

DEPT OF MENTAL HEALTH & ADDICTION SERVICES

INVITATION TO BID

PROJECT # & TITLE: 1145 CVH:RVS: Dutton Home Basement Renovations

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

Date: January 31, 2014

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

PRE-BID MEETING HELD AT:

Facility Name: River Valley Services

**Facility Address: 351 Silver Street, Dutton Home
Howard Reid Conference Room
Middletown, Ct. 06457**

DIRECTIONS:

From 1-91 (north or south) or Rt. 9 southbound:

From the north or south, take 1-91 to Route 9 south to Middletown. Take Exit 12 off Rt. 9 (Silver St./Connecticut Valley Hospital). Turn left onto Silver Street, proceed to the second stop light, turn left, then left again into the parking lot immediately behind Dutton Home. Next follow the instructions for your specific destination below:

From 1-95 (East of New Haven):

Take Rt. 9 north to Middletown, exiting at Bow Lane (exit 12). From the exit ramp stop sign, proceed straight ahead on Eastern Drive to the first stop sign, at Silver Street. Turn right onto Silver Street and follow above directions.

From Rt. 66 (East or West), Rt. 17 (South)

Take these routes to Rt. 9 south. Take the Silver Street Exit (exit 12) off Rt. 9 South, then follow directions above.

Next follow the instructions for your specific destination Below:

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Take the sidewalk to the porch at the southwest corner of the lot (past the Gazebo); using this entrance from the porch, The Howard Reid Conference Room is the second door on your right upon entering the building.

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: February 19, 2014 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: Renovation of (2) existing bathrooms required to meet ADA requirements.

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.

<p>DMHAS FSB Havilland Hall Top Floor 1000 Holmes Drive Middletown, CT 06457-1240 Att: Barbara Young FAO</p>

PRE BID MEETING

To be held on-site on : Date January 31, 2014 Time 10:00AM

Location: River Valley Services Dutton Home

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 February 19, 2014

(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.

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

Facility Representative(s):

Loretta Eisler

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 Project 1145 CVH RVS Dutton Home Basement Bathroom Renovations.doc

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 contract 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

Furnish all necessary fixtures, materials, and labor for the complete renovation of two (2) existing bathrooms to meet ADA compliance. Work to include demolition of existing fixtures, wall tile, floor tile, partitions, and lighting, all of which shall be replaced with new as indicated on the contract documents. Also included shall be the installation of a new acoustic tile drop ceiling.

AT THE WALK-THROUGH:

11" x 17" DRAWINGS (NOT TO SCALE) WILL BE PROVIDED FOR REFERENCE.

FOLLOWING THE WALK-THROUGH:

COMPLETE PROJECT SPECIFICATIONS AND DRAWINGS WILL BE POSTED ON-LINE.

ALSO, UPON REQUEST, FULL SCALE COPIES OF DRAWINGS AND SPECIFICATIONS WILL BE MADE AVAILABLE FOR PURCHASE AT ANY JOSEPH MERRITT & COMPANY LOCATION.

CONTRACTORS MAY ORDER COPIES (AND REQUEST PRICING INFORMATION) BY CALLING THE HARTFORD LOCATION AT: 860.296.2500. PLEASE SPECIFY WHICH MERRITT LOCATION YOU WOULD LIKE THE COPIES SENT TO FOR PICK-UP (DANBURY, HARTFORD, NEW HAVEN, WATERBURY, OR WATERFORD).

1.05 Pre Bid Meeting Location and Examination of Site

1. The work will be performed at: RVS Dutton Home-Basement Bathroom
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 **90** 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 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."

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.

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1.17 STANDARD CONDITIONS

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 submit insurance certificate with sealed bid documents made out 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 :

*** These items must be submitted with your bid or it will be disqualified.**

*** DMHAS AUTHORIZED BID FORM**

Vendors **must** submit their bid on: **DMHAS Authorized BID form (Section 1.02) (2Pgs)**

Bid form 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)

*** (EEO-1) EMPLOYMENT INFORMATION FORM** (last page of this bid document)

*** SBE/MBE CERTIFICATE / DAS SUPPLIER DIVERSITY PROGRAM.**

For more Info go to DAS Supplier Diversity website.....: <http://www.das.state.ct.us/cr1.aspx?page=34>

(N/A if this is a Non Set Aside bid or specialty trade bid with no subs allowed)

*** BID BOND OR CHECK** (BIDS GREATER THAN OR EQUAL TO \$50,000)

*** ** These items should be included with your submitted bid but a 24 Hr Grace period is allowed see below:**

*** ** CERTIFICATE OF INSURANCE COVERAGE** (Worker's Compensation, BI, and PD)

*** ** QUESTIONNAIRE SEC Q**

*** ** CONTRACTOR STATE OF CT LICENSE**

Due at time of Award if Applicable:

PERFORMANCE, LABOR, & MATERIAL BOND

(BIDS GREATER THAN OR EQUAL TO \$50,000)

PREVAILING WAGE REQUIREMENTS

Contractors Wage Certification Form

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

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

*** ** At the bid opening, if any of these items are missing from the apparent lowest bid package, a 24-hour grace period shall be granted. The contractor will be notified of any omissions by FSB via fax or e-mail . Vendor will be given 24 hours from the time of FSB notification 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
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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
RIVER VALLEY SERVICES – DUTTON HOME:
BASEMENT BATHROOM RENOVATIONS
MIDDLETOWN, CONNECTICUT
PROJECT NO.: MHA1145**



**STATE OF CONNECTICUT
DEPARTMENT OF CONSTRUCTION SERVICES
DONALD J. DEFRONZO
ACTING COMMISSIONER**

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

**PREPARED BY:
DMHAS - ENGINEERING SERVICES II
HOLMES DRIVE, P.O. BOX 351
MIDDLETOWN, CONNECTICUT
06457**

DECEMBER 20, 2013

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007213A CLARIFICATION OF DCS SECTION 007213 – GENERAL CONDITIONS

- A. *Section 007213 – General Conditions of the Contract for Construction* is a standard DCS (Department of Construction Services) document. This document is required to be included in all DMHAS bid projects per the DCS “Agency Administered Projects Procedure Manual.” It shall be understood the terms “DCS” and “Department of Construction Services” throughout Section 007213 shall be read as “DMHAS” and “Department of Mental Health and Addiction Services,” respectively.

