

ADDENDUM # 3 10/28/2011

989 CVH:Woodward Windows ph 11

Question: Had a quick question regarding the bid form for the above referenced project. The bid form has two (2) line items for add alternate bid #1 and add alternate bid #2 (both say if applicable), I cannot find any description for either bid alternate in the contract documents. Are their add bid alternates #1 and #2 for this proposal?

Answer: If once you reviewed the bid document and there are not any add alternates in the specifications, or blueprints then add alternate 1 & 2 on the Bid Form would be N/A.

BID WALK THROUGH SIGN IN SHEET 10/18/2011
Project # 989 CVH:Woodward Windows Ph 11

Facility Contact Name Barbara Young Contact No. 860-262-6923

FSB Representative Barbara Young

	COMPANY NAME	REP. NAME	AREA CODE & PHONE #	FAX #	EMAIL ADDRESS	initial for prevailing wage packet received.
1	OLYMPUS CONSTRUCTION	Jim Pino JR	203-878-1544	203-878-6430	Jim@OLYMPUSCONSTRUCTION.COM	Yes <i>JP</i>
2	ACTION Windows & Siding	Felix Kestov	860-953-1930	860-953-1657	actionwindows@comcast.net	<i>Yes</i>
3	R. Pelton Builders	Mike Poirier	860-828-6626	860-828-6689	mipoirier@ecosmartct.com	<i>MPP</i>
4	G. DONOVAN	Vince Young	860-642-0700x32	860-642-7994	Vince@G.DONOVAN.COM	<i>VJ</i>
5	LEGOLINK CONSTRUCTION, LLC	Alvin Carter	860-214-2454	860-263-9675	LEGOLINKCONSTRUCTION@COMCAST.NET	<i>AC</i>
6	Pioneer Builders	Marco Caminito	860-666-2320	860-666-5156	pioneerbuild@att.net	<i>MC</i>
7	Robert Bugbee					
8	THE NATMEG CO INC	Robert Bugbee	860-823-1790	860-835-1421	Bob@NATMEG.COM	<i>RB</i>
9	F.V. Coush, LLC	Frank Valke	203-257-0116	203-558-2208	f.v.coush@fc-sbc-global.net	<i>F.V.</i>
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Project 989 CVH:Woodward Windows ph 11

ADDENDUM # 1 10/12/2011

Bid opening date has been changed from Wednesday October 26,
2011 @ 10:00Am

TO

Wednesday November 2, 2011 @ 10:00AM

Everything Else Remains the same

DEPT OF MENTAL HEALTH & ADDICTION SERVICES

INVITATION TO BID

PROJECT # & TITLE: 989 CVH:Woodward Windows ph 11

PRE-BID MEETING (DATE AND TIME) (MANDATORY):

Date: October 18, 2011

Time: 10:00 AM Sharp (No late attendees admitted)

PRE-BID MEETING HELD AT:

Facility Name: Connecticut Valley Hospital/Fiscal Services Bureau

Facility Address: 1000 Holmes Drive,

Haviland Hall Top floor, Conference room

Middletown, Ct. 06457

DIRECTIONS: FROM ROUTE 9 NORTH:

Take EXIT 12. At the end of the exit ramp there is a stop sign; take a right onto BOW LANE. Take the 2nd LEFT onto HARVEY DRIVE. Haviland Hall is the building that houses the Valley View Café.

FROM ROUTH 9 SOUTH:

Take EXIT 12, then LEFT at the end of the exit ramp onto SILVER STREET. After turning onto Silver Street, turn RIGHT at Eastern Drive. LEFT into CVH Campus (CVH green [grow plants] houses will be on your Right). Bear RIGHT (CVH green [grow plants] houses still on your right). LEFT into parking lot, Haviland is the building that houses the Valley View Café.

*** ROUTE 9 can be reached from Exit 22-S of Interstate 91, or by following Route 66 to the center of Middletown where there are signs to direct you to Route 9. Route 9 also intersects with Interstate 95 via Exit 69 in Saybrook**

SEALED BID PUBLIC OPENING DATE AND TIME:

Sealed bids will be received by the date, time, and location specified and thereafter immediately publicly opened, and tabulated. Bid results are posted as a formal addendum on the DAS Bid Portal.

**PUBLIC SEALED BID OPENING DATE: October 26, 2011 TIME: 10:00 AM SHARP
(Late attendees not admitted)
Location:
DMHAS FSB Conference Room
Haviland Hall, Top Floor,
1000 Holmes Drive,
Middletown, CT 06457-1240**

This project consists of: Window Replacement

The Department of Mental Health & Addiction Services is an EEO Organization and will not knowingly do business with any contractor that does or has been found to discriminate. Minimum Wage rates are applicable to this bid as required by law.

The said State of Connecticut, Department of Mental Health and Addiction Services reserves the right to waive informalities and to accept or reject any and all parts of any and all bids. No bids may be withdrawn for at least 60 days after the scheduled closing times for receipt of bids.

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INSTRUCTIONS TO BIDDERS AND CONDITIONS OF BID

1.01 General

SEALED BIDS

BIDS MUST BE SUBMITTED IN A SEALED ENVELOPE CLEARLY MARKED:

“SEALED BID”

Project Number and Name

Date and Time of bid opening,

Name and Address of bidder.

Att: Barbara Young FAO

SUBMISSION OF BIDS

Bids may be mailed, or delivered in person to the following address to arrive by the bid closing date and time. E-Mailed or Faxed Bids will not be accepted under any circumstances. Late bids will not be accepted and may be picked up by bidder upon written request only. Extensions will not be granted.

DMHAS FSB

Havilland Hall Top Floor

1000 Holmes Drive

Middletown, CT 06457-1240

Att: Barbara Young FAO

PRE BID MEETING

To be held on-site on : October 18, 2011 Time 10:00AM

Location: Haviland Hall Top floor, Conference room

Time: 10:00 AM sharp (No late arrivals)

(Walkthrough sign in sheet is posted as a Formal addendum on the DAS Bid Portal.)

BID CLOSING DATE

Bids must be received and stamped in at the DMHAS FSB not later than 10:00 AM

On : Date October 26, 2011

(Bid results are posted as a formal addendum at time of award on the DAS Bid Portal.)

STATES RIGHTS

The State reserves the right to reject any and all bids, and to waive any informality in bids.

No bids may be withdrawn for at least 60 days after the scheduled closing times for receipt of bids.

The project will be submitted in strict accordance with the specifications as prepared by the Connecticut Department of Mental Health and Addiction Services and procedures set forth by the Department of Public Works. The amount of each BID shall be deemed to include the entire cost and expense of every item of labor and material necessary to complete the work proposed upon, as specified, in full detail, ready for use. The successful bidder shall assume the risk of all such costs and expenses.

It is the intent of the specifications to call for finished work, tested, and ready for operation. Any incidental accessory necessary to make the work complete in all respects and ready for operation even if not particularly specified, shall be provided without extra compensation. Minor products or items of work, which by custom are not usually shown or specified, but are necessary for proper installation and operation of the completed work, shall be provided in the same manner as if actually shown or specified.

During construction in a Mental Health facility, there may be delays due to various security issues. This needs to be taken into consideration in your submitted bid. The Department of Mental Health and Addiction Services will not authorize extra compensation for these delays. The department will assign a representative to work with the selected contractor as liaison.

BID LANGUAGE:

The awarded contractor must file an approved Affirmative Action Plan with the State of Connecticut's Commission on Human Rights and Opportunities.

This project is therefore subject to the State of Connecticut's set-aside goals of 25% SBE AND 6.25% MBE on the entire project amount. The awarded contractor is encouraged to solicit bids from set-aside subcontractors and/or vendors (Small Businesses, Minority, Disabled and Women owned businesses) that are currently certified with the State of Connecticut under the Department of Administrative Services' Supplier Diversity Program.

Facility Representative(s):

Dan Robertson

FSB Purchasing Representative(s):

Barbara Young

Title: Fiscal Administrative Officer (FAO)

Tel. # 860-262-6923

Fax # 860-262-6951

E-mail: barbara.young@po.state.ct.us

1.02 BID Form and Acceptance

1. All BIDs must be **received** by the date and time specified at:

DMHAS FSB
PO Box 1240
1000 Holmes Drive
CVH- Haviland Hall
Middletown, CT 06457-1240

2. BID envelopes must be clearly marked. Indicate the Project number and name and the BID opening date and time.

The name and address of the bidder should appear in the upper left hand corner of the envelope. Any correspondence shall include the project number and project name.

3. The project shall be Bid on DMHAS Authorized BID form **ONLY(2 Pgs)**

(Additional detail may be attached if necessary)

No exceptions **See Form at end of this section:**

a. **All BIDs must be signed** by a person duly authorized to sign BIDs on behalf of the bidder and/or company. **Bidders must affix Corporate or Notary Public Seal.**

b. **Incomplete BID forms WILL result in the rejection of the BID.**

c. **LATE BIDS received @ DMHAS FSB after the specified Bid opening date and time will not be considered or opened .** They will remain unopened in the project file. Unopened bids may be picked up by vendor upon written request only.

4. **The vendor is ultimately responsible for insuring that the BID is received before the due date/time at the FSB PO Box 1240, CVH- Haviland Hall, Middletown CT. There have been instances where independent commercial couriers have either delivered to the wrong location or have been late.** It is recommended that you **call prior to the BID opening** to verify that your BID has been received. All BIDS will be opened and read publicly and upon award are subject to public inspection.

5. The Department of Mental Health and Addiction Services shall have the right to accept or reject any BID within **(60)** calendar days of the BID opening date. All BID prices must be firm for a **(60)** day period unless otherwise specified. The State reserves the right to award this Contract by item or in its entirety, whichever is in the best interest of the State.

DMHAS Authorized Bid Form Pg 1 of 2

Vendor Name _____

Contact Name _____

Address _____

Phone _____ Fax _____ Email _____

Fein # _____

Project No. _____ Bid Opening Date: _____

Material Costs (Including Shipping): _____

Labor: _____

Total Base Bid _____

ADD ALTERNATE #1 (If applicable)

Material Costs (Including Shipping): _____

Labor: _____

Total ADD ALT. #1 _____

Grand total of Base and Add Alternate #1 _____

ADD ALTERNATE #2 (if applicable)

Material Costs (Including Shipping): _____

Labor: _____

Total ADD ALT. #2 _____

Grand total of base bid, Add Alt. #1 and Add Alt. #2 _____

DMHAS Authorized Bid Form Pg 2 of 2

The General Contractor on this project will be required to perform not less than (50%)
Of the completed dollar value of the work with its own forces

I (we), the undersigned, hereby declare that I am (we are) the only person(s) interested in this proposal: That it is made without any connection with any other person making any bid for the same work: that no person acting for, or employed by, The State of Connecticut is directly or indirectly interested in this proposal, or in any contact which made be made under it, or in expected profits to rise there from: that this proposal is made without directly or indirectly influencing or attempting to influence any other person or corporation to bid or to refrain from bidding or to influence the amount of the bid of any other person or corporation: that this proposal is made in good faith without collusion or connection with any other person bidding for the same work: and that 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 investigation and research and not in reliance upon any representations of any employee, officer or agent of the state.

Contractor Owner/Officer _____

Date: _____

Title _____

Address _____

City, State, Zip _____

(AFFIX CORPORATE OR NOTARY PUBLIC SEAL)

1.03 BID Schedule

The project shall be bid as per specifications for the complete project.

- A. Labor shall be separated from materials and the dollar amount totaled separately and submitted on **Section 1.02 DMHAS Authorized Bid Form only.**(2 Pgs)
(Additional details may be attached if necessary)
- B. Prices should be extended in decimal, not fraction, to be net, and shall include transportation and delivery charges fully prepaid by the Contractor to the destination specified in the BID, and subject only to cash discount.
- C. Add/Alternates should be priced out separate from Base BID and submitted on **Section 1.02 DMHAS Authorized Bid Form only.**
(Additional details may be attached if necessary)

1.04 Scope of Work

Project consists of Window Replacement, to include but not limited to, the following:

- Provide all necessary materials, labor, and equipment to complete the installation of approximately 117 new windows for CVH - Woodward Hall. Verify In Field.
- Project includes selected demolition of old windows and installation of new commercial, aluminum, single hung windows and 2" Aluminum Frame windows on the basement level, as shown on plans.
- First phase of this project utilized the following window: TRACO NX-540 H-C50 3-1/4" Single Hung Tilt Commercial Thermal Aluminum Window(See specifications for details) 2nd Phase must utilize the same window selection.
- Install all new windows per manufacturer's installation instructions in a workmanship-like, weather tight manner.

11" x 17" DRAWINGS (NOT TO SCALE) WILL BE PROVIDED FOR REFERENCE AT THE PRE-BID WALK-THROUGH.

NOTE: PROJECT SPECIFICATIONS AND DRAWINGS ARE INCLUDED WITH THESE BID DOCUMENTS. FULL SCALE COPIES OF DRAWINGS AND SPECIFICATIONS ARE ALSO AVAILABLE FOR PURCHASE AT ANY JOSEPH MERRITT & COMPANY LOCATION.

CONTRACTORS ARE ADVISED TO CALL AHEAD FOR COPIES (AND PRICING INFORMATION):

DANBURY	203.743.6734		
HARTFORD	860.296.2500	NEW HAVEN	203.562.9885
WATERBURY	203.753.2721	WATERFORD	
860.444.9627			

1.05 Pre Bid Meeting Location and Examination of Site

1. The work will be performed at: Woodward Hall
2. **Mandatory Pre-BID Meeting** :All contractors proposing for this project **must attend** the mandatory Pre-BID Meeting to visit and examine the site before proposing, and to verify job conditions and dimensions. This meeting is intended to review the BID requirements, documents and answer any questions pertaining to the bid.
3. Time, date, location and point of contact of Mandatory Pre-BID Meeting are as noted on BID package cover sheet.
4. **Pre-BID Meeting Late arrivals will not be permitted. The Pre bid meeting will start promptly @ 10:00AM. No one will be admitted past 10:00 AM** and vendors will not be given credit for attendance nor allowed to participate in the BID process. **Failure to attend this meeting will result in the rejection of your bid.**
5. The FSB will monitor any questions addressed during this mandatory Pre-BID Meeting (walkthrough.). Any questions that cannot be answered will be documented and answered as a formal addendum on the DAS Bid Portal. Vendors are responsible to check portal before bid submission to insure they are aware of latest addendums etc.
6. **Questions:** Any vendor questions AFTER this walkthrough must be addressed via **E-mail only** to designated **FSB Purchasing Representative** and will be answered as a formal addendum on the portal to ensure all vendors have equal information regarding this bid. **All e-mailed questions must be received 7 working days prior to the bid opening date.**
7. **The vendors must not have any contact with the facility prior to the contract award,** otherwise the bid becomes tainted and violates the Governor's Executive Order # 3. (Open and Equitable Bidding).
8. A contract award is not final until all bids have been thoroughly reviewed for completeness and compliance and a State Purchase Order issued.
9. **BIDS received from non-attending contractors will not be honored and disqualified.**

1.06 Contractor Qualification Requirement

The contractor shall demonstrate capability to execute this contract by submitting evidence of the following:

1. Ability to perform the contractual services as reflected by technical training and education; general experience, and specific experience in providing the required supplies, materials, equipment or contractual services; and the qualifications and abilities of personnel proposed to be assigned to perform the contractual services; the personnel, equipment, and facilities to perform the contractual services currently available or demonstrated to be made available at the time of contracting; and, a record of past performance of similar work in regard to supplies, materials, equipment or contractual services.
2. It is the responsibility of the contractor to secure all licenses, permits, approvals, or other documents necessary to complete this project.
3. Listing of at least three projects of similar scope and size that were performed within the last twelve months. Include the name, address and telephone number of a contact at each job that can be contacted and who is familiar with the project.
4. The Contractor shall use only skilled workmen who are trained and experienced in the necessary crafts and familiar with the specifications and methods needed to properly perform the work required by this project.

1.07 Form of Guarantee—Warranty

- A) All work shall be covered by the standard one (1) year guarantee from the date of substantial completion, and the material per the manufacturer's warranty.

The Contractor shall furnish to the Facility's Director of Plant Operations the foregoing documents in the following manner: Name and number of project.

I (We) hereby guarantee (or warranty) the _____ work on the referenced project for a period of _____ years from _____ to _____, against failures of workmanship and/or materials in accordance with IB 1.07 of the specification.

All guarantees supplied by subcontractors, suppliers or manufacturers will be counter signed by the General Contractor.

The contractor must remove any and all defective work and replace with material that meets specification requirements.

1.08 Codes, Rules, Ordinances & Approvals

1. All materials furnished and all work installed shall comply with all the latest, at the time of construction, applicable State and Local codes, laws and ordinances, rules and regulations. **Vendors MUST be licensed with the State of CT and provide a copy of license with submission of bid.** If the project scope of work does not require vendors to have a contractor's license, then the vendor must provide proof that they are a registered business entity with the Secretary of the State of Connecticut on the CONCORD Website.
2. It is the intention that the specifications not violate any of the above. Where violations occur, such codes, laws, rules, ordinances, regulations and recommendations shall be complied with. The Contractor must call any and all such violations to the attention of the designated Facility contact before making any changes to the specifications or proceeding with work.
3. The Contractor shall at his expense give all notices, obtain all permits, licenses and approvals; pay all government taxes, fees and other costs in connection with the work; and obtain all required certificates of inspection for the work and deliver same to the designated Facility contact before requesting acceptance and final payment.

All apparatus, equipment and construction shall comply with the recommendations of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America and OSHA of 1970 and approved revisions.

1.09 Protection of Work and Property

Use of Premises

1. Nothing contained in the specifications shall be interpreted as giving the contractor exclusive use of the premises where the work is to be performed.
2. The contractor shall be held solely responsible for any and all damage to the existing structures; systems, equipment and site caused by him or his employees and shall repair or replace same to their original condition as directed at no additional cost to the Facility.
3. The work in this contract shall not interfere with the normal conditions and safe operation of the Facility and if such interference appears possible because of new connections to existing work or other reasons, the work involved must be done at a time and in a manner directed by the Facility as a part of the contract.
4. All building equipment, furnishings, grounds landscaping, etc., shall be protected from damage of every description and any such damage thereto shall be repaired or otherwise made good at no expense to the State and to the satisfaction of the Facility Representative.

5. The contractor shall supply and install any and all protective coverings and barricades necessary to protect at all times the patients, public and building personnel and the building from injury. The contractor shall provide and install all plastic sheeting, batten cleats and other materials, which he may require to protect all open, unfinished work at the end of each and every day.
6. The contractor shall be held responsible for, and must make good at his own expense, any water damage or any other cause of damage due to improper protection.
7. Due to the nature of this institution, it is mandatory that all rules and regulations are strictly adhered to and the necessary precautions taken.
8. The contractor is responsible to assure that all work is performed in accordance with all current State regulations including, but not limited to, OSHA, State Fire Codes, and the Basic Building Code of the State of Connecticut.
9. The contractor will at all times keep the premises free from the accumulation of waste materials or rubbish caused by his employees or work. All accumulated material shall be removed from the site daily at the contractor's expense.
10. It is the policy of DMHAS Facilities to prevent construction related infections and to identify and institute any and all precautions necessary during construction.

Internal Construction Activities. Depending on the scope of the project, and as determined in the Infection Control Risk Assessment performed by the Facility's multi-disciplinary team (which may consist of a member of the Plant Operations Department, an Infection Control Practitioner, Director of Patient Safety and Safety Officer) the contractor may take any or all of the following measures:

- a. Construct barriers to prevent dust from construction areas from entering patient-care areas. Barriers must be impermeable to fungal spores and in compliance with local fire codes.
- b. Seal off and block return air vents if rigid barriers are used for containment.
- c. Implement dust control measures on surfaces and divert pedestrian traffic away from work zones.
- d. If necessary, create negative air pressure in work zones adjacent to patient care areas and insure that required engineering controls are maintained. Monitor negative airflow.
- e. Monitor barriers and insure integrity of same. Repair gaps or breaks in barrier joints.
- f. If practical, seal windows in work zones, e.g. plastic sheeting.
- g. Direct pedestrian traffic away from construction zones.
- h. Provide construction crews with: Designated entrances, corridors and elevators if possible, essential services (e.g., bathroom facilities) and a space or ante room for changing clothing and storing equipment. If it is necessary to travel to patient areas from the construction zone, construction crew will don coveralls, footgear and headgear.
- i. Contractor shall clean work zones and their entrances daily.

- j. Contractor shall cover and secure debris prior to removal from the construction area.
- k. In patient care areas, for major repairs that include removal of walls and disruption of the space within, the contractor may be asked to use plastic sheets or prefabricated plastic units to contain dust and a HEPA (High Efficiency Particulate Air) filter machine to clean the air.
- l. Upon completion of the project, contractor shall clean the work zone according to facility procedures, prior to removing the construction barriers.

Due to the nature of these institutions, it is required that all rules and regulations be strictly adhered to and the Facility's schedule must be maintained. The contractor shall keep the Designated Facility contact informed as to location and hours of operations so that necessary precautions can be taken if needed.

Fire Protection:

The contractor shall, during the progress of construction, assume all responsibilities for loss or damage by fire to the work included in his contract until completion of the contract. 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 any building at any time.

- A) The contractor shall not, at any time, for any reason, or by any means, block, impede or inhibit the free flow of egress, for example at hallway and exit doors.
- B) The Contractor shall ensure free and unobstructed access to emergency services and for fire, police, and other emergency forces.
- C) The contractor shall ensure that additional fire-fighting equipment and trained personnel are on site as required by OSHA and other regulatory authorities.
- D) The Contractor shall prohibit his employees from smoking in the buildings, or in the areas adjacent to construction areas.
- E) The Contractor shall develop and enforce storage, housekeeping, and debris removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level.
- F) The Contractor shall provide and maintain his own independent portable toilet accommodations (unless approved otherwise).
- G) The contractor shall supply to the agency a copy of all Material Safety Data Sheets (MSDS) for all products used in the process of construction, construction materials and products brought onto the premises.

The Contractor shall secure his unfinished work areas at the close of business each day to preclude passage by any and all unauthorized persons.

1.10 Security Regulations, Tools/Equipment Control & Vendor Conduct

The following regulations and guidelines are “general” in nature and vendor(s) may be subject to more restrictive regulations and guidelines while performing work in any one of the DMHAS facilities.

TOOLS:

- All tools are to be accounted for at all times.
- At NO time shall tools or equipment be left unattended.
- At the end of the day, tools left behind MUST be secured with a padlock.
- Missing tools or equipment must be immediately reported.

