue and groove, and end matched.

1. Grade: MFMA-RL First .

a. Exception: For areas under stacked portion of telescoping bleachers that are normally concealed from view, provide Third and Better Grade.

2. Cut: Match existing.

3. Thickness: Match existing.
4. Face Width: 2-1/4 inches (57 mm).

2.5 SUBFLOOR MATERIALS

A. Existing to remain.

2.6 FINISHES

A. Floor-Finish System: System of compatible components recommended in writing by flooring manufacturer, and MFMA approved.

1. Floor-Sealer Formulation: Pliable, penetrating type. MFMA Group 1, Sealers.
2. Finish-Coat Formulation: Formulated for gloss finish indicated and multicoat application.

    a. Type: MFMA Group 3, Gymnasium-Type Surface Finishes.

3. Game-Line and Marker Paint: Industrial enamel compatible with finish coats and recommended in writing by manufacturers of finish coats, and paint for this use.
4. Verify products comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.7 ACCESSORIES

A. Resilient Wall Base: Patch and/or repair as required.

B. Thresholds: Existing to remain.

C. Fasteners: Type and size recommended by manufacturer, but not less than those recommended by MFMA for application indicated.

D. Trowelable Leveling and Patching Compound: Latex-modified, hydraulic-cement-based formulation approved by wood athletic flooring manufacturer.

E. Adhesives: Manufacturer's standard for application indicated.

1. Verify adhesive has a VOC content of 100 g/L or less.
2. Verify adhesive complies with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, installation tolerances, and other conditions affecting performance of the Work.

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

3.2 PREPARATION

A. During Product application and drying time, floor must be free of dust and dirt. For the first 4 hours, avoid air currents that carry dust and dirt. Temperatures of the floor, room and materials should be between 65 and 80 degrees Fahrenheit during treatment and curing. Allow adequate ventilation for proper curing. Seal, paint, and finish must be abraded with 120 – 150 grit screens if allowed to cure more than 24 hours between coats. Coarseness of abrasion is directly depended on the length of curing of the coating products between each application.

3.3 INSTALLATION

A. Comply with wood athletic flooring manufacturer's written instructions, but not less than written recommendations of MFMA applicable to flooring type indicated.

B. Pattern: Match existing.

C. Expansion Spaces: Provide as indicated, but not less than that required by manufacturer's written instructions and MFMA's written recommendations at walls and other obstructions, and at interruptions and terminations of flooring.

1. Cover expansion spaces with base molding, trim, and saddles, as indicated on Drawings.

D. Vapor Retarder: Cover entire slab area beneath wood flooring. Install with joints lapped a minimum of 6 inches (150 mm) and sealed.

E. Underlayment: Install perpendicular to direction of flooring, staggering end joints in adjacent rows.

F. Sleepers:

1. Existing sleepers to remain. Replace any damaged sleepers to match existing.
2. Space at existing spacing or recommended by manufacturer for system components indicated.
3. Shim and level sleepers and install anchors at spacing recommended by manufacturer, but not less than 30 inches (760 mm) o.c.

G. Channels: Anchor channels to substrate according to manufacturer's written instructions.

1. Install wood strip flooring across channels.
2. Insert steel clip at each intersection of a flooring strip with a channel.

H. Strip Flooring: Mechanically fasten perpendicular to supports.

I. Installation Tolerances: 1/8 inch in 10 feet (3 mm in 3 m) of variance from level.

3.4 SANDING AND FINISHING

A. SANDING: Floor shall be sanded after all other trades are finished. Sand and prepare floor using accepted MFMA industry association methods. Make final cut with 80-100 grit paper and MultiDisc with to 80-120 grit. Use a Tampico Brush on a buffer and vacuum thoroughly. Tack with a dry Bona Microfiber Mop or cloth to remove dust.

B. Stain system – After sanding and thoroughly cleaning floor with tack cloths or Bona Microfiber Mops, water pop floor, allow to dry thoroughly and apply stain prior to sealing floor system. Apply Bona DriFast Stain with brush, cut-in pad, cloth or carpet disc driven by a buffer in the direction of the grain at the coverage rate of 800 – 1000 square feet per gallon. Allow 1-3 minutes for penetration. Remove excess by hand wiping or buffing with an absorbent, non-abrasive material. Allow stain to dry thoroughly (minimum 2 hours for wood tones, 6 hours minimum for white and 12- 18 hours for Ebony, Spice Brown, Bark and Cocoa under ideal conditions of 60 – 80 degrees Fahrenheit and 35-75% relative humidity. High humidity and or low temperature conditions will extend dry time. While increased ventilation and airflow will reduce dry time. Apply sealer or finish system over thoroughly dried stain.

C. Sealing: After staining floor, apply Bona Sport Seal 275 at 600 – 700 sq ft. per gallon with heavy weight T-Bar. Avoid leaving puddles of excessive amounts of sealer. Allow to thoroughly dry with adequate ventilation (18 – 24 hours). High Humidity and or low temperatures will extend drying time. Increased ventilation and air flow will reduce dry time. Recommended conditions 65- 80 degrees Fahrenheit, 40 – 60% relative humidity. Abrade surface thoroughly with Bona Conditioning pads or use 120 grit screens, apply a second coat of Bona Sport Seal 275 at 600 – 700 SQ ft per gallon, abrade surface thoroughly with a Bona Conditioning Pad or use 120 grit screens before finishing. Vacuum thoroughly and tack with water.

D. Game Lines and Markers:: Apply game lines over the first coat of sport Bona Sport Seal 275. Apply game lines using Bona Courtlines sport floor paint. If using another manufactures paint, before applying game lines prepare a sample or test area to determine compatibility and adhesion. Before applying game lines, abrade with 120 grit screens and vacuum and tack thoroughly. Note: if paint will not be applied for 24 hours or longer, floor must be re-abraded to ensure proper adhesion. Tape game lines in accordance with MFMA specifications. Stir paint thoroughly, do not thin. Apply evenly with the grain of the wood, using a brush or ¼" nap roller. Apply a thin coat of paint at a rate of 500 – 600 sqft/gallon. More than one coat of paint may be needed. Apply second coat once first coat is dry to the touch (1-4 hours). . After applying game lines using Court lines paint, once per day, abrade entire floor with Bona Conditioning pads or used 120 –or 150 grit screens. Always vacuum and tack thoroughly after abrading. Apply finish coats within 24 hours. Apply game lines and markers in widths and

colors according to **requirements indicated on Drawings**. Apply finish coats after game line and marker paint is fully cured.

E. Finish: - Apply 2 coats of Bona Sport Poly 275 with a heavy weight T-bar applicator. Go with the grain of the wood applying a thin, uniform coat. Be sure you are using the recommended coverage of 600 sf/gallon. Avoid leaving puddles of excessive amounts of finish on the floor. Allow first coat to dry thoroughly (approximately 18-24 hours. High Humidity and or low temperature conditions will extend dry time while increased ventilation and airflow will reduce dry time (recommended conditions 65-80 degrees farenheight / 40-60% relative humidity. For proper adhesion, abrade between coats of finish. Allow final coat to dry a minimum of 72 hours before use.

F. CURING – The curing process takes approximately 14 days. The floor may be walked on after 24 hours, but the floor is susceptible to scuffing or marring prior to completion of the curing time. Do not replace athletic or walk-off mats until finish is fully cured. Do not clean with water or detergent during curing process.

3.5 PROTECTION

A. Protect wood athletic flooring during remainder of construction period to allow finish to cure and to ensure that flooring and finish are without damage or deterioration at time of Substantial Completion.

1. Do not cover flooring after finishing until finish reaches full cure and not before seven days after applying last finish coat.
2. Do not move heavy and sharp objects directly over flooring. Protect fully cured floor finishes and surfaces with plywood or hardboard panels to prevent damage from storing or moving objects over flooring.

END OF SECTION 096466

SECTION 096516 - RESILIENT SHEET FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Rubber sheet flooring.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Sustainable Design Submittals:

   1. Laboratory Test Reports: For floor covering products, indicating compliance with requirements for low-emitting materials.
   2. Product Data: For adhesives, indicating VOC content.
   3. Laboratory Test Reports: For adhesives, indicating compliance with requirements for low-emitting materials.
   4. Product Data: For chemical-bonding compounds, indicating VOC content.
   5. Laboratory Test Reports: For chemical-bonding compounds, indicating compliance with requirements for low-emitting materials.
   6. Product Data: For sealants, indicating VOC content.
   7. Laboratory Test Reports: For sealants, indicating compliance with requirements for low-emitting materials.
   8. Environmental Product Declaration: For each product.

C. Shop Drawings: For each type of resilient sheet flooring.

   1. Include sheet flooring layouts, locations of seams, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.
   2. Show details of special patterns.

D. Samples: For each exposed product and for each color, texture, and pattern specified, in manufacturer's standard size, but not less than 6-by-9-inch (150-by-230-mm) sections.

   1. For heat-welding bead, manufacturer's standard-size Samples, but not less than 9 inches (230 mm) long, of each color required.

E. Samples for Initial Selection: For each type of resilient sheet flooring indicated.

F. Samples for Verification: For each type of resilient sheet flooring, in manufacturer's standard size, but not less than 6-by-9-inch (150-by-230-mm) sections of each color, texture, and pattern required.

1. For heat-welding bead, manufacturer's standard-size Samples, but not less than 9 inches (230 mm) long, of each color required.

G. Welded-Seam Samples: For seamless-installation technique indicated and for each resilient sheet flooring product, color, and pattern required; with seam running lengthwise and in center of 6-by-9-inch (150-by-230-mm) Sample applied to a rigid backing and prepared by Installer for this Project.

H. Product Schedule: For resilient sheet flooring. Use same designations indicated on Drawings.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of resilient sheet flooring to include in maintenance manuals.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Resilient Sheet Flooring: Furnish not less than 10 linear feet (3 linear m) for every 500 linear feet (150 linear m) or fraction thereof, in roll form and in full roll width for each type, color, and pattern of flooring installed.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are competent in techniques required by manufacturer for resilient sheet flooring installation and seaming method indicated.

1. Engage an installer who employs workers for this Project who are trained or certified by resilient sheet flooring manufacturer for installation techniques required.

B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.

1. Coordinate mockups in this Section with mockups specified in other Sections.

a. Size: Minimum 10 sq. ft. (9.3 sq. m) for each type, color, and pattern in locations directed by Architect.

2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store resilient sheet flooring and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C). Store rolls upright.

1.8 FIELD CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 85 deg F (29 deg C), in spaces to receive resilient sheet flooring during the following periods:

1. 48 hours before installation.
2. During installation.
3. 48 hours after installation.

B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).

C. Close spaces to traffic during resilient sheet flooring installation.

D. Close spaces to traffic for 48 hours after resilient sheet flooring installation.

E. Install resilient sheet flooring after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For resilient sheet flooring, as determined by testing identical products according to ASTM E648 or NFPA 253 by a qualified testing agency.

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

B. Flooring products shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." Formaldehyde emissions shall not exceed 16.5 mcg/cu. m or 13.5 ppb, whichever is less.

2.2 RUBBER SHEET FLOORING

A. Manufacturers: Subject to compliance with requirements, provide one of the following products:

1. Flexco – IMO rubber sheet flooring
2. Nora - Environcare, sentica, valua, or lona
3. Expanko Resilient Flooring – Sereniti Rubber Flooring
4. American-Biltrite – AB Pure Sheet

B. Product Standard: ASTM F1859.

1. Type: Type I, homogeneous rubber sheet floor covering.
2. Thickness: not less than 0.080 inches (2 mm).
3. Hardness: Not less than required by ASTM F1859.

C. Wearing Surface: As selected from manufacturer's full range by architect.

D. Sheet Width: As standard with manufacturer.

E. Seamless-Installation Method: Heat welded or Chemically bonded.

F. Colors and Patterns: As selected from manufacturer's full range by architect.

2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by resilient sheet flooring manufacturer for applications indicated.

B. Adhesives: Water-resistant type recommended by flooring and adhesive manufacturers to suit resilient sheet flooring and substrate conditions indicated.

1. Adhesives shall have a VOC content of 50 g/L or less.
2. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." Formaldehyde emissions shall not exceed 9 mcg/cu. m or 7 ppb, whichever is less.

C. Seamless-Installation Accessories:

1. Heat-Welding Bead: Manufacturer's solid-strand product for heat welding seams.

a. Colors: Match flooring.

D. Integral-Flash-Cove-Base Accessories:

1. Cove Strip: 1-inch (25-mm) radius provided or approved by resilient sheet flooring manufacturer.
2. Cap Strip: Square metal or rubber cap provided or approved by resilient sheet flooring manufacturer.
3. Corners: Metal inside and outside corners and end stops provided or approved by resilient sheet flooring manufacturer.

E. Floor Polish: Provide protective, liquid floor-polish products recommended by resilient sheet flooring manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

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 resilient sheet flooring.

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

3.2 PREPARATION

A. Prepare substrates according to resilient sheet flooring manufacturer's written instructions to ensure adhesion of resilient sheet flooring.

B. Concrete Substrates: Prepare according to ASTM F710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by resilient sheet flooring manufacturer. Do not use solvents.
3. Alkalinity and Adhesion Testing: Perform tests recommended by resilient sheet flooring manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH.
4. Moisture Testing: Perform tests so that each test area does not exceed 1000 sq. ft. (304.8 sq. m), and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.

a. Anhydrous Calcium Chloride Test: ASTM F1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m) in 24 hours.

b. Relative Humidity Test: Using in-situ probes, ASTM F2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.

C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.

D. Do not install resilient sheet flooring until materials are the same temperature as space where they are to be installed.

1. At least 48 hours in advance of installation, move flooring and installation materials into spaces where they will be installed.

E. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient sheet flooring.

3.3 RESILIENT SHEET FLOORING INSTALLATION

A. Comply with manufacturer's written instructions for installing resilient sheet flooring.

B. Unroll resilient sheet flooring and allow it to stabilize before cutting and fitting.

C. Lay out resilient sheet flooring as follows:

1. Maintain uniformity of flooring direction.
2. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches (152 mm) away from parallel joints in flooring substrates.
3. Match edges of flooring for color shading at seams.
4. Avoid cross seams.

D. Scribe and cut resilient sheet flooring to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.

E. Extend resilient sheet flooring into toe spaces, door reveals, closets, and similar openings.

F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on resilient sheet flooring as marked on substrates. Use chalk or other nonpermanent marking device.

G. Install resilient sheet flooring on covers for telephone and electrical ducts and similar items in installation areas. Maintain overall continuity of color and pattern between pieces of flooring installed on covers and adjoining flooring. Tightly adhere flooring edges to substrates that abut covers and to cover perimeters.

H. Adhere resilient sheet flooring to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

I. Seamless Installation:

1. Heat-Welded Seams: Comply with ASTM F1516. Rout joints and heat weld with welding bead to fuse sections permanently into a seamless flooring installation. Prepare, weld, and finish seams to produce surfaces flush with adjoining flooring surfaces.

J. Integral-Flash-Cove Base: Cove resilient sheet flooring to dimension indicated up vertical surfaces. Support flooring at horizontal and vertical junction with cove strip. Butt at top against cap strip.

1. Install metal corners at inside and outside corners.

3.4 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protecting resilient sheet flooring.

B. Perform the following operations immediately after completing resilient sheet flooring installation:

1. Remove adhesive and other blemishes from surfaces.
2. Sweep and vacuum surfaces thoroughly.
3. Damp-mop surfaces to remove marks and soil.

C. Protect resilient sheet flooring from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.

D. Cover resilient sheet flooring until Substantial Completion.

END OF SECTION 096516

SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes surface preparation and the application of paint systems on interior substrates.

1. Cement board.
2. Concrete masonry units (CMUs).
3. Steel and iron.
4. Wood.
5. Gypsum board.
6. Plaster.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

1. Include Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

B. Sustainable Design Submittals:

1. Product Data: For paints and coatings, indicating VOC content.
2. Laboratory Test Reports: For paints and coatings, indicating compliance with requirements for low-emitting materials.

C. Samples: For each type of paint system and in each color and gloss of topcoat.

1.3 QUALITY ASSURANCE

A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Architect will select one surface to represent surfaces and conditions for application of each paint system.

a. Vertical and Horizontal Surfaces: Provide samples of at least 1 sq. ft. (9 sq. m).
b. Other Items: Architect will designate items or areas required.

2. Final approval of color selections will be based on mockups.

a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Sherwin-Williams Company (The).

B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in the Interior Painting Schedule for the paint category indicated.

2.2 PAINT, GENERAL

A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."

B. Material Compatibility:

1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

C. Emissions Requirements: Verify field-applied paints and coatings that are inside the weatherproofing system comply with one of the following:

1. Low-Emitting Materials: Verify VOC emissions comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
2. Verify VOC content does not exceed limits of authorities having jurisdiction and the following:

a. Flat Coatings: 50 g/L.
b. Nonflat Coatings: 100 g/L.
c. Primers, Sealers, and Undercoats: 100 g/L.
d. Floor Coatings: 100 g/L.
e. Shellacs, Clear: 730 g/L.
f. Shellacs, Pigmented: 550 g/L.
g. Stains: 250 g/L.
h. Clear Wood Finishes (Varnishes, Sanding Sealers, and Lacquers): 275 g/L.

D. Colors: Match Existing. Existing colors: White, Pantone 289 (Navy), Pantone 188 (Burgundy), and Pantone 427 (Gray). Verify existing colors.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

1. Concrete: 12 percent.
2. Fiber-Cement Board: 12 percent.
3. Masonry (Clay and CMUs): 12 percent.
4. Wood: 15 percent.
5. Gypsum Board: 12 percent.
6. Plaster: 12 percent.

C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

D. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."

B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 INTERIOR PAINTING SCHEDULE

A. Cement Board Substrates:

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

B. CMU Substrates:

1. Institutional Low-Odor/VOC Latex System:

a. Block Filler: Block filler, latex, interior/exterior.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

C. Steel Substrates:

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer, rust inhibitive, water based MPI #107.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

D. Galvanized-Metal Substrates:

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer, galvanized, water based, MPI #134.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

E. Wood Substrates

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Primer, latex, for interior wood, MPI #39.

b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

c. Topcoat: Latex, interior, institutional low odor/VOC, Match Existing Gloss Level.

END OF SECTION 099123

SECTION 123661.16 - SOLID SURFACING COUNTERTOPS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Solid surface material countertops.
2. Solid surface material backsplashes.
3. Solid surface material end splashes.

B. Related Requirements:

1.2 ACTION SUBMITTALS

A. Product Data: For countertop materials.

B. Sustainable Design Submittals:

1. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
2. Product Data: For adhesives, indicating VOC content.
3. Laboratory Test Reports: For adhesives, indicating compliance with requirements for low-emitting materials.
4. Product Data: For composite wood products, indicating compliance with requirements for formaldehyde emissions.

C. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures.

1. Show locations and details of joints.
2. Show direction of directional pattern, if any.

D. Samples for Initial Selection: For each type of material exposed to view.

E. Samples for Verification: For the following products:

1. Countertop material, 6 inches (150 mm) square.
2. Wood trim, 8 inches (200 mm) long.
3. One full-size solid surface material countertop, with front edge and backsplash, 8 by 10 inches (200 by 250 mm), of construction and in configuration specified.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For fabricator.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For solid surface material countertops to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

1.5 QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops similar to that required for this Project, and whose products have a record of successful in-service performance.

B. Installer Qualifications: Fabricator of countertops.

C. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for fabrication and execution.

1. Build mockup of typical countertop as shown on Drawings.
2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 FIELD CONDITIONS

A. Field Measurements: Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete.

1.7 COORDINATION

A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

PART 2 - PRODUCTS

2.1 SOLID SURFACE COUNTERTOP MATERIALS

A. Solid Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

a. Corian.
b. Meganite Inc.
c. Formica.

2. Type: Provide Standard type unless Special Purpose type is indicated.

3. Colors and Patterns: As selected by Architect from manufacturer's full range.

4. Certified Wood: Wood products shall be labeled according to the AF&PA's Sustainable Forestry Initiative, be certified as "FSC Pure" according to FSC STD-01-001 and FSC STD-40-004, or be certified and labeled according to the standards of the Programme for Endorsement of Forest Certification.

5. Minimum 6% recycled content in accordance with ISO Standard 14021 or SCS Recycled Content Standard V7-0.

B. Composite Wood Products: Formaldehyde emission rates shall not be greater than the following when tested according to ASTM D 6007 or ASTM E 1333:

1. Hardwood Plywood: 0.05 ppm.
2. Particleboard: 0.09 ppm.
3. MDF More Than 5/16 Inch (8 mm) Thick: 0.11 ppm.
4. MDF 5/16 Inch (8 mm) or Less in Thickness: 0.13 ppm.

C. Particleboard: ANSI A208.1, Grade M-2.

D. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.

2.2 COUNTERTOP FABRICATION

A. Fabricate countertops according to solid surface material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."

1. Grade: Custom.

B. Configuration:

1. Front: Straight, slightly eased at top.
2. Backsplash: Straight, slightly eased at corner.
3. End Splash: Matching backsplash.