END OF SECTION 007213A

**General Conditions of the Contract for Construction
 For Design-Bid-Build
 Department of Construction Services
 State of Connecticut
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ARTICLE 1
DEFINITIONS

WHENEVER THE FOLLOWING TERMS, OR PRONOUNS IN PLACE OF THEM, ARE USED THE INTENT AND MEANING SHALL BE AS FOLLOWS:

1.1 ACCEPTANCE: The Owner's acknowledgement of the Work from the Contractor upon certification by the Construction Administrator and Architect or Engineer that all Work has been completed.

1.2 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.

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

1.4 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.

1.5 ARCHITECT OR ENGINEER: A sole proprietor, 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.

1.6 AS-BUILT DRAWINGS: Construction Drawings revised by the Contractor to show all significant Modifications made during the construction process.

1.7 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.

1.8 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.

1.9 BIDDER: A sole proprietor, partnership, firm, corporation or other business organization submitting a Bid on the Bid Proposal Form for the Work contemplated.

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

1.11 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.

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

1.13 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.

1.14 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.

1.15 CERTIFICATE OF ACCEPTANCE: A document issued by the Owner to the Contractor stating that all Work specified in the Certificate of Acceptance has been completed and accepted by the Owner.

1.16 CERTIFICATE OF COMPLIANCE: A document 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.

1.17 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.

1.18 CERTIFICATE OF SUBSTANTIAL COMPLETION: A document prepared by the Architect or Engineer and approved by the Owner on the basis of an inspection stating:

- 1.18.1** that the Work, or a designated portion thereof, is determined to be Substantially Complete;
- 1.18.2** the date of Substantial Completion;
- 1.18.3** the responsibilities of the Owner and the Contractor for security maintenance, heat, utilities, damage to the Work and insurance; and
- 1.18.4** the time within which the Contractor shall complete the remaining Work.

1.19 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.

1.20 COMMISSIONER: The State of Connecticut, Department of Construction Services (CT DCS) Commissioner acting directly or through specifically authorized CT DCS personnel or agent(s) having authority to perform duties defined in Article 25.

1.21 COMMISSIONING AGENT (CxA): An independent entity under contract directly with the Owner or Owner's Representative responsible for performing the specified commissioning procedures.

1.22 CONSTRUCTION ADMINISTRATOR: A sole proprietor, 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 Construction Services Assistant Project Manager, Department of Construction Services 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.

1.23 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. Any Construction Change Directive effecting an adjustment to the Contract Sum or Contract Time shall result in a Change Order.

1.24 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.

1.25 CONTRACTOR OR GENERAL CONTRACTOR: A sole proprietor, partnership, firm or Corporation, under direct Contract with the Department of Construction Services, 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.

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

1.27 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.

1.28 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.

1.29 CONTRACT TIME: The period of time allotted in the Contract Documents for Substantial Completion of the Work, including authorized adjustments thereto. The Contract Time is the sum of all Working Days and Non-Working Days as further defined herein and specified in the Contract Documents.

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

1.31 DEPARTMENT OF CONSTRUCTION SERVICES (CT DCS) 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.

1.32 DIESEL VEHICLE EMISSIONS CONTROL: The reduction of air pollution emissions from diesel powered vehicles through the use of diesel engine emission control technologies.

1.33 EQUAL(S): 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/Engineer, 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.

1.34 FINAL INSPECTION: Review of the Work by the Architect or Engineer and Owner to determine whether Acceptance has been achieved.

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

1.36 GENERAL CONDITIONS: The General Conditions of the Contract for Construction, part of Division 00 of the Specifications.

1.37 GENERAL REQUIREMENTS: That part of the Contract Documents entitled General Requirements, which is Division 01 of the Specifications.

1.38 GUARANTEE: See Warranty.

1.39 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.

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

1.41 MOBILE SOURCE: A source designed or constructed to move from one location to another during normal operation except portable equipment and includes, but is not limited to, automobiles, buses, trucks, tractors, earth moving equipment, hoists, cranes, aircraft, locomotives operating on rails, vessels for transportation on water, lawnmowers, and other small home appliances.

1.42 NON-WORKING DAYS: All Saturdays, Sundays, Legal State Holidays (12), and any other Days identified in the

Contract Documents that the Contractor is not permitted to execute the Work. The restriction of Non-Working Days may be suspended upon the approval or direction of the Commissioner.

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

1.44 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.

1.45 OWNER OR DEPARTMENT: The State of Connecticut, Department of Construction Services acting through its Commissioner or specifically authorized Department personnel or agent.

1.46 OVERHEAD: Indirect costs including: supervision (any position over the foreman), field and home office expense, insurance, and small tools and consumables.

1.47 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.

1.48 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 49-41.

1.49 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.

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

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

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

1.53 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.

1.54 RETAINAGE: A percentage of each Application for Payment and a percentage of the total Contract Sum retained by the Owner.

1.55 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 as well as Substantial Completion and Acceptance of the Work, rendered in a form permitting determination of the optimum sequence and duration of each operation.

1.56 SCHEDULE OF VALUES: A document furnished by the Contractor to the Architect or Engineer 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.

1.57 SECONDARY SUBCONTRACTOR: A sole proprietor, partnership, firm or Corporation under direct Contract with the Subcontractor to the General Contractor.

1.58 SENSITIVE RECEPTOR SITES: Areas where concentrations of diesel emissions may be harmful to sensitive populations, including, but not limited to, hospitals, school and university buildings being occupied during a student semester, residential structures, daycare facilities, elderly housing, and convalescent facilities.

1.59 SHOP DRAWINGS: Drawings provided to Architect or Engineer 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.

1.60 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.

1.61 SUBCONTRACTOR: A sole proprietor, 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.

1.62 SUBMITTALS: Documents including, but not limited to, samples, manufacturer's data, Shop Drawing, or other such items submitted to the Owner and Architect or Engineer by the Contractor for the purpose of approval or other action, as required by the Contract Documents.