PATIENT & EMPLOYEE CONTACT:

- Contractors shall NOT have any contact with employees or patients. Exception to be employees that are involved with the work to be performed.
- Providing personal favors, errands, money, cigarettes, etc. to patients is STRICTLY prohibited.

WEAPONS & ILLEGAL SUBSTANCES:

- NO Weapons, Alcohol, or Drugs shall be brought onto facility grounds.
- Smoking is NOT permitted in the building or within 30 feet of the building.

CONFIDENTIALITY:

- NO Pictures shall be taken of patients. Any pictures required to document project progress SHALL NOT contain patients. Advanced approval to take pictures shall be requested.
- DO NOT acknowledge patients that you may know from the outside.
- DO NOT disclose any information that you may learn (while working inside a facility) to other people.

SAFETY

- All injuries shall be immediately reported to the work crew supervisor and facility coordinator.
- All workers shall remove ignition keys and lock their vehicles. No parking in fire lanes.
- Egresses cannot be blocked.
- No disruption to fire alarm/fire suppression systems without prior notification/approval.

- The integrity of the building cannot be tampered with.

1.11 Notice to Proceed

The contractor shall not start work until he has a fully executed approved purchase order. Within five (5) working days after receipt of the purchase order and prior to the start of construction, the contractor shall schedule a pre-construction meeting with the facility representative and at that time a start date will be established.

1.12 Time of Completion –Contract Time

The contractor shall complete the project within **180** calendar days of contract award or notice to proceed (receipt of Purchase Order). Once on site, the contractor's work force shall remain mobilized until work is completed unless otherwise is specifically approved by the facility representative. Working days for this project shall be Monday through Friday, exclusive of State or national Holidays. No Saturday or Sunday work shall be allowed without special written permission by the facility representative.

Upon completion of the contract, the contractor shall make a request in writing to the Facility Physical Plant Department for an inspection of the work.

The Contractor shall provide safe access to the work for use by the Designated Facility contact for an inspection of the work with the contractor's representative.

1.13 Liquidated Damages

It is hereby declared and agreed by and between the contractor and the State of CT/DMHAS that the date of commencement, rate of progress, and time of completion of the work are essential provisions, conditions and that it would be impracticable and impossible to determine and ascertain the actual damages the State of CT/DMHAS would incur by reason of a delay in the completion of the work. It is, therefore, agreed by and between the contractor and State of CT/DMHAS that, at the discretion of the State of CT/DMHAS, the contractor shall and does hereby agree to pay the State of CT/DMHAS as liquidated damages (and not as a penalty) the sum of two hundred dollars (\$200.00) for each and every working day that the contractor shall be in default, hereunder for failing to complete the project on the date specified above except as such date shall be extended, in writing upon request of the contractor, for the period of an excusable delay. Any such payments due to the State of CT/DMHAS by the contractor may be deducted by the State of CT/DMHAS from any sums due to the contractor.

1.14 Payment

Payment will be processed as follows:

1. Projects under \$25,000 - A single invoice submitted by the prime contractor following the acceptance of the completed project.
2. Projects \$25,000 or greater - Three invoices submitted by the prime contractor; one when all material or equipment is on site or the project is 50% completed (which ever is greater), two when the project is substantially complete, and three when the project is totally complete and accepted. It is the agency's prerogative to retain 10% of the final payment for a period up to 90 days to insure the final completion and functionality of installed components and systems.
3. Payment terms: 45 days after completion of the work. Special payment incentive discounts may be offered.
4. The invoice shall contain the State Purchase Order number. Invoices received without reference to a valid State Purchase Order number will result in delay of payment

1.15 Salvage and Disposal

1. All removed materials that are salvageable (copper or lead) are the property of the Facility and shall be delivered to and accepted by Facility personnel at a time mutually agreeable to the contractor and the Facility, unless otherwise directed by the Facility.
2. All debris resulting from the performance of this contract will be the property of the contractor and shall be completely picked-up and containerized at the building site not less frequently than at the close of business daily.
3. The Contractor for this project shall provide the dumpster to receive all debris generated as a by-product of the work called for herein. The Contractor shall cover the dumpster at the close of business each and every day.

1.16 Wage Rates

Prevailing wage rates are applicable **if the submitted BID exceeds the sum of \$400,000.00 (for new construction) or \$100,000.00 (if renovation/alteration)**. The contractor is responsible for assuring that the payment of wages are as published by the Connecticut State Labor Department for the area where the job is being performed.

In accordance with the provisions of Section 31-53 of the General Statutes of Connecticut, 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 this section (31-53 of the General Statues), 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."

All contractors must submit weekly to Department of Mental Health and Addiction Services Facility Representative, a certified payroll and compliance statement. A copy of this statement will be kept on file at the facility and a copy will be forwarded to the Department of Labor. The certified payroll shall be considered a public record, and every person shall have the right to inspect and copy such records in accordance with the provisions of section 1-15, Connecticut General Statutes. A *Payroll Certification for Public Works Projects* form has been attached following the Wage Rate section of this contract if applicable.

Prevailing Wage Annual Adjustment

Any contract awarded on or after October 2, 2002 requires all contractors and subcontractors to pay the annual prevailing wage rate increases posted on or before July 1st each year, after the issuing of the initial rate schedule by DOL for the project. The rates can be found at www.ct.gov/dol go to Wage and Workplace Standards Division, Prevailing Wage Information, Annual Prevailing Wage Rates by Town or at <http://www.ctdol.state.ct.us/wgwkstnd/prevailing-rates/rates.htm>.

THE LAST PAGE OF THE INITIAL RATE SCHEDULE ADDRESSES THE ISSUE OF ANNUAL RATES. THAT THE CONTRACTOR HAS ALREADY BEEN NOTIFIED THAT HIS BID SHOULD TAKE INTO CONSIDERATION WHATEVER THE ANNUAL INCREASE MAY BE - THEIR BEST ESTIMATE.....AND THEY HAVE NO LEGAL STANDING TO COME BACK TO THE AGENCY FOR ANY CHANGE ORDER INCREASE SOLEY BECAUSE THE ANNUAL RATES GO UP.

STANDARD CONDITIONS

1.17 Bonds

1. **If submitted BASE BID exceeds \$50,000. A BID surety** of not less than 10% of BID amount is required to accompany BID in the form of a bond or certified check made out to the Treasurer State of Connecticut. Unawarded vendor bonds returned upon written request. If any Add/ alternate (Priced separately) is chosen after the bid opening that brings total amount of bid over 50,000.00 then vendor is required to provide Bid Bond within 24 hrs of e-mail or fax notification.
2. **A performance, and labor and material payment, surety** of not less than 100% of BID amount is required of low bidder in the form of a bond made out to the Comptroller of the State of Connecticut **if submitted BID exceeds \$50,000.** It is to be submitted to the Department of Mental Health and Addiction Services prior to award of contract and issuance of purchase order.

1.18 Insurance

1. The Contractor shall not start work under this contract until he has obtained the following insurance and until the insurance has been approved by the State of CT/DMHAS nor shall the contractor allow any subcontractor to start his work until insurance required by the subcontractor has been obtained and approved. **The contractor shall send insurance certificate with sealed bid documents to DMHAS FSB Purchasing, PO Box 1240, CVH - Haviland Hall, Middletown, CT 06457**
3. The Contractor shall take out and maintain during the life of the contract, workers' compensation insurance for all employees working at the site and, in case any work is sublet, the Contractor shall require the subcontractor to provide workers' compensation insurance for all of the latter's employees. In case any class of employees engaged in hazardous work under this Contract is not protected under the workers' compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, insurance for those employees.
4. The Contractor shall take out and maintain during the life of a contract, public liability and property damage insurance to protect him and the State of CT/DMHAS's interest as their interests may appear. Each subcontractor shall take out and maintain insurance to protect him from claims for damage for injury, including accidental death and from claims for property damage, which may arise from operations under this contract, whether such operations are by himself or by any subcontractor or by any employee unless such employees are covered by the protection afforded by the Contractor. Types and amounts of insurance required shall be as follows:

DESCRIPTION		SINGLE COVERAGE	LIMIT	EACH ACCIDENT	AGGREGATE
Protective Liability	BI	\$1,000,000			
Protective Liability	PD	\$100,000		\$500,000	
		(for and in the name of the State of Connecticut)			
Contractor's Liability	BI	\$1,000,000			
Contractor's Liability	PD	\$100,000		\$500,000	
Contractor's Protective Liability	BI	\$1,000,000			
Contractor's Protective Liability	PD	\$100,000		\$500,000	

5. Coverage for damage or loss resulting from Type C - Collapse or Structural Injury, Type U - Underground Damage, Type X - explosion or blasting, ordinarily excluded from coverage, shall be provided in the amounts and manner specified in this article if required in the bid for the specified project. Builders Risk insurance, not ordinarily required, shall be provided in accordance with the amount and manner specified in the bid for the specified project if such insurance is required in the bid.

1.19 Advertising

Contractors may not reference sales to the State for advertising and promotional purposes without the prior approval of Procurement Services.

1.20 Health Insurance Portability and Accountability Act (HIPAA)

Under the Health Insurance Portability and Accountability Act (HIPAA) of 1996, Bidders are expected to adhere to the same standards as the state agency/covered entity as to Protected Health Information (PHI), to maintain compliance with Title 45 CFR Part 164.504, Uses and Disclosures: Organizational Requirements, Bidder Contracts. Protected Health Information (PHI) includes information related to claims, health services, federal and state tax information, financials, criminal/court related information and other personally identifiable records. Bidder agrees that it shall be prohibited from using or disclosing the PHI provided or made available by the state agency/covered entity or viewed while on the premises for any purpose other than as expressly permitted or required by this Contract. These uses and disclosures must be within the scope of the Bidders services provided to the state agency/covered entity. Bidders shall establish and maintain reasonable safeguards to prevent any use or disclosure of the PHI, other than as specified in this Contract or required by law. Bidder agrees that anytime PHI is provided or made available to any subcontractors or agents, Bidder must enter into a subcontract, which contains the same terms, conditions and restrictions on the use and disclosure of PHI as contained in this Contract. Bidder agrees to make available and provide a right of access to PHI by the individual for whom the information was created and disclosed. Bidder agrees to make information available as required to provide an accounting of disclosures. Bidder agrees to make its internal practices, books, and records relating to the use or disclosure of PHI received from, or created or received by Bidder on behalf of the state agency/covered entity, available to the Secretary of Health and Human Services (HHS) for purposes of determining compliance with the HHS Privacy Regulations. At termination of this Contract, Bidder agrees to return or destroy all PHI received from, or created by the state agency/covered entity. If not feasible, extend the protections of this agreement to the PHI and limit further uses and disclosures. Bidder will have procedures in place for mitigating any harmful effects from the use or disclosure of PHI in a manner contrary to this Contract or the HHS Privacy Regulations. Bidder must develop and implement a system of sanctions for any employee, subcontractor or agent who violates this Contract or the HHS Privacy Regulations. The PHI shall be and remain the resources of the state agency/covered entity. Bidder agrees that it acquires no title or rights to the information, including any de-identified information, as a result of this Contract. Bidder agrees that the state agency/covered entity has the right to immediately terminate this Contract if the state agency/covered entity determines that Bidder has violated a material term of this HIPAA Compliance Agreement above.

BIDDERS REQUIREMENTS

BID DOCUMENTS

***VENDOR BID**

YES NO N/A

Must Submit bid on: **DMHAS Authorized BID form (Section 1.02) (2Pgs)**

Must be signed and affix Corporate or Notary Public Seal.

(Additional details may be attached if necessary)

* **SIGNED BIDDER CERTIFICATION STATEMENT** (See bottom of page) YES NO N/A

* **AFFIRMATIVE ACTION (EEO-1 REPORT)** YES NO N/A

* **SBE/MBE CERTIFICATE / DAS SUPPLIER DIVERSITY PROGRAM.** YES NO N/A

Website address for info:

http://www.das.state.ct.us/Purchase/New_PurchHome/busopp_template.asp?F_ID=25

(N/A if a Non Set Aside bid or Specialty Trade bid with no subs allowed)

* **BID BOND OR CHECK** YES NO N/A
(BIDS GREATER THAN OR EQUAL TO \$50,000)

* ****24 HR Grace period allowed for documents see below:**

* **** CERTIFICATE OF INSURANCE COVERAGE** YES NO N/A
(Worker's Compensation, BI, and PD)

* **** QUESTIONNAIRE SEC Q** YES NO N/A

* **** CONTRACTOR STATE OF CT LICENSE** YES NO N/A

Due at time of Award if Applicable:

PERFORMANCE, LABOR, & MATERIAL BOND YES NO N/A
(BIDS GREATER THAN OR EQUAL TO \$50,000)

PREVAILING WAGE REQUIREMENTS

(ALTERATIONS & RENOVATIONS: BIDS EQUAL TO OR GREATER THAN \$100,000).

(NEW CONSTRUCTION: BIDS EQUAL TO OR GREATER THAN \$400,000.)

*** These items must be submitted with BID.**

**** At the bid opening, should any of these items be missing from the apparent lowest bid package, a 24-hour grace period shall be awarded. The contractor will be notified of the omission(s) via fax or e-mail and be given 24 hours from the time of the bid opening to provide the missing document(s). Failure to supply the proper documentation within the 24-hour period will disqualify the bid, and the contract will be awarded to the next lowest bidder.**

BIDDER CERTIFICATION STATEMENT:

I have carefully read, understand and will comply with all of the above Project Terms and Conditions, Security Regulations and BID Submission Requirements. I have received and incorporated all BID Addendums (if any) posted on the DAS Web Portal and have incorporated these within the BID.

_____|_____
Vendor Name (Printed & Signed) Date: _____

QUESTIONNAIRE

Q 1.01 Information

The bidder whose bid is accepted will be required to furnish the materials he has listed herein unless such items do not, in the opinion of the State of CT/DMHAS, comply with the requirements and intent of the Specifications. Materials rejected as not complying may not be used on the job site and the Contractor shall furnish substitute items, which are in strict accordance with the Specifications as approved by the State of CT/DMHAS.

Q 1.02 MATERIALS if not specified

<u>MATERIALS</u>	<u>MANUFACTURER & NO.</u>	<u>LONG LEAD ITEM</u> <u>ESTIMATED DELIVERY</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Q 1.03 EXPERIENCE / REFERENCES

See: Reference 1.06 (Contractor Qualification Requirement)

References should reflect jobs similar in size and scope of this bid that have been completed in the last 12 months. (must list 3).

Reference Name	Address	Job Completion date	Contact person name Phone + Email
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

Q 1.04 SUBCONTRACTORS

VENDOR	CONTACT NAME	PHONE#	EMAIL
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES

CONTRACT COMPLIANCE REGULATIONS NOTIFICATION TO BIDDERS

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 bidders qualifications under the contract compliance requirements: (a) the bidders success in implementing an affirmative action plan; (b) the bidders 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 bidders promise to develop and implement a successful affirmative action plan; (d) the bidders 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 bidders 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.

**STATE OF CONNECTICUT
COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
NOTICE CONCERNING CONTRACT COMPLIANCE RESPONSIBILITIES
TO ALL LABOR UNIONS, WORKER=S REPRESENTATIVES AND VENDORS:**

Any contract this contractor has with the State of Connecticut or political subdivisions of the state other than municipalities shall be performed in accordance with CONN. GEN. STAT. Section 4a-60 and Section 4a-60a. This means that this contractor:

1. Agrees to provide the Commission on Human Rights and Opportunities (CHRO) with any information concerning this contractor=s employment practices and procedures which relates to our responsibilities under CONN. GEN. STAT. Sections 4a-60 or 46a-56 or Section 4a-60a.; and

2. Agrees to include the provisions of CONN. GEN. STAT. Section 46a-60(a) and Section 4a-60a in each and every subcontract and purchase order and to take whatever action the CHRO deems necessary to enforce these provisions. WITH REGARD TO RACE, COLOR, RELIGIOUS CREED, AGE, MARITAL STATUS, NATIONAL ORIGIN, ANCESTRY, SEX, MENTAL RETARDATION OR PHYSICAL DISABILITY, this means that this contractor:

1. Shall not discriminate or permit discrimination against anyone;
2. Shall take affirmative action so that persons applying for employment are hired on the basis of job-related qualifications and that employees once hired are treated without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation or physical disability, unless the contractor can show that the disability prevents performance of the work involved;
3. Shall state in all advertisements for employees that it is an Affirmative action-equal opportunity employer@;

4. Shall comply with CONN. GEN. STAT. Sections 4a-60, 46a-68e and 46a-68f and with each regulation or relevant order issued by the CHRO under CONN. GEN. STAT. Sections 46a-56, 46a-68e and 46a-68f; and

5. Shall make, if the contract is a public works contract, good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials.

WITH REGARD TO SEXUAL ORIENTATION, WHICH INCLUDES HOMOSEXUALITY, BISEXUALITY AND HETEROSEXUALITY:

1. The contractor will not discriminate or permit discrimination against anyone, and employees will be treated without regard to their sexual orientation once employed; and

2. The contractor agrees to fully comply with Section 4a-60a and each regulation or relevant order issued by the CHRO under CONN. GEN. STAT. Section 46a-56.

Persons having questions about this notice or their rights under the law are urged to contact the:

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
DIVISION OF AFFIRMATIVE ACTION, MONITORING & CONTRACT COMPLIANCE
21 Grand Street
Hartford, Connecticut 06106
(860) 541-3400

COPIES OF THIS NOTICE SHALL BE POSTED IN CONSPICUOUS PLACES
AVAILABLE TO ALL EMPLOYEES AND APPLICANTS FOR EMPLOYMENT

**STATE OF CONNECTICUT
DEPARTMENT OF MENTAL HEALTH & ADDICTION SERVICES
EMPLOYMENT INFORMATION FORM**

Bidder/Contractor	Contact Person	Date
--------------------------	-----------------------	-------------

Address	Phone Number	Contract Award Number
----------------	---------------------	------------------------------

Report all permanent full-time or part time employees, including apprentice and on-the-job trainees. Enter the numbers on all lines and in all columns.

JOB CATEGORIES	OVERALL TOTALS (Sum of all Columns, A through F Male and Female)	A White (Not of Hispanic Origin)	B Black (Not of Hispanic Origin)	C Hispanic	D Asian or Pacific Islander	E Amer. Indian or Alaskan Native	F Physically Disabled
Officials and Managers							
Professionals							
Technicians							
Sale Workers							
Office & Clerical							
Craft Workers (skilled)							
Operatives (semi skilled)							
Laborers (unskilled)							
Service Workers							
TOTALS ABOVE =>							

Do you use CT DECD Certified Minority Businesses as Subcontractors or Supplies?	YES	NO	Explain:
Are your goods, services and facilities accessible and usable to individuals with disabilities?	YES	NO	Explain:
Do you use an Affirmative Action Plan?	YES	NO	Explain:

Describe your Recruitment, Hiring, Training and Promotion Anti-Discrimination Practices.

**PROJECT MANUAL FOR
CONNECTICUT VALLEY HOSPITAL
WOODWARD WINDOW REPLACEMENT PHASE II
MIDDLETOWN, CONNECTICUT
PROJECT NO.: MHA00989**



**STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS
DONALD J. DEFRONZO
ACTING COMMISSIONER**

**STATE OF CONNECTICUT
DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES
PATRICIA REHMER, MSN
COMMISSIONER**

**PREPARED BY:
DMHAS ENGINEERING
HOLMES DR, P.O. BOX 351
MIDDLETOWN, CONNECTICUT
06457**

SEPTEMBER 21, 2011

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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 by the Department that, in the judgment of the Commissioner, 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 Owner, commissioned to prepare Contract Drawings and specifications, to advise the Owner 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 Con-

tract 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 issued by the Construction Administrator to the Owner stating that the Contractor has met all contractual obligations.

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

1.15 CERTIFICATE of COMPLIANCE: A document issued to the Owner 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 Owner 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 Owner 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 Owner, 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 Owner commissioned and/or authorized to oversee the fulfillment of all requirements of the Contract Documents. The authorized Construction Administrator may be a Department of Public Works Assistant Project Manager, Department of Public Works Project Manager, a Clerk of the Works, an Architect, a Consulting Architect, a Consulting Construction Administrator, a Consulting Engineer etc. or any other designee as authorized and identified by the Owner.

1.21 CONSTRUCTION CHANGE DIRECTIVE: A written authorization signed by the Owner, 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 Owner 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 Department of Public Works, 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 Owner 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 Owner 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 DEPARTMENT OF PUBLIC WORKS PROJECT MANAGER or PROJECT MANAGER: The individual employed by the Owner, designated and authorized by the Commissioner, to be responsible for the overall management and oversight of the Project, and to represent the (User) Agency.

1.30 EQUAL (S):: A replacement for the specified material, device, procedure, equipment, etc., which has been determined by the Architect and the Owner 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 Owner'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 Owner 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 Owner 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 Commissioner or the Commissioner's authorized representative, 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 DEPARTMENT: The State of Connecticut, Department of Public Works acting through its Commissioner or specifically authorized Department 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 Owner 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 Owner 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 Owner.

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 Owner 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 Owner 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 Owner 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 Owner 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 Owner 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 Owner 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
CONDITIONS OF WORK

2.1 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 Owner 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.

2.2 The Contractor shall report to the Construction Administrator all errors, inconsistencies or omissions discovered. The Contractor shall not be liable to the Owner 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.

2.3 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.

2.4 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 Owner, Institution or Agency operating at the site.

2.5 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.

2.6 The Contractor shall perform the Work in accordance with the Contract Documents and approved submittals pursuant to Article 5.

Article 3
CORRELATION OF CONTRACT DOCUMENTS

3.1 The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. Where discrepancies of conflict occur in the Contract Documents the following order of precedence shall be utilized:

3.1.1 Amendments and addenda shall take precedence over previously issued Contract Documents.

3.1.2 The General Requirements take precedence over the Supplementary Conditions.

3.1.3 The Supplementary Conditions take precedence over the General Conditions.

3.1.4 The General Requirements take precedence over the General Conditions.

3.1.5 The Specifications shall take precedence over the Plans.

3.1.6 Stated dimensions shall take precedence over scaled dimensions.

3.1.7 Large-scale detail drawings shall take precedence over small-scale drawings.

3.1.8 The schedules contained in the Contract Documents shall take precedence over other data on the Plans.

3.2 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 Owner 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.

3.3 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.

3.4 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.

3.5 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.