C. Countertops: Minimum 1/4-inch thick, solid surface material laminated to 3/4-inch -) thick particleboard with exposed edges built up with solid surface material.

D. Backsplashes: 3/4-inchthick, solid surface material.

E. Joints: Fabricate countertops in sections for joining in field.

1. Joint Locations: Not where a countertop section less than 36 inches (900 mm) long would result, unless unavoidable. If possible, keep joints located over cabinets.
2. Splined Joints: Accurately cut kerfs in edges at joints for insertion of metal splines to maintain alignment of surfaces at joints. Make width of cuts slightly more than thickness of splines to provide snug fit.

F. Cutouts and Holes:

1. Drill holes for electric wires above electrical outlets or where indicated on drawings.

    a. Provide vertical edges, slightly eased at juncture of cutout edges.

2.3 INSTALLATION MATERIALS

A. Adhesive: Product recommended by solid surface material manufacturer.

1. Adhesives shall have a VOC content of 70 g/L or less.
2. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." Formaldehyde emissions shall not exceed 9 mcg/cu. m or 7 ppb, whichever is less.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates to receive solid surface material countertops and conditions under which countertops will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.

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

3.2 INSTALLATION

A. Install countertops level to a tolerance of 1/8 inch in 8 feet (3 mm in 2.4 m), 1/4 inch (6 mm) maximum. Do not exceed 1/64-inch (0.4-mm) difference between planes of adjacent units.

B. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

C. Fasten subtops to existing steel posts by screwing through existing screw holes in existing steel angles into subtops. Verify condition of existing steel posts and angles for adequate support. Shim as needed to align subtops in a level plane.

D. Secure countertops to subtops with adhesive according to solid surface material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

E. Bond joints with adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to joints to prevent adhesive smears.

1. Install metal splines in kerfs in countertop edges at joints. Fill kerfs with adhesive before inserting splines and remove excess immediately after adjoining units are drawn into position.
2. Clamp units to temporary bracing, supports, or each other to ensure that countertops are properly aligned and joints are of specified width.

F. Install backsplashes and end splashes by adhering to vertical surfaces and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.

G. Install aprons to backing and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears. Fasten by screwing through backing. Predrill holes for screws as recommended by manufacturer.

H. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.

END OF SECTION 123661.16

SECTION 126613 – TELESCOPIC SEATING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: Telescopic Gym Seating includes **electrically operated** multiple-tiered seating rows comprising of seat, deck components, understructure that permits closing without requiring dismantling, into a nested configuration for storing or for moving purposes.

Wall-attached telescoping stands

1.2 REFERENCES

A. Aluminum Association (AA):

ADM 1- Aluminum Design Manual

B. American Institute of Steel Construction (AISC):

AISC 360- Steel Construction Manual.

C. American Iron & Steel Institute (AISI):

AISI S100 – Design of Cold Formed Steel Structural Members.

D. American Society for Testing Materials (ASTM):

ASTM - Standard Specifications for Properties of Materials.

E. American Wood Council (AWC):

ANSI/AWC NDS (National Design Specification for Wood Construction).

F. American Welding Society (AWS):

AWS D1.1 Structural Welding Code – Steel
AWS D1.3 Structural Welding Code - Sheet Steel

G. Canadian Welding Bureau: CWB Division 3 W47.1

H. U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.

I. National Institute of Standards and Technology (NIST)

PS 1: Structural Plywood.

J. Southern Pine Inspection Bureau (SPIB):

SPIB: Standard Grading Rules for Southern Pine.

1.3 PERFORMANCE REQUIREMENTS

A. Structural Performance: Engineer, fabricate and install telescopic gym seating systems to the following structural loads without exceeding allowable design working stresses of materials involved, including anchors and connections. Apply each load to produce maximum stress in each respective component of each telescoping stand unit according to ICC 300

B. Manufacturer's System Design Criteria:

Gymnasium seat assembly; Design to support and resist, in addition to its own weight, the following forces:

a.) Live load of 120 lbs. per linear foot (1.75 kN/m) on seats and decking

b.) Uniformly distributed live load of not less than 100 psf (4.79 kN/m^2) of gross horizontal projection.

c.) Parallel sway load of 24 lbs. per linear foot (0.35 kN/m) of row combined with (b.) above

d.) Perpendicular sway load of 10 lbs. per linear foot (0.15 kN/m) of row combined with uniformly distributed live load above.

e.) Parallel and Perpendicular sway loads are not applied concurrently.

Hand Railings, Posts and Supports: Engineered to withstand the following forces applied separately:

f.) Concentrated load of 200 lbs. (0.89 kN) applied at any point and in any direction.

g.) Uniform load of 50 lbs. per foot (0.73 kN/m) applied in any direction.

Guard Railings, Post and Supports: Engineered to withstand the following forces applied separately:

h.) Concentrated load of 200 lbs. (0.89 kN) applied at any point and in any direction along top rail.

i.) Uniform load of 50 lbs. per foot (0.73 kN/m) applied in any direction at top rail

j.) Uniform load of 50 lbs. (0.22 kN) applied on an area equal to 1 ft^2 (0.09 m^2) applied on all guardrail infill panels.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Environmental Data Package: Provide project specific environmental data work sheet with project header and LEED calculations completed based on actual project weight and project price. Environmental Data Package required to be submitted with formal submittal package prior to project award.

Regional Manufacturing:

a.) Provide manufacturing location and distance to project site by product material type as required. Use straight-line travel as defined by USGBC.

Recycled Content:

b.) Provide Packaging Material Listing & Recycled Content by Material Type; total percentage of recycled content, total percentage of pre consumer and post consumer materials.

c.) Provide Product Material Listing & Recycled Content by Material Type; total percentage of recycled content, total percentage of pre consumer and post consumer materials.

Indoor Environmental Quality:

d.) Provide documentation that the specified product passes ANSI/BIFMA X7.1-2007 Standard for Formaldehyde and TVOC Emissions of Low-emitting Office Furniture Systems and Seating

e.) Provide documentation that the specified product solid core ply-form or engineered fiber panels are manufactured with resins that are free of added urea-formaldehyde.

Product Life Cycle Deconstruction & Reclaiming Opportunity:

f.) Provide listing of product materials that can be recycled at the end of the product life cycle and re-enter the recycled or reuse material stream.

C. Shop Drawings: For telescoping stands in both stacked and extended positions. Show seat heights, row spacing and rise, aisle widths and locations, assembly dimensions, anchorage to supporting structure, material types and finishes. show all equipment to be furnished with details of accessories to be supplied including necessary electrical service to be provided by others. All electrical submittals must include U.L. listing number.

Electrical: Indicate power supply requirements.

Graphics Layout Drawings: Indicate pattern of contrasting or matching seat colors.

D. Samples: For units with factory-applied finishes.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified manufacturer and installer.

B. Welding certificates.

C. Product Test Reports: Load test to all loads, observed by a qualified independent testing laboratory, and certified by a registered professional structural engineer verifying the integrity of the manufacturer's design.

D. Warranty: Manufacturers standard warranty documents.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For telescopic bleacher to include video operations manual.

B. Full text of manufacturer’s Warranty.

1.7 QUALITY ASSURANCE

A. Manufacturer's Qualifications: A minimum of 25 years of experience manufacturing telescoping stands and can demonstrate continual design enhancement and 25-year minimum product life-cycle support of telescopic seating.

B. Installer Qualifications: Factory certification by the manufacturer.

Project list: Ten projects of similar size, complexity and in service for at least five years.

C. Welding Qualifications: Qualify procedures and personnel according to AWS D1.3, "Structural Welding Code - Sheet Steel."

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

E. Seating Layout: Provide telescoping stands to comply with ICC 300 2017 Standard for Bleachers, Folding and Telescopic Seating, and Grandstands, except where additional requirements are indicated or imposed by authorities having jurisdiction.

1.8 DELIVERY, STORAGE AND HANDLING

A. Deliver telescoping stands in manufacturers packaging clearly labeled with manufacturer name and content.

B. Handle bleacher equipment in a manner to prevent damage.

C. Deliver the telescoping stands at a scheduled time for installation that will not interfere with other trades operating in the building when at all possible.

1.9 PROJECT CONDITIONS

A. Field Measurements: Coordinate actual dimensions of construction affecting telescoping stands installation by accurate field measurements before fabrication. Show recorded measurements on final shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid delay of Work.

1.10 WARRANTY

A. Manufacturer's Warranty: Includes the repair or replacement of the defective product; or defective component thereof, with a comparable product; or component thereof, or a refund of the purchase price prorated over the warranty period.

Includes: Labor, materials, and freight for replacement or repairs.

Structural Component parts of Understructure Warranty Period: 10 years **from Date of Acceptance**

Decking systems, seating collections, electrical, portable and integral dolly systems, end closure curtains, surface material finishes Warranty Period 5 years **from Date of Acceptance.**

PART 2 PRODUCTS

A. Wood:

Lumber: NIST PS 20, southern pine complying with SPIB's "Standard Grading Rules for Southern Pine Lumber" for B&B Finish (B and better) grade-of-finish requirements.

Plywood: NIST PS 1, APA-grade trademarked, A-C grade.

B. Steel:

Structural-Steel Shapes, Plates, and Bars: ASTM A36.

Galvanized-Steel Sheet: ASTM A653, coating designation G60.

Uncoated Steel Strip; Non-Structural Components: ASTM A1011, Commercial Quality, Type B, Hot-Rolled Strip.

Uncoated Steel Strip; Structural Components: ASTM A1011 Grade 33 (228 MPa), Grade 36 (249 MPa), Grade 40 (276 MPa), Grade 45 (311 MPa), or Grade 50 (345 MPa), Structural Quality, Hot-Rolled.

Galvanized Steel Strip: ASTM A653 Grade 40 (276 MPa), structural quality, coating designation G60.

Tubing: ASTM A500, cold formed; Grade B.

C. Polyethylene Plastic: High-density polyethylene; injection molded, color-pigmented, textured, impact-resistant, and dimensionally stable.

2.2 MANUFACTURERS

A. Manufacturer: Hussey Seating Company, U.S.A.

Address: North Berwick, Maine, 03906.
Telephone: (207) 676-2271; Fax: (207) 676-9690.
Product: MAXAM Telescopic Gym Seat System.

B. Manufacturer: Irwin Seating Company – Telescopic Division

Address: Altamont, IL 62411
Telephone: (618) 483-6157
Product: VersaTract Telescopic Seating System.

C. Substitutions: **Permitted, must be bid AS SPECIFIED**

2.3 TELESCOPING STANDS

A. **Wall-Attached Telescoping Stands:** Forward-folding system with the rear of the understructure permanently attached to the floor and to the rear wall. Rear wall provides structural support and must support loads imposed by the bleacher.

2.4 DIMENSIONAL AND OPERATIONAL CRITERIA

A. Dimensions: BANK "A"

Bank Length: 114'-0" (Including End Rails)
Aisle Width: 54"
Number of Tiers: 20
Row Spacing: 26 inches
Row Rise: 9-5/8 inches
Open Dimension: 44'-0" maximum
Closed Dimension: 4'-0" maximum
Overall Unit Height: 16'-7"
Net Capacity: 1212
Maximum Net Capacity; with Flex Row Fully Recovered: 1,084

B. Dimensions: BANK "B"

Bank Length: 96'-0" (Including End Rails)
Aisle Width: 54"
Number of Tiers: 15
Row Spacing: 33" Rows 1-11 / 26" Rows 12-15
Row Rise: 9-5/8 inches to 10 inches
Open Dimension: 39'-0" maximum
Closed Dimension: 4'-9" maximum

Overall Unit Height: 12'-7" to 13'-1"
Net Capacity: 474 Folding Chairs / 194 10" Bench Seat Modules
Maximum Net Capacity; with Flex Row Fully Recovered: 668
Include 4'x16' video platform on this bank

C. Operation: **Integral Power**

All integral powered options operate the entire bank.

Integral Power: Wireless control unit

a.) Limit Switches: Automatically stop integral power system when telescoping stands reach fully opened or closed positions.

b.) Motion Monitor: Flashing light with self-contained warning horn, rated at 85 dB, activates when stands are in motion.

Portable power-assist: User operates system by opening/closing each section using a portable power-assist tractor: 115 volt, 20amps.

Manual: User operates system by manually pulling/pushing each section with operating handles

2.5 SEATING

A. Fold Down Chairs: Rows 1-11 on Bank B

1. Fold-Down Chairs: Rotating from upright, locked position to folded-down position that allows supporting platform to telescope for storage. With chairs in the upright position, seat bottoms are self-returning to allow passage of persons within row.

Operation: Folding Mechanism

Chair width with armrests: 21 inches
Armrest height: 25 ¼ inches
Module Load: Tested to 600 lbs. (2.67 kN).
Seats: Polyethylene plastic

a.) Color: **As selected by Architect from manufacturers standard colors**

b.) Seat up envelope: **14 13/16 inches (376mm) with arm rest and 18 9/16 inches (471mm) with cupholder**

c.) Seat down envelope: **22 1/16 inches (561mm) Polymer**

Backs: Polyethylene plastic

d.) Color: **As selected by Architect from manufacturers standard colors**
Armrests: Polyethylene plastic

e.) Color: **As selected by Architect from manufacturers standard colors**

2. Auto-Fold: Chairs shall be ganged in group(s) of one to fourteen, manually raised as one unit with gas strut assist to offset weight. Auto-Fold operation will allow seating rows 2 and above to be unlocked and lowered via mechanism below the deck surface. This mechanism is activated during the closure of the bleacher. Row 1 will have Lift-Assist operation requiring the unlocking of chair gangs with the ergonomic t-handle tool at aisle location.

3. Chair System: Beam-mounted design, consisting of chairs independently mounted and armrests independently mounted to transverse beam. Top of support arms shall be designed to capture and secure the beam in place. Support arms articulate from manual assist or semi-automatic operating mechanism.

4. Seat Support:

   a.) Each of the independent seat hinges shall be fitted with up and down stops as well as double acting; self-centering, preloaded coiled seat return springs with silencers.

   b.) Chairs must be designed with two independent return springs which position seat pan in 3/4 fold position with 100 percent (100%) fold position available for added aisle passage. Seat action shall be dampened for a constant velocity return and no final oscillations to the rest position.

   c.) Hinges, seat support, return springs, and stops shall be enveloped and concealed by the seat and back shells. Seat shall have the ability to achieve a full fold position when rearward pressure is applied. Superior comfort shall be derived through careful ergonomic engineering.

5. Polymer Seats / Backs: (seats and backs)

   a.) Shall each be textured one-piece gas-assist injection molded pigmented polypropylene shells.

   b.) Shall be internal structured with peripheral gas channels. The gas channels shall support, resist, and transmit design loads to the aluminum in the plastic chair beam.

   c.) Back must extend below seat to afford chair occupant protection from rear and eliminate any pinching hazard.

   d.) Backs should be rigidly attached to the chair beam and show no evidence of articulation.

6. Armrests and armrests with cupholders: Shall be of injection-molded, leather textured polypropylene secured to polypropylene armrest base with concealed fasteners. Armrest standard to be of powder-coated cast aluminum grade AA 380 and independently secured to mounting beam.

7. Chair Beam: Shall be constructed of extruded aluminum with polymer end caps and serve as the focal attachment and shall in turn transmit all forces to the beam support.

8. Beam support: Shall be cast steel support arms. Closed seam steel tube standards are unacceptable. Top of support arms shall be designed to capture and secure the beam in place. Support arms articulate from manual assist or semi-automatic operating mechanism.

B. Polymer Bench Seat System: Bank A and Rows 12-15 on Bank B

Material: Gas assist injection-molded, 100 percent recyclable HDPE, high density polyethylene.
Module Size: 18 inches long by 10 inches deep.

Module Load: Tested to 600 lbs. (2.67 kN).

Seat height range from deck to top of seat: 16-1/8 inches (410 mm) to 18-1/4 inches (464 mm).

Integrally molded end caps at aisle end locations.

Integrally molded recess pockets to accept seat number and row letters.

Integrally molded rear closure panel at back of seat to allow for "continuous clean sweep" of debris at deck level and minimized visibility of structural ribbing.

Color: As selected by Architect from manufacturers standard colors**.**

C. ADA Accessible Seating:

Locate first tier modular units **to provide wheelchair-accessible seating at locations indicated on Drawings.**

A. "Rolling" Chairs on first row to provide ADA and Companion Seating.

2.6 VIDEO PLATFORM

A. Supply one 4'x16' video platform permanently or semi-permanently attached to the telescopic stand. The video platform shall be modular in design and constructed of 4'x4' sections, each with a system allowing adjacent sections to be securely connected, including all necessary support braces. Deck material to be a minimum of 3/4" plywood core to provide maximum support in a concentrated area and to minimize vibration. Decking surface to match the rest of the bleacher system deck.

B. Guardrails along the front side of each video platform section shall not be less than 47" wide and 36" high. Guardrails at the ends of the video platform shall not be less than 23" wide and 36" high. All railings to be constructed from 1 1/2" aluminum tubing with clear anodized finish, including a 4" toe extruded toe board eliminating the possibility of any items being kicked off the platform and endangering spectators seated below. The design of each guardrail must comply with IBC/ICC codes.

2.7 RAILS, PANELS AND STEPS

A. End Rails:

Self-storing

a.) Provide steel self-storing starting no higher than tier 2 42 inches (1066mm) high above seat, end rail with tubular supports and intermediate members designed with 4 inch (102mm) sphere passage requirements.

Material and Finish: Semi-gloss powder coated steel.

Color: TBD

B. Center Aisle Rails:

Auto-Rotating

a.) Provide single pedestal mount handrails 34 inches (864mm) high with terminating mid rail. Permanently attached handrail shall rotate in a permanently mounted socket for rail storage. Rail shall automatically rotate, lock in the use position, unlock and rotate back to the stowed position as the gym seats open and close. Ends of the handrail shall return to the post, and not extend away from it. Rails having openings to avoid

interference with closed decks are not acceptable. Rails requiring manual operation or rotation to store WILL NOT be considered equal.

Material and Finish: Semi-gloss powder coated steel.
Color: TBD

C. Skirt Panel: On 1st Row, provide galvanized steel front skirt panel to prevent players/objects from sliding underneath the first row.

D. Steps

Flip-up Front Aisle Step**: Permanently hinged to the front row to ensure availability and ease of operation. Two 3" diameter x ¾" wide non-marking front wheels are provided so that the system can be operated with the Sure-Step in the stored or deployed position. All edges coined, hemmed or radiused with front edge protective rubber bumpers. Abrasive-backed non-slip tread identifier on leading edge of nosing. For aisle widths greater than 6'-0", two side by side hinged steps are provided. Steps requiring manual removal for storage WILL NOT be considered equal.**

2.8 COMPONENTS

A. Decking

Plywood

a.) 5/8 inch (16 mm) thick AC grade tongue and groove with clear urethane, high gloss finish. Decking system with lower grade plywood and any type of Polyethylene coating WILL NOT be considered equal.

B. Understructure:

Finish: Rust-inhibiting black finish.

Hardware finish: Zinc-plated, Rust inhibiting black finish.

Locks and other surfaces: Powder coated black, Rust inhibiting black finish.

Nose beam and Rear Riser beam: Nose beam shall be continuously roll-formed closed tubular shape of ASTM A653 grade 40 (276 MPa). Riser beam shall be continuously roll-formed of ASTM A653 grade 40 (276 MPa). Nose and Riser beam shall be designed with no steel edges exposed to spectator after product assembly. Nose beam and riser beams are through-bolted fore/aft to deck stabilizers and frame cantilevers to create the deck structure.

Frame: The frames are welded assemblies (one left hand, one right hand per tier) comprised of the following components:

a.) Lower Track subassembly: ASTM A1011 Grade 50: Continuous Positive Interglide System (casterhorn) interlocks each adjacent frame casterhorn using an integral, continuous, anti-drift feature and captive interlock with adjustable row spacing at front to prevent separation and misalignment.

b.) Lower Track Wheels: 3 per frame Not less than 5 inches (127 mm) diameter by 1-1/4 inches (32 mm) with non-marring soft rubber face to protect wood and synthetic floor surfaces, with molded-in sintered iron oil-impregnated bushings to fit 3/8 inch (10 mm) diameter axles secured with E-type snap rings. Systems with wheels smaller than 5 inches WILL NOT be considered equal.

1.) Option: up to 6 wheels per frame for load distribution

c.) Slant Columns: A500 Grade B, tubular shape.

d.) Cantilever Subassembly: Consists of ASTM A1011 Grade 50 nose connection plate, cantilever, and riser attachment plate welded together into a subassembly.

Lock system: Casterhorns at the end sections of powered banks (minimally), and manual sections, contain a Low Profile Lock to lock each row in open position and allow unlocking automatically. Provide adjustable stops to allow field adjustment of row spacings.

Sway Bracing: ASTM A653 grade 40 (276 MPa), tension members bolted to columns.

Deck Stabilizer: A1011 Grade 45, member through-bolted to nose and riser at three locations per section. Securely captures front and rear edge of decking at rear edge of nose beam and lower edge of riser beam for entire length of section. Interlocks with adjacent stabilizer on upper tier using low-friction nylon roller to prevent separation and misalignment.