1.63 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.

1.64 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/Engineer, and may be rejected or approved by the Owner. The Substitution is not equal to the specified requirement in comparison to the first manufacturer 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.

1.65 SUPERINTENDENT: The Contractor's representative at the site who is responsible for continuous field supervision, coordination, in, completion of the Work, and, unless another person is designated in writing by the Contractor to the Owner and the Construction Administrator, for the prevention of accidents.

1.66 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.

1.67 SUPPLEMENTARY CONDITIONS: An extension 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.

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

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

1.70 WARRANTY: A written, legally enforceable assurance of specified quality or performance of a product or Work or of the duration of satisfactory performance.

1.71 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 All Communications from the Contractor concerning proposed changes to the Contract Sum, Contract Time, or Work shall be in writing.

2.7 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 or 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 Supplementary Conditions take precedence over the General Conditions.

3.1.3 The General Conditions take precedence over the General Requirements.

- 3.1.4** The Specifications shall take precedence over the Plans.
- 3.1.5** Stated dimensions shall take precedence over scaled dimensions.
- 3.1.6** Large-scale detail Drawings shall take precedence over small-scale Drawings.
- 3.1.7** 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 Payment, including but not limited to Substantial Completion, Contract close-out, testing and demonstration of all systems as required for Acceptance, punchlist Work, training and submission of Record Documents, manuals, Guarantees and Warranties as stated in the Contract 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. Such costs include, but are not limited to, extended home office costs, field office costs, or 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.

4.9 The Contractor shall employ a competent project manager who shall represent the Contractor. Communications given to the project manager shall be binding as if given to the Contractor. The project manager will be employed full time on the Project and be located and assigned to the Project site during and for the duration of the Work.

4.10 The Contractor shall employ a competent Superintendent and necessary assistants who will be in attendance at the project site during the performance of the Work.

4.11 Upon execution of the Contract, materials may be purchased. No material escalation costs will be valid or compensable unless the Owner directs, in writing, a delay in the procurement.

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 Drawings, and samples, with such promptness as to cause no delay in the Work.

5.2 Correction or approval of such Submittals, Shop Drawings, product data and samples will be made with reasonable promptness by the Architect or Engineer. 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 Shop Drawings, Schedules or samples shall be fabricated, delivered or installed until approved by the Architect or Engineer.

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 other 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 at two distinct times, as follows:

8.1.1 Liquidated Damages – Substantial Completion:

If the Contractor fails to achieve Substantial Completion of the Work by the Substantial Completion Date, and such delay is not otherwise excused under this Contract, then the Contractor agrees to pay to the Owner Liquidated Damages for the dollar amount specified in the Bid Proposal Form for this Project, for each Day beyond Substantial Completion that the Contractor fails to achieve Substantial Completion. The parties to this Contract acknowledge and agree that the actual damages that are to be anticipated as a result of the neglect, failure, or refusal of the Contractor to substantially complete the Project by the established Substantial Completion Date are uncertain in amount or extremely difficult to determine. Accordingly, the parties to this Contract do intend and in fact now agree to liquidate damages in advance and stipulate that the amount set forth in this subparagraph is reasonable and an appropriate remedy and is intended to constitute compensatory damages and does not constitute a penalty of any kind. The parties understand and agree that, by including a provision for Liquidated Damages in this Contract, or in pursuing any relief pursuant to such provision:

.1 the parties do not intend to set a price for the privilege not to perform;

.2 the availability of Liquidated Damages may not be relied upon as a basis for argument that the Owner has an adequate remedy at law; and

.3 the remedies available to the Owner under this Agreement are cumulative and not exclusive.

8.1.2 Liquidated Damages – Acceptance:

If the Contractor fails to complete all of the Work required for Acceptance of the Work within ninety (90) Days of Substantial Completion then the Contractor agrees to pay

to the Owner Liquidated Damages for the dollar amount specified in the Bid Proposal Form for each Day in excess of ninety (90) Days beyond the Substantial Completion Date that the Contractor fails achieve Acceptance. The parties to this Contract acknowledge and agree that the actual damages that are to be anticipated as a result of the failure of the Contractor to complete all of the Work required for Acceptance within ninety (90) Days of the established Substantial Completion Date are uncertain in amount or extremely difficult to determine. Accordingly, the parties to this Contract do intend and in fact now agree to liquidate damages in advance and stipulate that the amount set forth in this subparagraph is reasonable and an appropriate remedy and is intended to constitute compensatory damages and does not constitute a penalty of any kind. The parties understand and agree that, by including a provision for Liquidated Damages in this Contract, or in pursuing any relief pursuant to such provision:

- .1 the parties do not intend to set a price for the privilege not to perform;
- .2 the availability of Liquidated Damages may not be relied upon as a basis for argument that the Owner has an adequate remedy at law; and
- .3 the remedies available to the Owner under this Agreement are cumulative and not exclusive.

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

9.1 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 person performing the work of any mechanic, laborer, or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (h) of this section, 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 persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each payday."

9.2 Each Contractor who is awarded a Contract on or after October 1, 2002 shall be subject to provisions of the Connecticut General Statutes, Section 31-53 as amended by Public Act 02-69, "An Act Concerning Annual Adjustments to Prevailing Wages."

No wage adjustment will be made to the Contract for any wage increase under this Article.

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) 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 14 Days 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.

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 and/or Construction Administrator 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 Overtime, increased manpower, and additional shifts: If ordered by the Owner in writing, the Contractor shall work overtime, and/or add additional manpower and/or shifts:

11.3.1 If the Contractor is not behind Schedule, the Owner will pay the Contractor the actual additional premium portion of the wages for overtime or additional shift work not included in the Contract price, but the Contractor shall not be entitled to Overhead and Profit.

11.3.2 If the Contractor, through its sole or partial fault or neglect is behind Schedule, the Owner may order the Contractor, at the Contractor's expense, to increase its manpower or to work any overtime or additional shifts or take other action necessary to expedite the Work to meet the Project Schedule.