Article 4

COMMENCEMENT AND PROGRESS OF WORK

4.1 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, manu-

als, guarantees and warranties as stated in the Bidding Document.

4.2 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.

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

4.4 The Contractor shall not be entitled to costs for delay due to Owner 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.

4.5 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 Owner'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 Owner 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 Owner.

4.6 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.

4.7 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.

4.8 Any extension of the Contract Time shall be by Change Order pursuant to Article 13.

Article 5
SUBMITTALS, PRODUCT DATA, SHOP
DRAWINGS AND SAMPLES

5.1 Contractor shall review, approve and submit to the Construction Administrator 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.

5.2 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 Owner's written approval.

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

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

Article 6
SEPARATE CONTRACTS

6.1 The Owner reserves the right to perform Work in connection with the Contract with the Owner'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 in the matter required under Article 7 herein.

6.2 Contractors working in the same vicinity shall cooperate with one another and, in case of dispute, decision of the Owner shall be final and binding to all Contractors involved, including Contractors under separate Contracts.

6.3 The Contractor shall assume all liability, financial or otherwise, in connection with this Contract and shall protect and hold harmless the Owner 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 Owner and the Contractor, the Contractor shall bear such loss.

6.4 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.

6.5 In no event shall the Owner 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 7
COOPERATION OF TRADES

7.1 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.

7.2 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 8
DAMAGES

8.1 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.

8.2 The Liquidated Damages or any portion thereof may be waived at the sole discretion of the Commissioner.

8.3 No payment by the Owner, either partial or final, shall be construed to waive the Owner's right to seek liquidated damages.

8.4 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 Owner and the Owner shall not be liable for any damages which Contractor may incur as a result of such decision. In addition, if the court enjoins the Owner from entering into or proceeding with the contract herein, the Owner 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 9
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 10
POSTING MINIMUM WAGE RATES

10.1 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.

10.2 The Contractor shall provide weekly certified payrolls to the Owner for all persons working on the site.

Article 11
CONSTRUCTION SCHEDULES

11.1 Unless otherwise specified in the Contract Documents, within twenty-one (21) calendar days from the contract start date, the Contractor shall submit the following to the Owner for approval:

11.1.1 A comprehensive schedule of Submittals required by the Specifications. Said schedule shall include Submittal dates, required approval dates and date material must be on site.

11.1.2 The Contractor shall allow a minimum of two weeks for the Owner 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 Owner and its agents.

11.1.3 When the Contract Documents specify a "CPM Schedule" a detailed Critical Path Method Schedule is required using software approved by the Owner with as

many activities as necessary to make the Schedule an effective tool for planning and monitoring the progress of the Work. The Contractor shall show all pertinent activities requiring coordination between trades.

11.1.4 When the Contract Documents specify a "Construction Schedule" a detailed Construction Schedule is required using software approved by the Owner as 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.

11.2 Unless otherwise specified under the Contract Documents, the Contractor shall provide a monthly update of the CPM Schedule or Construction Schedule in the format required by the Owner as well as a disk of the updated Schedule and program. If, in the opinion of the Owner, 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.

11.3 Requisitions for partial payment will not be processed until the Contractor has complied with this requirement.

Article 12
PREFERENCE IN EMPLOYMENT

12.1 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.

12.2 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.

12.3 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 13
COMPENSATION FOR CHANGES
IN THE WORK

13.1 At any time, without invalidating the Contract and by a written order and without notice to the sureties, the Owner, 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.

13.2 Modifications to the Work will be authorized by a written Change Order, or if necessary to expedite the Work, a written Construction Change Directive, issued by the Owner as provided for in Article 26. 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.

13.3 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 13.

13.4 The Contractor and the Owner 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 Owner by Change Order. No extension of time will be granted if it is the opinion of the Owner that the additional Work can be performed concurrently with the original Work.

13.5 The Contractor may request, and the Owner may grant additional contract time when, in the opinion of the Owner, the Contractor has demonstrated that such additional work cannot be performed concurrently with the original Work.

13.6 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:

13.6.1 AMOUNT OF COMPENSATION FOR CHANGE ORDER COSTS: LABOR, EQUIPMENT, BENEFITS AND MATERIAL

13.6.1.1 Unit Price: As stated in the Contract Documents.

13.6.1.2 Unit Price: As subsequently agreed upon by the Contractor and Owner.

13.6.1.3 Lump Sum: Agreed upon sum by the Owner and the Contractor. The Lump Sum must be based upon the following itemized costs:

13.6.1.3.1 Labor (Contractor's or Subcontractor's own forces)

13.6.1.3.2 Material (Used by Contractor's or Subcontractor's own forces).

13.6.1.3.3 Benefits: (The established rates of the following benefit costs inherent to the particular labor involved):

13.6.1.3.3.1 Workers Compensation.

13.6.1.3.3.2 Federal Social Security.

13.6.1.3.3.3 Connecticut Unemployment Compensation.

13.6.1.3.3.4 Fringe Benefits.

13.6.1.3.4 Rented Equipment (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

13.6.1.3.5 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.

13.6.1.3.6 Trade related equipment, hand tools and power tools, normally supplied with the labor are not compensable.

13.6.2 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material)

13.6.2.1 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%

13.6.3 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material)

13.6.3.1 Contractor's markup for Work performed by their Subcontractors forces.:

Change Order Amount	Overhead and Profit
\$0 and greater	6%

13.6.4 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material)

13.6.4.1 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%

13.6.5 OVERHEAD AND PROFIT PERCENTAGES:
(Maximum allowable percentages applied to labor, equipment, benefits and material)

13.6.5.1 Subcontractor's markup for Work performed by their Secondary Subcontractor's forces.

Change Order Amount	Overhead and Profit
\$0 and greater	6%

13.7 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.

13.8 On Work performed by a Secondary Subcontractor, the Owner recognizes no markup by the Secondary Subcontractor.

13.9 If Unit Prices are not applicable and the parties cannot agree upon a lump sum, then the Commissioner, through the Construction Administrator, may at the option of the Commissioner take the following action(s):

13.9.1 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:

13.9.1.1 Labor (Contractor's or Subcontractor's own forces)

13.9.1.2 Material (Used by Contractor's or Subcontractor's own forces).

13.9.1.3 Benefits: (The established rates of the following benefit costs inherent to the particular labor involved):

13.9.1.3.1 Workers Compensation.

13.9.1.3.2 Federal Social Security.

13.9.1.3.3 Connecticut Unemployment Compensation.

13.9.1.3.4 Fringe Benefits.

13.9.1.4 Rented Equipment (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

13.9.1.5 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.

13.9.2 Issue a Change Order adjusting the Contract Sum in the amount as determined by the Commissioner.

13.10 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 Owner 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 Owner reserves the right to access and make copies of the Contractor's records at any

time upon written request from the Commissioner.

13.11 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 Owner, through the Construction Administrator, written notice thereof within seven (7) calendar days after the occurrence of the event giving rise to such claims.

13.12 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 Owner 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 Owner.

13.13 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 Commissioner, shall constitute a waiver by the Contractor of any claim. In such cases the Owner may elect to issue a unilateral Change Order in an amount deemed to be fair and equitable by the Commissioner. 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 Commissioner, through the Construction Administrator, shall issue a written order for such amount as the Commissioner finds to be reasonable cost of such Work.

Article 14 **DELETED WORK**

14.1 Without invalidating any of the terms of the Contract, the Commissioner may order deleted from the Contract any items or portions of the Work deemed necessary by the Commissioner.

14.2 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 Owner.

Article 15 **MATERIALS: STANDARDS**

15.1 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.

15.2 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 Owner 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 Commissioner as an exception.

15.3 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 Commissioner.

15.3.1 30 days for projects having a Contract Time duration of 180 days or less

15.3.2 60 days for projects having a Contract Time duration of 181 days to 360 days

15.3.3 90 days for projects having a Contract Time duration of 361 days or greater

15.4 Contractor shall submit each request for Equal or Substitution to the Architect who shall review each request and make the following recommendations to the Owner:

15.4.1 Acceptance or non-acceptance of the adequacy of the submission and required back-up,

15.4.2 Determination of the category of the request for Substitution or Equal, and

15.4.3 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 Owner.

15.5 Approval of the Owner, for each Equal or Substitution shall be obtained before the Contractor proceeds with the Work. The decision of the Commissioner, in this regard, shall be final and binding on the Contractor.

15.6 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 Owner when a Contractor submits a

request for Substitution or Equal, whether such request be approved or denied.

15.7 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.

15.8 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.

15.9 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 16 **INSPECTION AND TESTS**

16.1 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 Owner, and any authorities have jurisdiction.

16.2 All material and workmanship, if not otherwise designated by the Specifications, shall be subject to inspection, examination and test by the Commissioner 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 Owner 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 Owner 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 Owner.

16.3 Without additional cost to the Owner, 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.

16.4 If, at any time before Final Completion and Final Acceptance of the Work, the Commissioner 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 Owner, 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 Commissioner (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 Commissioner's and the Construction Administrator's administrative costs, and other costs for services of other consultants.

Article 17
ROYALTIES AND PATENTS

17.1 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 Owner.

17.2 The Contractor shall indemnify and hold harmless the Owner 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 18
SURVEYS, PERMITS AND REGULATIONS

18.1 Unless otherwise provided for, the Contractor shall furnish surveys necessary for the execution of the Work. The Owner will furnish the Contractor with two base lines and a benchmark.

18.2 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.

18.3 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.

18.4 If underground utilities may involve part of the Work, the Contractor shall obtain the services of a qualified under-

ground utility locating firm, at no cost to the Owner, to verify locations of underground utilities, to provide safety, protect the Work and protect the workmen as necessary to perform the Work.

Article 19
**PROTECTION OF THE WORK,
PERSONS AND PROPERTY**

19.1 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 Owner.

19.2 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.

19.3 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", the standards of the Connecticut Labor Department and Occupational Safety and Hazard Association (OSHA).

19.4 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.

19.5 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 Owner by the Contractor at the commencement of the Contract.

19.6 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 op-

erations; and provide all pumps and equipment and enclosures to insure such protection.

19.7 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.

19.8 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.

19.9 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.

19.10 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 Commissioner.

Article 20 **TEMPORARY UTILITIES**

20.1 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 21 **CORRECTION OF WORK**

21.1 The Contractor shall promptly and without expense to the Owner remove from the premises all materials rejected by or unacceptable to the Commissioner as failing to conform to the Contract Documents, whether incorporated in the Work or not.

21.2 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.

21.3 If the Contractor, after receipt of notice from the Owner, 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.

21.4 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 Commissioner 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 Commissioner, shall be equitable.

21.5 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 Commissioner, shall be completed within 60 days of established Substantial Completion date.

21.6 Final Payment shall not relieve the Contractor of responsibility for the defects in material or workmanship.

21.7 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 22 **GUARANTEES and WARRANTIES**

22.1 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.

22.2 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 Owner's recourse.

Article 23 **CUTTING, FITTING, PATCHING AND DIGGING**

23.1 The Contractor will perform or will cause the Subcontractors to perform all cutting, fitting or patching of the por-

tion(s) of the Work that may be required to make the several parts thereof joined and coordinated in a manner satisfactory to the Commissioner and in accordance with the Plans and Specifications.

23.2 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 Commissioner, neither the Contractor nor any of its Subcontractors shall cut or alter the Work of any other Contractor or Subcontractor.

Article 24
CLEANING UP

24.1 The Contractor shall, on a daily basis, keep the premises free from accumulations of waste material or rubbish.

24.2 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 Commissioner in his sole discretion determines that the Contractor has failed to clean the work site, the Owner may remove the rubbish and charge the cost of such removal to the Contractor. A deduct Change Order will be issued by the Owner to recover such cost.

Article 25
ALL WORK SUBJECT TO CONTROL OF THE
COMMISSIONER

25.1 The Commissioner hereby declares that the Department of Public Works Project Manager is the Commissioner's only authorized representative to act in matters involving the Owner'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 Commissioner. In all such matters, the provisions of Articles 13 and 14 herein shall guide the Project Manager.

25.2 In no event may the Contractor act on any instruction of the Agency without written consent of the Owner. 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 Commissioner.

25.3 In the performance of the work, The Contractor shall abide by all orders, directions, and requirements of the Commissioner at such time and places and by such methods and

in such manner and sequence as the Commissioner may require.

25.4 The Commissioner 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.

25.5 The Contractor shall employ no plant, equipment, materials, methods or persons to which the Commissioner objects and shall remove no plant materials, equipment or other facilities from the site of the Work without the permission of the Commissioner. Upon request, the Commissioner shall confirm in writing any oral order, direction, requirement or determination.

Article 26
AUTHORITY OF THE CONSTRUCTION
ADMINISTRATOR

26.1 The Construction Administrator employed by the Commissioner 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.

26.2 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 Commissioner or Owner in any way, nor releasing the Contractor from the fulfillment of the terms of the Contract.

26.3 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 Commissioner.

Article 27
SCHEDULE OF VALUES,
APPLICATION FOR PAYMENT

27.1 Immediately after the signing of the Contract, the Contractor shall furnish for the use of the Commissioner 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 Owner. 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 Commissioner, the Contractor shall supply copies of signed Contracts, vendor quotations, etc. as back up to the Schedule of Values.

27.2 Approval of the Schedule of Values by the Commissioner is required prior to any payment by the Owner.

27.3 The Schedule of Values shall include a breakdown of the Contractor's general condition costs.

27.3.1 Non-recurring costs, (i.e. mobilization costs, utility hook-ups, temporary heat) will be paid at the time of occurrence.

27.3.2 Reoccurring costs will be paid in proportion to the percent of completion of the project.

27.4 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.

27.5 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 Commissioner.

Article 28 **PARTIAL PAYMENTS**

28.1 The Commissioner will examine the Contractor's applications for payments to determine, in the opinion of the Commissioner, the amounts that properly represent the value of the Work completed and for the materials suitably stored on the site.

28.2 In making such Application For Payment for the Work, there shall be deducted (10%) ten percent of the amount of each payment to be retained by the Owner until Final Completion.

28.3 At the sole discretion of the Commissioner, and after completion and acceptance of (60%) sixty 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.

28.4 The decision of the Commissioner 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 Commissioner may find appropriate:

28.4.1 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 Owner's and/or Architect's comments on the submitted material resulting in an appropriate basis for progress of the Work.

28.4.2 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 Owners and/or Architect's comments on the submitted material resulting in an appropriate progress of the Work.

28.4.3 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.

28.4.4 The Work completed to date has been installed or finished in an acceptable manner which is satisfactory to the Owner.

28.4.5 The progress of the Work is consistent with the approved CPM Schedule or Construction Schedule.

28.5 No payments will be made for improperly stored or protected materials or unacceptable Work.

Article 29 **DELIVERY OF STATEMENT SHOWING** **AMOUNTS DUE FOR WAGES, MATERIALS AND** **SUPPLIES**

29.1 For each Application for Payment under this Contract, the Owner reserves the right to require the Contractor and every Subcontractor to submit a written verified statement, in a form satisfactory to the Owner, 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.

29.2 The term laborers as used herein shall include workmen, workwomen, and mechanics.

29.3 Failure to comply with this requirement may result in the Owner withholding the application for payment pursuant to Article 28.

Article 30 **COMPLETION AND ACCEPTANCE**

30.1 Substantial Completion:

30.1.1 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.

30.1.2 Upon receipt of the request, the Architect, Construction Administrator and Owner, 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.

30.1.3 The Contractor shall then submit a request for another inspection. The determination of Substantial Completion is solely within the discretion of the Owner.

30.1.4 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 Owner. 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 Owner and shall fix the time within which the Contractor shall finish all items on the inspection list accompanying the Certificate.

30.1.5 The Certificate of Substantial Completion shall be signed by the Construction Administrator, Owner, and Architect.

30.1.6 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 Owner shall make payment reflecting adjustment in retainage, if any, for such Work or portion thereof as provided in the Contract Documents.

30.2 Final Completion:

30.2.1 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 Owner that all the Work is complete, the Owner will issue a Certificate of Completion and Acceptance.

30.2.2 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.

31.1 The Owner reserves the right to retain for a period of thirty (30) days after filing 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.

31.2 All prior estimates and payments, including those relating to extra or additional Work, shall be subject to correction by the Final Payment.

31.3 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.

31.4 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.

31.5 Final Payment shall not be released until a Certificate of Completion and Acceptance and a Certificate of Compliance have been issued.

31.6 Neither Final Payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner the following:

31.6.1 An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied.

31.6.2 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 Owner.

31.6.3 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.

31.6.4 Written consent of surety, if any, to Final Payment.

31.6.5 If required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging

Article 31
FINAL PAYMENT

such lien, including all costs and reasonable attorney's fees.

31.6.6 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 Owner 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 Owner 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 32

OWNER'S RIGHT TO WITHHOLD PAYMENTS

32.1 The Commissioner may withhold a portion of any Payment due the Contractor that may, in the judgment of the Commissioner, be necessary:

32.1.1 To assure the payment of just claims then due and unpaid to any persons supplying labor or materials for the Work.

32.1.2 To protect Owner from loss due to defective, unacceptable or non-conforming Work not remedied by the Contractor.

32.1.3 To protect the Owner 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.

32.2 The Owner shall have the right to apply any amount withheld under this section as the Owner may deem proper to satisfy protection from claims. The amount withheld shall be considered a payment to the Contractor.

32.3 The Owner 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.

32.4 Neither Final Payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect through the Construction Administrator:

32.4.1 An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied,

32.4.2 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 Owner,

32.4.3 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,

32.4.4 Consent of surety, if any, to Final Payment and

32.4.5 If required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner.

32.5 If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

Article 33

OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

33.1 The Commissioner shall have the authority to suspend the Work wholly or in part, for such period or periods as the Commissioner 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.

33.1.1 If the Commissioner, 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 Commissioner 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.

33.1.2 The Commissioner shall evaluate any such requests received. If the Commissioner 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 Commissioner will make a reasonable adjustment, excluding profit, of the Contract terms. The Commissioner will notify the Contractor of the determination as to what adjustments of the Contract, if any, that the Commissioner deems warranted.

33.1.3 No Contract adjustment will be made unless the Contractor has submitted the request for adjustment within the time prescribed.

33.1.4 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.

33.2 Notwithstanding any provision or language in the Contract to the contrary, the State may terminate the Contract whenever the Commissioner determines at his 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.

33.2.1 In the event of such termination, the Contractor shall be entitled to reasonable compensation as determined by the Commissioner, however, no claim for lost overhead or profits shall be allowed.

33.2.2 Materials obtained by the Contractor for the Work that have been inspected, tested as required, and accepted by the Commissioner, and that are not incorporated into the Work, shall, at the option of the Commissioner, 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 Commissioner, as shown by actual cost records.

33.2.3 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 34

SUBLETTING OR ASSIGNING OF CONTRACT

34.1 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 Commissioner.

34.2 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 35

CONTRACTOR'S INSURANCE

35.1 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 this Project Manual and until the insurance has been approved by the Owner. The Contractor shall not allow any Subcontractor to start Work until the same insurance has been obtained by the Subcontractor and approved by the Owner or the Contractor's insurance provides coverage on behalf of the Subcontractor. The Contractor shall send Certificates of Liability Insurance to the Bidding and Contracts Unit, Department of Public Works, 165 Capitol Avenue, Room G-9A, Hartford, CT 06106 unless otherwise directed in writing. Presented below is a narrative summary of the insurance required.

35.1.1 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 shall be named as an Additional Insured. This coverage shall be provided on a primary basis.

35.1.2 Owner'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.

35.1.3 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.

35.1.4 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.

35.1.5 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.

35.1.6 Builder's Risk insurance, if required, will be stated in SECTION 00020 BID PROPOSAL FORM, subsection 4.4.3 of this Project Manual.

35.1.7 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.

35.2 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 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.

35.3 Each insurance policy required to be maintained by the Contractor except Workers' Compensation and Automobile

Liability shall endorse the State of Connecticut as an Additional Insured. Additional Insured endorsements shall provide coverage on a primary basis.

35.4 When required to be maintained, the Builder's Risk and Inland Marine/Transit Insurance policy shall endorse the State of Connecticut as a Loss Payee.

35.5 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 Owner prior to any cancellation or non-renewal.

35.6 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.

35.7 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.

35.8 Hold Harmless Provisions: The Contractor shall at all times indemnify and save harmless the State of Connecticut, the Department of Public Works, 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, materialman, 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 Department of Public Works.

Article 36
FOREIGN MATERIALS

36.1 Preference shall be given to articles or materials manufactured or produced in the United States, conditions of quality and price with duty being equal.

36.2 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 Owner. The foregoing provisions shall not apply to foreign articles or materials required by the Contract Documents.

Article 37
HOURS OF WORK

37.1 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.

37.2 The operation of such limitation of hours of work may be suspended during an emergency, upon the approval of the Commissioner, in accordance with Connecticut General Statute Section 31-57.

Article 38
DAYS OF WORK

38.1 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.

38.2 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 Commissioner.

Article 39
CONTRACT TIME

39.1 The Contract Time is the number of calendar days, allotted in the Bidding Documents, for execution and Substantial Completion of the Work, including authorized adjustments thereto. The Contract Time is the sum of all working and non-working calendar days.

39.2 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 Owner.

Article 40
CALENDAR DAY

40.1 This is each day of the calendar.

End of Section

01000 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Number MHA00989 is entitled Woodward Window Replacement Phase II. It is located in Middletown, Connecticut. It is to be completed and ready for use by the Owner and Agency within the Contract Time specified in the Bid Proposal Form.
- B. The Project Description:
- C. This Project **does not exceed** the Threshold Limits as defined by the Connecticut General Statutes.
- D. Project Location: 1000 Holmes Drive, located in Middletown, Connecticut, 06457.

01001 OWNER AND AGENCY

- A. Owner: The Owner is the Department of Mental Health and Addiction Services, State of Connecticut.
 - 1. The authorized representative for the Owner is Daniel Robertson, Project Manager. The Project Manager is located at Shew Hall, 1000 Holmes Dr, Middletown, CT, 06457. Phone: (860) 262-5304; Fax: (860) 262-5307; E-mail: Daniel.Robertson@po.state.ct.us
 - a. The Project Manager is the authorized representative for the Department of Mental Health and Addiction Services to act in matters involving revoking, altering, enlarging or relaxing any requirement of the contract documents.
- B. Agency: The Agency is Department of Mental Health and Addiction Services, Connecticut Valley Hospital, Middletown, CT, 06457..
 - 1. The Agency Representative is Thomas Ford. The Agency Representative's title is Plant Facilities Engineer. The Agency Representative is located at Daniel Robertson, Project Manager. The Project Manager is located at Shew Hall, 1000 Holmes Dr, Middletown, CT, 06457. Phone: (860) 262-5304; Fax: (860) 262-5307; E-mail: Daniel.Robertson@po.state.ct.us
 - 2. The Agency Representative has the administrative authority for the facility and or site where the work is being performed but does not have the authority to change the contract documents or direct the contractor.