C. Fasteners: Vibration proof, in manufacturer's standard size and material.

2.9 ELECTRICAL OPERATION SYSTEMS

A. Integral Power

Default operation shall be with a removable pendant control unit which plugs into seating bank for tethered operator management of stop, start, forward, and reverse control of the power operation. Other modes of operation are optional.

B. Furnish and install an integral automatic electro mechanical powered frame propulsion system, to open and close telescopic seating.

Electrical - Seating Manufacturer shall provide all wiring within seating bank, including pendant control. Motors, housing, and wiring shall be installed and grounded in complete accord with the National Electrical Code. The electrical contractor shall perform all connections at and upstream of the equipment specified herein and ensure that supplied voltage drops no more than 4% below nominal where power connects thereto.

Each unit for powered frame is driven by a motor integrated into the first moving row of understructure to achieve smooth and efficient operation with the following specifications

a.) 208V 3 Phase:

1.) This 1.25 Service Factor motor runs on 208V at 60 Hz and draws a full load current of 1.8 amperes. The required power supply shall be 3 asynchronous phases of 120 Volts each, plus neutral plus ground, each with 20 Amp capacity.

2.) This system shall be UL Listed in its entirety (motors, circuit protection, motor controls, user interface, enclosures, conductors and connectors all evaluated and approved for correct sizing and compatibility under maximum rated load on the motors) under UL Product Category FHJU, titled Electrical Drive and Controls for Folding and Telescopic Seating.

b.) Each pair of Powered Frames shall consist of output shaft gear reducer with **6 inch (152mm)** minimum diameter wheels covered with non-marring **1/2 inch (13mm)** thick composite rubber, and operate the bleacher.

Mechanical

c.) Each pair of Powered Frames shall be driven through a gearmotor with dual output shaft, **6 inches (152mm)** minimum diameter wheels covered with non-marring **1/2 inch (13mm)** thick composite rubber, and pull the bleacher with approximately 160 lbs [712N] at [25 feet / min (16.8 meters / min)].

Limit Switches

d.) Limit switches will automatically stop integral power operation when seating has reached the fully extended or closed position. Manufacturer shall furnish and install both open and closed limit switches for the integral power system. Power operation shall utilize a combination of contactors and limit switches to insure the wiring is not energized except during operation.

2.10 FABRICATION

A. Fabricate understructure from structural-steel members in size, spacing, and form required to support design loads specified in referenced safety standard.

B. Weld understructure to comply with applicable AWS standards.

C. Round corners and edges of components and exposed fasteners to reduce snagging and pinching hazards.

D. Form exposed sheet metal with flat, flush surfaces, level and true in line, and without cracking and grain separation.

2.11 ACCESSORIES

A. End curtain closures. End curtains with custom graphics shall be provided to limit unauthorized access to the underside of the telescopic system. Curtain to be one piece design shaped to follow the angle of the telescopic unit in the open position, and constructed of a sturdy material with sewn-in grommets for attachment. Each curtain shall include full custom graphics with print-ready artwork as supplied by the architect/owner.

2.12 STAIRS AND LANDINGS TO PRESS BOX

A. Engineer and furnish stairs and landings to press box with handrails and guards complying with ICC 300. Use similar materials and components from “2.8 COMPONENTS” and “2.7 RAILS, PANELS AND STEPS” for design criteria. For handrail mounted to CMU wall see Section 055213 “Pipe and Tube Railings.” Stair nosings shall match nosings of bleacher aisle stairs. Treads shall match bleacher decking. Under structure shall be made from similar understructure materials and capable of supporting the same loads and transmitting them through the bleacher system. There shall be steel hand rails on either side of the stairs compliant with IBC 1014. Guard rails shall be compliant with ICC 300 and of similar materials and shapes as the guard rails on the bleacher system.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas where telescoping stands are to be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

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

3.2 INSTALLATION

A. Tolerances:

Flooring and rear wall**: Level** and plumb **within** 1/8 inch (3 mm) **in** 8 feet (2438mm)**.**

Maximum bleacher force on the floor of a 27 foot (8230 mm) **section: Static point load of less than 300 psi (2068 kN/m^2).**

B. Install telescoping stands to comply with referenced safety standard and manufacturer's written instructions.

ADJUSTING AND CLEANING

C. On completion of installation, lubricate, test, and adjust each telescoping stand unit so that it operates according to manufacturer's written operating instructions.

D. Clean installed telescoping stands on exposed surfaces. Touch up shop-applied finishes or replace components as required to restore damaged or soiled areas.

3.3 MAINTENANCE SERVICE

A. Service Capability: Show proof of full time service capability by factory certified technicians directly employed by the FACTORY.

A four to eight-hour maximum on-site repair response is required during normal working hours, 8 a.m. to 5 p.m. weekdays (excluding holidays).

All Full Time Service Personnel shall be Factory Authorized and Trained.

Provide proof of Service Capability and a list of service parts regularly maintained in inventory.

3.4 DEMONSTRATION

Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain telescoping stands.

END OF SECTION 126613

Updated July 2019.

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Building wires and cables rated 600 V and less.
2. Connectors, splices, and terminations rated 600 V and less.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

A. **Copper** Conductors: Comply with NEMA WC 70/ICEA S-95-658.

B. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for **Type THHN-2-THWN-2** .

C. Multiconductor Cable: Comply with NEMA WC 70/ICEA S-95-658 for armored cable, Type AC metal-clad cable, Type MC with ground wire.

2.2 CONNECTORS AND SPLICES

A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

2.3 SYSTEM DESCRIPTION

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in 2017 NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with 2017 NFPA 70.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Feeders: **Copper**. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

B. Branch Circuits: Copper. Solid for **No. 12** AWG and smaller; stranded for **No. 10** AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

A. Exposed Feeders: **Type THHN-2-THWN-2, single conductors in raceway.**

B. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: **Type THHN-2-THWN-2, single conductors in raceway**.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

A. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.

B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

D. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

E. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

3.4 CONNECTIONS

A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.

C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches of slack.

3.5 IDENTIFICATION

A. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Install sleeves and sleeve seals at penetrations of exterior wall assemblies.

3.7 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated wall assemblies to restore original fire-resistance rating of assembly according to Section 078413 "Penetration Firestopping."

3.8 FIELD QUALITY CONTROL

A. Perform the following tests and inspections:

1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.

B. Test and Inspection Reports: Prepare a written report to record the following:

1. Procedures used.
2. Results that comply with requirements.
3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.

C. Cables will be considered defective if they do not pass tests and inspections.

END OF SECTION 260519

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes grounding and bonding systems and equipment.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Burndy; Part of Hubbell Electrical Systems.
2. Fushi Copperweld Inc.
3. ILSCO.
4. O-Z/Gedney; A Brand of the EGS Electrical Group.
5. Robbins Lightning, Inc.
6. Siemens Power Transmission & Distribution, Inc.

2.2 SYSTEM DESCRIPTION

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in 2017 NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with UL 467 for grounding and bonding materials and equipment.

2.3 CONDUCTORS

A. Insulated Conductors: **Copper** wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

B. Bare Copper Conductors:

1. Solid Conductors: ASTM B 3.
2. Stranded Conductors: ASTM B 8.
3. Tinned Conductors: ASTM B 33.
4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch in diameter.
5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.

6. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.

2.4 CONNECTORS

A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.

B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy.

C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

PART 3 - EXECUTION

3.1 APPLICATIONS

A. Conductors: Install solid conductor for **No. 8** AWG and smaller, and stranded conductors for **No. 6** AWG and larger unless otherwise indicated.

B. Conductor Terminations and Connections:

1. Equipment Grounding Conductor Terminations: Bolted connectors.
2. Connections to Structural Steel: Welded connectors.

3.2 GROUNDING AT THE SERVICE

A. Equipment grounding conductors shall be connected to the ground bus. Install a main bonding jumper between the neutral and ground buses.

3.3 EQUIPMENT GROUNDING

A. Install insulated equipment grounding conductors with all feeders and branch circuits.

B. Install insulated equipment grounding conductors with the following items, in addition to those required by 2017 NFPA 70:

1. Feeders and branch circuits.

3.4 INSTALLATION

A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.

B. Ground Bonding Common with Lightning Protection System: Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system. Bond electrical power system ground directly to lightning protection system grounding conductor at closest point to electrical service grounding electrode. Use bonding conductor sized same as system grounding electrode conductor, and install in conduit.

C. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.

1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
3. Use exothermic-welded connectors for outdoor locations; if a disconnect-type connection is required, use a bolted clamp.

3.5 FIELD QUALITY CONTROL

A. Perform tests and inspections. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.

END OF SECTION 16060

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Hangers and supports for electrical equipment and systems.

1.2 PERFORMANCE REQUIREMENTS

A. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.

B. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

C. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of **five** times the applied force.

1.3 ACTION SUBMITTALS

A. Product Data: For steel slotted support systems.

B. Shop Drawings: Show fabrication and installation details and include calculations for the following:

1. Trapeze hangers. Include Product Data for components.
2. Steel slotted channel systems. Include Product Data for components.

1.4 INFORMATIONAL SUBMITTALS

A. Welding certificates.

1.5 QUALITY ASSURANCE

A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

B. Comply with 2017 NFPA 70.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Allied Tube & Conduit.
b. Cooper B-Line, Inc.; a division of Cooper Industries.
c. ERICO International Corporation.
d. GS Metals Corp.
e. Thomas & Betts Corporation.
f. Unistrut; Tyco International, Ltd.
g. Wesanco, Inc.

2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
3. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
4. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
5. Channel Dimensions: Selected for applicable load criteria.

B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.

C. Conduit and Cable Support Devices: **Steel** hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.

E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.

F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:

1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1) Hilti Inc.

2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
3) MKT Fastening, LLC.
4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.

2. Mechanical-Expansion Anchors: Insert-wedge-type, **zinc-coated** steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
   a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

      1) Cooper B-Line, Inc.; a division of Cooper Industries.
      2) Empire Tool and Manufacturing Co., Inc.
      3) Hilti Inc.
      4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
      5) MKT Fastening, LLC.

3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

PART 3 - EXECUTION

3.1 APPLICATION

A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.

B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by 2017 NFPA 70. Minimum rod size shall be 1/4 inch in diameter.

C. Multiple Raceways: Install trapeze-type supports fabricated with steel slotted or other support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.

1. Secure raceways and cables to these supports with two-bolt conduit clamps.

3.2 SUPPORT INSTALLATION

A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.

B. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.

C. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:.
   1. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
   2. To Existing Concrete: Expansion anchor fasteners.
   3. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete less than 4 inches thick.
   4. To Steel: Welded threaded studs complying with AWS D1.1/D1.1M, with lock washers and nuts.
   5. To Light Steel: Sheet metal screws.
   6. Items Mounted on Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.

D. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 PAINTING

A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.

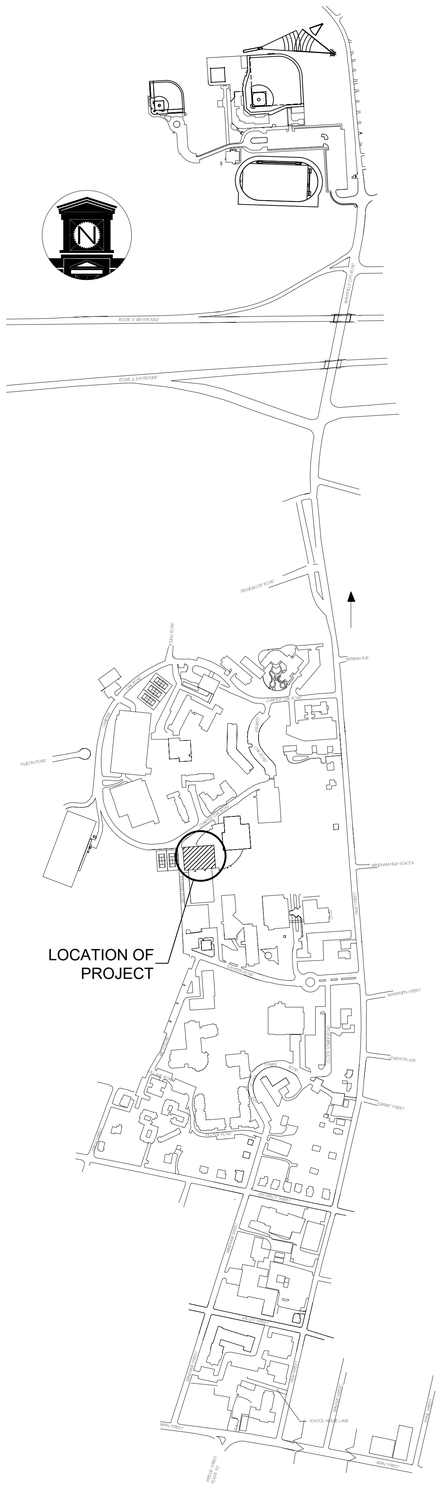
   1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.

B. Touchup: Comply with requirements in for cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal.

C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 260529

SITE PLAN



EASTERN CONNECTICUT STATE UNIVERSITY

WILLIMANTIC, CONNECTICUT

SPORTS CENTER

GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

PROJECT # ECSU 2020-5

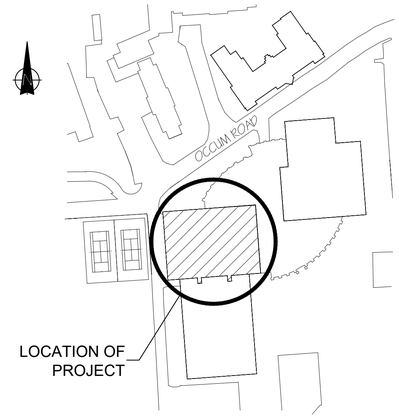
Facilities Management & Planning

ELSA NUÑEZ
PRESIDENT

February 18, 2020

STATE OF CONNECTICUT
JAMES PAUL DIXON
No. 13888
REGISTERED ARCHITECT
2/18/2020

LOCATION PLAN



LIST OF DRAWINGS

COVER

G-0.1	CODE COMPLIANCE INFORMATION
G-1.0	CODE COMPLIANCE PLAN - EXISTING
G-1.1	CODE COMPLIANCE PLAN - NEW
D-1.0	DEMOLITION PLAN
D-2.0	DEMOLITION ELEVATIONS
D-3.0	DEMOLITION SECTIONS AND ELEVATIONS
A-1.0	FLOOR REFINISHING LAYOUT PLAN
A-1.1	BASKETBALL LAYOUT PLAN
A-1.2	VOLLEYBALL LAYOUT PLAN
A-1.3	TENNIS LAYOUT PLAN
A-1.4	BADMINTON LAYOUT PLAN
A-1.5	CENTER COURT GRAPHIC LAYOUT PLAN
A-1.6	NEW BLEACHERS AND PRESS BOX PLANS
A-2.0	NEW BLEACHERS AND PRESS BOX ELEVATIONS
A-3.0	NEW BLEACHERS AND PRESS BOX SECTIONS
A-4.0	PRESS BOX ELEVATIONS AND DETAILS
E-1.0	GYMNASIUM AND PRESS BOX ELECTRICAL PLAN