11.3.3 If the Schedule is shown to be more than 21 Days behind in any critical activity, overtime, increase manpower and/or additional shifts shall be implemented immediately regardless of who is at fault. A disagreement over the cause of the impact will not relieve the Contractor from the obligation of complying with this Article. Once liability for the impact is determined, compensation will be determined in accordance with 11.3.1 or 11.3.2.

11.3.4 The Owner reserves the right to suspend activity under Paragraph 11.3. Suspension shall be in writing and at the sole discretion of the Commissioner.

11.4 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. Should this Contract be for a Construction Services

Project other than for the construction, remodeling or repairing of public buildings covered by Connecticut General Statutes 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 no 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 subdivision thereof may suffer the loss of revenue granted or to be granted from any Agency or Department of the federal government as a result of 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 25. 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 a Change Order makes 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 shall not be entitled to an extension of time if in the opinion of the Owner the Additional Work in conjunction with the Work can be performed without impact on the Contract Time.

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 the Additional Work cannot be performed in conjunction with the Work without impact on the original Substantial Completion and/or Acceptance (if applicable) date.

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 Owner may rely on costs, prices, and documentation provided by the Contractor or Subcontractor in agreeing to a Lump Sum. If the Owner believes that additional information is necessary to substantiate the accuracy of the cost, the Owner reserves the right to request and receive additional information from 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) No Change Order Proposal shall be negotiated if the request is solely for the increased labor rate over those originally carried by the Contractor in its original bid. Additional foreman hours shall not be included unless additional crews are added and/or a compensable time extension is granted. Project Executive time shall not be included as a direct cost as it is part of the overhead mark-up allowed. Project manager hours shall not be included unless a compensable time extension is granted.

13.6.1.3.2 Material: (Actual cost to the Contractor or Subcontractor) Cost shall not be based upon list pricing unless it reflects the actual prices being paid and no discounts or other offsets are being received by the Contractor or Subcontractor. No Change Order Proposal shall be negotiated if the request is solely for the escalation of material prices over those originally carried by the Contractor in its original bid.

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.

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

13.6.1.5 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 as identified by a nationally recognized construction cost estimating guide or service.

13.6.1.6 Small Tools:
Include items such as shovels, picks, rakes, ladders, and power tools which are expected to be utilized on a project. Trade related equipment, hand tools, and power tools normally supplied with the labor or are normally expected to be owned in the performance of the typical work for a trade are not compensable. These costs shall not be approved as part of the Direct Cost of a Change Order as they are included in the Contractor's overhead mark-up percentage.

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

13.6.2.1 Contractor's mark-up for Work performed by its 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 mark-up for Work performed by its Subcontractor's forces and not allowable for any subsidiary in which the Contractor has a majority ownership:

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) Subcontractor's mark-up for Work performed by its 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 mark-up for Work performed by its Secondary Subcontractor's forces. Limited to one level (tier) below the Subcontractor and not allowable for any subsidiary in which the Subcontractor has a majority ownership.

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

13.7 BOND COSTS

13.7.1 Actual additional bonding costs associated with the value of the Change Order will be compensable only when supported by written documentation by the bonding company that the Change Order requires an increase to the original Performance, Payment, Labor or Material Bond.

13.7.2 The Contractor shall notify the bonding company at each \$500,000 increase to the contract value as the cumulative result of change orders. A copy of the Consent of Surety must be provided to the Owner prior to the execution of any change order which exceeds each cumulative \$500,000.

13.8 Trade discounts, rebates, and amounts received from the sales by the Contractor of surplus materials and equipment shall accrue to the Owner.

13.9 If the parties cannot agree upon a Lump Sum, then the Commissioner, through the Project Manager, 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 determined by time and material or Unit Prices based upon the same information required in Subparagraphs 13.6.1.3.3.1 through 13.6.1.5:

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 Failure of the Contractor to negotiate in good faith issues of time and costs or failure to provide requested documentation within fourteen (14) 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 Project Manager, shall issue a Change 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 then 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 Submittals – Equals and Substitution Requests:

15.3.1 Substitution of Materials and Equipment before Bid Opening. The Owner will consider requests for Equals or Substitutions, if made prior to the receipt of the Bid. The information on all materials shall be consistent with the information herein.

15.3.1.1 Statement of Variances – a statement of variances must list all features of the proposed Substitution which differ from the Drawings, Specifications and/or product(s) specified and must further certify that the Substitution has no other variant features. A request will be denied if submitted without sufficient evidence.

15.3.1.2 Substitution Denial – any Substitution request not complying with the above requirements will be denied. Substitution request sent after the deadline established in the Notice to Bidder will be denied.

15.3.1.3 An addendum shall be issued to inform all prospective Bidders of any accepted Substitution in accordance with Owner's addenda procedures.

15.3.2 Substitution of Materials and Equipment After Bid Opening: Subject to the Architect or Engineer's determination, if the material or equipment is Equal to the

one specified or pre-qualified and the CT DCS Project Manager's approval of such determination, Substitution of Material or Equipment may be allowed after the Letter of Award is issued only:

15.3.2.1 If the specified or pre-qualified item is delayed by unforeseeable contingencies beyond the control of the Contractor which would cause a delay in the Project completion;

15.3.2.2 If any specified or pre-qualified item is found to be unusable or unavailable due to a change by the manufacturer or other circumstances; or

15.3.2.3 If the Contractor desires to provide a more recently developed material, equipment, or manufactured model from the same named manufacturer than the one specified or pre-qualified; or

15.3.2.4 If the specified material and/or equipment inadvertently lists only a single manufacturer.

15.4 Contractor shall submit each request for Equal or Substitution to the Architect or Engineer 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, and the Contractor shall not be entitled to any claim for damages for delay.

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 is 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 a 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 payment and 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.

16.5 Cost of Systems Commissioning Retesting: The cost to retest a pre-functional or functional test, if the Contractor is responsible for the deficiency, shall be the Contractor's. If the Contractor is not responsible, any cost

recovery for retesting costs shall be negotiated with the Contractor.

16.5.1 For a deficiency identified, not related to any pre-functional checklist or start-up fault, the following shall apply: The Commissioning Agent (CxA) and Construction Administrator will direct the retesting of the equipment once at no "charge" to the Contractor for their time. However, the Commissioning Agent's and Construction Administrator's time for additional testing will be charged to the Contractor.