01002 ARCHITECT AND ENGINEER

- A. The Architectural Firm is DMHAS Engineering Services, and is located at Shew Hall, 1000 Holmes DR, Middletown, CT, 06457. The Architect representing the firm for this project is Steven Hecimovich, AIA. Phone: (860) 262-5301; Fax: (860) 262 5307; Email: Steven.Hecimovich@po.state.ct.us.
- B. 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 Department of Public Works Commissioner, 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."
- 1. 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 Daniel Robertson, DMHAS Engineering Services and is located at Shew Hall, 1000 Holmes Dr, Middletown, CT, 06457. Phone: (860) 262-5304; Fax: (860) 262-2537; E-mail: Daniel.Robertson@po.state.ct.us.
- B. 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).
 - 1. 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 things, 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 *Interior Demolition;*
 - 2 *Cutting and Patching;*
 - 3 *Concrete and Masonry;*
 - 4 *Metal Stud and Gypsum Board partitions;*
 - 5 *Windows, Frames, and Hardware;*
- 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. This is a LUMP SUM contract. The Work will be constructed under a single lump sum.
- E. Work Sequence - Phase(s):
 - 1. The entire Project shall be constructed in 1 Phase(s). Work of this Phase shall be substantially complete, ready for occupancy within 180 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 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.

C. Pre-Bid Conference:

1. 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 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. Where the Specifications and Drawings use the words “supply, install, build, construct,” or use other terms, symbols, or drawing elements to convey the meaning “new work”: it shall be understood that the Contractor is to supply all materials and labor to complete the tasks described, unless stated otherwise in the Specifications or on the Drawings.

01013 DOCUMENTS FURNISHED

- A. The General Contractor will be given six (6) 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 will be available 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 site and 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.
1. Provide adequate building and fire code egress from the buildings during the renovation process. The Contractor will be responsible to maintain and protect egress ways during the construction sequence per the design as supplied by the Architect. Contractor shall be responsible for preparing

gress plans for Owner approval and for Office of State Building Official and Office of State Fire Marshal for approval if required.

01019 CONTRACT CONSIDERATIONS

- A. Allowances: None.
- 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.
 - 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.
 - 6. UNIT PRICE SCHEDULE:
 - a. None.

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-one Calendar Days after the Contract Start Date. A separate "Schedule of Values" shall be provided for each Phase of the Project 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 Sections 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 of 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 Application form. At the time of “Final Payment” only, include an executed Application form 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: Except for final payment, submit to the Construction Administrator by a method ensuring receipt within forty-eight (48) hours: One (1) complete, signed, and notarized original of each Application for Payment, including lien waivers and similar attachments, when required, along with six (6) copies. For Final Payment, nine (9) complete, signed, and notarized copies shall be submitted.
 - 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 shall include, but not be limited to, the following items:
 - a. List of subcontractors and suppliers’ names, 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. Proof that as-built documents are updated as required by Section 01700 “Contract Closeout.”
 - l. 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:
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 (including as-built documents Reference Section 01700 "Contract Closeout.")
 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:
 - a. Contractor/Subcontractor Name.

- b. FEIN/Social Security Numbers.
- c. Connecticut Tax Registration Numbers.
- d. Type of work.
- e. Name of business and address.
- f. Remittance address.

01035 MODIFICATION PROCEDURES

A. Summary: This Section specifies administrative and procedural requirements for handling and processing contract modifications.

B. 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, un-reviewed as to content, for resubmittal on the proper form and in the proper manner.
 - d. "Requests for Information Response" shall be issued within seven (7) working 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) working 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) working 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) working calendar days set forth above.
 - e. "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.

C. Minor Changes in the Work:

1. The Architect, through the Construction Administrator, will issue supplemental instruction 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.

D. 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) working 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 860 541-3280.
 - 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.

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 “Compensation for Changes in the Work” 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 Division 1 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 Electrical subcontractor will superimpose all the electrical information on the Architect's AutoCAD drawings. Said information to include, but not necessarily limited to, fire alarm system wiring.

- b. 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 “Cooperation of Trades.”

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. *Lintels.*
- 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 “Cutting, Fitting, Patching and Digging.”

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 the 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 manufacturer’s standard warranties or guarantees shall apply when their products are used on this project.

- D. 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.

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 Lead Containing Material (LBP):
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 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.
- D. Project Procedures for Work Involving Asbestos Containing Material (ACM):
1. The Owner 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 be made 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) working 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 attached as Exhibit A. 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. **A lead Toxic Characterization Leachate Procedure (TCLP) test shall be performed to determine whether the windows should be disposed of as regular asbestos waste or as lead hazardous waste. Contractor shall include costs for testing in their bid.**
 5. See also General Conditions Article 23 “Cutting, Fitting, Patching and Digging”.
- E. Project Procedures for Work Involving Products Containing Persistent Bioaccumulative Toxic Chemicals” (PBT’s) such as Polychlorinated Biphenols (PCB’s), Di-2-ethylhexyl Phthalate (DEHP), and Mercury:
1. The Contractor is responsible for abating all PCB’s, DEHP, and mercury prior to the start any work involving construction, renovation or demolition (if necessary).
 2. Exposure Levels for Products Containing Persistent Bioaccumulative Toxic Chemicals (PBT’s) such as PCB’s, DEHP and mercury, in the construction industry, is regulated by 29CFR1910.1200 and 29CFR1926.28 et al. Construction, renovation or demolition activities disturbing Products Containing Persistent Bioaccumulative Toxic Chemicals” (PBT’s) such as PCB’s and DEHP which are likely to be employed. These materials include but are not limited to fluorescent light fixture & exit sign, ballast’s, high density discharge (HID) lamps , and certain types of construction products containing vinyl, and mercury containing electrical switches and thermostats. These activities may expose workers in excess of the respective Permissible Exposure Limit (PEL). Conduct demolition and removal Work specified in the technical sections of these specifications in conformance with these regulations. In addition construction debris/waste may be classified as hazardous waste. Disposal of all hazardous materials shall be in accordance with but not limited to 40CFR Parts 761 Subpart K, 761, and 761.65 and the Connecticut General Hazardous Waste Statute Sec. 22a-454.
 3. A Survey for Products Containing Persistent Bioaccumulative Toxic Chemicals (PBT’s) such as PCB’s, DEHP and Mercury has NOT been conducted at the facility. Examples include but are not limited to fluorescent light fixture & exit sign, ballast’s, high density discharge(HID) lamps , and certain types of construction products containing vinyl, and mercury containing electrical switches and thermostats. It is the Contractors responsibility for verification of all material and field conditions prior to construction, renovation, and demolition that may affect the performance of their Work.
- F. 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. **The demo work needs to be performed from the exterior of the building. Each window-well needs to be sealed on the interior with 6 mil poly construction barrier. Contractor shall remove ALL caulking around existing window framing and HEPA vacuum all loose debris. Removal of all caulking shall be conducted using wet methods. Before disturbance of caulking, it shall be sprayed with amended water.**
- G. 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,* and *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.
- H. 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.
- I. Adjustments:
1. Fit Work at penetrations of surfaces as specified in Section 01045 "Cutting and Patching".
- J. 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.
- K. 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.
- L. Cleaning:
1. In addition cleaning specified in Section 01700 "Project Closeout," clean Agency occupied areas of Work.

01121 SALVAGEABLE MATERIALS

- A. The Contractor shall be responsible for removing the following salvageable items and turning them over to the Agency.
1. *Door Hardware*
 2. *Wood Doors*
 3. *Wood Trim*
 4. *Temporary Lighting*

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 receipt of the Purchase Order 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. *Parking availability.*
 - j. *Office, work, and storage areas.*
 - k. *Equipment deliveries and priorities.*
 - l. *Safety procedures.*
 - m. *First aid.*
 - n. *Security.*
 - o. *Housekeeping.*
 - p. *Working hours.*

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, ahead of, 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 Procedures.
 - b. Submittal schedule.
 - c. Daily Construction reports.
 - d. Shop Drawings.
 - e. Shop Drawings for Fire Protection Systems.
 - f. Product Data.
 - g. Samples.
 - h. Quality assurance submittals.
 - i. Architects Action.
 - j. Submittals shall comply with all requirements in Division 1 Section 01631 "Equals and Substitutions".
 - k. Submittals shall comply with all requirements in Division 1 Section 01740 "Warrantees and Bonds".
 - l. Submittals shall comply with all requirements in Division 1 Section 01040 "Coordination".
 - m. Submittals shall comply with all requirements in Division 1 Section 01730 "Operation & Maintenance 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 numbers and Connecticut Tax Registration number.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 1 Section 01027 "Application for Payment" specifies requirements for submittal of the Schedule of Values.
 2. Division 1 Section 01040 "Coordination" specifies requirements governing preparation and submittal of required Coordination Drawings.
 3. Division 1 Section 01200 "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
 4. Division 1 Section 01310 "Construction Schedules."
 5. Division 1 Section 01315 "CPM Schedule" specifies requirements for contractor's schedule submittal.
 6. Division 1 Section 01380 "Construction Photographs" specifies requirements for submittal of periodic construction photographs.
 7. Division 1 Section 01400 "Quality Control" specifies requirements for submittal of inspection and test reports.
 8. Division 1 Section 01631 "Equals and Substitutions" specifies requirements for submittal of requests to use products other than those specified.
 9. Division 1 Section 01700 "Contract Closeout" specifies requirements for submittal of Project Record Documents and warranties at project closeout.
 10. Division 1 Section 01740 "Warranties and Bonds."
- D. 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.
 2. 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.
 3. 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.
 4. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.
- E. 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 require 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.

- a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - b. The Architect reserves the right to reject incomplete submitted packages.
4. 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 resubmissions.
- a. Allow two (2) 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 two (2) weeks 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.
- F. 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 x 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."***
- G. 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 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.
- H. Submittal Schedule

1. After development and review by the Owner and Architect acceptance of the Contractor's Construction or CPM 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 or CPM 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.
- I. 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.
- J. 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.
- K. 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.*
- L. 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 x 11 inches but no larger than 36 x 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 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.
 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.
- M. Shop Drawing for Fire Protection Systems
1. Shop drawings for fire protection systems shall comply with all of the requirements in the section above "Shop Drawings".
- N. 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 seven (7) copies of each required submittal; submit five (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.
- O. 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) 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.
 - i. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.
- P. 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."
- Q. 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, and 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.
 - ii. 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."
 - d. 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. 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," latest version.
 3. Standards: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- C. Construction Schedule 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.
- 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 "Application for Payment."
 8. Indicate critical path with original baseline indicated.
- 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, and 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) working 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) working calendar days. This schedule must be revised monthly and when the actual schedule of significant items varies more than seven (7) Calendar days from the proposed schedule. The critical path with baseline must be indicated.
 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 (typically at the end of the month - until the work is at least 95 percent complete), the Contractor shall have photographs of the construction taken by a professional photographer or an individual approved by the Owner.

- B. Photographs: Provide a digital camera to take twenty-four (24) or more photos each time. Deliver one (1) set of photo files on CD-ROM and one set of prints to the Construction Administrator for the department. Label each CD-ROM with project name and the date the photographs were taken. With each submittal, provide an index sheet of digital photos and where the photos were taken.
- 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 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 Fire Alarm Acceptance testing, 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 twenty-four (24), 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:
1. When the Contractor notifies the Construction Administrator and/or Testing Agency less than twenty-four (24) hours before the expected time of testing.
 2. When the Contractor requires testing for his own convenience.
 3. 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 "Inspections and Tests".
- H. Fire Alarm/Acceptance Testing Procedures:
1. For buildings exceeding the threshold limit, the fire alarm testing shall be as the authority having jurisdiction shall dictate. This will be as determined by the State Fire Marshals Office.
 2. For buildings that do not exceed the threshold limit, the fire alarm testing shall be as the authority having jurisdiction shall dictate. This will be determined by the Department of Public Works requirements as set below:
 - a. Protective Signaling Systems:

All protective signaling systems shall meet with acceptance testing requirements of the applicable standards listed in Section 7-6.1.4, NFPA 101/1997 and NFPA 13/19996.
 - b. Prior Test Notification:

At least 5 working days prior to testing, the Fire Alarm Contractor shall notify (in writing) the following people of the proposed date the acceptance tests are to be performed (Also, see Part 2 of Certificate of Compliance).

- Department of Public Works Team Representative
- General Contractor
- Engineer of Record
- Equipment Supplier Representative

c. Certificates of Compliance

- i. A Fire Alarm System Inspection and Testing Certification and Description form shall be prepared for each system (See NFPA 72/1999 Chapter 7 and Figure 7-5.2.2).
- ii. Parts 1 and 3 through 9, shall be completed after the system is installed and the installation of the wiring has been checked. Every alarm device must also be pre-tested to ensure proper operation and correct annunciation at each remote annunciator and control panel. Part 1 of the form (Certification of System Installation) shall be signed by the fire alarm contractor. The signed and completed preliminary copies of the Certification form shall be forwarded to all parties along with the Prior Test Notification.
- iii. Part 2, of each applicable form, shall be completed after the operational tests have been completed.
- iv. After the completion of the operational acceptance tests and sign-off of test witness (with stipulations noted), final copies of the Certificates shall be forwarded to the Department of Public Works Representatives.

d. Tests:

- i. All tests shall be conducted in accordance with the Manufacturers Testing Recommendations.
- ii. All testing equipment, apparatus (i.e. sound level decibel meter, 2-way radio communication, test devices, ladders, tools, lighting, etc.) and personnel shall be supplied by the Fire Alarm Contractor.

e. System Documentation:

Every system shall include the following documentation, which shall be delivered to the Department of Public Works Representatives upon final acceptance of the system. An owner's manual or manufacturer's installation instructions covering all system equipment, including the following:

- i. A detailed narrative description of the system inputs, evacuation signaling, ancillary functions, annunciation, intended sequence of operations, expansion capability, application considerations, and limitations.
- ii. Operators instructions for basic systems operations including alarm acknowledgment, system reset, interpreting system output (LED's CRT display, and printout), operation of manual evacuation signaling and ancillary function controls, changing printer paper, etc.
- iii. A detailed description of routine maintenance and testing as required and recommended and as would be provided under a maintenance contract, including testing and maintenance instructions for each type of device installed. This information should include:
 - (a) A listing of individual system components that require periodic testing and maintenance.
 - (b) Step by step instructions detailing the requisite testing and maintenance procedures and the intervals at which those procedures should be performed.

- (c) A schedule that correlates the testing and maintenance procedures required by paragraph (2) above and with the listing required by paragraph (1) above.
- iv. Detailed troubleshooting instructions for each type of trouble condition recognized by the system, including opens, grounds, parity errors, "loop failures," etc. These instructions should include a list of all trouble signals, and step by step instructions describing how to isolate those problems and correct them (or call for service as appropriate).
- v. A service directory, including a list of names and telephone numbers for those who should be called to service on the system.
- f. As-Built Drawings:

The Contractor will produce two sets of as-built drawings and specifications for the fire alarm system, indicating the location (and programmed address, if applicable) of all devices and appliances, the wiring sequences, wiring methods, connection of the components, and sequence of operation of the protective signaling system as installed, shall be given to DPW representatives. This shall be in Accordance with NFPA 72. Refer also to Section 01700 "Contract Closeout".

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; 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

- 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. The Contractor shall use their cell phones.
- B. No phones on site shall be used by the Contractor.

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 Department of Public Works. 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. 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.

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 Department of Public Works 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. 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.
- C. See also General Conditions Article 19 "Protection of the Work, Persons and Property".

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.
- E. See also General Conditions Article 19 "Protection of the Work, Persons and Property."

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.

01570 CLEANING

- A. Maintain areas under Contractor's control free of waste materials, debris and rubbish. Maintain in a clean and orderly condition.
- B. Periodically clean interior areas before start of surface finishing and continue cleaning on an as-needed basis.
- C. Control cleaning operations so that dust and other particulates will not adhere to wet or newly-coated surfaces.
- D. 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.
- E. See also General Conditions Article 24 "Cleaning Up."

01580 FIELD OFFICES AND SHEDS

- A. There is no available space for contractors to have a field office or stored material except within the construction site.

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 assigned, 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 a 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 weather tight 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. 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.
4. 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 "Materials; Standards". 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, which 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 not 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 may 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

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. Re-inspection 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. As Built 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. As-built 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.
 - f. Submit electronic format data of all Coordination Drawings as required by the owner, at no additional cost.
 - g. Refer to Section 01400 "Quality Control" Section 1.3 for required as built drawings and specifications for fire alarm systems.
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 "Operations & Maintenance Data". 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.*
- 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 require 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. Leave concrete floors broom clean.
 - d. Clean and polish finish hardware.
 - e. Remove defacements, streaks, fingerprints and erection marks.
 - 4. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.
 - 5. 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 for 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.

D. Emergency shut-down procedures for each piece of equipment or system, both automatic and manual, as appropriate.

1. Maintenance Schedule:

- a. Typewritten schedule describing manufacturers schedule of maintenance and maintenance procedures.

2. 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.

3. Manuals shall be indexed with dividers indicating each system or piece of equipment.

01740 WARRANTIES AND BONDS

- 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.
- B. 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.
- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
- H. 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. Section **08 13 16 – Custom Steel Doors and Frames**: Five (5) years.
 2. Section **08 14 00 – Wood Doors**: Solid Wood Core and Mineral Core doors: Lifetime for interior doors.
 3. Section **08 71 00 – Door Hardware**: Closers, Locksets, Exit Bolts: Longest term offered by manufacturer for grade/class of particular item, material and workmanship.
- I. Submit certification that finish materials are fire rated as specified.
- J. Form of Guarantees and Warranties:

*Commissioner
Department of Public Works
165 Capitol Avenue
Hartford, Connecticut 06106
(Project Title and Number)*

I (We) hereby guarantee and warranty

*the _____ work on the referenced project for a period of _____ years
from _____, 20__ against failures of workmanship and materials in accordance
with the requirements of Section ____, Page ____, Paragraph ____, of the Specifications.*

Signed _____

General Contractor _____
(or authorized agent)

- K. Bonds shall be by approved Surety Companies, made out to the Commissioner, Department of Public Works on companies' standard form.
- L. 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.
- M. 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 17 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 inch x 11 inch (115mm x 280mm) 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

EXHIBIT A - Asbestos Testing Results

**TABLE 2
IDENTIFIED ASBESTOS CONTAINING MATERIALS (>1%)
CONNECTICUT VALLEY HOSPITAL - WOODWARD HALL
MIDDLETOWN, CONNECTICUT**

Material	Sampled- Assumed (mo/yr)	General Location	NESHAP Category	AHERA Category	Estimated Quantity
Cork glue (CKG1)	Sampled 1/09	1 st floor – room 154 (walls & ceiling)	Category II Non-Friable	Miscellaneous	400 SF
Floor tile with associated mastic	Sampled 1/09, 7/10	Throughout 1 st & 2 nd Floors See attached drawings	Category I Non-friable	Miscellaneous	20,650 SF
Mudded Fitting Insulation (MF1)	Sampled 7/10	Throughout 1 st floor inside walls & into 2 nd floor	Friable	Thermal System Insulation	Unknown
Pipe Insulation (PI1)	Sampled 7/10	Throughout 1 st floor inside walls & into 2 nd floor	Friable	Thermal System Insulation	Unknown
Flex Duct Connector (FC1)	Sampled 7/10	Attic	Friable	Thermal System Insulation	1 EA
6 Pane Basement Window Caulk (WC1)	Sampled 7/10	Exterior	Category II Non-friable	Miscellaneous	4 EA
8 Pane Basement Window Caulk (WC2)	Sampled 7/10	Exterior	Category II Non-friable	Miscellaneous	4 EA
16 Pane Double Hung Metal Window Caulk (WC3)	Sampled 7/10	1 st & 2 nd floor windows	Category II Non-friable	Miscellaneous	~210 EA
Interior Wire Mesh Window Glaze (WG2A)	Sampled 7/10	2 North	Category II Non-friable	Miscellaneous	1 EA
Square Mesh Door Window Glaze (DWG1)	Sampled 7/10	Throughout 1 st & 2 nd floors	Category II Non-friable	Miscellaneous	6 EA
Rectangular Mesh Door Window Glaze (DWG2)	Sampled 7/10	Throughout 1 st & 2 nd floors	Category II Non-friable	Miscellaneous	11 EA
Tan Valve Gasket (G1)	Sampled 7/10	Basement	Friable	Thermal System Insulation	47 Total

AHERA Categories = thermal system insulation (TSI), surfacing material or miscellaneous

NESHAP Categories = friable, category I non-friable or category II non-friable

Friable = crumbled, pulverized or reduced to powder by hand pressure when dry

Category I Non-friable = packings, gaskets, resilient floor covering and asphalt roofing

Category II Non-friable = all non-friable that is not Category I

SECTION 02920 - LAWNS AND GRASSES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: **Certification of grass seed, product certificates and planting schedule.**
- B. Sod: Harvest, deliver, store, and handle sod according to requirements in TPI's "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in its "Guideline Specifications to Turfgrass Sodding."
- C. Planting Restrictions: Plant during one of the following periods.
 - 1. Spring Planting: April 1 to May 30.
 - 2. Fall Planting: August 15 to Oct. 1.
- D. Maintain lawn until established, but for not less than **30** days.

PART 2 - PRODUCTS

2.1 GRASSES

- A. Seed Species: State-certified seed of grass species, as follows:
- B. Seed Species: Seed of grass species as follows, with not less than **95** percent germination, not less than **85** percent pure seed, and not more than **0.5** percent weed seed:
 - 1. Seed Mixture: use typical for Connecticut zones.

2.2 SOILS AND AMENDMENTS

- A. Topsoil: ASTM D 5268, free of stones 1 inch (25 mm) or larger.
- B. Lime: ASTM C 602, Class T, agricultural limestone.
- C. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8.
- D. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture, free of chips, stones, sticks, soil, or toxic materials.
- E. Commercial Fertilizer: Commercial-grade complete fertilizer, consisting of 1 lb/1000 sq. ft. (0.5 kg/100 sq. m) of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.