ABBREVIATIONS

@	AT	I.D.	INSIDE DIAMETER
A.B.	ANCHOR BOLT	I.F.	INSIDE FACE
A/C	AIR CONDITIONING	INCAND.	INCANDESCENT
ACOUST.	ACOUSTICAL	INCL.	INCLUDE
AC. T.	ACOUSTIC TILE	INSUL.	INSULATION
ACT	ACTUAL	INT.	INTERIOR
A.D.	AREA DRAIN	INV.	INVERT
ADDL	ADDITIONAL	I.P.S.	IRON PIPE SIZE
ADJ.	ADJUSTABLE / ADJUST		
A.F.F.	ABOVE FINISHED FLOOR	JAN.	JANITOR
AGGR.	AGGREGATE	JST.	JOIST
A.H.U.	AIR HANDLING UNIT	JT.	JOINT
ALT.	ALTERNATE		
ALUM.	ALUMINUM	KIP	(1,000 LBS.)
ANOD.	ANODIZED	KIT.	KITCHEN
APPROX.	APPROXIMATE	KIT.S.	
ARCH.	ARCHITECTURAL		
ASPH.	ASPHALT	LAM.	LAMINATED
A.T.	ASPHALT TILE	LAV.	LAVATORY
\	ANGLE	LCKR.	LOCKER
		LF.	LINEAR FOOT
B.C.	BRICKCOURSE	LL.	LIVE LOAD
B/C	BOTTOM OF CURB	LP.	LOW POINT
BD.	BOARD	LT.	LIGHT
B.E.J.	BRICK (BLOCK) EXPANSION JOINT		
B.F.	BOTTOM OF FOOTING	MAS	MASONRY
BITUM.	BITUMINOUS	MATL.	MATERIAL
BLDG.	BUILDING	MAX.	MAXIMUM
BLK.	BLOCK	M.C.	MASONRY COURSE
BLKG.	BLOCKING	MECH.	MECHANICAL
BM	BEAM	MEMB.	MEMBRANE
B.M.	BENCH MARK	MET	METAL
BOT.	BOTTOM	MET. T.P.	METAL TOILET PARTITION
B.P.	BOTTOM OF POCKET	MEZZ.	MEZZANINE
B.PL.	BEARING PLATE / BASE PLATE	MFR.	MANUFACTURER
BRK.	BRICK	MH.	MANHOLE
B.S.	BOTH SIDES	MIN.	MINIMUM
B.U.R.	BUILT UP ROOFING	MIR.	MIRROR
B/W	BOTTOM OF WALL	MISC.	MISCELLANEOUS
B.W.R.	BOTH WAYS WALL	M.O.	MASONRY OPENING
		MTD.	MOUNTED
CAB.	CABINET	M.U.	MASONRY UNIT
C.B.	CATCH BASIN	MULL.	MULLION
CEM.	CEMENT	N.	NORTH
CER.	CERAMIC	N.I.C.	NOT IN CONTRACT
C.H.	CABINET HEATER	NO.	NUMBER
CHKBD.	CHALKBOARD	NOM.	NOMINAL
C.I.	CAST IRON	N.R.C.	NOISE REDUCTION COEFFICIENT
C.J.	CONTROL JOINT	N.T.S.	NOT TO SCALE
CLG. HT.	CEILING HEIGHT	O/A	OUTSIDE AIR
CLO.	CLOSET	O.C.	ON CENTER
CLR.	CLEAR	O.D.	OUTSIDE DIAMETER
CLRM.	CLASSROOM	O.F.	OUTSIDE FACE
C.M.U.	CONCRETE MASONRY UNIT	OFF.	OFFICE
CNTR.	COUNTER	OH.	OVERHEAD
C.O.	CLEAN OUT	OPNG.	OPENING
COL.	COLUMN	OPP.	OPPOSITE
COMP.	COMPACTED (COMPOSITION)	O.W.S.J.	OPEN WEB STEEL JOIST
CONC.	CONCRETE	OZ.	OUNCE
CONF.	CONFERENCE		
CONN.	CONNECTION	PART.	PARTITION
CONST.	CONSTRUCTION	PL.	PLATE
CONT.	CONTINUOUS	P.LAM.	PLASTIC LAMINATE
CONTR.	CONTRACTOR	PLS.	PLASTER
CONV.	CONVECTOR	PLYWD.	PLYWOOD
COORD.	COORDINATE	PR.	PAIR
CORR.	CORRIDOR	PREFAB.	PREFABRICATED
C.P.	CONTROL PANEL	PROJ.	PROJECTION
CPT.	CARPET	PROP.	PROPERTY
CR.	CEILING REGISTER	PTD.	PAINTED
C.T.	CERAMIC TILE	P.T.D.	PAPER TOWEL DISPENSER
CTR.	CENTER		
C.U.H.	CABINET UNIT HEATER	Q.T.	QUARRY TILE
C.Y.	CUBIC YARD		
	CENTERLINE	R.	RISER (RADIUS)
		RA.	RETURN AIR
DBL.	DOUBLE	RAD.	RADIATION
DEPT.	DEPARTMENT	R.B.	RESILIENT BASE
DET.	DETAIL	R.D.	ROOF DRAIN
D.F.	DRINKING FOUNTAIN	RECPT.	RECEPTACLE
DIA.	DIAMETER	REF.	REFERENCE
DIM.	DIMENSION	REFL.	REFLECTED, REFLECTIVE
DISP.	DISPENSER	REFR.	REFRIGERATOR
DIV.	DIVISION	REG.	REGISTER
D.L.	DEAD LOAD	REINF.	REINFORCING
DN.	DOWN	REQ'D	REQUIRED
DO.	DITTO	RES.	RESILIENT
D.O.	DOOR OPENING	RET.	RETAINING
DR.	DOOR	REV.	REVISION
DS.	DOWNSPOUT	RM.	ROOM
D.S.P.	DRY STANDPIPE	R.O.	ROUGH OPENING
DWG.	DRAWING	R.O.W.	RIGHT OF WAY
DWL.	DOWEL	R.T.	RUBBER TILE
		R.V.	ROOF VENT
E.	EAST	RWD.	REDWOOD
EA.	EACH	R.W.L.	RAIN WATER LEADER
E.B.F.	EXIST. BOTTOM OF FOOTING		
E.C.	EXPOSED CONSTRUCTION	S.	SOUTH
E.I.F.S.	EXTERIOR INSULATION &FINISH SYSTEM	S.FPFG.	SPRAYED ON FIREPROOFING
E.J	EXPANSION JOINT	S.C.	SOLID CORE
EL.	ELEVATION	S.C.D.	SEAT COVER DISPENSER
ELEC.	ELECTRICAL	SCHED.	SCHEDULE
ELEV.	ELEVATOR	S.D.	SOAP DISPENSER
EMER.	EMERGENCY	SEC.	SECTION
ENCL.	ENCLOSURE	S.F.	SQUARE FOOT
ENGR.	ENGINEER	SH.	SHELF
		SHR.	SHOWER
E.P.	ELECTRICAL PANEL	SHT.	SHEET
EQ.	EQUAL	SIM.	SIMILAR
EQUIP.	EQUIPMENT	S.N.D.	SANITARY NAPKIN DISPENSER
E.W.	EACH WAY	S.N.R.	SANITARY NAPKIN RECEPTACLE
E.W.C.	ELECTRIC WATER COOLER	SPEC.	SPECIFICATIONS
EXH.	EXHAUST	SPKLR.	SPRINKLER
EXIST.	EXISTING	SP/PT/FIN	SPECIAL PAINT FINISH
EXP.	EXPANSION	S.P.R.	SINGLE PLY ROOF
EXPD.	EXPANDED	SQ.	SQUARE
EXPO.	EXPOSED	S.SK.	SERVICE SINK
EXT.	EXTERIOR	SST.	STAINLESS STEEL
		STA.	STATION
F.A.	FIRE ALARM	STD.	STANDARD
F.A.P.	FIRE ALARM PANEL	ST. FT.	STEP FOOTING
F.B.	FOOTING BREAK	STIFF.	STIFFENERS
F.BRK.	FACE BRICK	STL.	STEEL
F.D.	FLOOR DRAIN	STL. JOIST	STEEL JOIST
FDN.	FOUNDATION	STOR.	STORAGE
F.E.	FIRE EXTINGUISHER	S. TR.	SOUND TRANSMISSION
F.E.C.	FIRE EXTINGUISHER CABINET	STRUCT.	STRUCTURAL
	WITH EXTINGUISHER	SURF.	SURFACE
F.F.	FACTORY FINISH	SUSP.	SUSPENDED
F.H.	FIRE HYDRANT	S.V.	STAIN AND VARNISH
F.H.C.	FIRE HOSE CABINET	SYM.	SYMMETRICAL
F.H.P.	FULL HEIGHT PARTITION		
FIN.	FINISH	T.	TREAD
FIN. FL.	FINISHED FLOOR	T.& B.	TOP AND BOTTOM
FIXT.	FIXTURE	TB.	TACKBOARD
FL.	FLOOR	T.B.	TOWEL BAR
FLASH.	FLASHING	T.C.	TOP OF CURB
FLEX.	FLEXIBLE	TEL.	TELEPHONE
FLUOR.	FLUORESCENT	TEMP.	TEMPERED
F.O.C.	FACE OF CONCRETE	TERR.	TERRAZZO
F.O.F.	FACE OF FINISH	T.F.	TOP OF FOUNDATION
F.O.G.	FACE OF GYPSUM BOARD	T. & G.	TONGUE AND GROOVE
F.O.M.	FACE OF MASONRY	THK.	THICK
F.O.S.	FACE OF STUD	THRES.	THRESHOLD
FPFG.	FIREPROOFING	T/P	TOP OF PAVEMENT
F.R.	FIRE RATED	T.P.D.	TOILET PAPER DISPENSER
F.S.	FULL SIZE	T/PIR	TOP OF PIER
FT.	FOOT OR FEET	T/S	TOP OF SLAB
F.T.R.	FINNED TUBE RADIATION	T/SH	TOP OF SHELF
FUR.	FURRING	T/STL	TOP OF STEEL
FUT.	FUTURE	T.V.	TELEVISION
F.W.C.	FABRIC WALL COVERING	T/W	TOP OF WALL
		TYP.	TYPICAL
GA.	GAUGE		
GALV.	GALVANIZED	U.H.	UNIT HEATER
G.B.	GRAB BAR	U/L	UNDERWRITER'S LABORATORY
G.C.	GENERAL CONTRACTOR	UNFIN.	UNFINISHED
GL.	GLASS	U.N.O.	UNLESS NOTED OTHERWISE
GLZ.	GLAZE	UR.	URINAL
GND.	GROUND	U.V.	UNIT VENTILATOR
GRD.	GRADE		
GWB	GYPSUM WALL BOARD	VB.	VINYL BASE
GYP. BD.	GYPSUM BOARD / GYPSUM BOARD UNIT	V.C.T.	VINYL COMPOSITION TILE
		VERT.	VERTICAL
H.B.	HOSE BIBB	VEST.	VESTIBULE
HC	HANDICAPPED	V.F.	VINYL FABRIC
H.C.	HOLLOW CORE	V.G.	VERTICAL GRAIN
HD.	HEAD	V.I.F.	VERIFY IN FIELD
HP.	HIGH POINT	VOL.	VOLUME
HWD.	HARDWOOD	V.W.C.	VINYL WALLCOVERING
HDW.	HARDWARE		
HM.	HOLLOW METAL	W.	WEST
HOR.	HORIZONTAL	W/	WITH
HTG.	HEATING	W.C.	WATER CLOSET
HT.	HEIGHT	WD.	WOOD
HYD.	HYDRANT	WIND.	WINDOW
H & V	HEATING AND VENTILATING	W/O	WITHOUT
H.U.	HEATING UNIT	WP.	WATERPROOF
		W.PT.	WORKING POINT
		W.S.	WALLSLEEVE
		WSCT.	WAINSCOT
		WT.	WEIGHT
		WWF.	WELDED WIRE FABRIC

GRAPHIC LEGEND

EARTHWORK

EARTH 1

EARTH 2

POROUS FILL/ GRAVEL

CONCRETE

CAST IN PLACE CONCRETE

PRECAST CONCRETE/ CAST STONE

MASONRY

BRICK

GLAZED BRICK/ S.G.F.T.

CONCRETE BLOCK

GLAZED CONCRETE BLOCK

SAND/MORTAR/ GROUT/PLASTER

STONE

STONE 1

STONE 2

METAL

STRUCTURAL STEEL

ALUMINUM

WOOD

ROUGH LUMBER-SOLID

BLOCKING-INTERMITTENT

FINISH WOOD

PLYWOOD

INSULATION

RIGID INSULATION

SEMI-RIGID INSUL.

BATT INSULATION

FIRE SAFING

ACOUSTIC CEILING

PLASTIC LAMINATE

WALL DESIGNATION

NEW

EXISTING

EXISTING TO BE REMOVED

DOOR DESIGNATION

NEW

EXISTING

EXISTING TO BE REMOVED

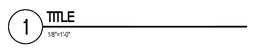
COLUMN LINES AND TAGS

NEW

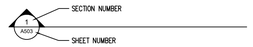
EXISTING

GRAPHIC LEGEND

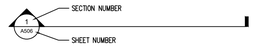
DETAIL/DRAWING TITLE



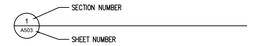
BUILDING SECTION INDICATOR



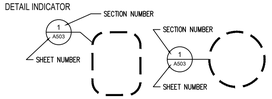
WALL SECTION INDICATOR



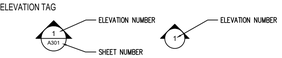
DETAIL INDICATOR
NON-DIRECTIONAL SECTION



DETAIL INDICATOR



ELEVATION TAG



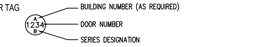
ROOM TAG

REVISION INDICATOR

CEILING HEIGHT TAG

WALL TAG

DOOR TAG



WINDOW TAG

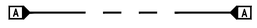
EQUIPMENT TAG

CFCI CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
OFCI OWNER FURNISHED, CONTRACTOR INSTALLED
REOI RELOCATED EXISTING ITEM, CONTRACTOR INSTALLED
OFOI OWNER FURNISHED, OWNER INSTALLED
REOI RELOCATED EXISTING ITEM, OWNER INSTALLED

ELEVATION DATUM MARK

DEMOLITION KEYNOTE

MATCH LINE



BUILDING CODE INFORMATION:

1. APPLICABLE CODES

BUILDING CODE OF CONNECTICUT (2015 INTERNATIONAL BUILDING CODE W/ STATE AMENDMENTS)	DATED	2018
EXISTING BUILDING CODE OF CONNECTICUT (2015 INTERNATIONAL EXISTING BUILDING CODE W/ STATE AMENDMENTS)	DATED	2018
ICC 300 STANDARD ON BLEACHERS, FOLDING AND TELESCOPIC SEATING, AND GRANDSTANDS	DATED	2012
NATIONAL ELECTRICAL CODE/NFPA 70	DATED	2017
ICC/ANSI A117.1	DATED	2009
CONNECTICUT STATE FIRE SAFETY CODE	DATED	2018
INTERNATIONAL ENERGY CONSERVATION CODE (IECC)	DATED	2015

2. USE GROUP CLASSIFICATION — IBC 2015 (SECT. 303.4): A3 - ASSEMBLY

3. CONSTRUCTION TYPE

MINIMUM TYPE OF CONSTRUCTION REQUIRED	(602.2)	2A - NON COMBUSTIBLE / PROTECTED
ACTUAL TYPE OF CONSTRUCTION PROVIDED		2A - NON COMBUSTIBLE / PROTECTED

3A. ROOF CONSTRUCTION CLASSIFICATION

MINIMUM TYPE OF ROOF REQUIRED	(1505.1)	B
ACTUAL TYPE OF ROOF PROVIDED		B

4. BUILDING HEIGHT:

BUILDING HEIGHT — STORY/FEET: 3 STORIES — ALLOWABLE BLDG. HEIGHT: (TABLE 503, SECT 503.0) STORY/FEET: 5 STORIES

STORIES ABOVE GRADE (503): 2

5. BUILDING AREA — IBC 2003 (502-503) — GROSS BUILDING AREA: (PER FLOOR)

GROUND FLOOR	45,589	SQ. FT.
FIRST FLOOR	23,865	SQ. FT.
SECOND FLOOR	0	SQ. FT.
TOTAL	69,454	SQ. FT.

6. AREA TABULATIONS - NOT APPLICABLE

OPEN PERIMETER N ____ E ____ W ____ S ____

PERIMETER ____ FT. OPEN PERIM ____ FT

% OPEN PERIM. = (OPEN PERIM./PERIM.) ____

% TAB. AREA INCREASE 2x (% OPEN PERIM.- 25%) = ____

% OF ALLOWABLE TABULAR AREA	(TABLE 503)	
% REDUCTION FOR HEIGHT	(TABLE 506.4)	- %
% INCREASE FOR OPEN PERIMETER	(506.2)	+ %
% INCREASE FOR AUTOMATIC SPRINKLERS	(506.3)	+ %
TOTAL PERCENTAGE FACTOR		= %
CONVERSION FACTOR (% FACTOR / 100)		

7. OCCUPANT LOAD (1008.1.2): *REFER TO CODE COMPLIANCE PLAN FOR ROOM OCCUPANT LOADS*

8. CAPACITY OF EXITS (1020): *REFER TO CODE COMPLIANCE PLAN - EXIT CAPACITY INFORMATION*

9. TRAVEL DISTANCE — ALLOWABLE: *200 FEET* — PROVIDED: *110 FEET*

10. FIRE PROTECTION SYSTEMS — FULL ____ LIMITED AREA ____

FIRE SUPPRESSION SYSTEM	(CHAPTER 9, SECT. 904.0)	NONE
NOTIFICATION/ALARMS	(SECTION 918.0)	YES
DETECTION	(SECTION 919.0)	YES

11. MODIFICATIONS — a) EXISITNG/APPROVED 0 — b) OUTSTANDING (NOT YET APPROVED) 0

12. THRESHOLD LIMIT BUILDING — (PUBLIC ACT NO. 89-255, SECT. 29-276b SECT. 114.3) — YES ____ NO. X

13. ACCESSIBLE BUILDING — DESIGNATED X — NON-DESIGNATED ____

14. HISTORIC BUILDING — YES ____ NO. X

EASTERN CONNECTICUT STATE UNIVERSITY
Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

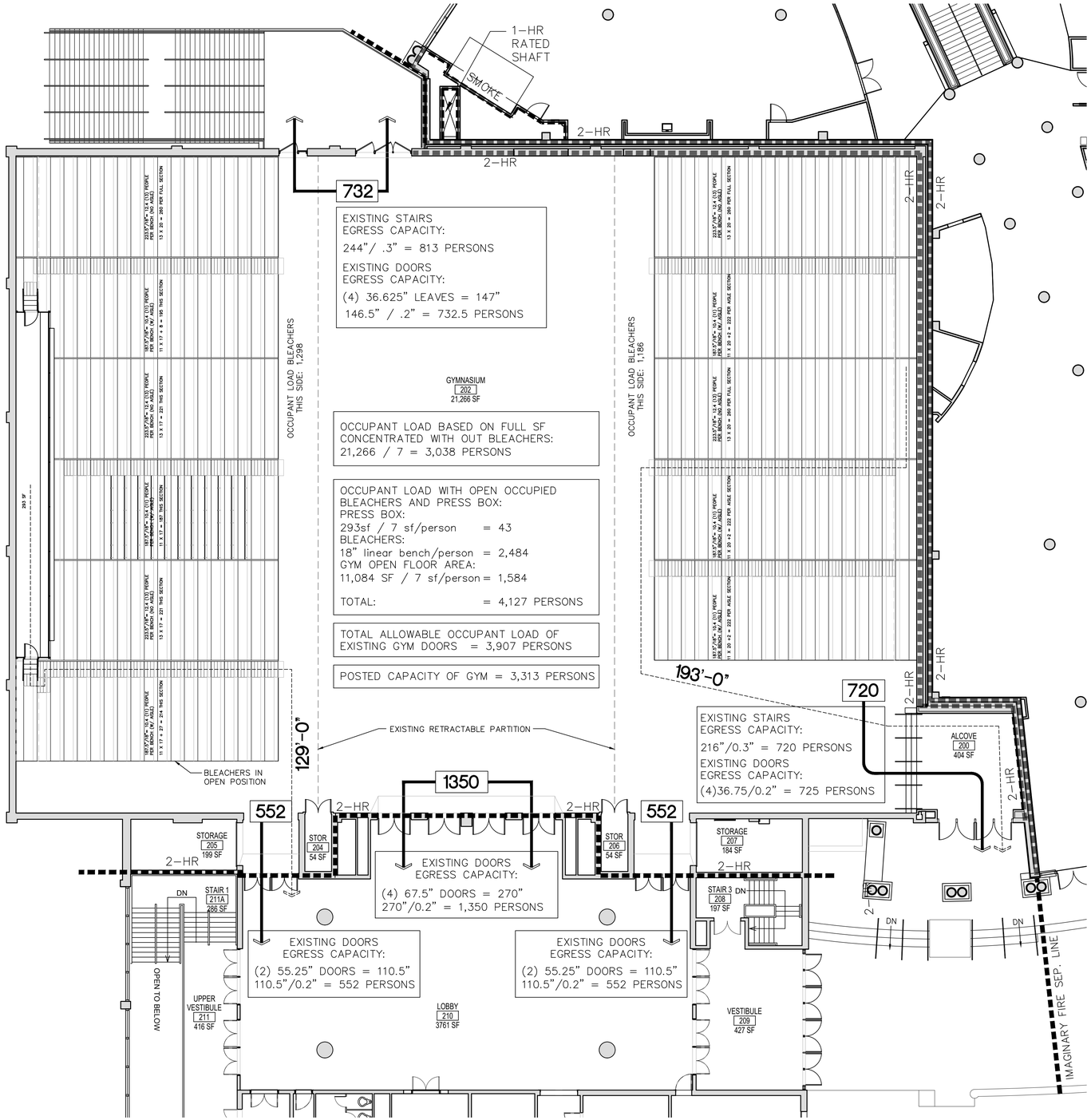
No.	Revision/Issue	Date

BUILDING:
SPORTS CENTER

PROJECT NAME:
GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME:
CODE COMPLIANCE INFORMATION

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: G-0.1
Scale: AS NOTED
Plot Size: 24 x 36



LEGEND

PATH OF EGRESS	100
TRAVEL DISTANCE	100'-0"
2-HR RATED WALL	2-HR
1-HR RATED WALL	1-HR
SMOKE PARTITION	SMOKE

1 G-1.0 EXISTING GYMNASIUM CODE COMPLIANCE PLAN (FOR REFERENCE TO ASSESS EXISTING LEVEL OF EGRESS/FIRE PROTECTION)
3/32"=1'-0"

EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

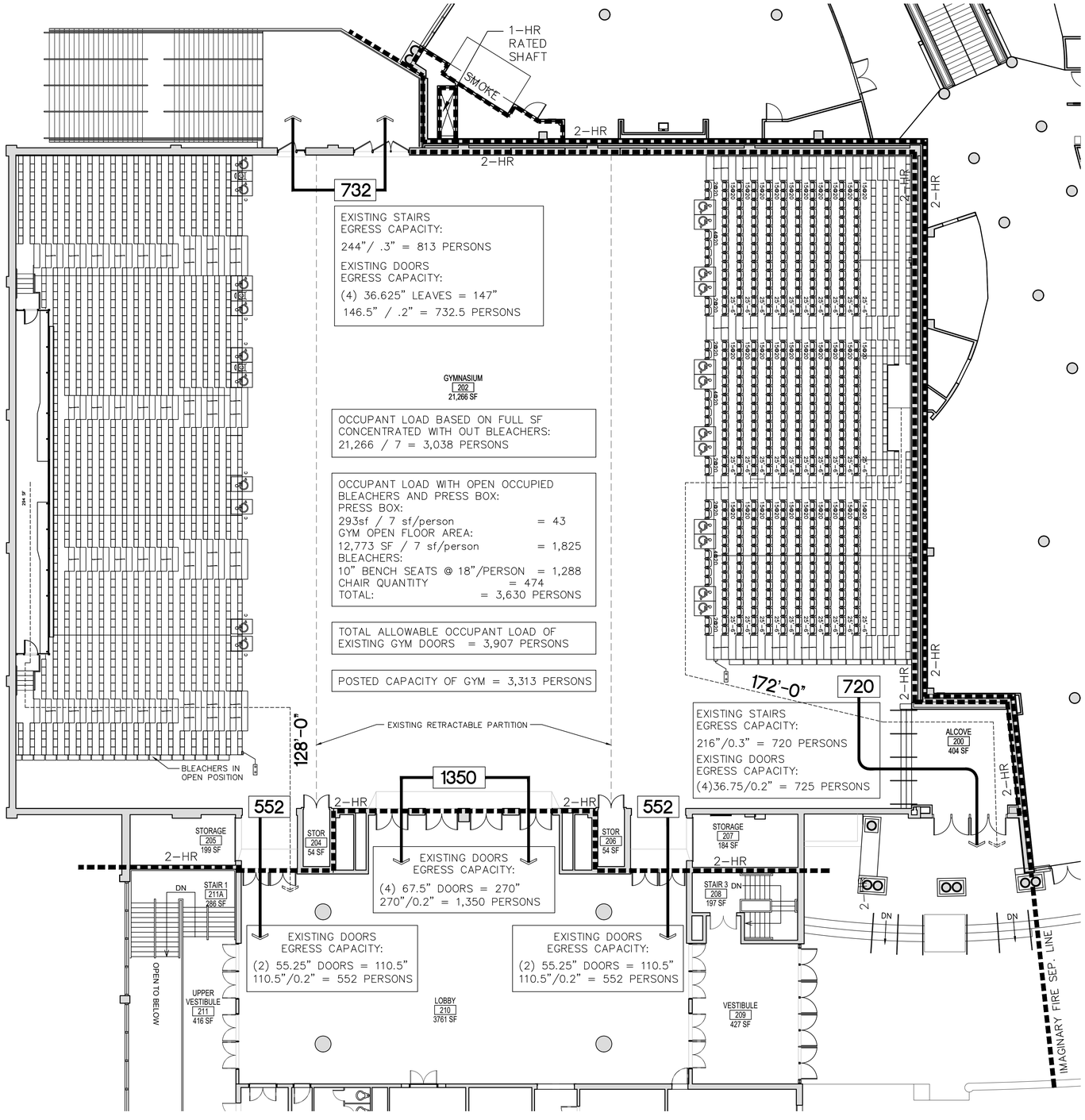
BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME: CODE COMPLIANCE PLAN - EXISTING

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: G-1.0
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT JAMES PAUL DIXON No. 13508 LICENSED ARCHITECT 2/18/2020