16.5.2 The time for the Systems Commissioning Agent and Construction Administrator to direct any retesting required because a specific pre-functional checklist or start-up test item, reported to have been successfully completed, but determined during functional testing to be faulty, will be back charged to the Contractor.

16.5.3 Any required retesting by any Subcontractor shall not be considered a justified reason for a claim of delay or for a time extension by the Contractor.

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 payment 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 be involved in part of the Work the Contractor is required to request "Call-Before-You-Dig" to verify the location of underground utilities at least (3) Working Days, as further defined under Paragraph 1.71 herein, prior to the start of any excavation. The Contractor shall also notify the Owner and Agency at least (3) Working Days prior to the start of any excavation. If "Call-Before-You-Dig" fails or refuses to respond to the Contractor's request, then the Contractor shall obtain the services of a qualified

underground utility locating firm, at no additional cost to the Owner, to verify locations of underground utilities prior to the start of any excavation. The Contractor shall be held responsible for providing safety, protecting the Work and protecting workmen as necessary to perform the Work. The Contractor shall be responsible for maintaining and protecting all original utility mark-out at no additional cost to the Owner.

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 excavations, trenches, buildings, and all items of Work from damage by rain, water from melted snow or ice, surface water run off and subsurface water usual for the vicinity at the time of operations; and provide all pumps and equipment and enclosures to insure such protection.

19.7 The Contractor shall construct and maintain all necessary temporary drainage and provide 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 proposed contract bid price as stated on the Bid Proposal Form, 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 ninety (90) 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 portion(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 Acceptance of the Work, the Contractor shall remove from and about the site of the Work, all rubbish, 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 CT DCS Project Manager is the Commissioner's only authorized representative to act in matters involving the Owner's, and/or Architect's or Engineer'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 CT DCS 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.

25.6 In accordance with Section 4b-24 of the Connecticut General Statutes, the public auditors of the State of Connecticut and the auditors or accountants of the

Commissioner of Construction Services shall have the right to audit and make copies of the books of any Contractor employed by the Commissioner.

**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 non-compliant 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.

27.3.3 Further detail can be found in the General Requirements 01.29.76; paragraphs 1.3.B.4 for this 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-Built Drawings 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 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 the materials suitably stored on the site.

28.2 In making such Application For Payment for the Work, there shall be deducted **seven** and **one-half** percent (7.5%) of the amount of each Application for Payment to be retained by the Owner as Retainage until Final Completion.

28.2.1 The Commissioner has the sole discretion in the determination of reduction in Retainage. At fifty percent (50%) completion of the Work the Owner shall issue a "Contractor's Performance Evaluation". If the Contractor receives a performance evaluation score of "Good" or better, then the Retainage withheld may be reduced to five percent (5%). All subsequent Applications for Payment shall be subject to five percent (5%) Retainage. Upon Substantial Completion, the Retainage may be reduced at the request of the Contractor and recommendation of the CT DCS Project Manager. In the event of a reduction in Retainage to below five percent (5%), the minimum Retainage withheld shall not be less than the CT DCS Project Manager's estimate of the remaining Work or two and one-half percent (2.5%), which ever is greater. All requests for Retainage Reduction shall be done on CT DCS Form 7048 General Contractor Retainage Reduction Request, which can be found at the end of the General Conditions.

28.2.2 Subsequent to Substantial Completion, in limited circumstances, at the sole discretion of the Commissioner, a reduction of Retainage below Two and one-half percent (2.5%) may be considered.

28.2.3 A "Good" Contractor's Performance Evaluation score shall be defined as a minimum total score of sixty percent (60%).

28.3 The decision of the Commissioner to reduce the Retainage rate will be based upon the Contractor's Performance Evaluation score for completed portions of the

Work as set out above and other factors that the Commissioner may find appropriate as follows:

28.3.1 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 or Engineer's comments on the submitted material resulting in an appropriate basis for progress of the Work.

28.3.2 The Contractor's timely and proper submission of all Contract Document 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 or Engineer's comments on the submitted material, resulting in an appropriate progress of the Work.

28.3.3 The Contractor's provision of proper and adequate supervision and home office support of the Project.

28.3.4 The Work completed to date has been installed or finished in a manner acceptable to the Owner.

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

28.3.6 All approved credit change orders have been invoiced.

28.3.7 All Change Order requests for pricing are current.

28.3.8 The Contractor has and is maintaining a clean worksite in accordance with the Contract Documents.

28.3.9 All Subcontractor payments are current at the time of reduction request.

28.3.10 Contractor is compliant with set-aside provisions of the contract.

28.3.2.11 Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars (\$500,000.00). The General Contractor shall complete and submit to the State of Connecticut Department of Construction Services (CT DCS) evaluations of each such subcontractor upon fifty percent (50%) completion of the project and upon Substantial Completion of the project. The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute; result in a delay in project funding and, consequently, payment to the General Contractor.

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

28.5 At his or her sole discretion, the Commissioner may allow to be included in the monthly requisitions payment requests for materials and equipment stored off the site.

28.5.1 In the event the Commissioner allows the Contractor to include in its requisitions payment requests for materials and equipment stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored materials

and equipment, and follow such other procedures as may be required by the State to obtain the Commissioner's approval of such requests.

28.5.2 The Architect or Engineer, or Construction Administrator shall have inspected said materials and equipment and recommended payment therefore. The Contractor shall pay for the cost of the Architect's or Engineer's, or Construction Administrator's time and expense in performing these inspection services.

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 it 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
SUBSTANTIAL 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 in writing to the Construction Administrator. The request shall certify that the Contractor has completed its own inspection prior to the request and that the Contractor is compliant with all requirements of Section 01 77 00 of the General Requirements. The request must also include a statement that a principal or senior executive of the Contractor is ready, willing and able to attend a walk through inspection with the Architect or Engineer.