- F. Slow-Release Fertilizer: Granular fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium; 20 percent nitrogen; 10 percent phosphorous; and 10 percent potassium; by weight.
- G. Straw Mulch: Clean, mildew- and seed-free salt hay or threshed straw of wheat, rye, oats, or barley.
- H. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic; free of plant-growth or germination inhibitors; with maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.

2.3 PLANTING SOIL MIX

- A. Mix topsoil with the following soil amendments[**and fertilizers**] in the following quantities:
 - 1. Ratio of Loose Compost to Topsoil by Volume: **1:3**

PART 3 - EXECUTION

3.1 PREPARATION

- A. Loosen subgrade to a minimum depth of **4 inches (100 mm)**, remove stones, sticks, existing grass, vegetation, and other extraneous materials.
 - 1. At newly graded subgrades, spread planting soil mix to a depth of **4 inches** but not less than required to meet finish grades.
 - 2. At unchanged grades, apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top **4 inches (100 mm)** of soil. Till soil to a homogeneous mixture of fine texture.
- B. Grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Moisten before planting.

3.2 PLANTING

- A. Seeding: Evenly distribute seed by sowing with a spreader or a seeding machine. Rake seed lightly into top 1/8 inch (3 mm) of topsoil, roll lightly, and water with fine spray. Protect seeded areas by spreading straw mulch 1-1/2 inches (38 mm) in loose depth.
 - 1. Seeding Rate: **3 to 4 lb/1000 sq. ft. (1.4 to 1.8 kg/92.9 sq. m)**
- B. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation the same as those used in the original installation.

END OF SECTION 02920

SECTION 07900

JOINT SEALANTS

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-1 Specification sections, apply to work of this section.

1.01 WORK INCLUDED

- A. Preparing sealant substrate surfaces.
- B. Sealant and backing.

1.02 RELATED SECTIONS

- A. Section 08520 – Aluminum Windows
- B. Section 085113 – Windows

1.03 SUBMITTALS

- A. Submit samples and product data under provisions of General Conditions and Section 01300.
- B. Submit product data indicating sealant chemical characteristics, performance criteria, limitations, and color availability.
- C. Submit two samples illustrating colors selected.
- D. Submit manufacturer's installation instructions under provisions of General Conditions and Section 01300.
- E. Submit manufacturer's certificate that products meet or exceed specified requirements.

1.04 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three years documented experience.
- B. Applicator: Company specializing in applying the work of this Section with minimum three years documented experience.
- C. Conform to Sealant and Waterproofers Institute requirements for materials and installation.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Do not install solvent curing sealants in enclosed building spaces.
- B. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.06 SEQUENCING AND SCHEDULING

- A. Coordinate work with window installation and DMHAS Project Manager.
- B. Coordinate the work of this Section with all Sections referencing this Section.

1.07 WARRANTY

- A. Provide a five (5) year warranty on materials and workmanship.

PART 2 - PRODUCTS

2.01 SEALANT MANUFACTURERS

- A. Tremco
- B. Pecora
- C. Dap
- D. Dow
- E. General Electric

2.02 SEALANTS

- A. Sealant for interior use between joints and unlike materials: Silicone, conform to TT-S-002306, ASTM C920, FS TT-S-01543, Type II, Class A, low modular type.
- B. Sealant around pipe, conduit, duct and other wall penetrations: Dow Corning Fire Stop sealant, floor/wall penetration seal design System 129, UL classified.
- C. Sealant for exterior uses and penetrations in exterior walls. One part urethane type II conforming to the requirements of FS TT-S-2300, Tremco Dymonic, or Pecora Dynatrol 1.

2.03 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.

- C. Joint Backing: Expanded or extruded closed-cell polyethylene for joint open in back and joints requiring filler to create proper depth and polyethylene bond breaker tape for joints closed in back.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and joint openings are ready to receive work and field measurements are as shown on Drawings and recommended by the manufacturer.
- B. Beginning of installation means installer accepts existing surfaces.

3.02 PREPARATION

- A. Clean joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Perform preparation.
- E. Protect elements surrounding the work of this Section from damage or disfiguration.

3.03 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios.
- C. Install joint backing to achieve a neck dimension no greater than 1/3 the joint width.
- D. Install bond breaker where joint backing is not used.
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Tool joints concave.

3.04 CLEANING AND REPAIRING

- A. Clean work under provisions of General Conditions and Supplemental General Conditions.
- B. Clean adjacent soiled surfaces.

- C. Repair or replace defaced or disfigured finishes caused by work of this Section.

3.05 PROTECTION OF FINISHED WORK

- A. Protect finished installation under provisions of General Conditions and Supplemental General conditions.
- B. Protect sealants until cured.

END OF SECTION

SECTION 08520

ALUMINUM WINDOWS (Typical window types B and C as noted on project drawings)

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Aluminum Windows frames
- B. Vision glass
- D. Perimeter sealant

1.2 SYSTEM DESCRIPTION

- A. Aluminum window system includes tubular aluminum sections, shop fabricated, factory finished; insulated double glass; related flashings, anchorage and attachment devices, and sealant.

1.3 PERFORMANCE REQUIREMENTS

- A. Design and size components to withstand dead and live loads caused by positive and negative wind pressure acting normal to plane of wall, to a design pressure of 22 psf measured in accordance with ASTM E330.
- B. Limit mullion deflection to flexure limit of specified glass, with full recovery of glazing materials.
- C. Accommodate, without damage to components or deterioration of seals, movement between system and peripheral construction, dynamic loading and release of loads, and deflection of structural support framing.
- D. Limit air infiltration through assembly to 0.10 cfm, measured at a reference differential pressure across assembly of 6.24 psf as measured in accordance with ASTM 283.
- E. Maintain continuous air barrier and vapor retarder throughout assembly, primarily in line with inside pane of glass and heel bead of glazing compound.
- F. Eliminate water leakage when tested in accordance with ASTM E331 with a test pressure of up to 12 psf.
- G. Provide for expansion and contraction within system components caused by cycling temperature range of 70 degrees F over a 12 hour period without causing detrimental effect to system components and anchorage.

- H. Drain water entering joints, condensation occurring in glazing channels, or migrating moisture occurring within system, to the exterior by a weep drainage network.

1.4 SUBMITTALS

- A. Submit the following in accordance with requirements of Section 01 3300, Submittal Procedures.
 - 1. Catalog data, for each type of product specified, indicating component dimensions, describing components within assembly, anchorage and fasteners, glass, hardware, and internal drainage details.
 - 2. Shop drawings indicating system dimensions, framed opening requirements and tolerances, affected related work, and expansion and contraction joint locations and details if requested.
 - 3. Manufacturer's standard warranty and ensure forms have been completed in Owner's name and registered with the manufacturer.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with AAMA SFM-1 and AAMA Metal Curtain Wall, Window, Store Front and Entrance - Guide Specifications Manual.
- B. Conform to requirements of ANSI A117.1.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not install sealants when the temperature is less than the manufacturer's recommended minimum temperature for installation and curing.

1.7 WARRANTY

- A. Provide manufacturer's standard warranty that provides correction of defective Work and materials.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Peerless
- B. Kawneer
- C. United States Aluminum
- D. Vistawall Architectural Products

- E. Approved Equal (approved by DMHAS project manager)

2.2 MATERIALS

- A. Use extruded aluminum conforming to ASTM B221.
- B. Use sheet aluminum conforming to ASTM B209.
- C. Use steel sections conforming to ASTM A36, shaped to suit mullion sections.
- D. Use stainless steel or galvanized steel fasteners.
- E. Use sealants specified in Section 07 9200, Joint Sealers.

2.3 COMPONENTS

- A. For exterior applications use frame material with 2 by 2 inch nominal dimensions; thermally broken, with interior tubular section insulated from exterior; flush glazing stops; drainage holes; internal weep drainage system. Include Window screens, w/ color matched factory finish.
- B. For exterior applications of reinforced mullions use standard thermally broken frame with internal steel member reinforcement.
- C. Use flashings of aluminum with finish to match mullion sections.

2.4 HARDWARE

- A. Use manufacturer's standard locking pull that coordinates with specified windows.

2.5 FABRICATION

- A. Fabricate components with minimum clearance and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.
- B. Accurately fit and secure joints and corners. Make joints flush, hairline and weatherproof.
- C. Prepare components to receive anchor devices. Fabricate anchors.
- D. Install fasteners and attachments to be concealed from view.
- E. Prepare components with internal reinforcement for door hardware.
- F. Reinforce framing members for imposed loads.

1.09 QUALITY ASSURANCE

- A. Submit for prebid approval ten days prior to bid opening a sample window representing the bid window except for color and valid test reports from an AAMA-accredited laboratory conforming to test results in Paragraph 1.07.
- B. Acceptance will be by addendum only as no verbal approvals will be allowed.
- C. Submit bid on prequalified products in prebid written addendum. Bidder must identify manufacturer and model of product on which the bid is based.
- D. Furnish a valid AAMA "Authorization for Product Certification" indicating that the windows for the project conform to AAMA/WDMA/CSA 101/I.S.2/A440-05.
- E. Furnish visible, permanent IGCC certification labels indicating conformance to ASTM E 2190-02 on insulating glass units.
- F. Furnish visible, permanent SGCC certification labels indicating conformance to ANSI Z97.1-04 and/or 16 CFR 1201 on tempered glass lites, if included on the project, and laminated glass lites, if included on the project.
- G. Manufacturer's warranties:
 - 1. Windows: warrant for one year against defects in material or workmanship under normal use.
 - 2. Insulating glass units: warrant seal for five years against visual obstruction from film formation or moisture collection between internal glass surfaces, excluding that caused by glass breakage or abuse.
 - 3. Paint finish: PPG - AAMA 2605 70% fluoropolymer paint finish

Duranar™ organic finish conforming to AAMA 2605-05: warrant for fifteen years against chipping, peeling, cracking, chalking, or fading.

1.10 DELIVERY, STORAGE, AND HANDLING - Handle and protect windows and accessories in accordance with AAMA CW-10-04 until project completion.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. TRACO NX-540, H-C50, 3-1/4" Single Hung Tilt Thermal Aluminum Window
- B. Others will not be accepted.

2.02 MATERIALS

- A. Aluminum extrusions: extruded by the window manufacturer from commercial quality 6063-T5 alloy; free from defects impairing strength and durability.
- B. Hardware: white zinc die cast sweep lock - one per window up to 32" window width, two on wider windows; two aluminum automatic sill locks; two white nylon night latches per window; two zinc pivot bars per sash - pivot bars engage balance shoes when sash are tilted parallel to the floor; two white nylon finger button custodial tilt releases per sash – releases are spring-loaded for safety by automatically engaging the frame jamb when the sash are in their normal vertical position.
- C. Weatherstrip: secured in extruded ports; double rows on sash perimeters: pile conforming to AAMA 701/702-04 with polypropylene center fin.
- D. Balances: constant force conforming to AAMA 902-07 Class 4 with capacity to hold sash stationary and permit them to operate freely; nylon balance shoes which lock when sash are tilted to prevent sash travel.
- E. Insect screens: half; held in exterior tracks with stainless steel leaf springs; 5/16" x 1-1/2" x .045" extruded roll-formed tubular aluminum frame with same finish as window; corners mitered, gusset reinforced, and crimped; 18 x 16 dark aluminum mesh; PVC spline.

2.03 FABRICATION

- A. Frame: head and sill coped and fastened to jambs with two stainless steel screws per corner; frame sill has two weep holes covered with weep covers for drainage; corners sealed by window manufacturer with sealant conforming to AAMA 800-07.
- B. Sash: tubular horizontal sash rails coped and fastened to double-tubular vertical sash stiles with a telescope-design joint secured with one stainless steel screw per corner; corners sealed by window manufacturer with sealant conforming to AAMA 800-07.
- C. Sash design: continuous extruded lift rail on bottom sash interior; mechanical meeting rail interlock.

2.04 INSULATING GLASS UNITS

A. Materials

1. Spacer: extruded thermoplastic butyl with integrated desiccant.
2. Spacer color: black.
3. Secondary seal: silicone.
4. Airspace fill: argon

B. Performance

1. Dual-seal durability: conformance to ASTM E 2190-02; visible, permanent IGCC certification label on air spacer.

C. Exterior glass lite

1. Thickness: 1/4"
2. Tint: clear
3. Type: tempered
4. Coating: soft coat low E on #2 surface

D. Interior glass lite

1. Thickness: 1/4"
2. Tint: clear, *pattern #62 obscure @ all Bathrooms.*
3. Type: tempered

2.05 FINISH ON **EXTERIOR** ALUMINUM EXTRUSIONS

- A. Application: on clean extrusions free from serious surface blemishes; on exposed surfaces visible when installed product's operating sash are closed.
- B. Coating: PPG Duranar™ with resin containing 70% fluoropolymer; thermosetting; alternative finishes will not be acceptable.
- C. Quality standard: conforming to AAMA 2605-05, including 10 years Florida exposure and 4000 hours humidity tests.
- D. Pretreatment: five-stage; zinc chromate conversion coating.
- E. Application: electrostatic spray and oven bake by approved applicator.
- F. Coating quantity: minimum one primer coat and one color coat.
- G. Dry film thickness: minimum 1.2 mils on exposed surfaces, except inside corners and channels.
- H. Color: chosen from manufacturer's standards.

2.06 FINISH ON **INTERIOR** ALUMINUM EXTRUSIONS

- A. Application: on clean extrusions free from serious surface blemishes; on exposed surfaces visible when installed product's operating sash are closed.
- B. Coating: PPG Duranar™ with resin containing 70% fluoropolymer; thermosetting; alternative finishes will not be acceptable.
- C. Quality standard: conforming to AAMA 2605-05, including 10 years Florida exposure and 4000 hours humidity tests.
- D. Pretreatment: five-stage; zinc chromate conversion coating.
- E. Application: electrostatic spray and oven bake by approved applicator.
- F. Coating quantity: minimum one primer coat and one color coat.
- G. Dry film thickness: minimum 1.2 mils on exposed surfaces, except inside corners and channels.
- H. Color: chosen from manufacturer's standards.

2.07 **EXTERNAL** MUNTINS

- A. Material: extruded aluminum or roll-formed aluminum; with exposed surfaces finished to match window color; concealed fasteners; designed for unrestricted expansion and contraction.
- B. Design: muntin bar cross-section profile and material chosen from manufacturer's standards, H-082.
- C. Patterns: grid patterns to be designated by architect.
- D. Location: Exterior

2.08 INSTALLATION ACCESSORIES

- A. Material: extruded aluminum; nominal .062" wall; with exposed surfaces finished to match window color and finish performance; concealed fasteners; required weatherseals; designed for unrestricted expansion and contraction.
- B. Exterior: wrap around panning
- C. Interior: two-piece snap trim and trim clip (To be shown on Contractors shop drawings)
- D. Mullions: horizontal stack mullion with nylon strip thermal break

PART 3 - EXECUTION

3.01 PREPARATION - Prepare openings to be in tolerance, plumb, level, provide for

secure anchoring, and in accordance with approved shop drawings.

3.02 INSTALLATION

- A. Install windows in accordance with window manufacturer's recommendations and dealer's approved shop drawings with skilled craftspeople who have demonstrated a successful history of installing windows for 5 years.
- B. Provide required support and securely fasten and set windows plumb, square, and level without twist or bow.
- C. Apply sealant per sealant manufacturer's recommendations at joints, wipe off excess, and leave exposed sealant surfaces clean and smooth.

3.03 FIELD TESTING

- A. Test installed units in conformance with AAMA 502-08 minimum requirements for air and water infiltration with the window manufacturer, dealer, contractor, and owner present.
- B. Select test units as directed by the owner's representative and use an AAMA-accredited laboratory provided by the owner or contractor.

3.04 ADJUSTING AND CLEANING - Adjust windows as necessary for smooth and weathertight operation, and leave windows clean and free of construction debris. This is a Healthcare Facility, contractor is responsible for a thorough cleaning of their work area each day.

END OF SECTION

2.6 FINISHES

- A. For exterior exposed aluminum surfaces use Kynar finish, standard color choice from manufacturers color swatch to be verified with facility. All work conforming to AA-M12-C22-A44, architectural Class I.
- B. Use concealed steel items galvanized in accordance with ASTM A123 to 2.0 oz/sq ft.
- C. Extent of finish
 - 1. Apply **factory finish** to all surfaces exposed at completed assemblies.
 - 2. Apply matching finishes to surfaces cut during fabrication, so that no natural aluminum is visible in completed assemblies, including joint edges.
 - 3. Apply touchup materials recommended by finish manufacturer for field application to cut ends and minor damage to factory applied finish.

PART 3 EXECUTION

3.1 INSPECTION

- A. Verify dimensions, tolerances, and methods of attachment with other Work.
- B. Verify wall openings and adjoining air and vapor seal materials are ready to receive Work of this Section.

3.2 INSTALLATION

- A. Install window system in accordance with manufacturer's installation instructions and AAMA - Metal Curtain Wall, Window, Store Front and Entrance - Guide Specifications Manual.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities,
- C. Fill all voids left in rough opening on top, bottom and sides with non-shrinking cementitious grout.
- D. Apply bituminous paint to concealed aluminum surfaces in contact with cementitious or dissimilar surfaces.
- E. Provide alignment attachments and shims to permanently fasten system to building structure.

- E. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances.
- G. Provide thermal isolation where components penetrate or disrupt building insulation.
- H. Install sill flashings. Turn up ends and edges, seal to adjacent Work to form water tight dam.
- I. Coordinate attachment and seal of perimeter air and vapor barrier materials.
- J. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- K. Install hardware using templates provided.
- L. Install perimeter sealant in accordance with manufacturer's instructions.

3.3 INSTALLATION TOLERANCES

- A. Maximum variation from plumb is 1/16 inch per 10 feet.
- B. Maximum misalignment of two adjoining members abutting in a plane is 1/32 inch.

3.4 ADJUSTING

- A. Adjust operating hardware for smooth operation.

3.5 CLEANING

- A. Remove protective material from frame members.
- B. Wash surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from corners. Wipe surfaces clean and dry.

3.6 PROTECTION OF FINISHED WORK

- A. Protect finished work from damage.

END OF SECTION

SECTION 085113 - ALUMINUM WINDOWS (Commercial – Single Hung)

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Material: aluminum windows as on the drawings and specified in this section.
- B. Installation: labor, tools, and material needed to install aluminum windows.
- C. Glass and glazing.

1.04 RELATED SECTIONS - Section 07900 – Joint Sealants

1.05 REFERENCES

- A. AAMA - American Architectural Manufacturers Association - *www.aamanet.org*
 - 1. AAMA/WDMA/CSA 101/I.S.2/A440-05 “Standard/Specification for Windows, Doors, and Unit Skylights”
 - 2. AAMA 502-08 "Voluntary Specification for Field Testing of Newly Installed Fenestration Products"
 - 3. AAMA 611-98 "Voluntary Specification for Anodized Architectural Aluminum"
 - 4. AAMA 701/702-04 "Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals”
 - 5. AAMA 800-07 "Voluntary Specifications and Test Methods for Sealants"
 - 6. AAMA 902-07 “Voluntary Specification for Sash Balances”
 - 7. AAMA 2603-02 “Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels”
 - 8. AAMA 2604-05 “Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels”
 - 9. AAMA 2605-05 “Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels”
 - 10. AAMA CW-10-04 "Care and Handling of Architectural Aluminum from Shop to Site"

- B. ASTM - American Society for Testing and Materials – *www.astm.org*
1. ASTM E 283-04 "Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen"
 2. ASTM E 330-02 "Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference"
 3. ASTM E 547-00 "Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Differential"
 4. ASTM E 2190-02 "Standard Specification for Insulating Glass Unit Performance and Evaluation"
- C. NFRC – National Fenestration Rating Council – *www.nfrc.org*
1. NFRC 100-04 "Procedure for Determining Fenestration Product U Factors"
 2. NFRC 102-04 "Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems"
 3. NFRC 500-04 "Procedure for Determining Fenestration Product Condensation Resistance Values"
- D. IGCC – Insulating Glass Certification Council – *www.igcc.org*
- E. SGCC – Safety Glazing Certification Council – *www.sgcc.org*
1. ANSI Z97.1-04 "American National Standard for Safety Glazing Materials used in Buildings – Safety Performance Specifications and Methods of Test"
 2. 16 CFR 1201 "Consumer Product Safety Commission Safety Standard for Architectural Glazing Materials – codified at Title 16, Part 1201 of the Code of Federal Regulations"

1.06 SYSTEM DESCRIPTION

- A. AAMA Designation: H-C50.
- B. Windows: 3-1/4" frame depth; extruded aluminum with integral structural thermal break made with glass-reinforced nylon strips installed by the window manufacturer in the frame and sash members; equal-leg flange frame; exterior and interior finishes applied by the window manufacturer; frames and sash assembled by the window manufacturer.
- C. Configuration: single hung in master frame; bottom sash tilts in for glass cleaning.

- D. Glazing: exterior 2-part structural silicone; 7/8" insulating glass; interior foam-filled bulb gasket; glass description in paragraph 2.04; glazed by the window manufacturer.

1.07 PERFORMANCE REQUIREMENTS

- A. Conformance to H-C50 specifications in AAMA/WDMA/CSA 101/I.S.2/A440-05 when tests are performed on the prescribed 56" x 91" minimum test size with the following test results:
1. Air Infiltration: not to exceed AAMA 101 standard of maximum .3 cfm/square foot when tested per ASTM E 283-04 at a static air pressure difference of 1.6 psf.
 2. Water Penetration: no uncontrolled water leakage when tested per ASTM E 547-00 at a static air pressure difference of 10 psf.
 3. Uniform Structural Load: no glass breakage or permanent damage to fasteners, and maximum .3% permanent deformation of the span of any frame member when tested per ASTM E 330-02 at a static air pressure difference of 75 psf.
- B. U Value Test: thermal testing per NFRC 102-04 at the prescribed 48" x 60" test size glazed with 7/8" insulating glass made with 1/8" glass with a soft coat low E coating on the #2 surface of the exterior lite, thermoplastic butyl spacer, argon gas, and 1/8" glass with a hard coat low E coating on the #4 surface of the interior lite: Standardized Thermal Transmittance to be **maximum 0.37 BTU/HR/SQ.FT/°F**.
- C. U Value Simulation: thermal computer simulation per NFRC 100-04, at the prescribed 48"x 60" Non-Residential Size, glazed with 7/8" insulating glass made with 1/8" clear exterior glass lite, thermoplastic butyl spacer, argon gas, and 1/8" glass with a soft coat low E coating on the #3 surface of the interior lite: Thermal Transmittance to be **maximum 0.37 BTU/HR/SQ.FT/°F**.
- D. Condensation Resistance Simulation: thermal computer simulation per NFRC 500-04, at the prescribed 48"x 60" Non-Residential Size, glazed with 7/8" insulating glass made with 1/8" clear exterior glass lite, thermoplastic butyl spacer, argon gas, and 1/8" glass with a soft coat low E coating on the #3 surface of the interior lite: Condensation Resistance to be minimum 51.