LEGEND

PATH OF EGRESS	100
TRAVEL DISTANCE	100'-0"
2-HR RATED WALL	2-HR
1-HR RATED WALL	1-HR
SMOKE PARTITION	SMOKE

1 / G-1.1 GYMNASIUM CODE COMPLIANCE PLAN WITH NEW BLEACHERS
3/32"=1'-0"

EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

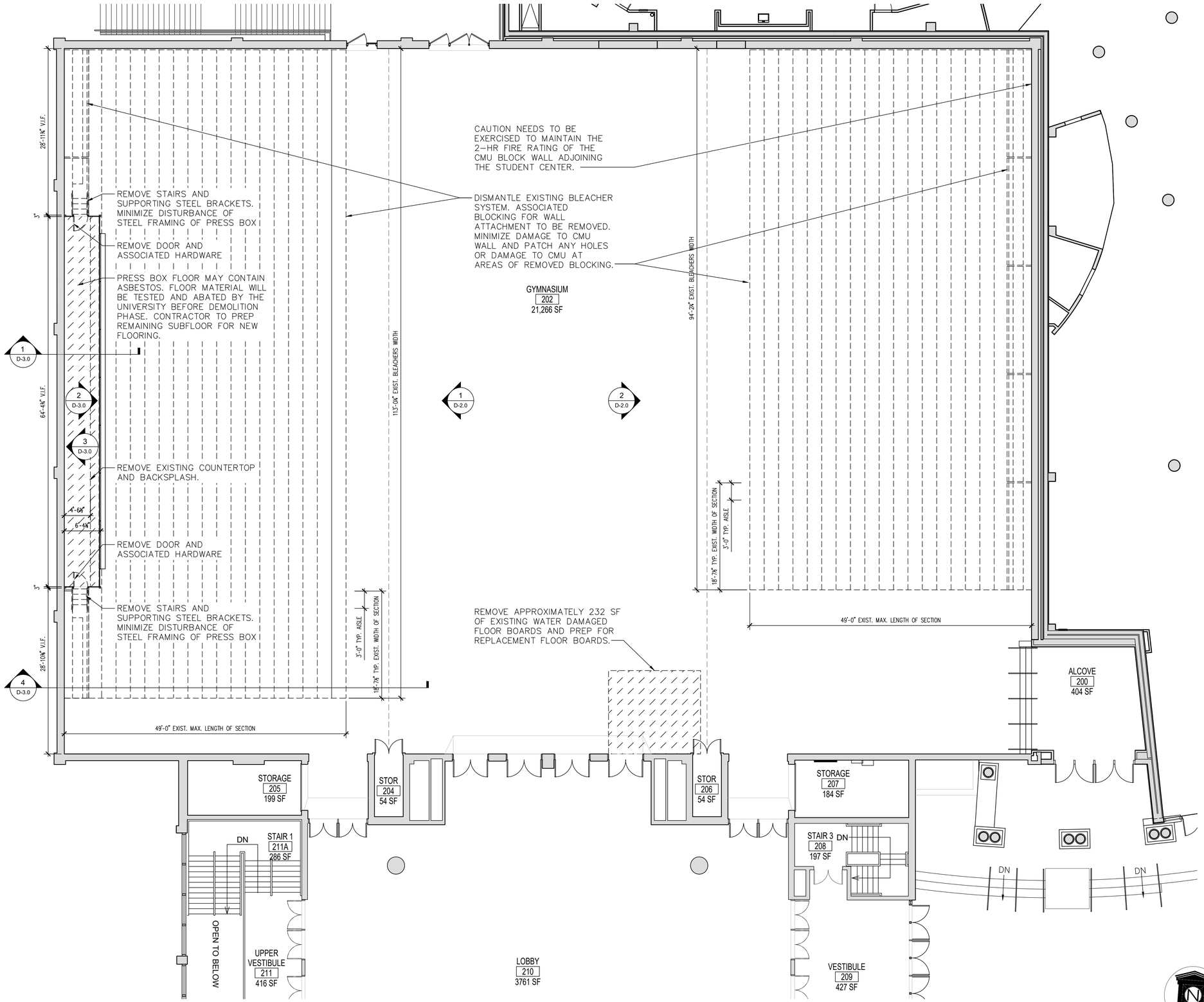
BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME: CODE COMPLIANCE PLAN - NEW

Project No.: ECSU 2020-5
Date: 12/20/2019
Drawing No.: G-1.1
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT JAMES PAUL DIXON No. 13608 LICENSED ARCHITECT 2/18/2020



1 D-1.0 DEMOLITION PLAN
1/8"=1'-0"

EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

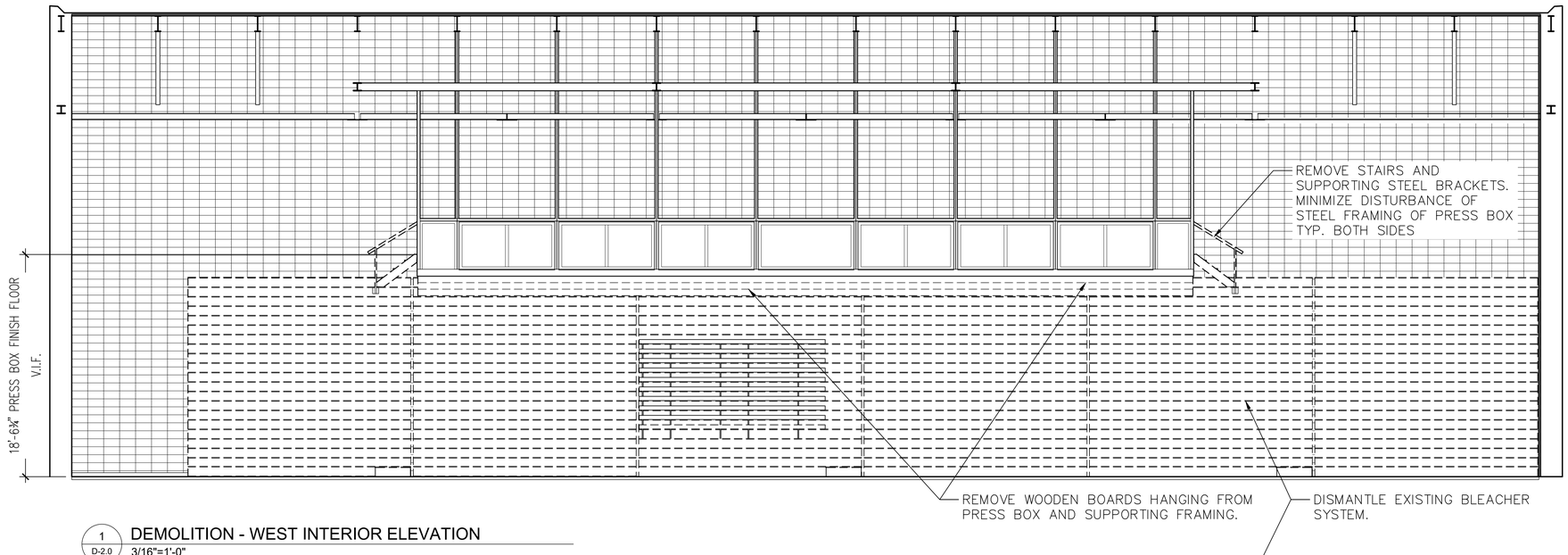
BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

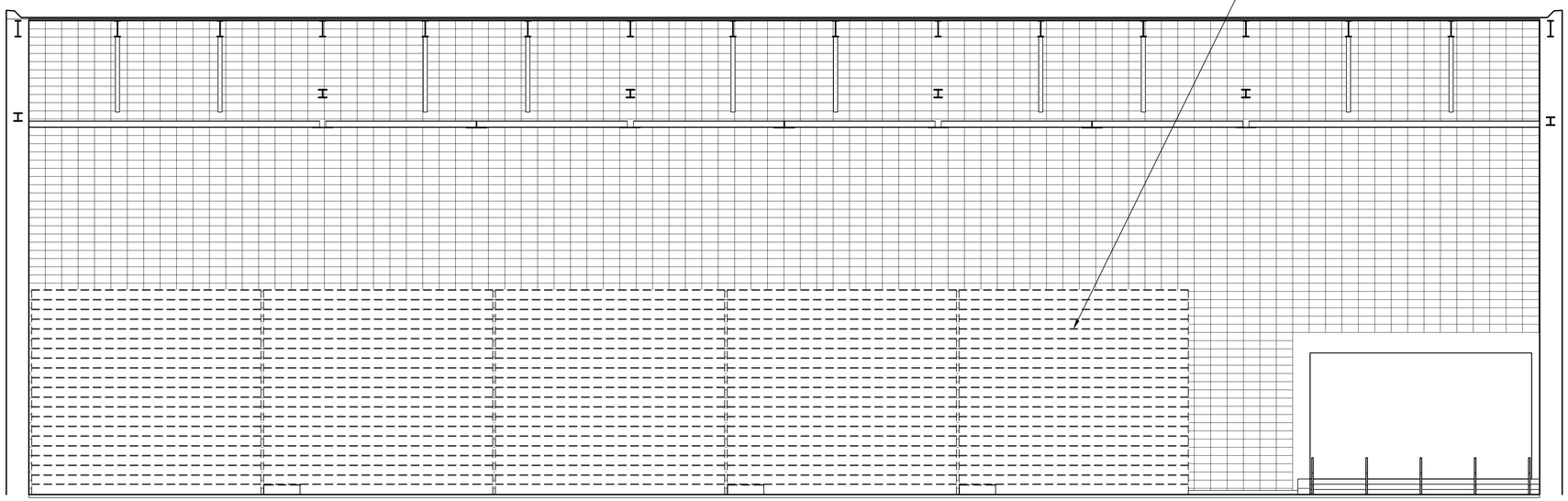
DRAWING NAME: DEMOLITION PLAN

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: D-1.0
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT JAMES PAUL DIXON No. 13508 LICENSED ARCHITECT
2/18/2020



1 D-2.0 DEMOLITION - WEST INTERIOR ELEVATION
3/16"=1'-0"



2 D-2.0 DEMOLITION - EAST INTERIOR ELEVATION
3/16"=1'-0"

EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
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No.	Revision/Issue	Date

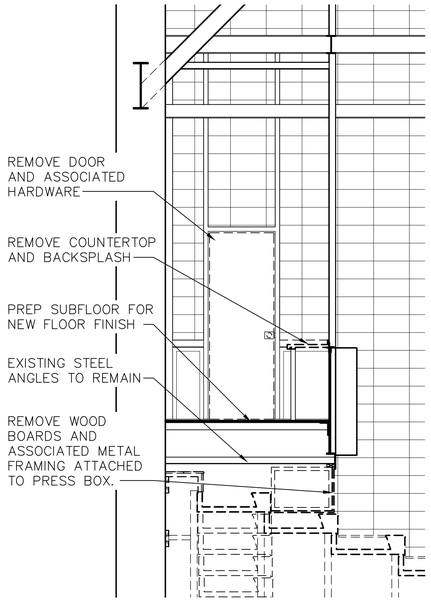
BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

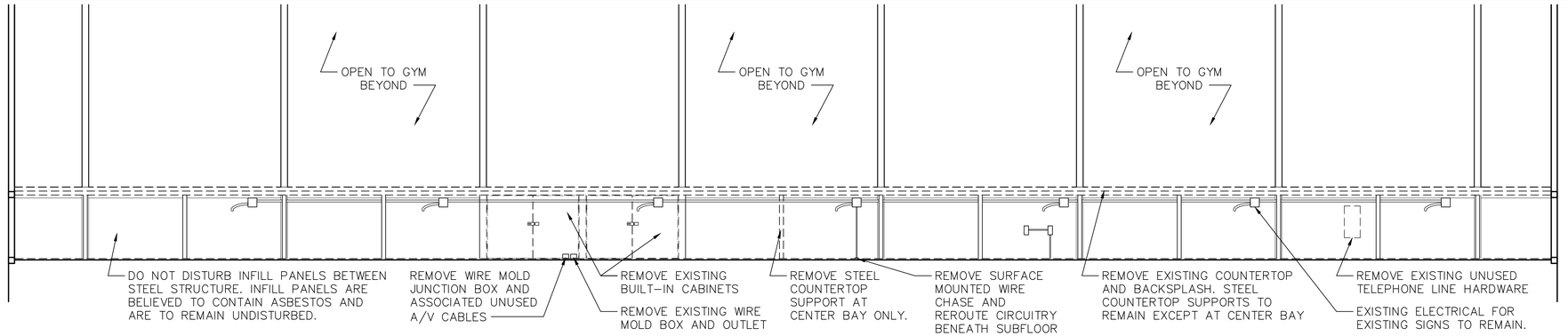
DRAWING NAME: DEMOLITION ELEVATIONS

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: D-2.0
Scale: AS NOTED
Plot Size: 24 x 36

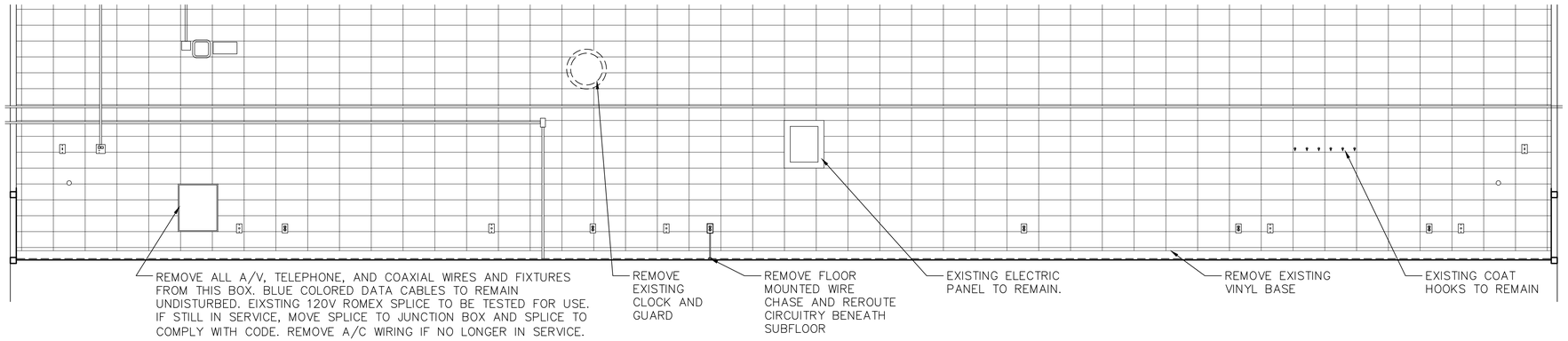
STATE OF CONNECTICUT JAMES PAUL DIXON No. 13508 LICENSED ARCHITECT 2/18/2020



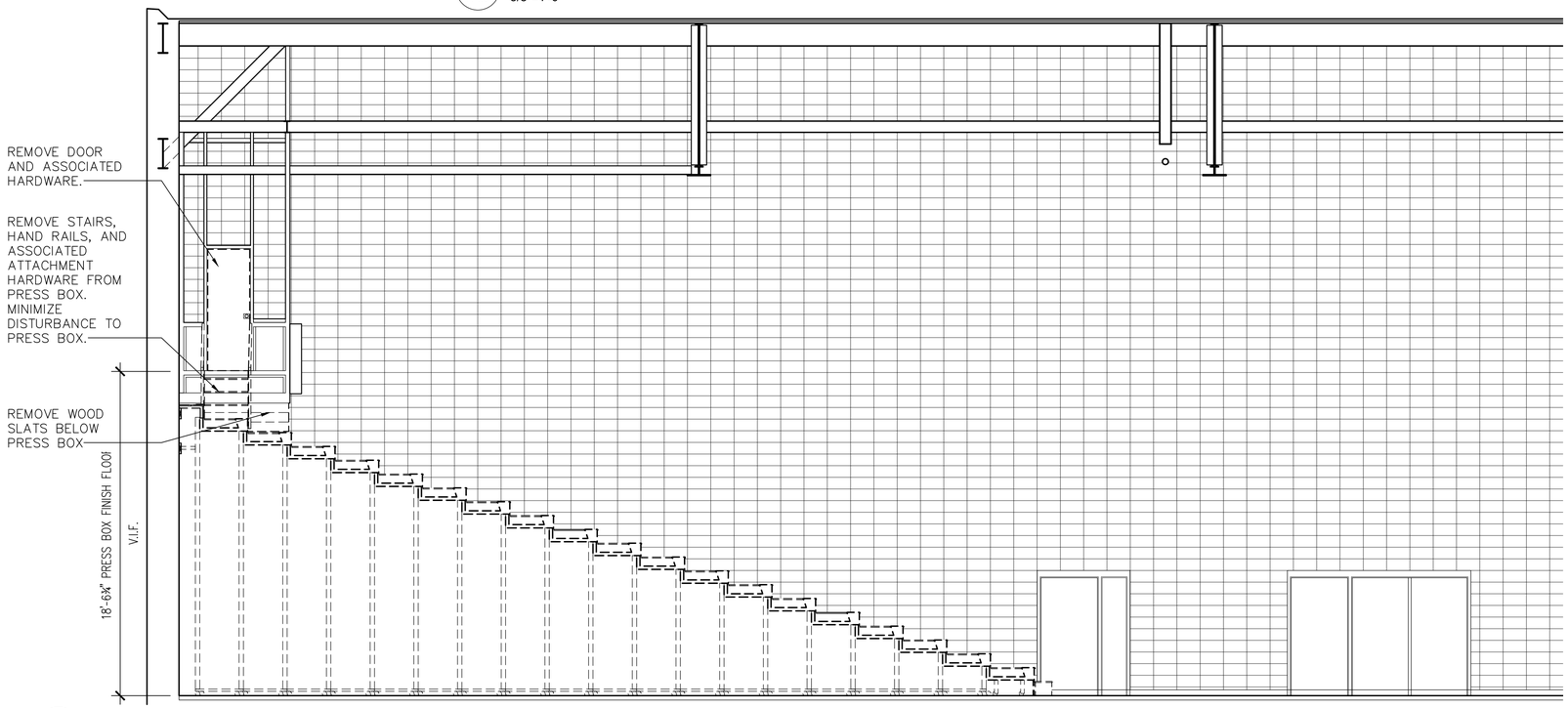
1 D-3.0 DEMOLITION - PRESS BOX SECTION
3/8"=1'-0"



2 A-4.0 DEMOLITION - EAST INTERIOR ELEVATION OF PRESS BOX (LOOKING TOWARD GYM)
3/8"=1'-0"



3 A-4.0 DEMOLITION - WEST INTERIOR ELEVATION OF PRESS BOX (LOOKING AT CMU WALL)
3/8"=1'-0"



4 D-3.0 DEMOLITION - SECTION THROUGH BLEACHERS (WITH PRESS BOX BEYOND)
1/4"=1'-0"

EASTERN CONNECTICUT STATE UNIVERSITY
Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME: DEMOLITION SECTIONS AND ELEVATIONS

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: D-3.0
Scale: AS NOTED
Plot Size: 24 x 36

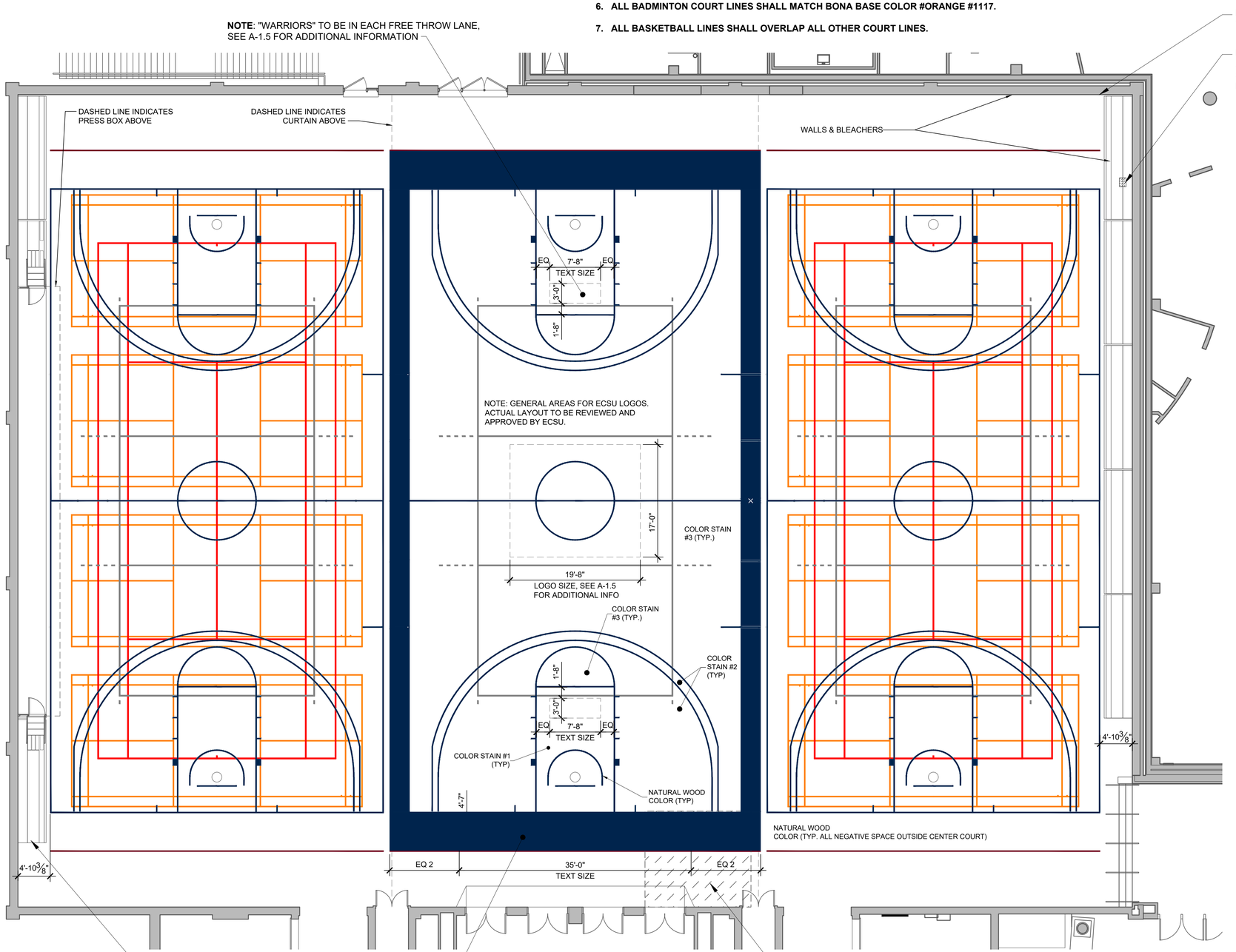
STATE OF CONNECTICUT JAMES PAUL DIXON No. 13508 LICENSED ARCHITECT
2/18/2020

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR UTILIZING THE NCAA RULES.
2. FOR COLORS FOR CENTER COURT LINES, SEE SHEET A-1.5.
3. THE TWO SIDE BASKETBALL COURT LINES SHALL MATCH BONA BASE COLOR DARK BLUE #1118.
4. ALL VOLLEYBALL COURT LINES SHALL MATCH BONA BLEND COLOR 2 GRAY, 1 BLACK (R).
5. ALL TENNIS COURT LINES SHALL MATCH BONA BASE COLOR RED #1113.
6. ALL BADMINTON COURT LINES SHALL MATCH BONA BASE COLOR #ORANGE #1117.
7. ALL BASKETBALL LINES SHALL OVERLAP ALL OTHER COURT LINES.