30.1.2 Upon receipt of the request, the Architect or Engineer, Construction Administrator and Owner, will make an inspection to determine if the Work or designated portion thereof is Substantially Complete. A principal or senior executive of the Contractor shall accompany the Architect or Engineer during each inspection/re-inspection. 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. Any

costs for re-inspection beyond one, shall be at the expense of the Contractor and such costs will be recovered by issuance of a credit Change Order. 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. If the punch list is not complete in 90 Days, the Owner reserves the right to complete the outstanding punch list items with their own forces or by awarding separate contracts and to deduct the cost thereof from the amounts remaining due to the Contractor.

30.1.4 The Certificate of Substantial Completion shall be signed by the Construction Administrator, Owner, and Architect or Engineer. Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Construction Administrator and Architect or Engineer, 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 Acceptance:

30.2.1 Upon completion of the Work, the Contractor shall forward to the Construction Administrator a written notice that the Work is ready for inspection and Acceptance.

30.2.2 When the Work has been completed in accordance with terms and conditions of the Contract Document as determined by the Owner a Certificate of Acceptance shall be issued by the Owner.

ARTICLE 31
FINAL PAYMENT

31.1 The Owner reserves the right to retain for a period of thirty (30) Days after filing of the Certificate of 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 or Engineer 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 Acceptance and a Certificate of Compliance have been issued.

31.6 Neither Final Payment nor any Retainage 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 such lien, including all costs and reasonable attorney's fees.

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 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 Article 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 Drawings, 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 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 being 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 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 All Work and materials obtained by the Contractor for the Work, that have been incorporated into the Work, inspected, tested as required, accepted by the Commissioner, and paid for by the State, shall become the property of the State.

33.2.3 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.

33.2.4 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 00 62 16 CERTIFICATE OF INSURANCE and 00 40 13 BID PROPOSAL FORM, subsections 4.4.2 and 4.4.3, of the 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 Construction Services, 165 Capitol Avenue, Room G-35, 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) and for asbestos abatement when applicable to this Contract, must also be included when applicable to the Work to be performed. The State of Connecticut, the Department of Construction Services, and their respective officers, agents, and employees 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 Automobile Liability 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 coverage.

35.1.4 Excess Liability (Other than Umbrella Form) insurance in the amount of \$5,000,000 for bids of \$1,000,000 - \$10,000,000 and in the amount of \$10,000,000 for bids of \$10,000,001 - \$20,000,000. Refer to Section 00 92 00 Amendments of the Project Manual for Excess Liability insurance requirements for bids exceeding \$20,000,000.

35.1.5 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 the Federal Act endorsement for the U.S. Longshoremen's and Harbor Workers Act.

35.1.6 Special Hazards Insurance, if required, will be stated in SECTION 00 40 13 BID PROPOSAL FORM, subsection 4.4.2 of this Project Manual. This includes coverage for explosion, collapse or underground damage and for asbestos abatement when applicable to this Contract and shall be no less than \$1,000,000 each occurrence.

35.1.7 Builder's Risk Insurance, if required, will be stated in Section 00 40 13 Bid Proposal Form, subsection 4.4.3 of this Project Manual.

35.1.8 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.

35.1.9 When required to be maintained, the Builder's Risk and/or Inland Marine/Transit Insurance policy shall endorse the State of Connecticut as a Loss Payee and the policy shall state it is for the benefit of and payable to the State of Connecticut.

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 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.

35.4 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.

35.5 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.

35.6 Hold Harmless Provisions: The Contractor shall at all times indemnify and save harmless the State of Connecticut, the Department of Construction Services, 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 Construction Services.

ARTICLE 36 FOREIGN MATERIALS

36.1 Preference shall be given to articles or materials manufactured or produced in the United States, Canada, and Mexico, (the members of the North American Free Trade Agreement (NAFTA)); and the products shall meet all of the referenced standards and Specifications for conditions of performance, quality, and price with duty being equal.

36.2 Only articles or materials manufactured or produced in the United States, Canada, and Mexico, (the members of the North American Free Trade Agreement (NAFTA)), will be allowed. 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 CLAIMS

38.1 General: When filing a formal claim under Section 4-61 (referred to as "Section 4-61" below) of the Connecticut

General Statutes (as revised), either as a lawsuit in the Superior Court or as a demand for arbitration, the Contractor must follow the procedures and comply with the requirements set forth in this Article. This Section does not, unless so specified, govern informal claims for additional compensation which the Contractor may bring before the Department. The Contractor should understand, however, that the Department may need, before the Department can resolve such a claim, the same kinds of documentation and other substantiation that it requires under this Article. It is the intent of the Department to compensate the Contractor for actual increased costs caused by or arising from acts or omissions on the part of the Department that violate legal or contractual duties owed to the Contractor by the Department.

38.2 Notice of Claim: Whenever the Contractor intends to file a formal claim against the Department under Section 4-61, seeking compensation for additional costs, the Contractor shall notify the Commissioner in writing (in strict compliance with Section 4-61) of the details of said claim. Such written notice shall contain all pertinent information described in Paragraph 38.5 below.

Once formal notice of a claim under Section 4-61(b) (as revised) has been given to the Commissioner, the claimant may not change the claim in any way, in either concept or monetary amount, (1) without filing a new notice of claim and demand for arbitration to reflect any such change, and (2) without the minimum period of six months after filing of the new demand commencing again and running before any hearing on the merits of the claim may be held. The only exception to this limitation will be for damages that continue to accrue after submission of the notice, in ways described and anticipated in the notice.

38.3 Record Keeping: The Contractor shall keep daily records of all costs incurred in connection with its Work on behalf of the Department. The daily records shall identify each aspect of the Project affected by matters related to any claim for additional compensation that the Contractor has filed, intends to file, or has reason to believe that it may file against the Department; the specific Project locations where Project work has been so affected; the number of people working on the affected aspects of the Project at the pertinent time(s); and the types and number of pieces of equipment on the Project site at the pertinent time(s). Any potential or anticipated effect on the Project's progress or Schedule which may result in a claim by the Contractor shall be noted contemporaneously with the cause of the effect, or as soon thereafter as possible.