1.08 SUBMITTALS

- A. Shop drawings: window location chart; typical window elevations; details of assemblies, hardware, and glazing details for units glazed by window manufacturer.
- B. Product data: manufacturer's specifications and test reports from an AAMA-accredited laboratory.
- C. Samples: each specified finish for aluminum; other samples as requested.

SECTION 09910 - PAINTING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Summary: Paint exposed surfaces, **new and existing**, unless otherwise indicated.
1. Paint the back side of access panels.
 2. Color-code mechanical piping in accessible ceiling spaces.
 3. Do not paint pre-finished items, items with an integral finish, operating parts, and labels unless otherwise indicated.
- B. Submittals:
1. Product Data. **Include printout of "MPI Approved Products List" with product highlighted.**
 2. Samples.
- C. MPI Standards:
1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.
- D. Mockups: Full-coat finish Sample of each type of coating, color, and substrate, applied where directed.
- E. Extra Materials: Deliver to Owner **1 gal. (3.8 L) 1** of each color and type of finish coat paint used on Project, in containers, properly labeled and sealed.

PART 2 - PRODUCTS

2.1 PAINT

- A. **Available** Products:
1. Pratt & Lambert Paints
 2. PPG
 3. Pittsburg Paint
 4. Sherwin Williams
 5. Benjamin Moore
 6. DMHAS Engineer approved equal.

- B. Material Compatibility: Provide materials that are compatible with one another and with substrates.
 - 1. 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.
- C. Colors: As **selected** by agency

PART 3 - EXECUTION

3.1 PREPARATION

- A. Remove hardware, lighting fixtures, and similar items that are not to be painted. Mask items that cannot be removed. Reinstall items in each area after painting is complete.
- B. Clean and prepare surfaces in an area before beginning painting in that area. Schedule painting so cleaning operations will not damage newly painted surfaces.

3.2 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 - 1. Use brushes only for exterior painting and where the use of other applicators is not practical.
 - 2. Use rollers for finish coat on interior walls and ceilings.
- 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.
 - 1. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- C. Apply stains and transparent finishes to produce surface films without color irregularity, cloudiness, holidays, lap marks, brush marks, runs, ropiness, or other imperfections. Use multiple coats to produce a smooth surface film of even luster.

3.3 EXTERIOR PAINT APPLICATION SCHEDULE

- A. Clay Masonry:
 - 1. **Semigloss Latex: Two coats: MPI EXT 4.1A.**
- B. Concrete Masonry Units:
 - 1. **Semigloss Latex: Two coats over latex block filler: MPI EXT 4.2A.**

C. Steel:

1. **Semigloss, Quick-Dry Enamel: Two coats** over rust-inhibitive primer: MPI EXT 5.1A.
2. **Semigloss, Alkyd Enamel: Two coats** over rust-inhibitive primer: MPI EXT 5.1D.

3.4 INTERIOR PAINT APPLICATION SCHEDULE

A. Concrete/Masonry:

1. Match sheen to existing, Latex: **Two coats** over primer/sealer: MPI INT 3.1A.

B. Steel:

1. **Semigloss Latex: Two coats** over **quick-drying alkyd** primer: MPI INT 5.1Q.

C. Dressed Lumber: Including architectural woodwork and all new trim.

1. **Semigloss Latex: Two coats** over primer: MPI INT 6.3T.

D. Gypsum Board:

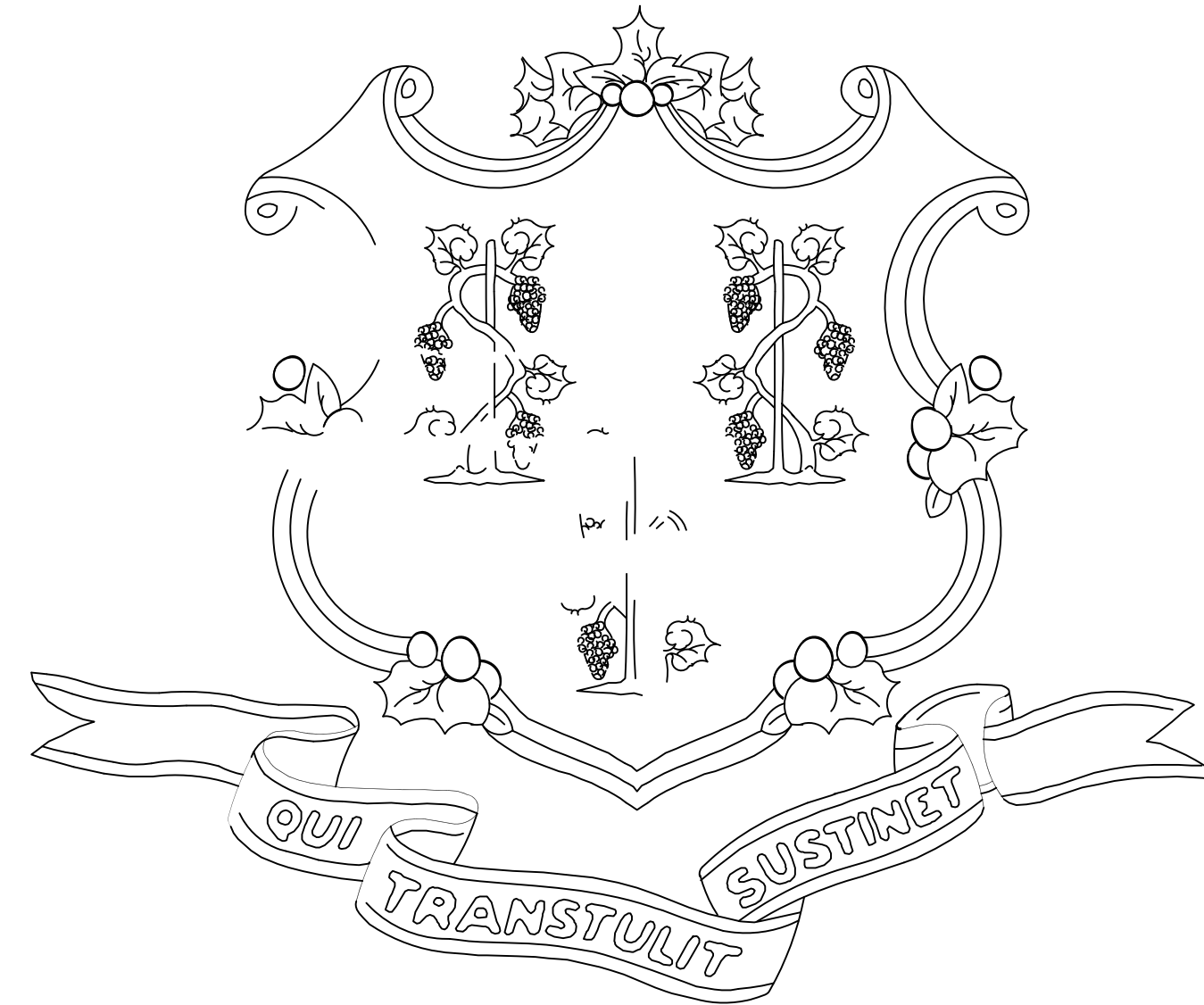
1. **Semigloss Latex: Two coats** over primer/sealer: MPI INT 9.2A.

E. Plaster:

1. Match sheen to existing, Latex: **Two coats** over primer/sealer: MPI INT 9.2A.

END OF SECTION 09910

STATE OF CONNECTICUT



DANNEL P. MALLOY - GOVERNOR

DEPARTMENT OF MENTAL HEALTH & ADDICTION SERVICES

PATRICIA REHMER, MSN - COMMISSIONER

CONNECTICUT VALLEY HOSPITAL

HOLMES DRIVE

MIDDLETOWN, CONNECTICUT 06457

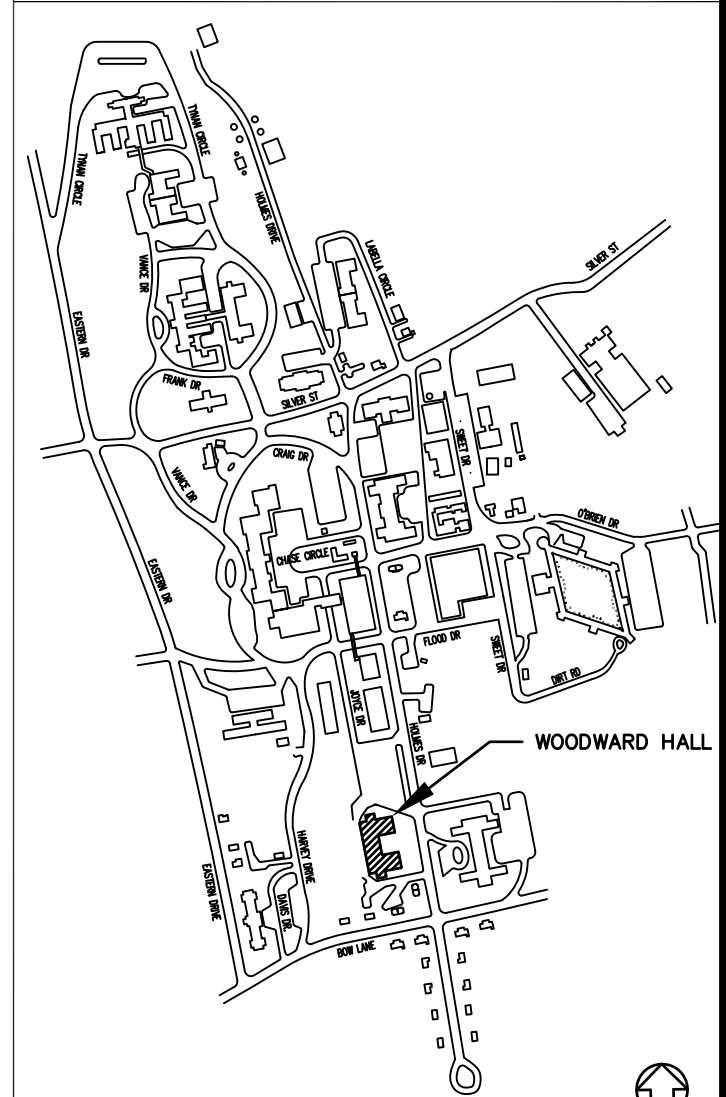
WOODWARD HALL - WINDOW REPLACEMENT PH. II

PROJECT NO.: MHA00989

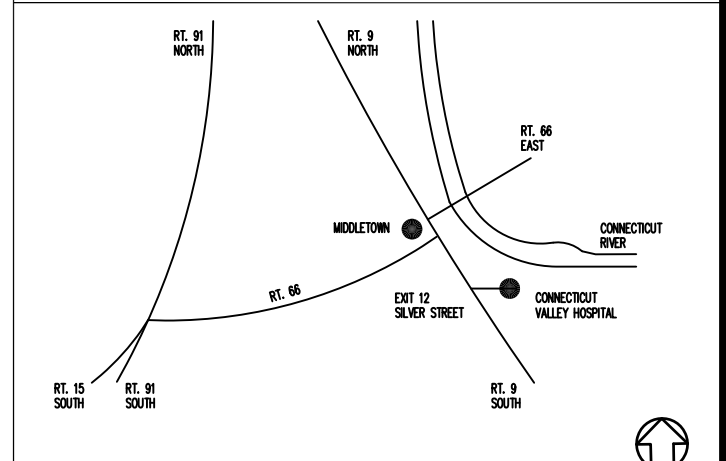
PREPARED BY:
OFFICE OF THE COMMISSIONER
ENGINEERING SERVICES II
MIDDLETOWN, CT 06457

CONTRACT DRAWINGS:

NO.	TITLE
A-1	1ST FLOOR PLAN
A-2	ELEVATIONS
A-3	ELEVATIONS
A-4	ELEVATIONS
A-5	DETAILS



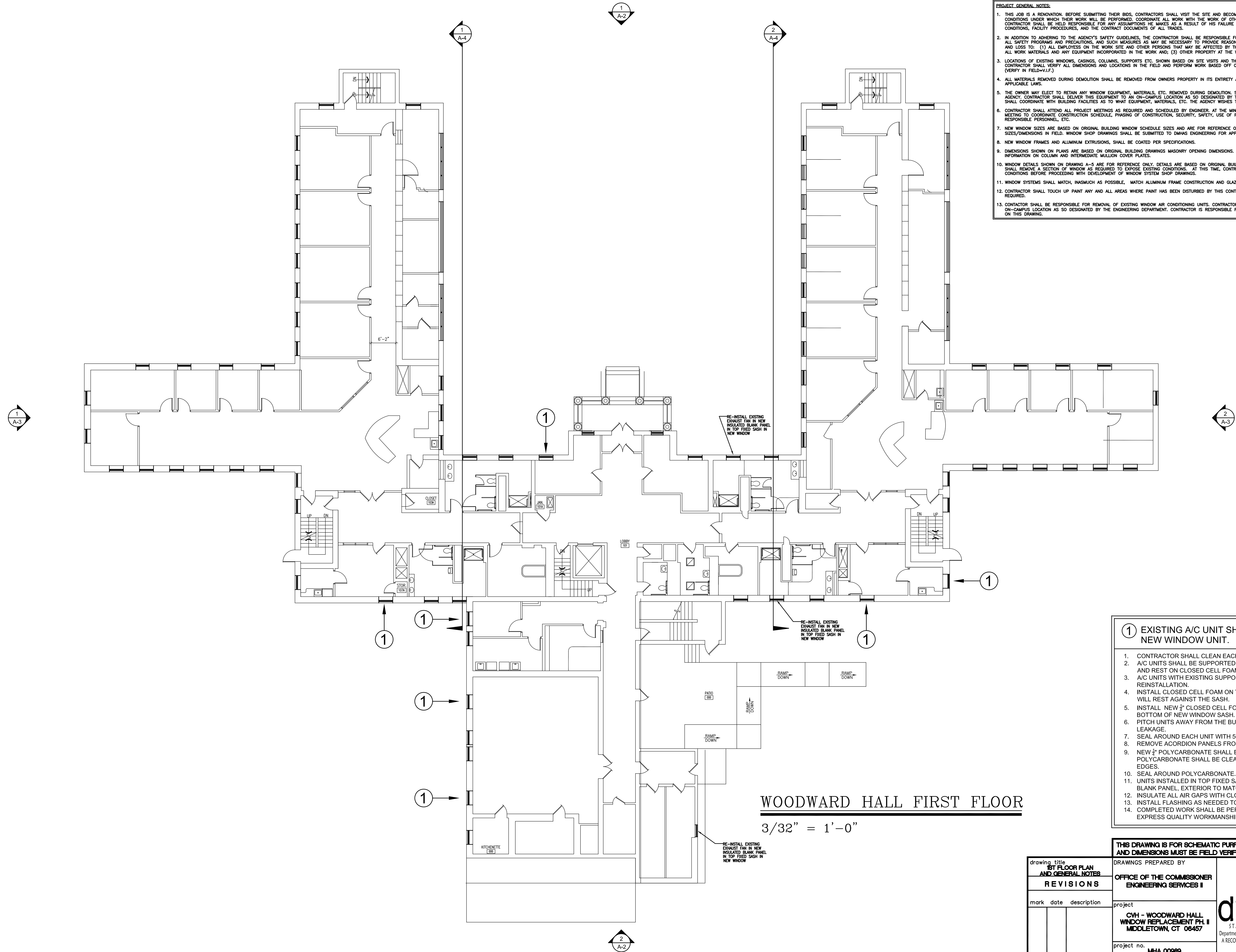
Site Plan: Not to Scale



Location Plan

Public Works	Date

Agency	Date



- PROJECT GENERAL NOTES:**
- THIS JOB IS A RENOVATION. BEFORE SUBMITTING THEIR BIDS, CONTRACTORS SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS UNDER WHICH THEIR WORK WILL BE PERFORMED. COORDINATE ALL WORK WITH THE WORK OF OTHER TRADES AND/OR ENGINEER. THIS CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS HE MAKES AS A RESULT OF HIS FAILURE TO BECOME FULLY FAMILIAR WITH THE EXISTING CONDITIONS, FACILITY PROCEDURES, AND THE CONTRACT DOCUMENTS OF ALL TRADES.
 - IN ADDITION TO ADHERING TO THE AGENCY'S SAFETY GUIDELINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS AND PRECAUTIONS, AND SUCH MEASURES AS MAY BE NECESSARY TO PROVIDE REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY, AND LOSS TO: (1) ALL EMPLOYEES ON THE WORK SITE AND OTHER PERSONS THAT MAY BE AFFECTED BY THE WORK, INCLUDING THE GENERAL PUBLIC; (2) ALL WORK MATERIALS AND ANY EQUIPMENT INCORPORATED IN THE WORK AND; (3) OTHER PROPERTY AT THE WORK SITE OR ADJACENT TO THE SITE.
 - LOCATIONS OF EXISTING WINDOWS, CASINGS, COLUMNS, SUPPORTS ETC. SHOWN BASED ON SITE VISITS AND THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS IN THE FIELD AND PERFORM WORK BASED OFF OF CONTRACTORS FIELD-MEASURED DIMENSIONS. (VERIFY IN FIELD-V.I.F.)
 - ALL MATERIALS REMOVED DURING DEMOLITION SHALL BE REMOVED FROM OWNERS PROPERTY IN ITS ENTIRETY AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS.
 - THE OWNER MAY ELECT TO RETAIN ANY WINDOW EQUIPMENT, MATERIALS, ETC. REMOVED DURING DEMOLITION. SUCH SHALL REMAIN THE PROPERTY OF THE AGENCY. CONTRACTOR SHALL DELIVER THIS EQUIPMENT TO AN ON-CAMPUS LOCATION AS SO DESIGNATED BY THE ENGINEERING DEPARTMENT. CONTRACTOR SHALL COORDINATE WITH BUILDING FACILITIES AS TO WHAT EQUIPMENT, MATERIALS, ETC. THE AGENCY WISHES TO RETAIN.
 - CONTRACTOR SHALL ATTEND ALL PROJECT MEETINGS AS REQUIRED AND SCHEDULED BY ENGINEER. AT THE MINIMUM, THERE SHALL BE A PRE-CONSTRUCTION MEETING TO COORDINATE CONSTRUCTION SCHEDULE, PHASING OF CONSTRUCTION, SECURITY, SAFETY, USE OF PREMISES, WORKING HOURS, DESIGNATION OF RESPONSIBLE PERSONNEL, ETC.
 - NEW WINDOW SIZES ARE BASED ON ORIGINAL BUILDING WINDOW SCHEDULE SIZES AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY NEW WINDOW SIZES/DIMENSIONS IN FIELD. WINDOW SHOP DRAWINGS SHALL BE SUBMITTED TO DMHAS ENGINEERING FOR APPROVAL PRIOR TO ANY INSTALLATION.
 - NEW WINDOW FRAMES AND ALUMINUM EXTRUSIONS, SHALL BE COATED PER SPECIFICATIONS.
 - DIMENSIONS SHOWN ON PLANS ARE BASED ON ORIGINAL BUILDING DRAWINGS MASONRY OPENING DIMENSIONS. REFER TO PLAN FOR DETAILS AND FURTHER INFORMATION ON COLUMN AND INTERMEDIATE MULLION COVER PLATES.
 - WINDOW DETAILS SHOWN ON DRAWING A-5 ARE FOR REFERENCE ONLY. DETAILS ARE BASED ON ORIGINAL BUILDING DRAWINGS AND SITE VISITS. CONTRACTOR SHALL REMOVE A SECTION OF WINDOW AS REQUIRED TO EXPOSE EXISTING CONDITIONS. AT THIS TIME, CONTRACTOR SHALL MAKE DMHAS ENGINEER AWARE OF CONDITIONS BEFORE PROCEEDING WITH DEVELOPMENT OF WINDOW SYSTEM SHOP DRAWINGS.
 - WINDOW SYSTEMS SHALL MATCH, INASMUCH AS POSSIBLE, MATCH ALUMINUM FRAME CONSTRUCTION AND GLAZING TYPE PER SPECIFICATIONS.
 - CONTRACTOR SHALL TOUCH UP PAINT ANY AND ALL AREAS WHERE PAINT HAS BEEN DISTURBED BY THIS CONTRACTOR. MATCH PAINT TO EXISTING AS REQUIRED.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF EXISTING WINDOW AIR CONDITIONING UNITS. CONTRACTOR SHALL DELIVER THIS EQUIPMENT TO AN ON-CAMPUS LOCATION AS SO DESIGNATED BY THE ENGINEERING DEPARTMENT. CONTRACTOR IS RESPONSIBLE FOR A/C UNITS TO BE RE-INSTALLED AS NOTED ON THIS DRAWING.