NOTES cont:

8. VOLLEYBALL COURT SHALL ONLY OVERLAP THE BADMINTON AND TENNIS COURTS.
9. TENNIS COURTS SHALL ONLY OVER LAP THE BADMINTON COURTS.
10. BADMINTON COURT LINES SHALL NOT OVERLAP ANY OTHER COURT LINES.
11. ALL SOUTH ENTRY DOORS SHALL BE SAFETY STRIPED ACROSS THE TOP OF EACH RAMP. SEE FIG. 1, (TOTAL OF 5 ENTRYWAYS).



VOLLEYBALL
BADMINTON
BASKETBALL
TENNIS

FIG. 1
(SEE NOTE No. 11)

EASTERN CONNECTICUT STATE UNIVERSITY
Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

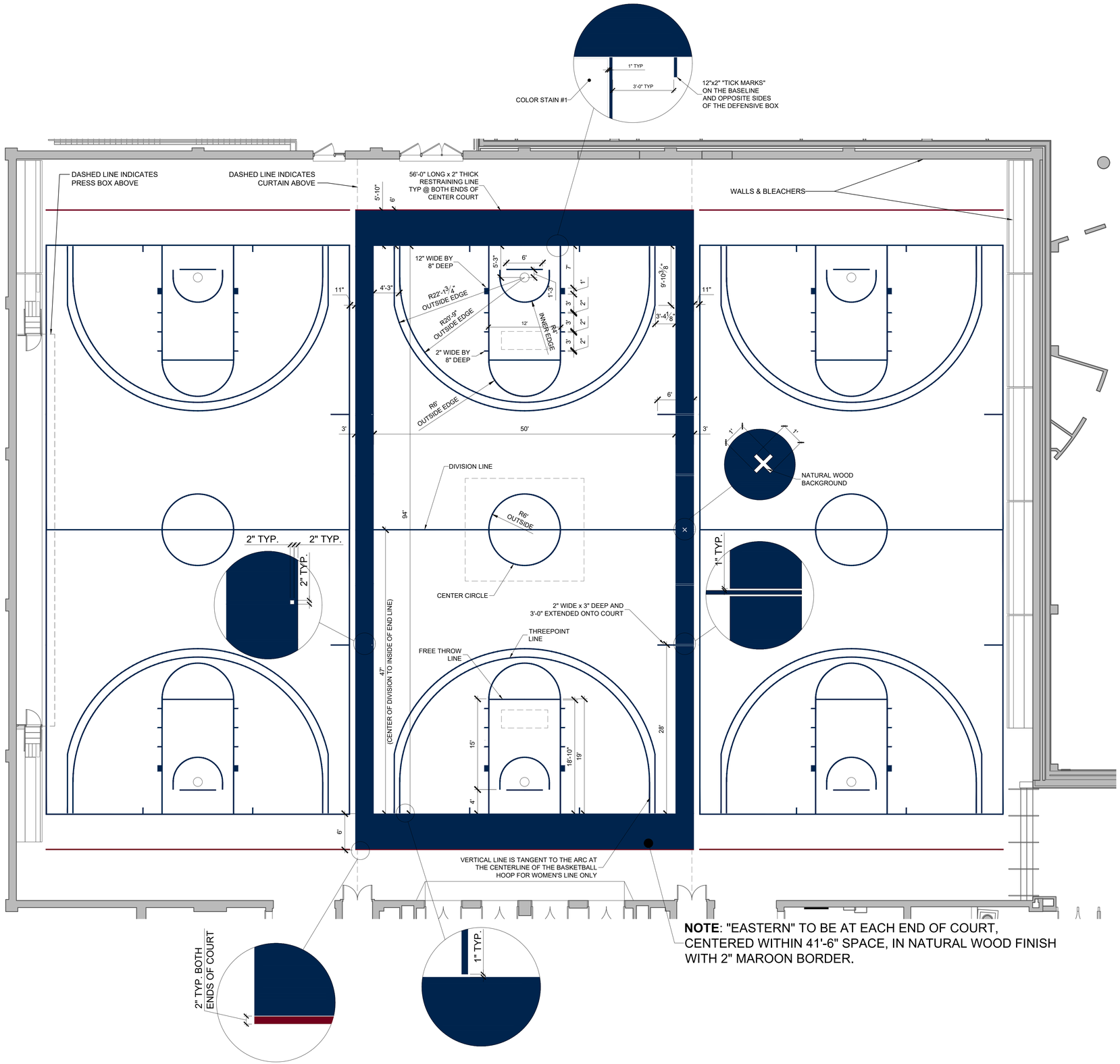
BUILDING:
SPORTS CENTER

PROJECT NAME:
GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME:
FLOOR REFINISHING LAYOUT PLAN

Project No.: ECSU 2020-5
Date: 12/20/2019
Drawing No.: A-1.0
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT
JAMES PAUL DIXON
No. 12508
LICENSED ARCHITECT
2/10/2020



NOTE: "EASTERN" TO BE AT EACH END OF COURT, CENTERED WITHIN 41'-6" SPACE, IN NATURAL WOOD FINISH WITH 2" MAROON BORDER.

NOTES:

1. **ALL DIMENSIONS TO BE VERIFIED BY THE CONTRACTOR UTILIZING THE NCAA RULES FOR THE BASKETBALL AND VOLLEYBALL COURTS.**
2. **SEE DRAWING A-1.0 FOR PAINT COLORS OF ALL LINES AND FONTS.**
3. **ALL DIMENSIONS ARE TYPICAL FOR ALL THREE COURTS.**
4. **ALL LINES 2" WIDE UNLESS NOTES OTHERWISE**
5. **SEE SHEET A-1.0 AND A-1.5 FOR GRAPHICS LOCATIONS AND COLORS FOR CENTER COURT.**

EASTERN CONNECTICUT STATE UNIVERSITY
Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

BUILDING:
SPORTS CENTER

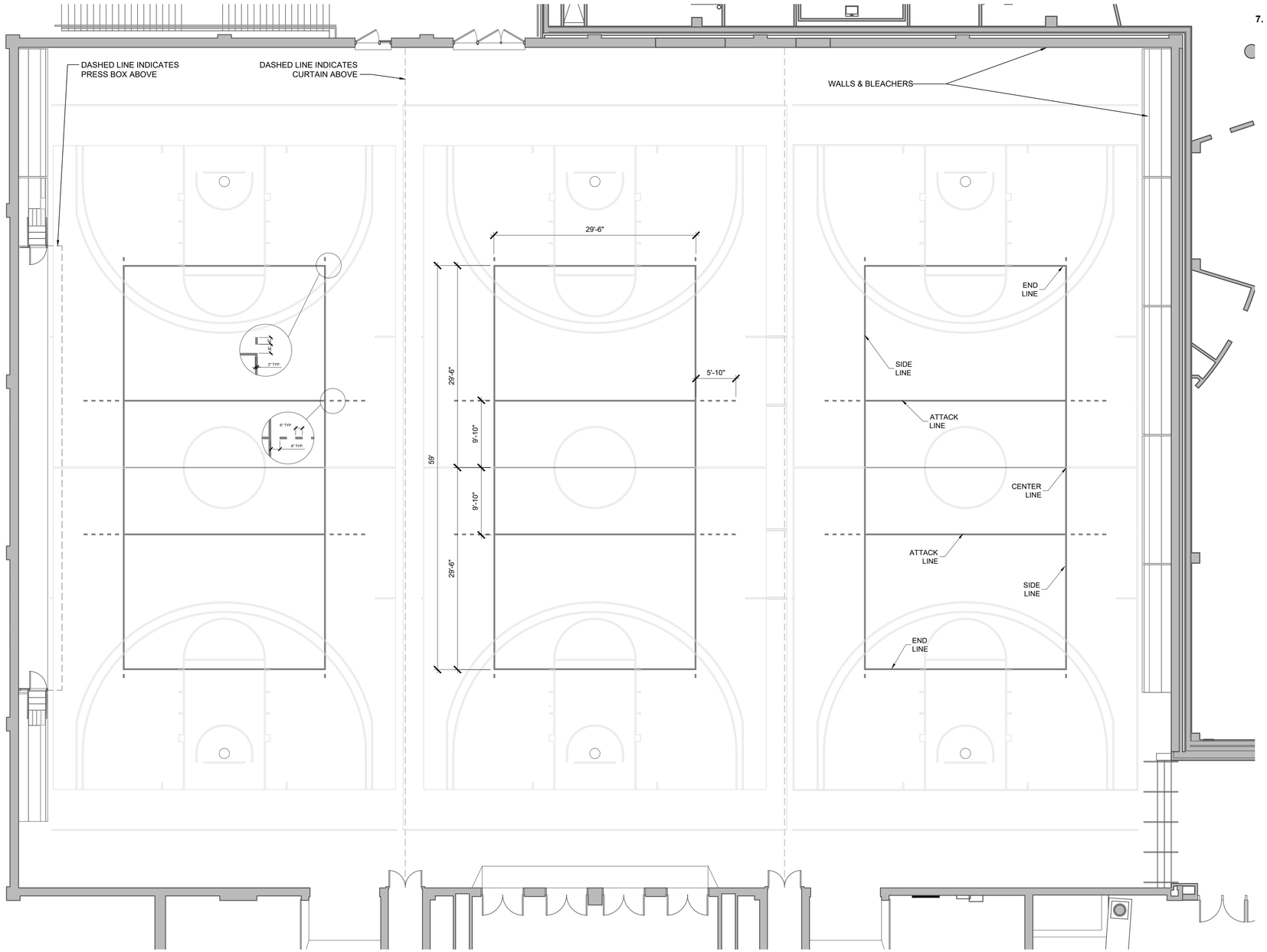
PROJECT NAME:
GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME:
BASKETBALL LAYOUT PLAN

Project No.: ECSU 2020-5
Date: 12/20/2019
Drawing No.: A-1.1
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT
JAMES PAUL GOOCH
No. 13508
LICENSED ARCHITECT

2/10/2020



NOTES:

1. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR UTILIZING THE NCAA VOLLEYBALL AND BASKETBALL RULES.
2. ALL DIMENSIONS ARE MEASURED TO THE OUTSIDE OF THE LINES.
3. SEE DRAWING A-1 FOR PAINT COLORS OF ALL LINES AND FONTS.
4. BASKETBALL COURTS ARE SHOWN FOR ALIGNMENT PURPOSES OF VOLLEYBALL COURTS.
5. VOLLEYBALL COURTS TO BE LOCATED UNDER THE CENTER OF THE BASKETBALL COURTS.
6. ALL DIMENSIONS ARE TYPICAL FOR ALL THREE VOLLEYBALL COURTS.
7. ALL LINES SHALL BE 2" WIDE.

EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

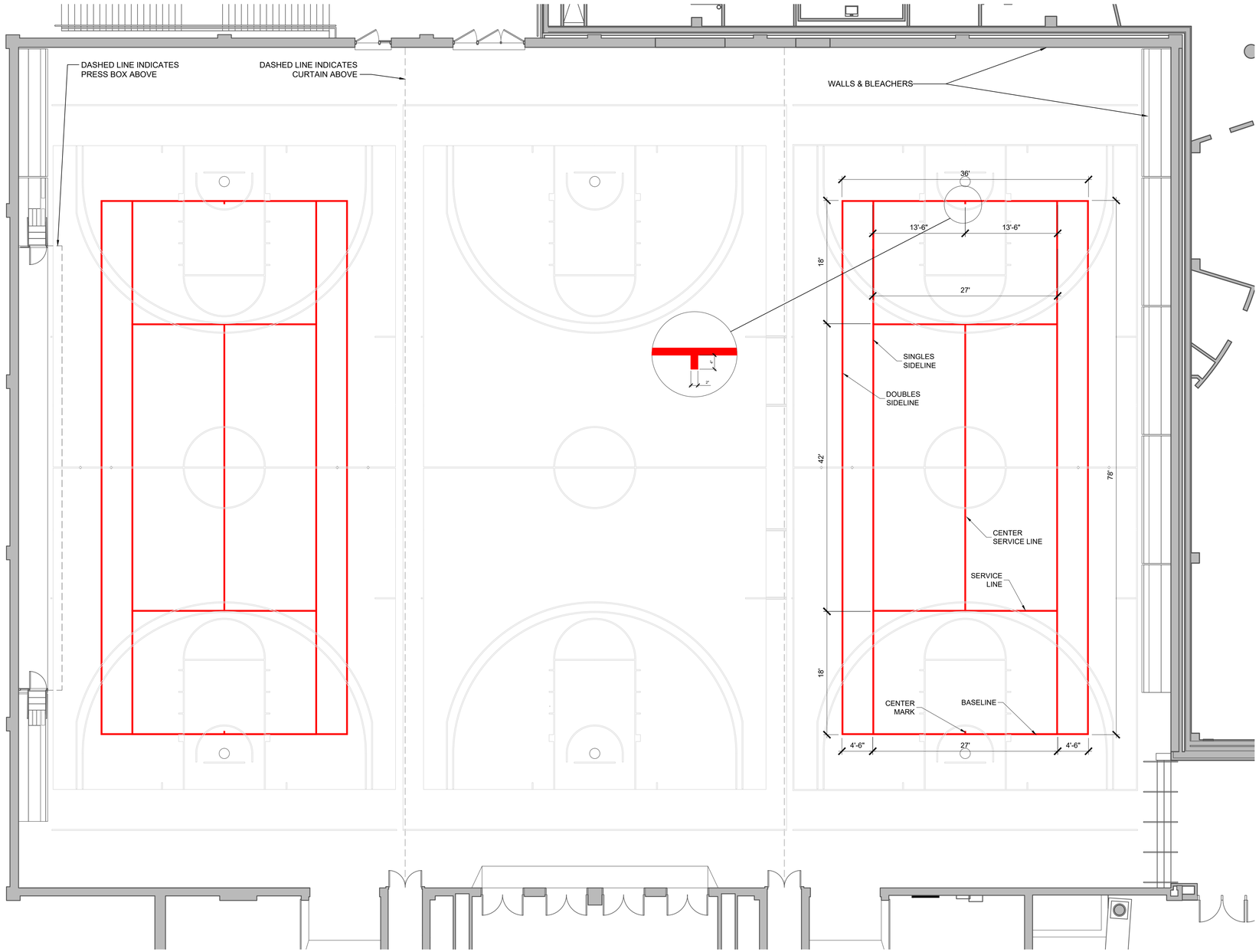
DRAWING NAME: VOLLEYBALL LAYOUT PLAN

STATE OF CONNECTICUT
JAMES PAUL DIXON
No. 13508
LICENSED ARCHITECT
2/18/2020

Project No.: ECSU 2020-5
Date: 12/20/2019
Drawing No.: A-1.2
Scale: AS NOTED
Plot Size: 24 x 36

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
2. BASKETBALL COURTS ARE SHOWING FOR ALIGNMENT PURPOSES.
3. SEE DRAWING A-1 FOR PAINT COLORS OF ALL LINES AND FONTS.
4. ALL DIMENSIONS ARE MEASURED TO THE OUTSIDE OF THE LINES, AND ARE TYPICAL FOR ALL TENNIS COURTS.
5. ALL LINES SHALL BE 2" WIDE.



EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME: TENNIS LAYOUT PLAN

Project No.: ECSU 2020-5

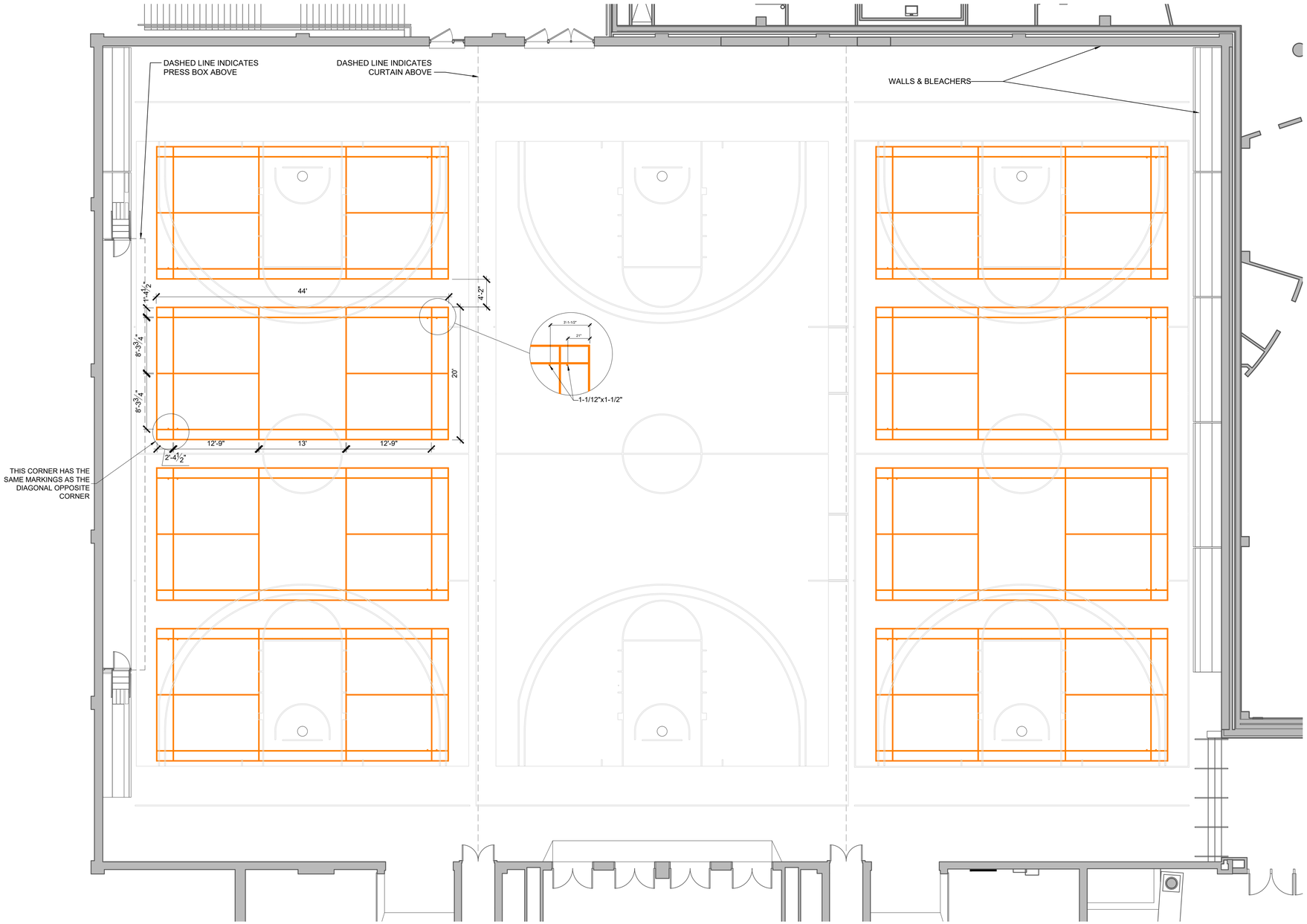
Date: 12/20/2019

Drawing No.: A-1.3

Scale: AS NOTED

Plot Size: 24 x 36

STATE OF CONNECTICUT JAMES PAUL DIXON No. 13508 LICENSED ARCHITECT 2/18/2020



NOTES:

1. ALL DIMENSIONS TO BE VERIFIED IN THE BY THE CONTRACTOR.
2. BASKETBALL COURTS ARE SHOWING FOR ALIGNMENT PURPOSES.
3. SEE DRAWING A-1 FOR PAINT COLORS OF ALL LINES AND FONTS.
4. ALL DIMENSIONS ARE MEASURED TO THE OUTSIDE OF THE LINES, AND ARE TYPICAL FOR ALL BADMINTON COURTS.
5. ALL LINES SHALL BE 1-½" WIDE.