38.4 Claim Compensation: The payment of any claim, or any portion thereof, that is deemed valid by the Department shall be made in accordance with the following provisions of this Article:

38.4.1 Compensable Items: The liability of the Department for claims will be limited to the following specifically identified items of cost, insofar as they have not otherwise been paid for by the Department, and insofar as they were caused solely by the actions or omissions of the Department or its agents (except that with regard to payment for extra work, the Department will pay to the Contractor the Overhead and profit percentages provided for in Article 13.):

38.4.1.1 Additional Project-site labor expenses.

38.4.1.2 Additional costs for materials.

38.4.1.3 Additional, unabsorbed Project-site Overhead (e.g., for mobilization and demobilization).

38.4.1.4 Additional costs for active equipment.

38.4.1.5 For each Day of Project delay or suspension caused solely by actions or omissions of the Department either:

38.4.1.5.1 an additional ten percent (10%) of the total amount of the costs identified in Subparagraphs 38.4.1.1 through 38.4.1.4 above; except that if the delay or suspension period prevented the Contractor from incurring enough Project costs under Subparagraphs 38.4.1.1 through 38.4.1.4 during that period to require a payment by the Department that would be greater than the payment described in Subparagraph 38.4.1.5.2 below, then the payment for affected home office Overhead and profit shall instead be made in the following *per diem* amount :

38.4.1.5.2 six percent (6%) of the original total Contract amount divided by the original number of Days of Contract Time. Payment under either 38.4.1.5.1 or 38.4.1.5.2 hereof shall be deemed to be complete and mutually satisfactory compensation for any unabsorbed home office overhead and any profit related to the period of delay or suspension.

38.4.1.6 Additional equipment costs. Only actual equipment costs shall be used in the calculation of any compensation to be made in response to claims for additional Project compensation. Actual equipment costs shall be based upon records kept in the normal course of business and in accordance with generally accepted accounting principles. Under no circumstances shall Blue Book or other guide or rental rates be used for this purpose (unless the Contractor had to rent the equipment from an unrelated party, in which case the actual rental charges paid by the Contractor, so long as they are reasonable, shall be used). Idle equipment, for instance, shall be paid for based only on its actual cost to the Contractor.

38.4.1.7 Subcontractor costs limited to, and determined in accordance with, Subparagraphs 38.4.1.1 through 38.4.1.5 above and applicable statutory and case law. Such Subcontractor costs may be paid for by the Department only: (a) in the context of an informal claims settlement; or (b) if the Contractor has itself paid or legally assumed, present unconditional liability for those Subcontractor costs.

38.4.2 Excusable But Not Compensable Items: The Contractor may be allowed Days but the Department will have no liability for the following non-compensable items:

38.4.2.1 Abnormal or unusually severe weather

38.4.2.2 Acts of God

38.4.2.3 Force Majeure

38.4.2.4 Concurrent Delay

38.4.3 Non-Compensable Items: The Department will have no liability for the following specifically-identified non-compensable items:

- 38.4.3.1** Profit, in excess of that provided for herein.
- 38.4.3.2** Loss of anticipated profit.
- 38.4.3.3** Loss of bidding opportunities.
- 38.4.3.4** Reduction of bidding capacity.
- 38.4.3.5** Home office overhead in excess of that provided for in Subparagraph 38.4.1.5 hereof.
- 38.4.3.6** Attorneys fees, claims preparation expenses, or other costs of claims proceedings or resolution.
- 38.4.3.7** Subcontractor failure to perform
- 38.4.3.8** Any other consequential or indirect expenses or costs, such as tort damages, or any other form of expense or damages not provided for in these specifications or elsewhere in the Contract.

38.5 Required Claim Documentation: All claims shall be submitted in writing to the Commissioner, and shall be sufficient in detail to enable the Department to ascertain the basis and the amount of each claim, and to investigate and evaluate each claim in detail. As a minimum, the Contractor must provide the following information for each and every claim and sub-claim asserted:

- 38.5.1** detailed factual statement of the claim, with all dates, locations and items of Work pertinent to the claim.
- 38.5.2** A statement of whether each requested additional amount of compensation or extension of time is based on provisions of the Contract or on an alleged breach of the Contract. Each supporting or breached Contract provision and a statement of the reasons why each such provision supports the claim must be specifically identified or explained.
- 38.5.3** Excerpts from manuals or other texts which are standard in the industry, if available, that support the Contractor's claim.
- 38.5.4** The details of the circumstances that gave rise to the claim.
- 38.5.5** The date(s) on which any and all events resulting in the claim occurred, and the date(s) on which conditions resulting in the claim first became evident to the Contractor.
- 38.5.6** Specific identification of any pertinent document, and detailed description of the substance of any material oral communication, relating to the substance of such claim.
- 38.5.7** If an extension of time is sought, the specific dates and number of Days for which it is sought, and the basis or bases for the extension sought. A critical path method, bar chart, or other type of graphical schedule that supports the extension must be submitted.
- 38.5.8** When submitting any claim over \$50,000, the Contractor shall certify in writing, under oath and in accordance with the formalities required by the contract, as to the following:

38.5.8.1 That supporting data is accurate and complete to the Contractor's best knowledge and belief;

38.5.8.2 That the amount of the dispute and the dispute itself accurately reflects what the Contractor in good faith believes to be the Department's liability;

38.5.8.3 The certification shall be executed by:

38.5.8.3.1 If the Contractor is an individual, the certification shall be executed by that individual.

38.5.8.3.2 If the Contractor is not an individual, the certification shall be executed by a senior company official in charge at the Contractor's plant or location involved or an officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.

38.6 Auditing of Claims: All claims filed against the Department shall be subject to audit by the Department or its agents at any time following the filing of such claim. The Contractor and its Subcontractors and suppliers shall cooperate fully with the Department's auditors. Failure of the Contractor, its Subcontractors, or its suppliers to maintain and retain sufficient records to allow the Department or its agents to fully evaluate the claim shall constitute a waiver of any portion of such claim that cannot be verified by specific, adequate, contemporaneous records, and shall bar recovery on any claim or any portion of a claim for which such verification is not produced. Without limiting the foregoing requirements, and as a minimum, the Contractor shall make available to the Department and its agents the following documents in connection with any claim that the Contractor submits:

- 38.6.1** Daily time sheets and foreman's daily reports.
- 38.6.2** Union agreements, if any.
- 38.6.3** Insurance, welfare, and benefits records.
- 38.6.4** Payroll register.
- 38.6.5** Earnings records.
- 38.6.6** Payroll tax returns.