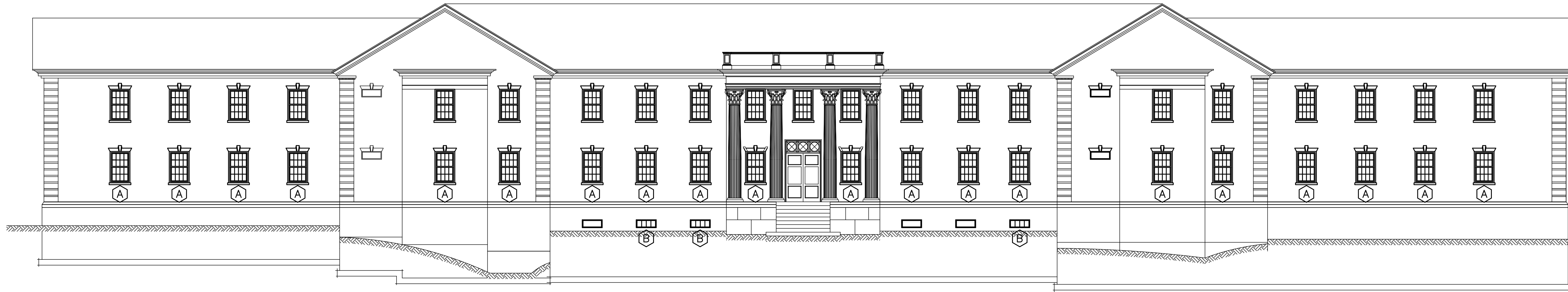
- 1** EXISTING A/C UNIT SHALL BE RE-INSTALLED IN NEW WINDOW UNIT.
- CONTRACTOR SHALL CLEAN EACH A/C PRIOR TO INSTALLATION.
 - A/C UNITS SHALL BE SUPPORTED INDEPENDENTLY OF THE WINDOW AND REST ON CLOSED CELL FOAM TO PREVENT VIBRATION.
 - A/C UNITS WITH EXISTING SUPPORTS MAY RE-USE SUPPORTS FOR REINSTALLATION.
 - INSTALL CLOSED CELL FOAM ON TOP MOUNTING RAIL OF A/C WHICH WILL REST AGAINST THE SASH.
 - INSTALL NEW 1/2" CLOSED CELL FOAM WITH ADHESIVE BACKING TO BOTTOM OF NEW WINDOW SASH.
 - PITCH UNITS AWAY FROM THE BUILDING TO PREVENT WATER LEAKAGE.
 - SEAL AROUND EACH UNIT WITH 50 YEAR CLEAR SILICONE.
 - REMOVE ACORDION PANELS FROM EACH A/C.
 - NEW 1/2" POLYCARBONATE SHALL BE INSTALLED AROUND EACH UNIT. POLYCARBONATE SHALL BE CLEANLY CUT AND FREE OF SHARP EDGES.
 - SEAL AROUND POLYCARBONATE.
 - UNITS INSTALLED IN TOP FIXED SASH SHALL UTILIZE AN INSULATED BLANK PANEL, EXTERIOR TO MATCH WINDOW FINISH.
 - INSULATE ALL AIR GAPS WITH CLOSED CELL FOAM.
 - INSTALL FLASHING AS NEEDED TO KEEP WATER FROM COLLECTING.
 - COMPLETED WORK SHALL BE PERFORMED PROFESSIONALLY AND EXPRESS QUALITY WORKMANSHIP.

WOODWARD HALL FIRST FLOOR
 3/32" = 1'-0"

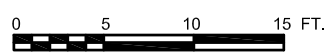
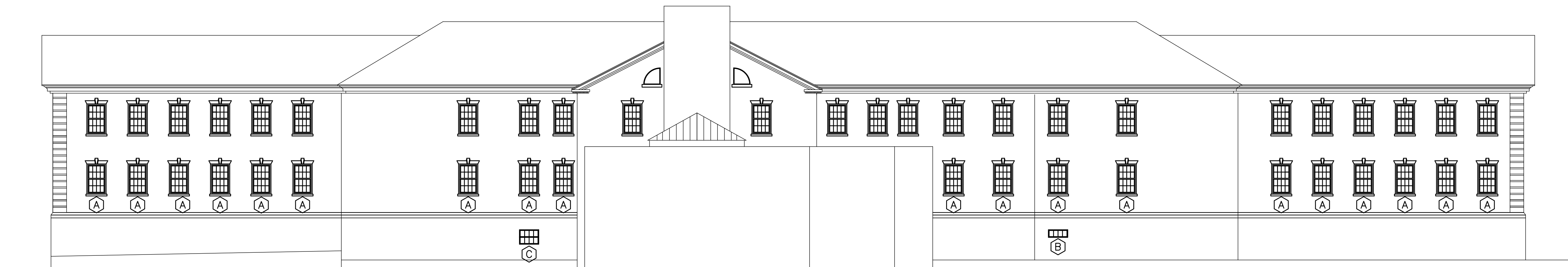
THIS DRAWING IS FOR SCHEMATIC PURPOSES ONLY. ALL MEASUREMENTS AND DIMENSIONS MUST BE FIELD VERIFIED.

drawing title 1ST FLOOR PLAN AND GENERAL NOTES	DRAWINGS PREPARED BY OFFICE OF THE COMMISSIONER ENGINEERING SERVICES II	date 06/21/2011
REVISIONS		scale AS NOTED
mark date description	project CVH - WOODWARD HALL WINDOW REPLACEMENT PH. II MIDDLETOWN, CT 06457	drawn by DER
	approved by SH	drawing no. A-1
	project no. MHA 00989	





1 EAST ELEVATION
A-2 3/32" = 1'-0"



WINDOW TYPE (A)

2 WEST ELEVATION
A-2 3/32" = 1'-0"

THIS DRAWING IS FOR SCHEMATIC PURPOSES ONLY. ALL MEASUREMENTS AND DIMENSIONS MUST BE FIELD VERIFIED.

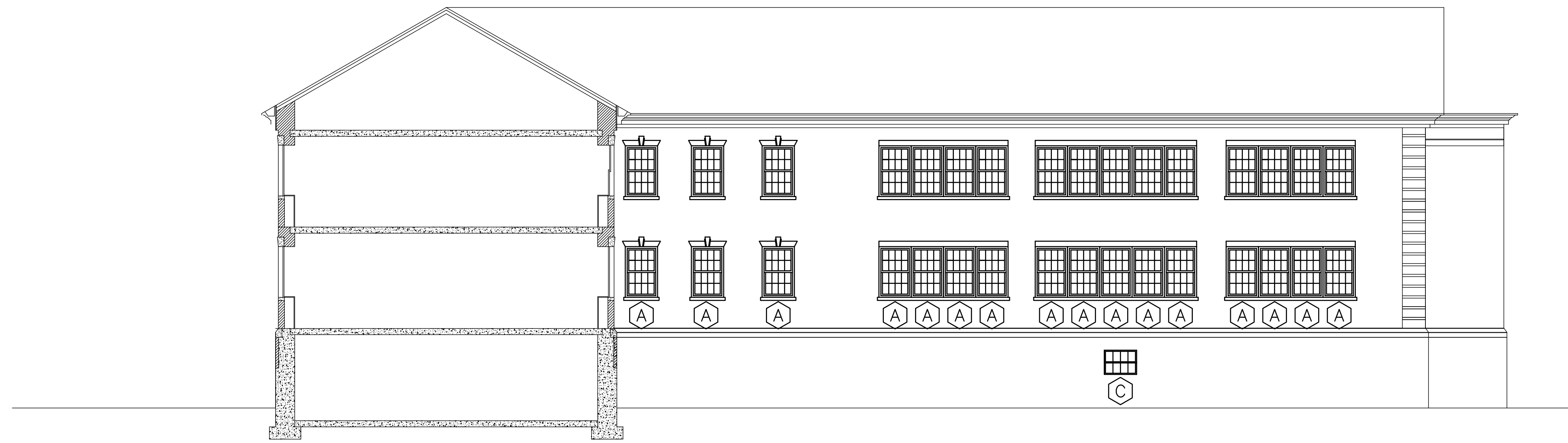
drawing title		
ELEVATIONS		
REVISIONS		
mark	date	description

DRAWINGS PREPARED BY
**OFFICE OF THE COMMISSIONER
ENGINEERING SERVICES II**

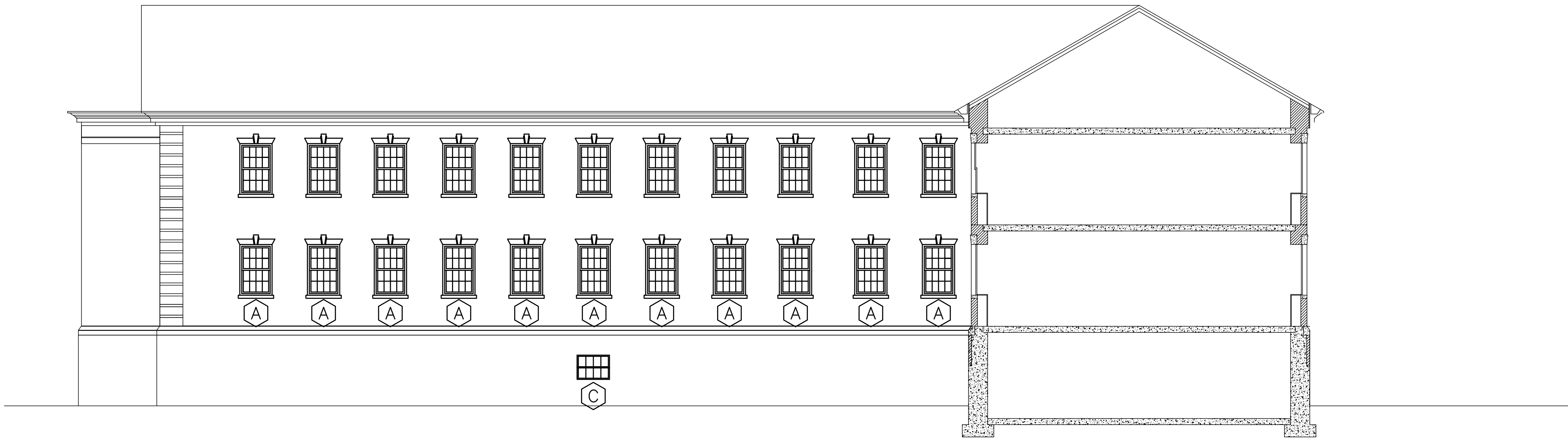
project
**CVH - WOODWARD HALL,
WINDOW REPLACEMENT PH. II
MIDDLETOWN, CT 06457**

project no. **MHA00989**

date **06/21/2011**
scale **AS NOTED**
drawn by **DER**
approved by **SH**
drawing no. **A-2**

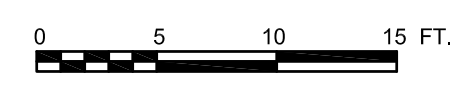


1 WOODWARD FIRST FLOOR
 A-4 1/8" = 1'-0"

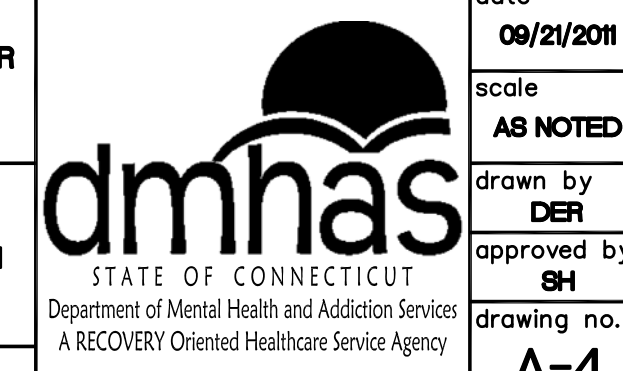


2 WOODWARD FIRST FLOOR
 A-4 1/8" = 1'-0"

WINDOW TYPE  

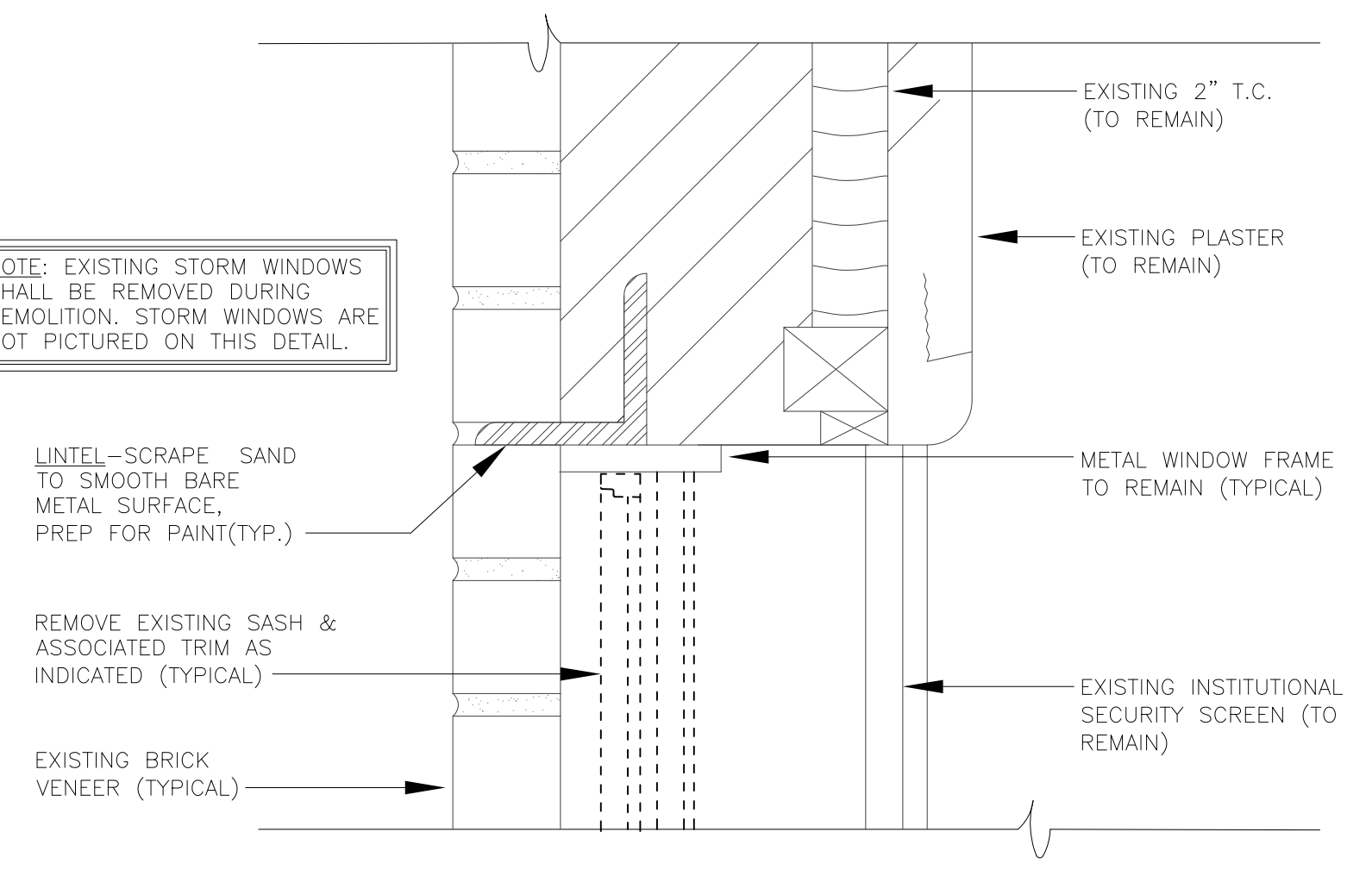


drawing title ELEVATION PLAN		DRAWINGS PREPARED BY OFFICE OF THE COMMISSIONER ENGINEERING SERVICES II		date 09/21/2011
REVISIONS		project CWH - WOODWARD HALL WINDOW REPLACEMENT PH. II MIDDLETOWN, CT 06457		scale AS NOTED
mark	date	description		drawn by DER
				approved by SH
		project no. MHA 00889		drawing no. A-4

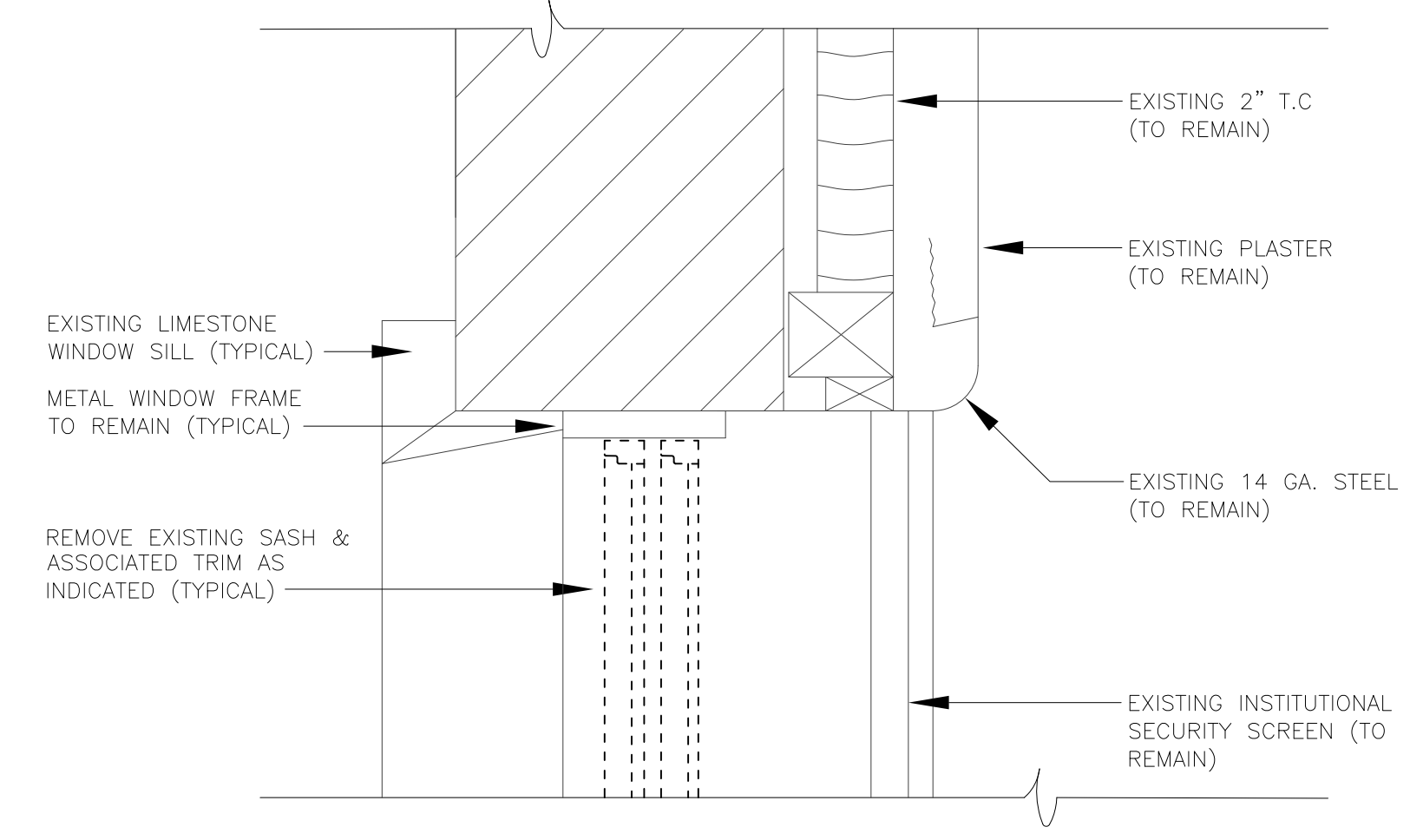


THIS DRAWING IS FOR SCHEMATIC PURPOSES ONLY. ALL MEASUREMENTS AND DIMENSIONS MUST BE FIELD VERIFIED.

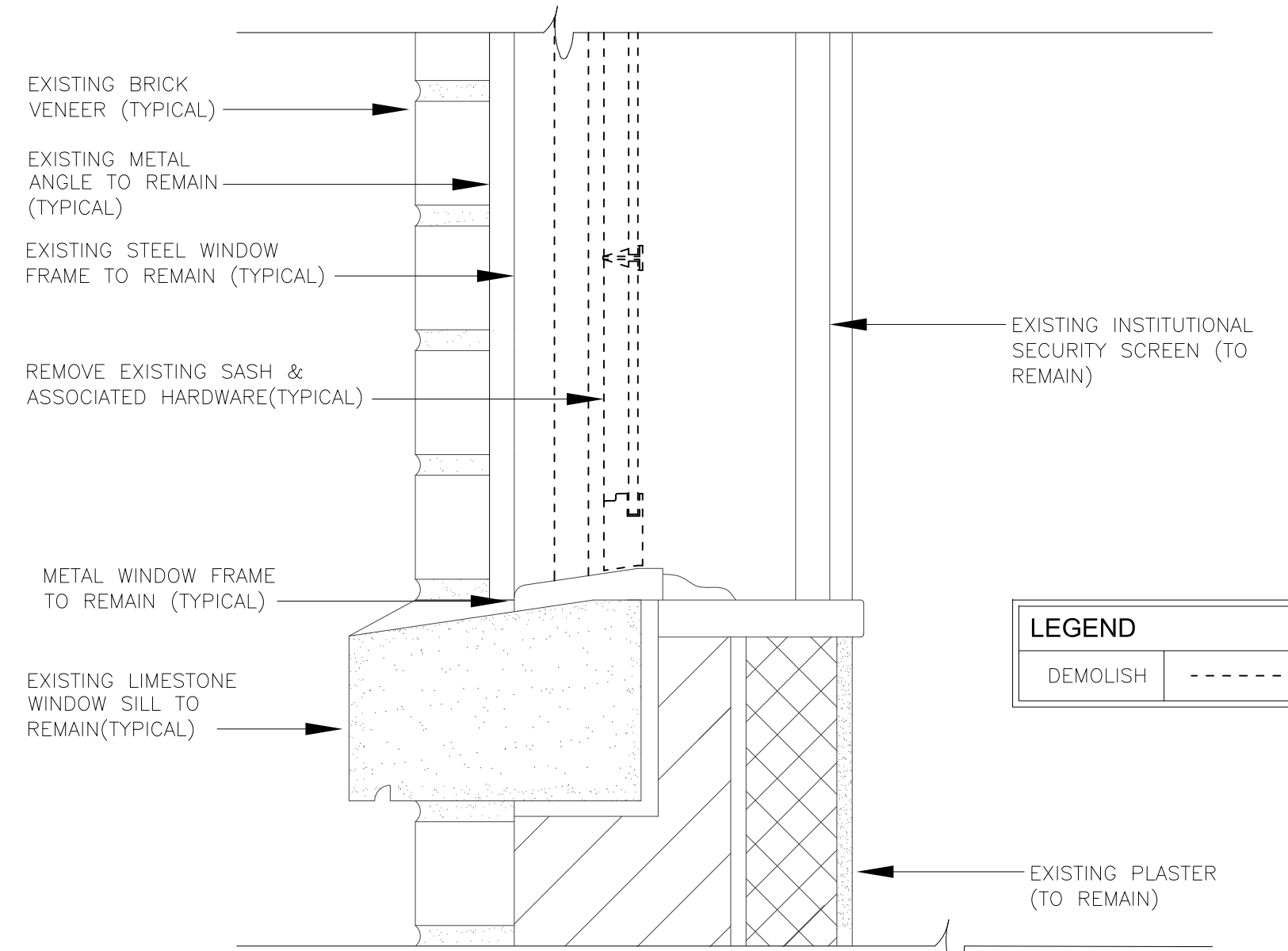
NOTE: EXISTING STORM WINDOWS SHALL BE REMOVED DURING DEMOLITION. STORM WINDOWS ARE NOT PICTURED ON THIS DETAIL.