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Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

BUILDING:
SPORTS CENTER

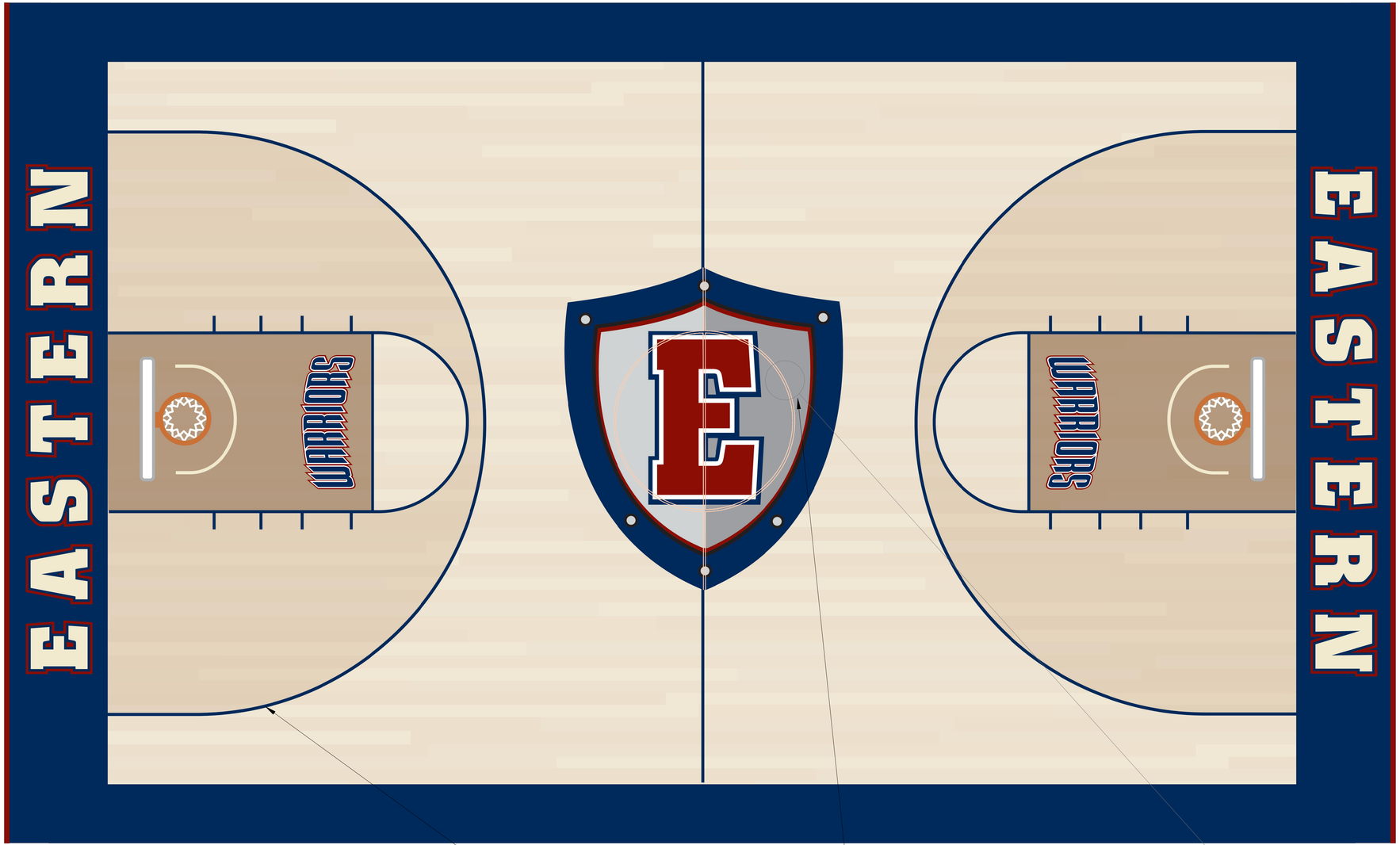
PROJECT NAME:
GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME:
BADMINTON LAYOUT PLAN

STATE OF CONNECTICUT
JAMES PAUL DIXON
No. 13508
LICENSED ARCHITECT
2/10/2020

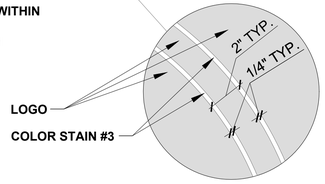
Project No.: ECSU 2020-5
Date: 12/20/2019
Drawing No.: A-1.4
Scale: AS NOTED
Plot Size: 24 x 36

STUDENT CENTER



THERE ARE TWO 3-POINT LINES, THOUGH ONLY ONE IS SHOWN IN THIS DRAWING. LINE SHOWN REPRESENTS OUTER MEN'S 3-POINT LINE IN REFERENCE TO COLORATION.

CENTER CIRCLE AND PORTION OF DIVISION LINE WITHIN LOGO SHALL BE DELINEATED BY A "SHADOW-BORDERED 2-INCH-WIDE LINE (1/4-INCH BORDERS)" PER NCAA RULES. SEE A-1.1.



PRESS BOX

Fonts
Colossalis Bold *(university name)*
Warlock Regular *(WARRIORS)*

University Colors
Pantone 289 (navy) Pantone 188 (burgundy)

NOTE:
THIS SHEET IS FOR COLOR AND GRAPHIC ART INFORMATION. LINEWORK SHOWN IS NOT TO SCALE AND IS FOR REFERENCE ONLY. SEE A-1.0 AND A-1.1 FOR BASKETBALL COURT LINEWORK DETAILS AND DIMENSIONS.

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Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

No.	Revision/Issue	Date

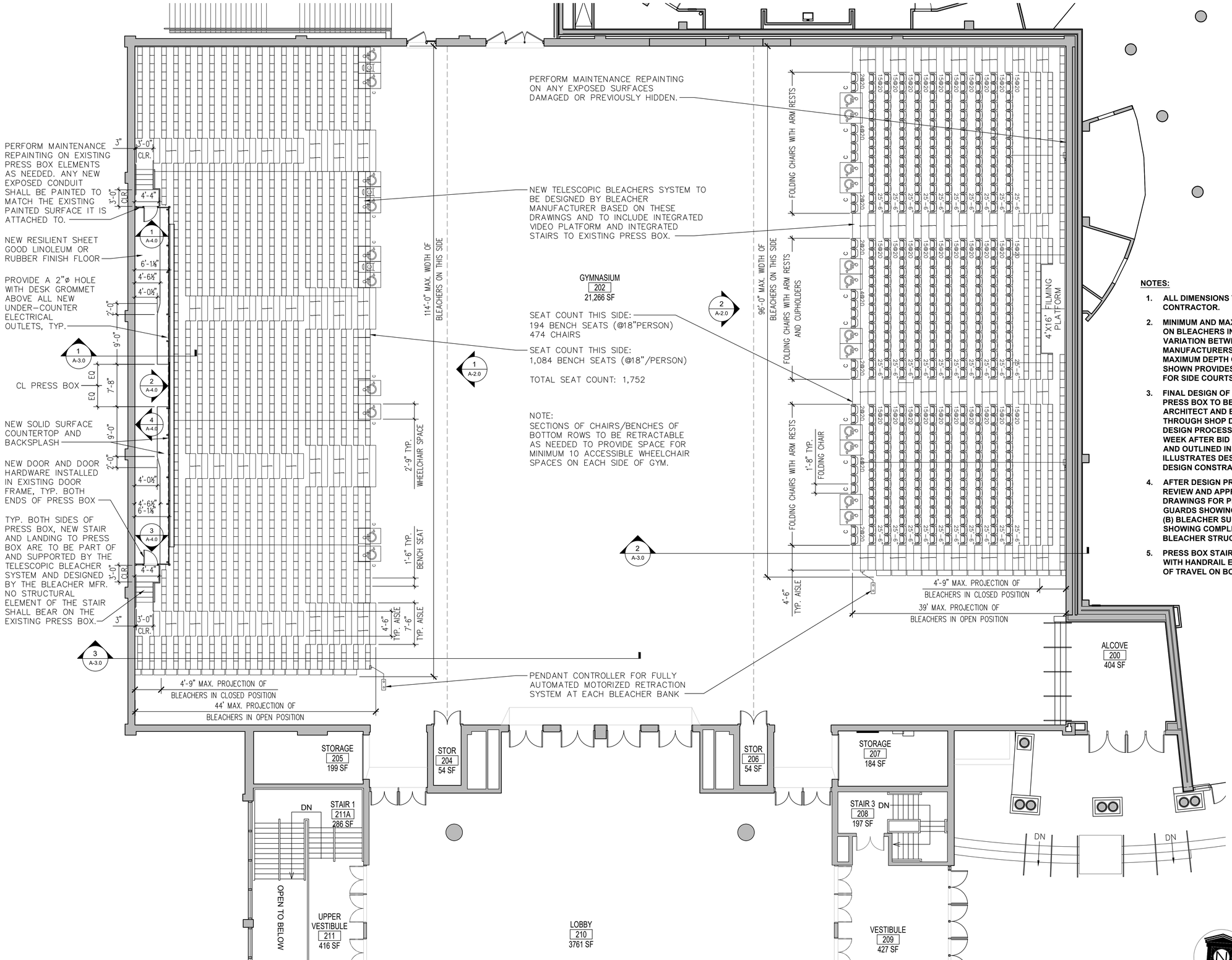
BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME: CENTER COURT GRAPHIC ART LAYOUT PLAN

Project No.: ECSU 2020-5
Date: 12/20/2019
Drawing No.: A-1.5
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT JAMES PAUL DIXON No. 13508 LICENSED ARCHITECT
2/18/2020



1 A-1.6 PRESS BOX AND GYMNASIUM BLEACHER PLAN
1/8"=1'-0"

NOTES:

1. **ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR.**
2. **MINIMUM AND MAXIMUM DIMENSIONS SHOWN ON BLEACHERS INTENDED TO ALLOW FOR VARIATION BETWEEN DIFFERENT MANUFACTURERS' STANDARD SYSTEMS. MAXIMUM DEPTH OF CLOSED BLEACHERS SHOWN PROVIDES A MINIMUM CLEARANCE FOR SIDE COURTS.**
3. **FINAL DESIGN OF STAIRS AND LANDINGS TO PRESS BOX TO BE COORDINATED WITH ARCHITECT AND BLEACHER MANUFACTURER THROUGH SHOP DRAWINGS AND MEETINGS. DESIGN PROCESS TO BEGIN WITHIN ONE WEEK AFTER BID AWARD. DESIGN SHOWN AND OUTLINED IN PROJECT MANUAL ILLUSTRATES DESIGN INTENT AND MINIMUM DESIGN CONSTRAINTS.**
4. **AFTER DESIGN PROVIDE FOR OSBI/OSFM REVIEW AND APPROVAL: (A) SHOP DRAWINGS FOR PRESS BOX HANDRAILS AND GUARDS SHOWING COMPLIANT DESIGN; AND (B) BLEACHER SUBMITTAL DOCUMENTS SHOWING COMPLIANT DESIGN; (C) BLEACHER STRUCTURAL LOAD EVALUATION.**
5. **PRESS BOX STAIRS REQUIRE HANDRAILS WITH HANDRAIL EXTENSIONS IN DIRECTION OF TRAVEL ON BOTH SIDE OF STAIRS.**

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No.	Revision/Issue	Date

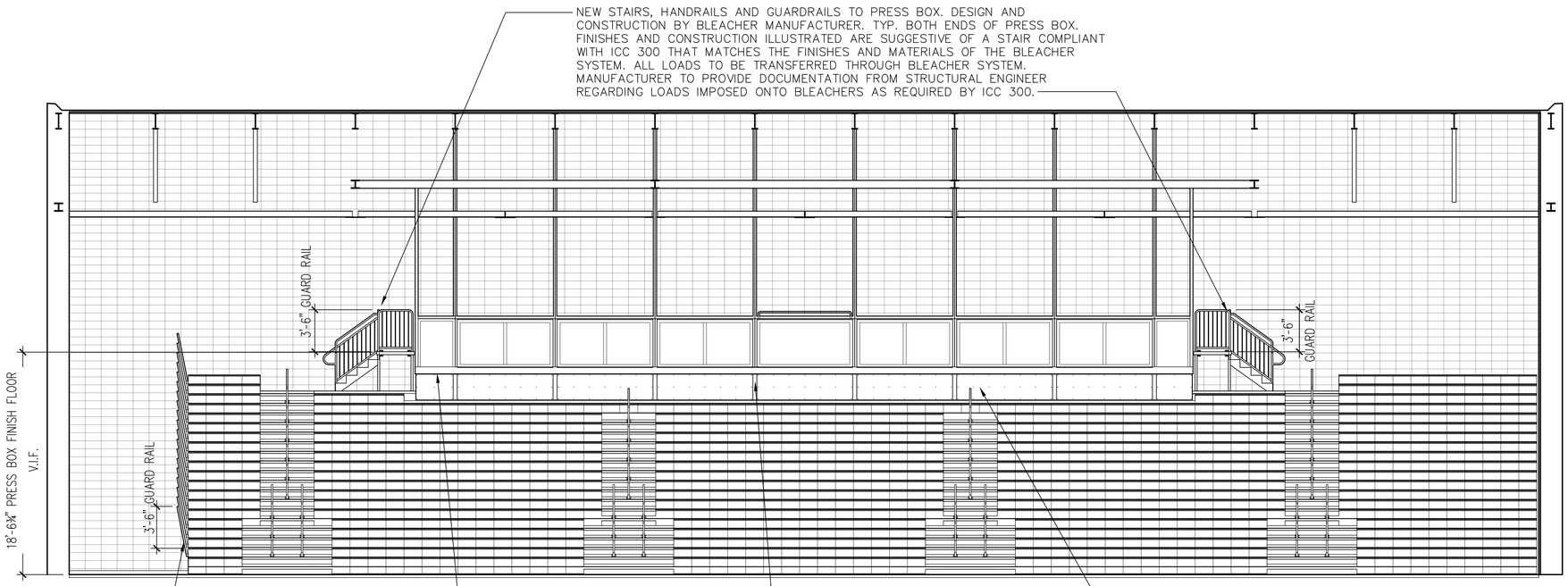
BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

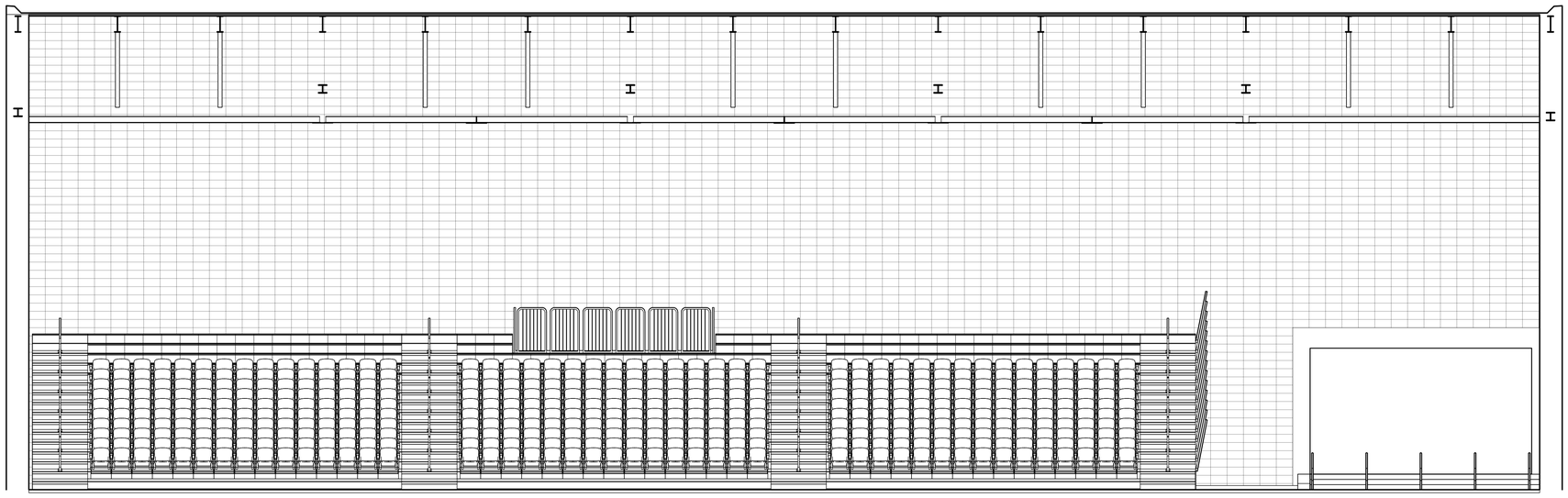
DRAWING NAME: NEW BLEACHERS AND PRESS BOX PLANS

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: A-1.6
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT · JAMES PAUL GIOCO · No. 23508 · LICENSED ARCHITECT · 2/18/2020



1 A-2.0 WEST INTERIOR ELEVATION
3/16"=1'-0"



2 A-2.0 EAST INTERIOR ELEVATION
3/16"=1'-0"

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No.	Revision/Issue	Date

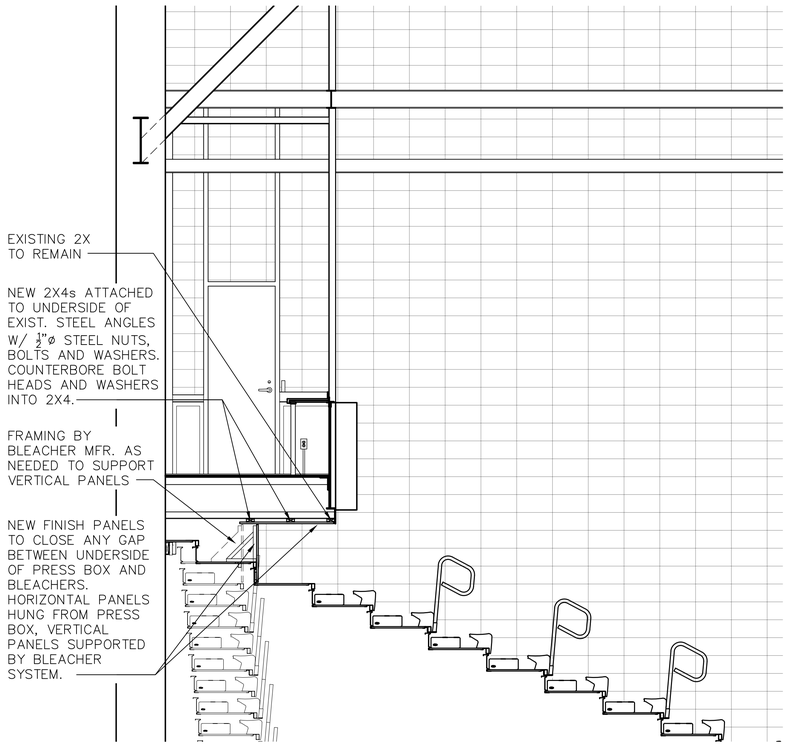
BUILDING:
SPORTS CENTER

PROJECT NAME:
GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

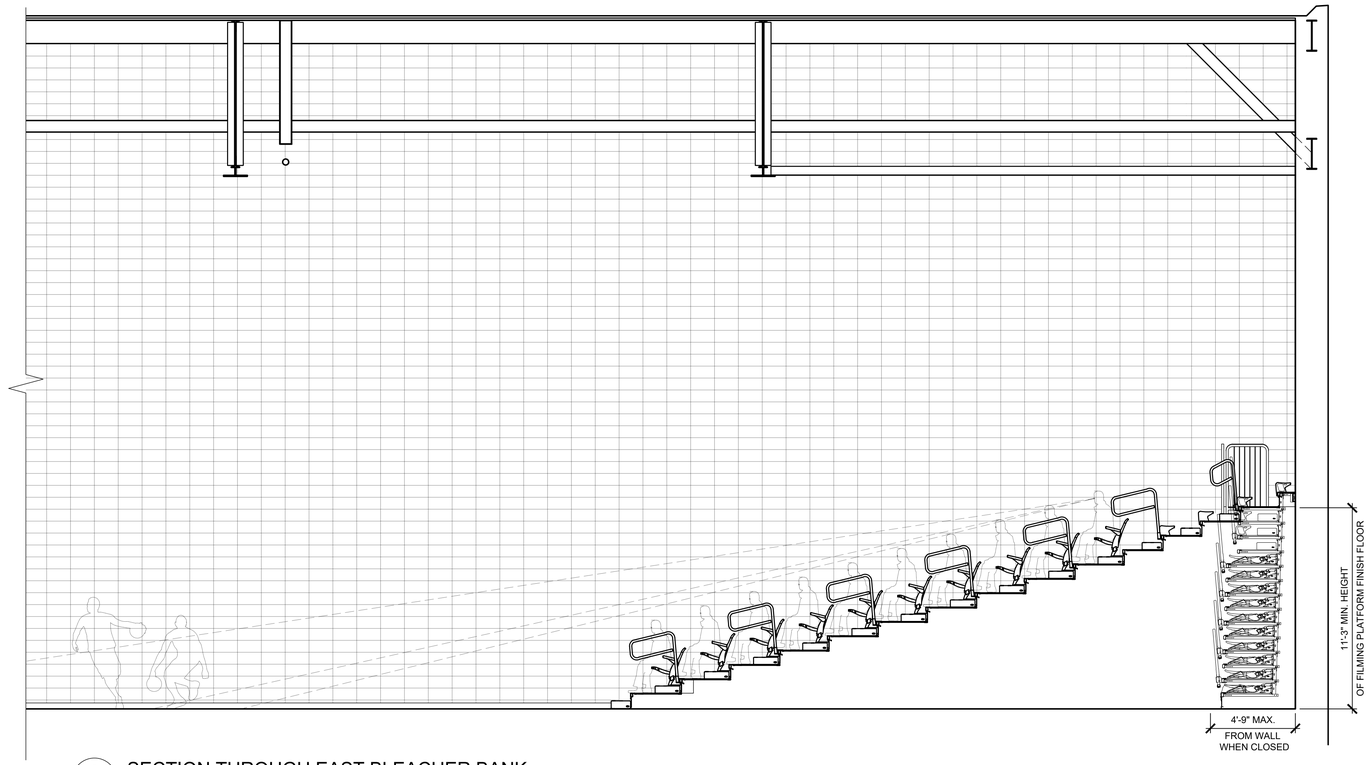
DRAWING NAME:
NEW BLEACHERS AND PRESS BOX ELEVATIONS

STATE OF CONNECTICUT
JAMES PAUL SIRAGUSA
No. 24881
LICENSED ARCHITECT
2/18/2020

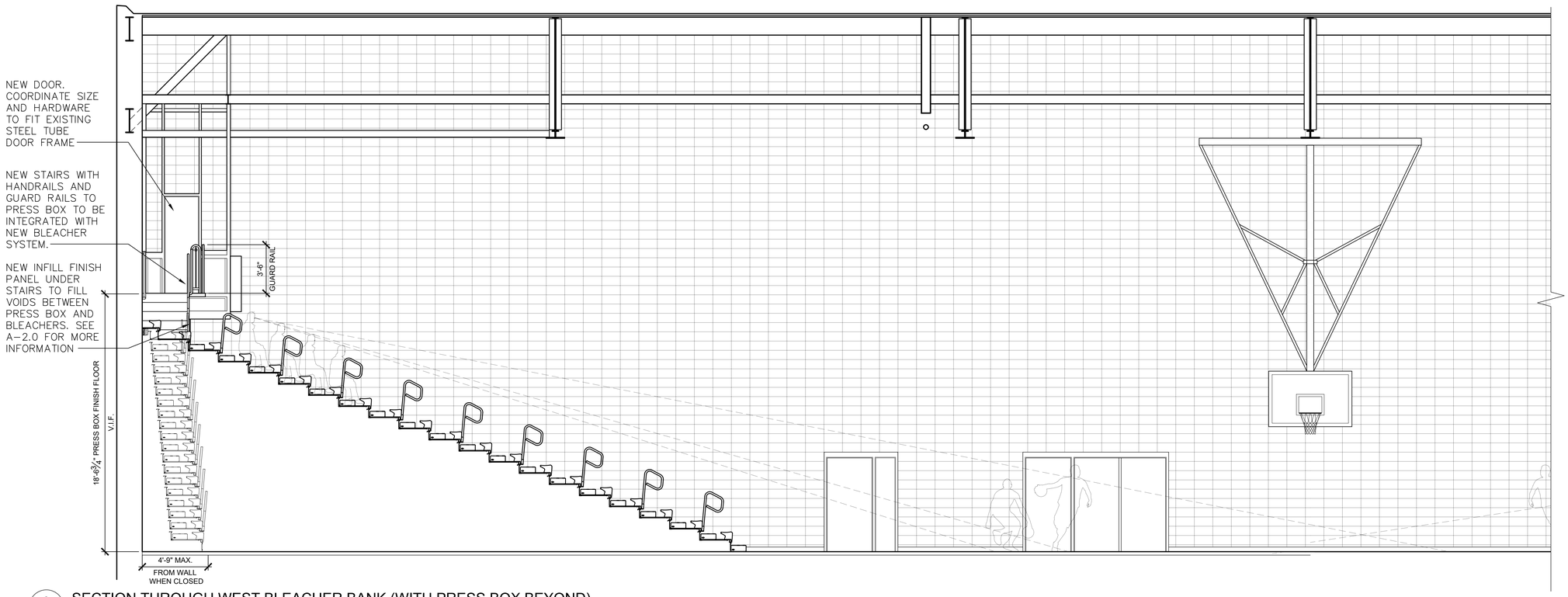
Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: A-2.0
Scale: AS NOTED
Plot Size: 24 x 36



1 A-3.0 SECTION THROUGH PRESS BOX
3/8"=1'-0"



2 A-3.0 SECTION THROUGH EAST BLEACHER BANK
1/4"=1'-0"



3 A-3.0 SECTION THROUGH WEST BLEACHER BANK (WITH PRESS BOX BEYOND)
1/4"=1'-0"

STATE OF CONNECTICUT
JAMES PAUL BURGER
No. 12008
LICENSED ARCHITECT
2/18/2020

EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
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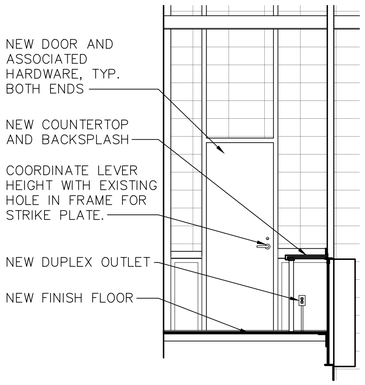
No.	Revision/Issue	Date

BUILDING:
SPORTS CENTER

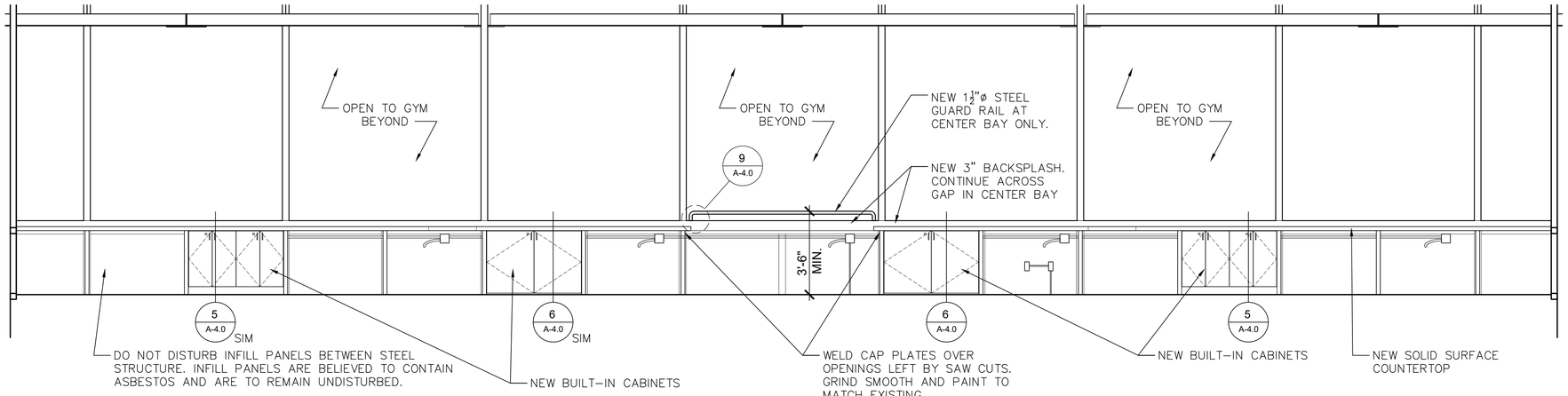
PROJECT NAME:
GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME:
NEW BLEACHERS AND PRESS BOX SECTIONS

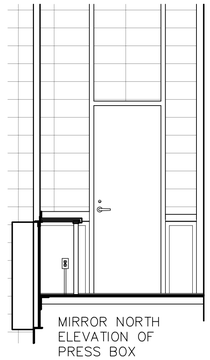
Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: A-3.0
Scale: AS NOTED
Plot Size: 24 x 36

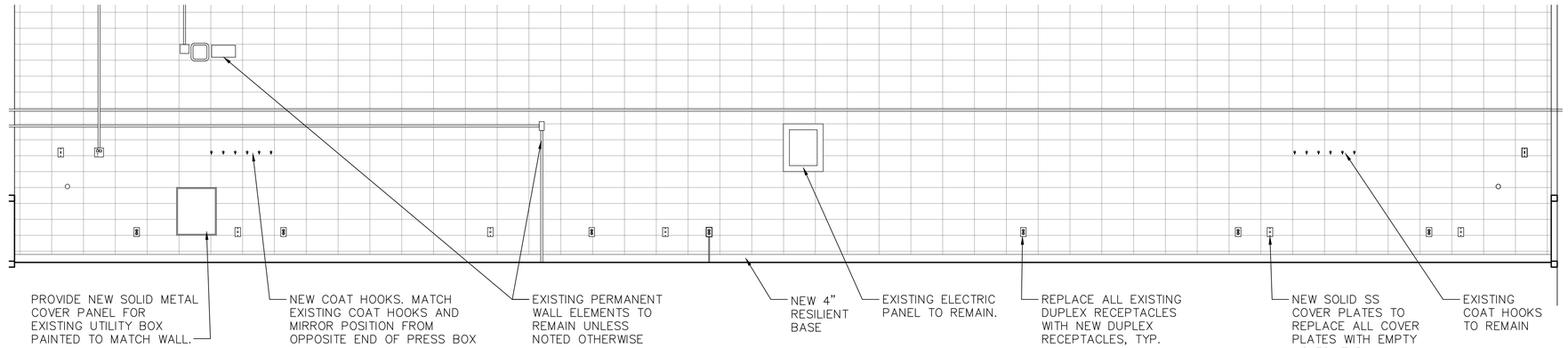


1 A-4.0 **NORTH PRESS BOX ELEVATION**
3/8"=1'-0"



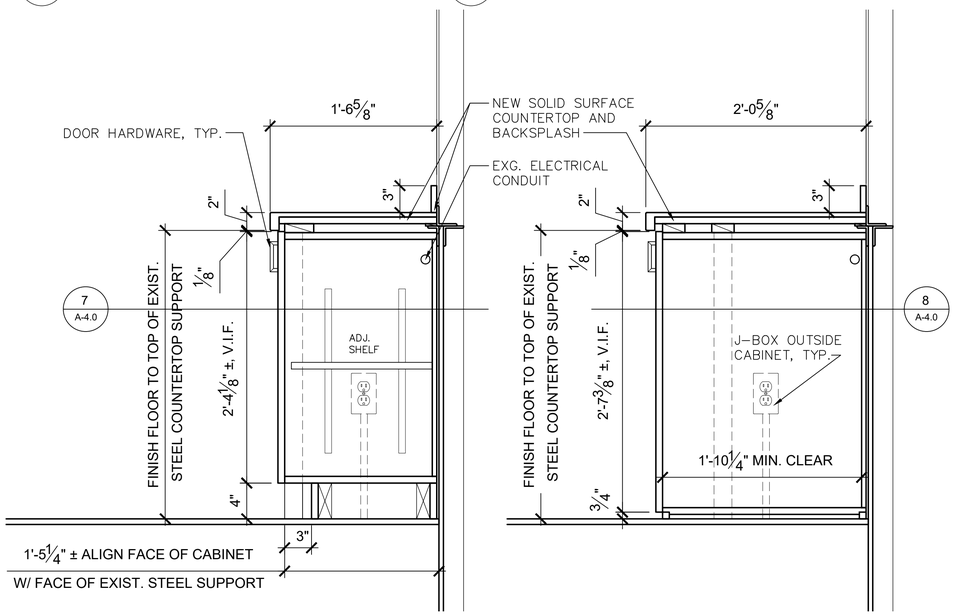
2 A-4.0 **EAST INTERIOR ELEVATION OF PRESS BOX (LOOKING TOWARD GYM)**
3/8"=1'-0"





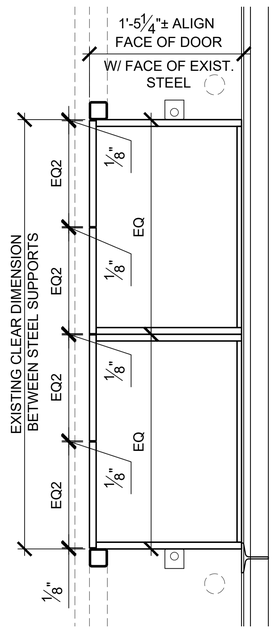
3 A-4.0 **SOUTH PRESS BOX ELEVATION**
3/8"=1'-0"

4 A-4.0 **WEST INTERIOR ELEVATION OF PRESS BOX (LOOKING AT CMU WALL)**
3/8"=1'-0"

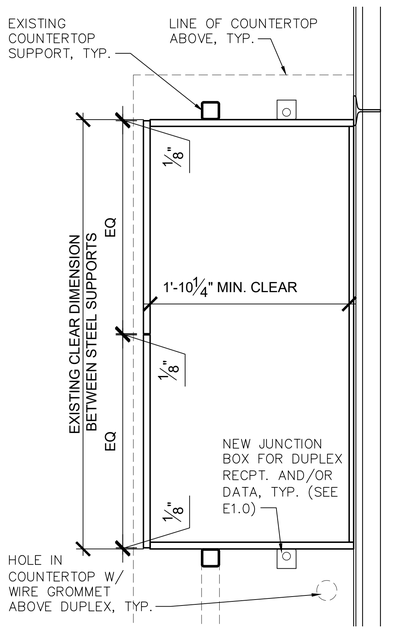


5 A-4.0 **SHALLOW BASE CABINET SECTION**
1½"=1'-0"

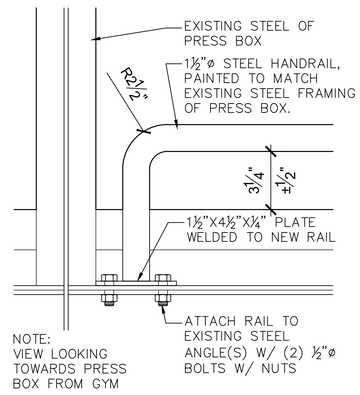
6 A-4.0 **DEEP BASE CABINET SECTION**
1½"=1'-0"



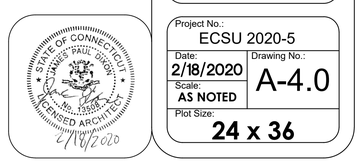
7 A-4.0 **SHALLOW BASE CABINET PLAN DETAIL**
1½"=1'-0"



8 A-4.0 **DEEP BASE CABINET PLAN DETAIL**
1½"=1'-0"



9 A-4.0 **PRESS BOX GUARD RAIL DETAIL**
3"=1'-0"



EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
83 Windham Street, Willimantic CT 06226

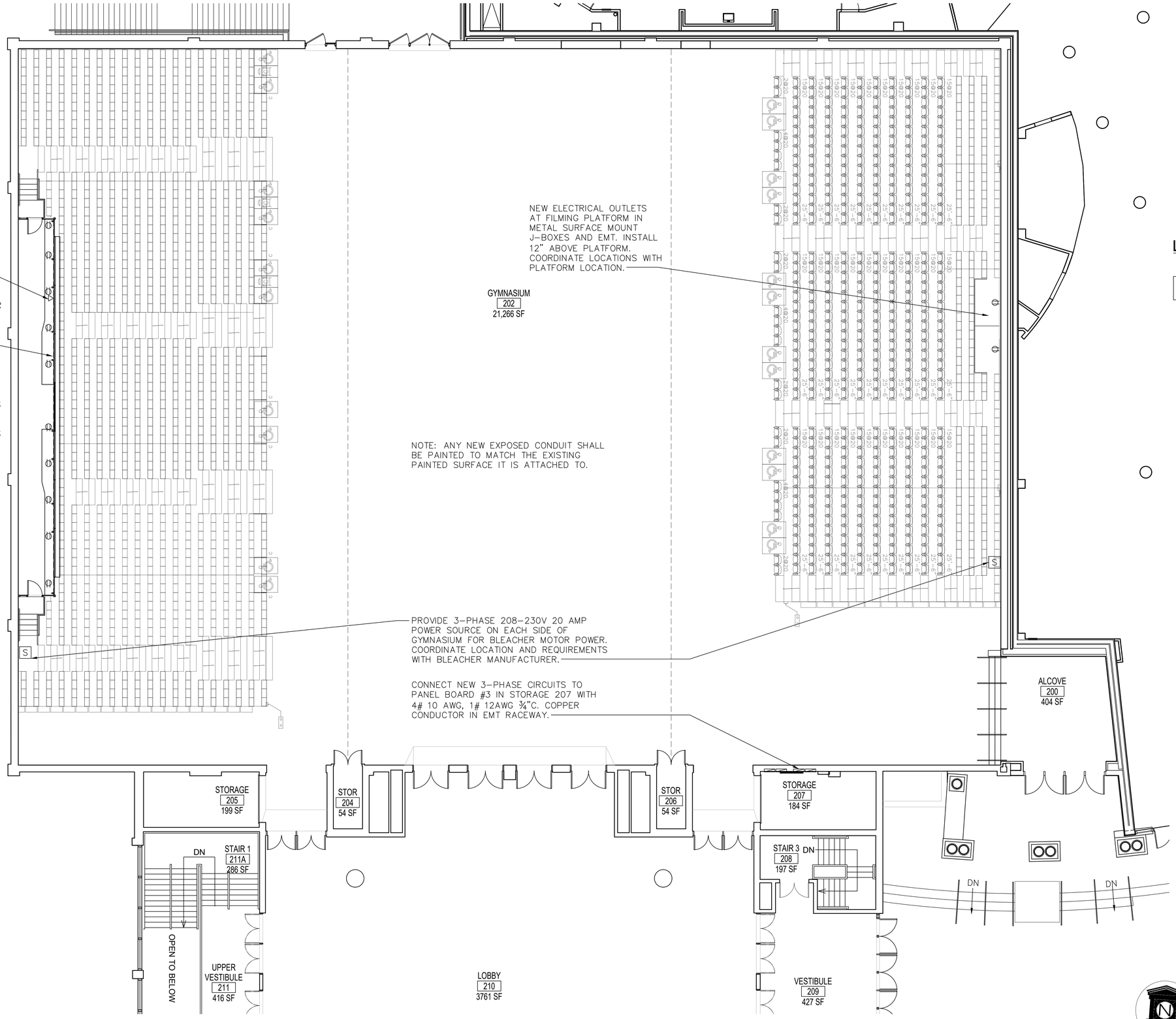
No.	Revision/Issue	Date

BUILDING:
SPORTS CENTER

PROJECT NAME:
GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME:
PRESS BOX ELEVATIONS AND DETAILS

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: A-4.0
Scale: AS NOTED
Plot Size: 24 x 36



LEGEND

- S — POWER SOURCE IN JUNCTION BOX
- ⊖ — DUPLEX RECEPTACLE
- ▷ — ETHERNET DATA CONNECTION

1 / E-1.0 PRESS BOX AND GYMNASIUM ELECTRICAL PLAN
1/8"=1'-0"

EASTERN CONNECTICUT STATE UNIVERSITY

Facilities Management and Planning
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No.	Revision/Issue	Date

BUILDING: SPORTS CENTER

PROJECT NAME: GYMNASIUM BLEACHER REPLACEMENT AND FLOOR REFINISHING

DRAWING NAME: GYMNAISUM AND PRESS BOX ELECTRICAL PLAN

Project No.: ECSU 2020-5
Date: 2/18/2020
Drawing No.: E-1.0
Scale: AS NOTED
Plot Size: 24 x 36

STATE OF CONNECTICUT · JAMES PAUL DIXON · No. 23008 · LICENSED ARCHITECT
2/18/2020