HEAD



JAMB

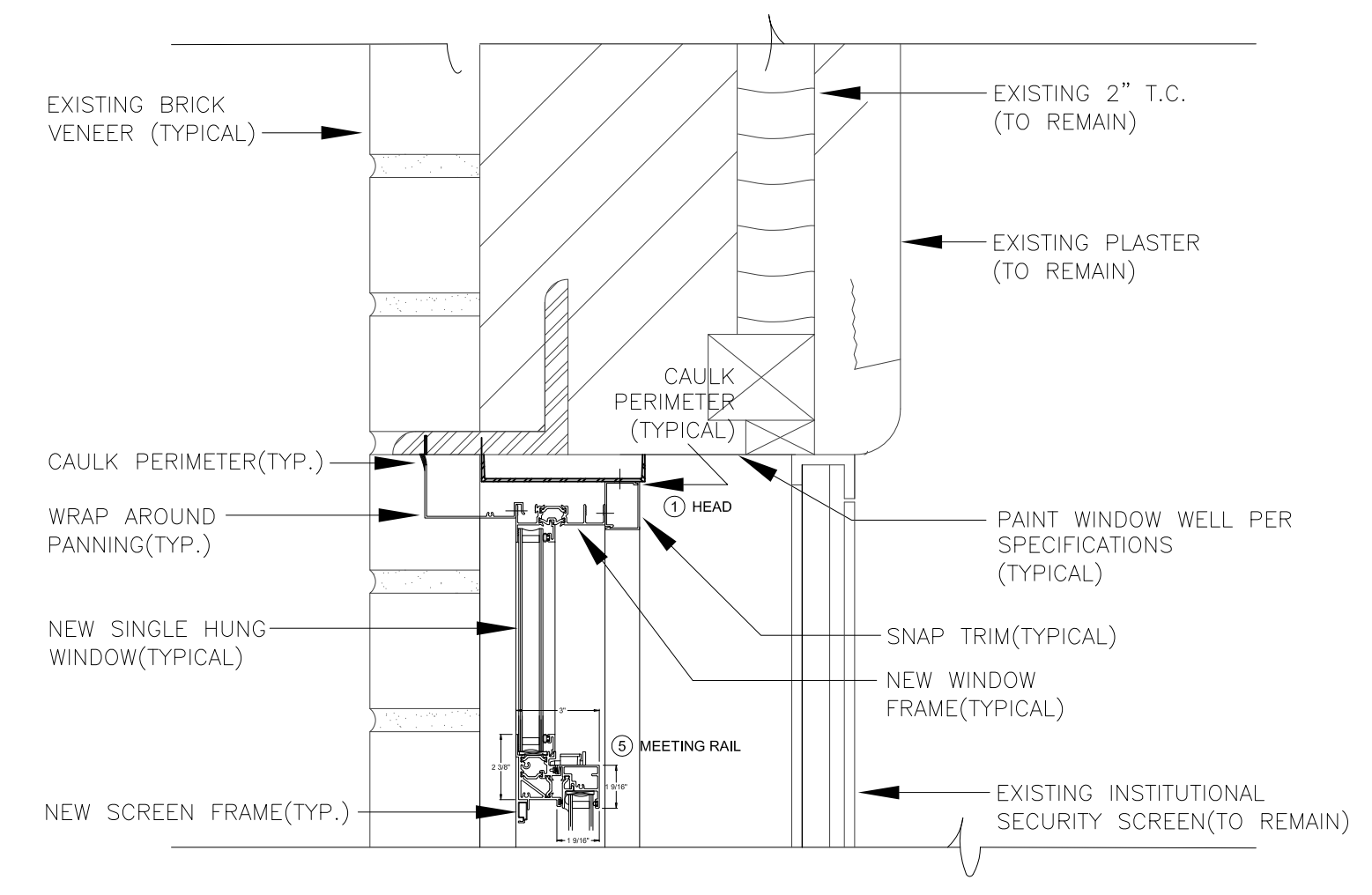


SILL

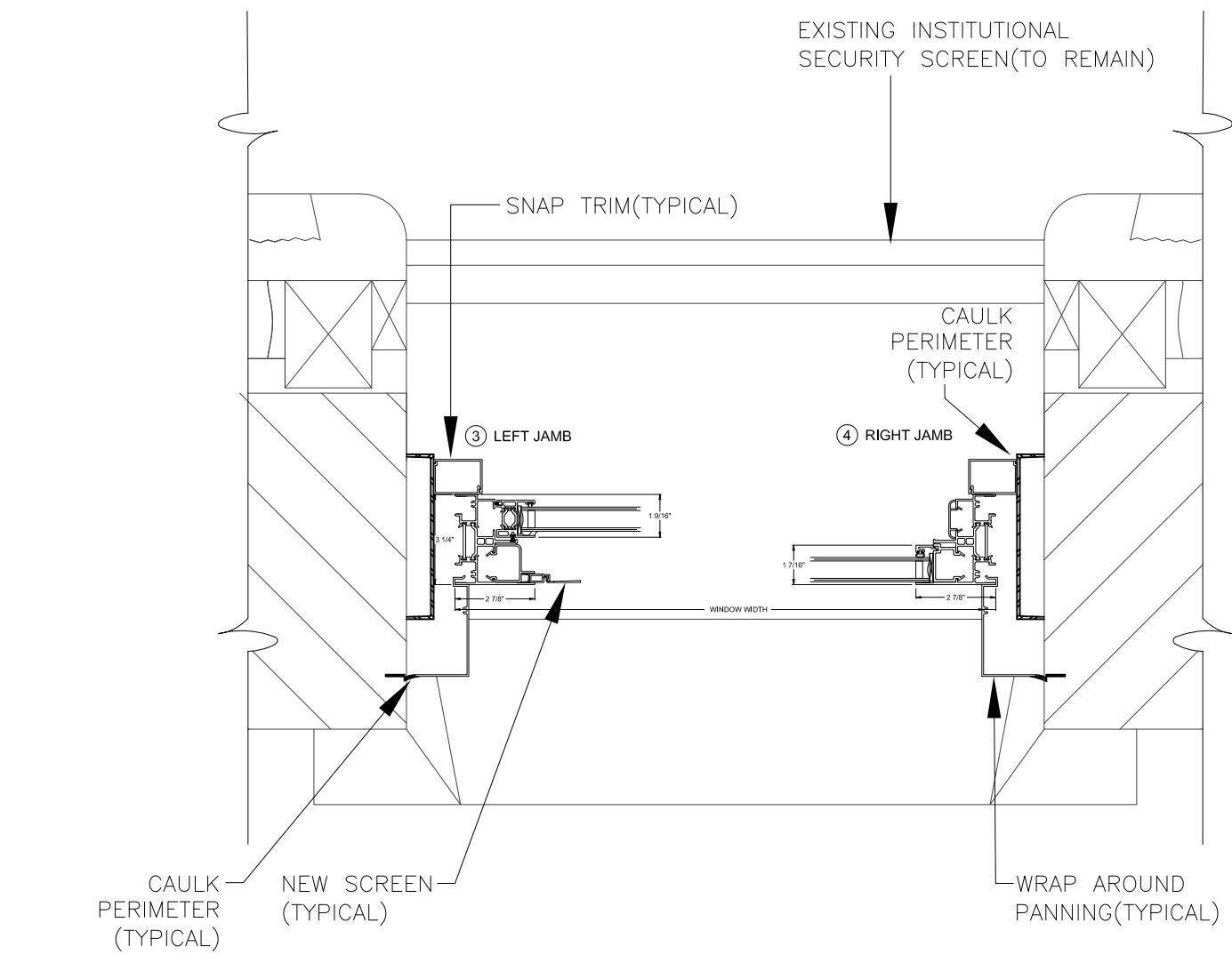
TYPICAL WINDOW DETAIL (DEMO)

LEGEND
 DEMOLISH - - - - -

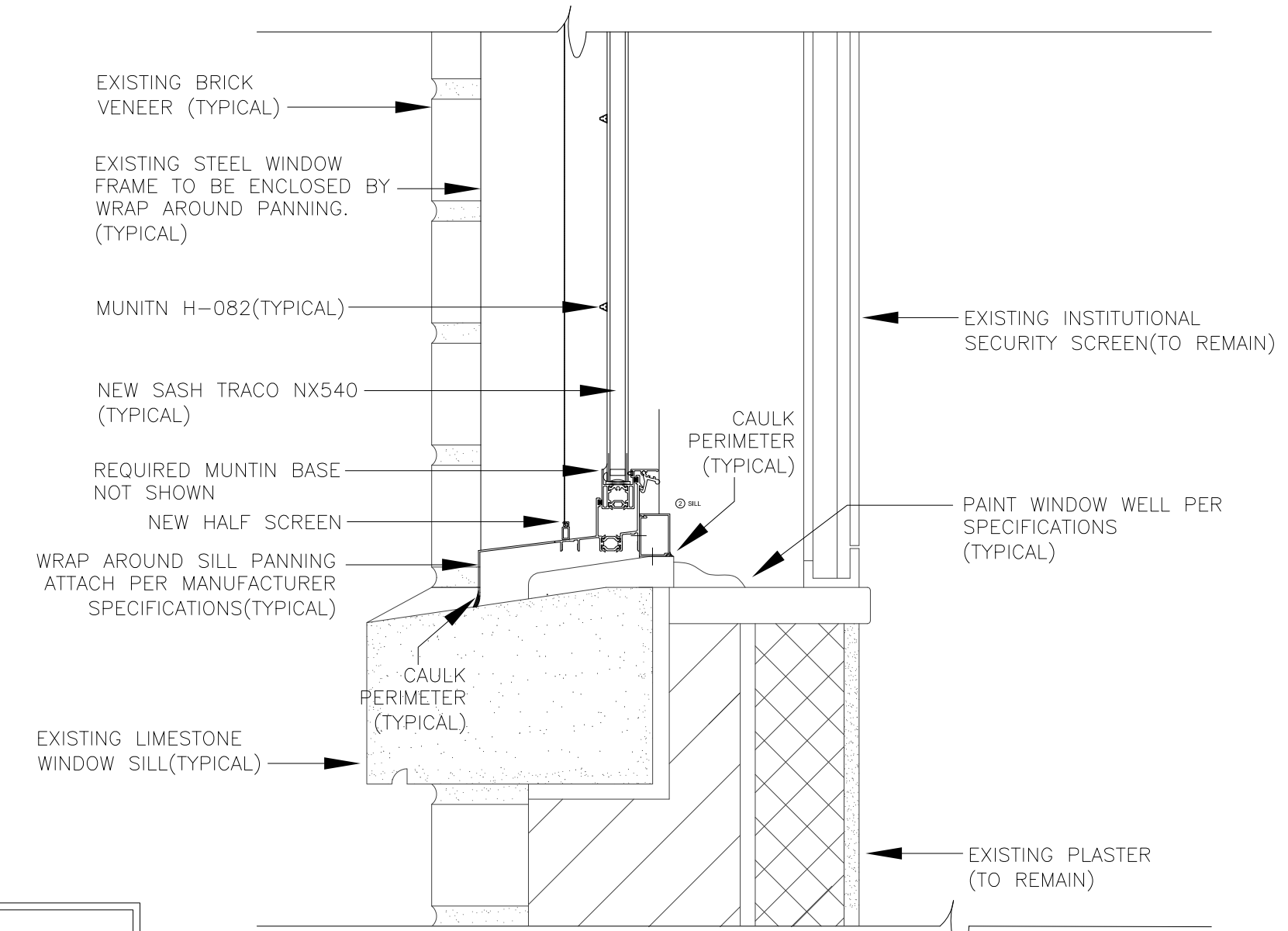
NOT TO SCALE
 NOTE: THESE DRAWINGS ARE FOR REFERENCE ONLY AND ARE GENERIC REPRESENTATIONS OF THE TRACO PRODUCT. CONTRACTOR IS RESPONSIBLE FOR INCLUDING ALL MATERIALS FOR A COMPLETE INSTALLATION. THIS IS THE SECOND PHASE OF WINDOW INSTALLATION ON THIS BUILDING, TRACO WINDOWS WERE SELECTED DURING THE FIRST PHASE AND MUST BE CONTINUED INTO THE SECOND PHASE. THE CONTRACTOR MUST USE THE PRODUCT SPECIFIED.



HEAD

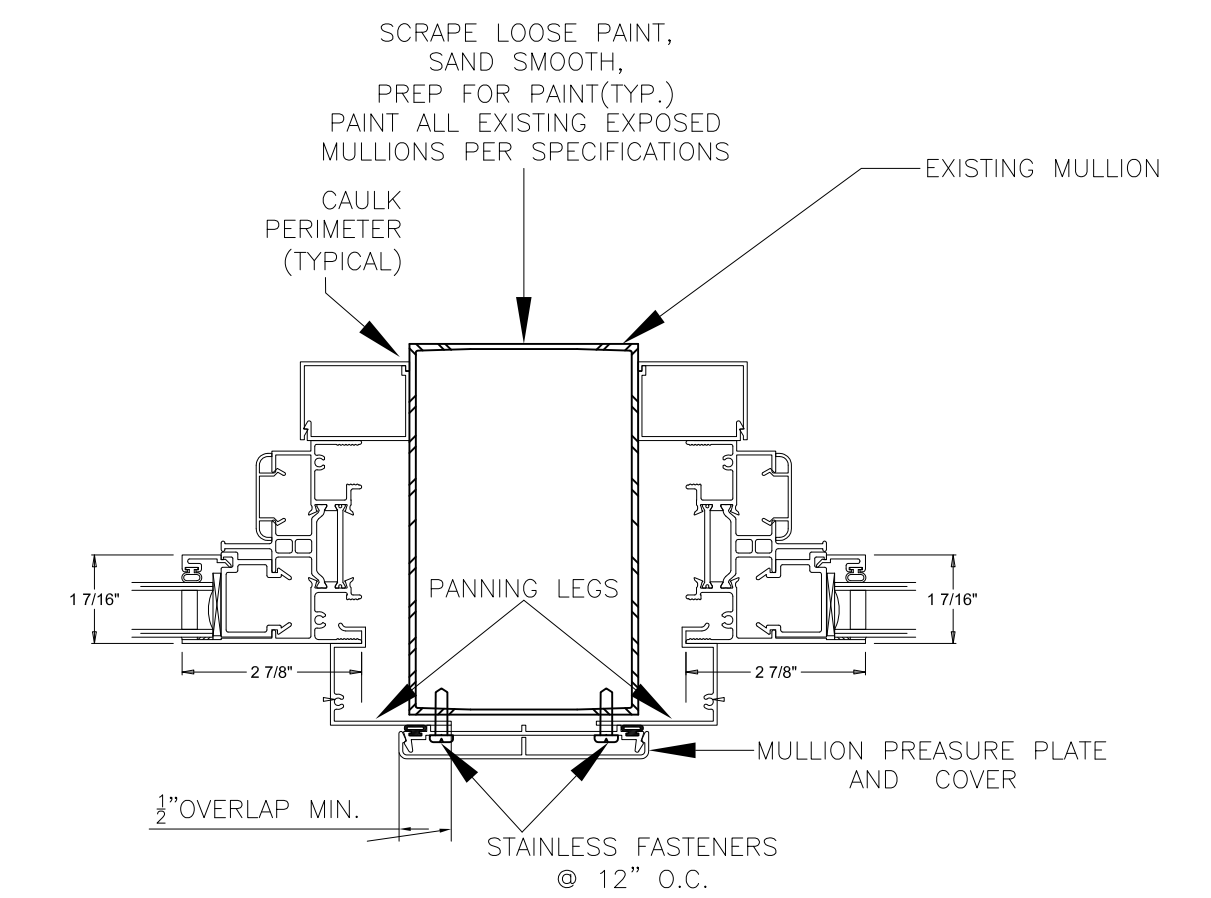


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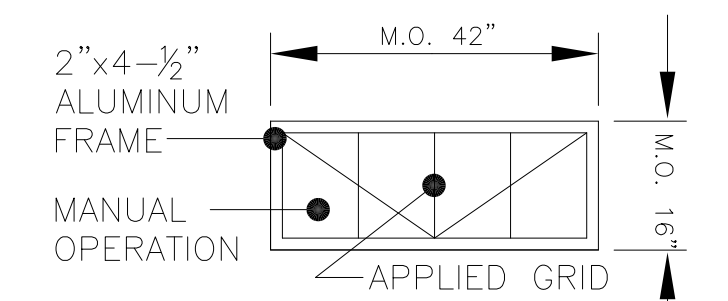


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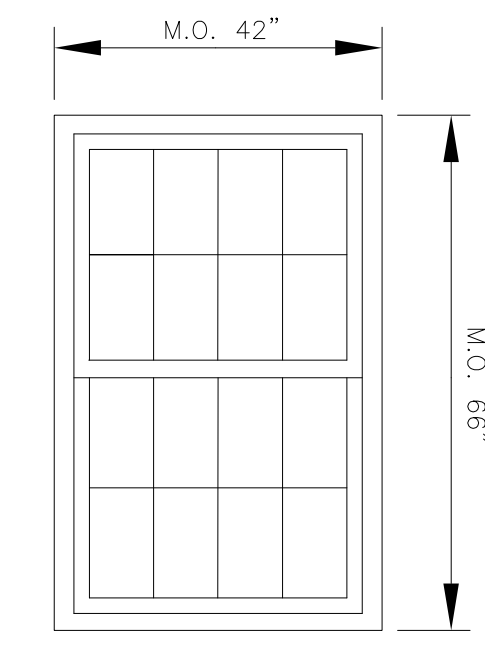
TYPICAL WINDOW DETAIL (NEW)



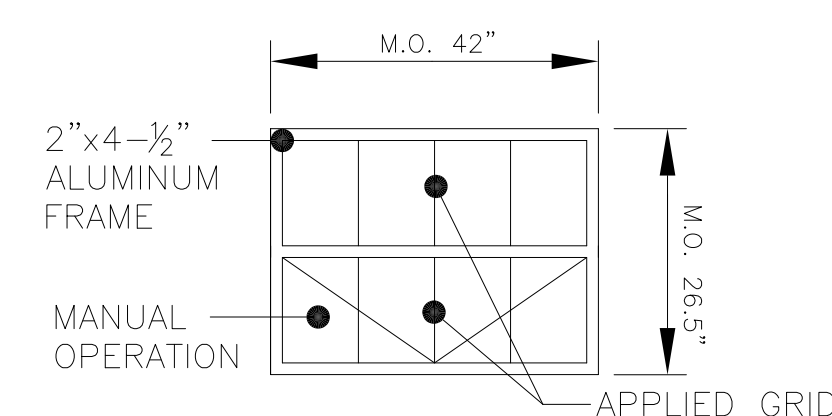
MULLION (TYP.)



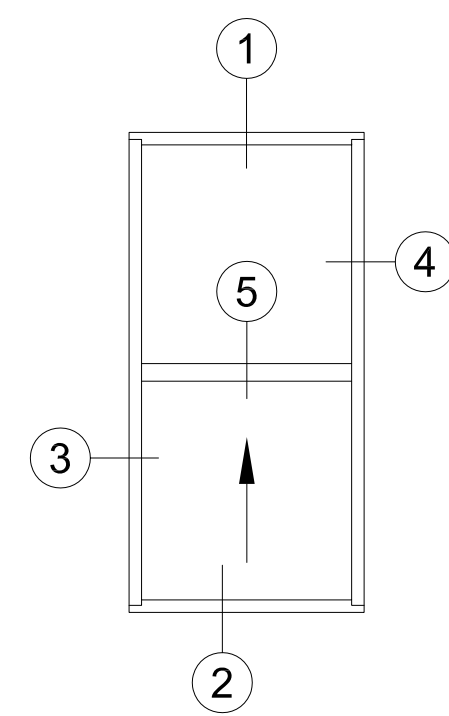
WINDOW TYPE B



WINDOW TYPE A



WINDOW TYPE C



INSTALLATION NOTES:
 INSTALL WINDOWS IN ACCORDANCE WITH WINDOW MANUFACTURER'S RECOMMENDATIONS AND DEALER'S APPROVED SHOP DRAWINGS WITH SKILLED CRAFTSPeOPLE WHO HAVE DEMONSTRATED A SUCCESSFUL HISTORY OF INSTALLING WINDOWS FOR 5 YEARS.
 INSTALL NEW ALUMINUM WINDOW FRAME/GLAZING AND ASSOCIATED HARDWARE, FLASHING, RECEPTORS, TOP & BOTTOM CHANNELS, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION. WINDOW SYSTEMS SHALL BE SHIMMED AS REQUIRED TO ACCOMMODATE INSTALLATION, ESPECIALLY AT ENDS. WINDOWS SHALL BE CAULKED AROUND ENTIRE PERIMETER. INSTALL WINDOWS PER MANUFACTURER SPECIFICATION IN ADDITION TO PROJECT REQUIREMENTS. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
 PROVIDE REQUIRED SUPPORT AND SECURELY FASTEN AND SET WINDOWS PLUMB, SQUARE, AND LEVEL WITHOUT TWIST OR BOW.
 PROVIDE BACKER ROD AND CAULKING AT OPENINGS AS NEEDED. INSTALL IN A WEATHER TIGHT, QUALITY WORKMANSHIP MANNER.
 INSULATE ALL VOIDS WITH EXPANDING FOAM INSULATION.

DEMOLITION NOTES:
 REMOVE EXISTING STEEL WINDOW SASH/GLAZING AND ASSOCIATED HARDWARE, ETC. AS REQUIRED FOR PREPARATION TO INSTALL NEW WINDOWS. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING WINDOW COMPONENTS THAT MAY INTERFERE WITH THE INSTALLATION OF NEW WINDOW SYSTEM. STEEL WINDOW FRAME SHALL REMAIN. SEE SPECIFICATIONS FOR MORE INFORMATION.
 PREPARE OPENINGS TO BE IN TOLERANCE, PLUMB, LEVEL, PROVIDE FOR SECURE ANCHORING, AND IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.

drawing title WINDOW DETAILS		DRAWINGS PREPARED BY OFFICE OF THE COMMISSIONER ENGINEERING SERVICES II		date 09/21/2011
REVISIONS		project CVH - WOODWARD HALL WINDOW REPLACEMENT PH. II MIDDLETOWN, CT 06457		scale N.T.S.
mark	date	description	project no. MHA 00989	drawn by DER
				approved by SH
				drawing no. A-5