- 38.6.7** Records of property tax payments.
- 38.6.8** Material invoices, purchase orders, and all material and supply acquisition contracts.
- 38.6.9** Materials cost distribution worksheets.
- 38.6.10** Equipment records (list of company equipment, rates, etc.).
- 38.6.11** Vendor rental agreements.
- 38.6.12** Subcontractor invoices to the Contractor, and the Contractor's certificates of payments to Subcontractors.
- 38.6.13** Subcontractor payment certificates.
- 38.6.14** Canceled checks (payroll and vendors).
- 38.6.15** Job cost reports.
- 38.6.16** Job payroll ledger.
- 38.6.17** General ledger, general journal (if used), and all subsidiary ledgers and journals, together with all supporting documentation pertinent to entries made in these ledgers and journals.
- 38.6.18** Cash disbursements journals.

38.6.19 Financial statements for all years reflecting the operations on the Project.

38.6.20 Income tax returns for all years reflecting the operations on the Project.

38.6.21 Depreciation records on all company equipment, whether such records are maintained by the company involved, its accountant, or others.

38.6.22 If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.

38.6.23 All documents which reflect the Contractor's actual profit and overhead during the years that the Project was being performed, and for each of the five years prior to the commencement of the Project.

38.6.24 All documents related to the preparation of the Contractor's bid, including the final calculations on which the total proposed Contract bid price as stated in the Bid Proposal Form was based.

38.6.25 All documents which relate to the claim or to any sub-claim, together with all documents that support the amount of damages as to each claim or sub-claim.

38.6.26 Worksheets used to prepare the claim, which indicate the cost components of each item of the claim, including but not limited to the pertinent costs of labor, benefits and insurance, materials, equipment, and Subcontractors' damages, as well as all documents which establish the relevant time periods, individuals involved, and the Project hours and the rates for the individuals.

38.6.27 The name, function, and pertinent activity of each Contractor's or Subcontractor's official, or employee, involved in or knowledgeable about events that give rise to, or facts that relate to, the claim.

38.6.28 The amount(s) of additional compensation sought and a break-down of the amount(s) into the categories specified as payable under Paragraph 38.4 above.

38.6.29 The name, function, and pertinent activity of each Department official, employee, or agent involved in or knowledgeable about events that give rise to, or facts that relate to, the claim.

ARTICLE 39

DIESEL VEHICLE EMISSIONS CONTROL

39.1 The Contractor shall be responsible for compliance with the following provisions:

39.1.1 All Contractor and Subcontractor diesel powered non-road construction equipment with engine horsepower (HP) ratings of 60 HP and above, that are on the Project or are assigned to the Contract for a period in excess of 30 consecutive Days, shall be retrofitted with emission control devices in order to reduce diesel emissions. In addition, all motor vehicles and/or construction equipment (both on-highway and non-road) shall comply with all pertinent State and Federal regulations relative to exhaust emission controls and safety.

39.1.2 Retrofit emission control devices shall consist of oxidation catalysts, or similar retrofit equipment control technology that is:

39.1.2.1 Included on the U.S. Environmental Protection Agency (EPA) "Verified Technology List," as may be amended from time to time
<http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>
and

39.1.2. Verified by EPA to provide a minimum emissions reduction of 20% particulate matter (PM₁₀), 40% carbon monoxide (CO), and 50% hydrocarbons (HC).

39.1.3 Construction shall not proceed until all diesel powered non-road construction equipment meeting the criteria in provision 39.1.1 have been retrofitted, unless the Commissioner grants a waiver under provision 39.2.

39.1.4 The Contractor shall at least monthly, assess which diesel powered non-road construction equipment are subject to these provisions. The Contractor shall notify the CT DCS Project Manager of any violations of these provisions.

39.1.5 Idling of delivery and/or dump trucks, or other diesel powered equipment shall be limited to three (3) minutes during non-active use in accordance with the Regulations of Connecticut State Agencies Section 22a-74-18(b)(3)(C), which states, in part:

"[N]o person shall cause or allow a Mobile Source to operate for more than three (3) consecutive minutes when such Mobile Source is not in motion, except as follows:

When a Mobile Source is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control,

When it is necessary to operate defrosting, heating or cooling equipment to ensure the safety or health of the driver or passengers,

When it is necessary to operate auxiliary equipment that is located in or on the Mobile Source to accomplish the intended use of the Mobile Source, (To bring the Mobile Source to the manufacturer's recommended)

When a Mobile Source is in queue to be inspected by U.S. military personnel prior to gaining access to a U.S. military installation."

39.1.6 All Work shall be conducted to ensure that no harmful effects are caused to adjacent Sensitive Receptor Sites. Diesel powered engines shall be located away from fresh air intakes, air conditioners, and windows.

39.1.7 If any diesel powered non-road construction equipment is found to be in non-compliance with these provisions by the CT DCS Project Manager, the Contractor will be issued a Non-Conformance Notice and given a 24 hour period in which to bring the equipment into compliance or remove it from the Project. The Contractor's failure to comply with these provisions shall be reason to withhold payment as described in Article 33.

39.1.8 Any costs associated with these provisions shall be included in the general cost of the contract. In addition, there shall be no time granted to the Contractor for compliance with these provisions. The Contractor's compliance with these provisions and any associated regulations shall not be grounds for a Change Order.

39.2 The Commissioner reserves the right to waive all or portions of these provisions at his/her discretion. The Contractor may request a waiver to all or portions of these provisions with written justification to the Commissioner as to why the Contractor cannot comply with these provisions. A waiver, to be effective, must be granted in writing by the Commissioner.

END

Appendix 1



7048
General Contractor
Retainage Reduction Request
(SAMPLE)

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To: Allen V. Herring, P.E., CT DCS Chief Engineer
Room 265, 165 Capitol Avenue, Hartford, CT 06106

From: (Insert GC's Name), General Contractor

Subject: Project No. () Reduction of Retainage at ()% project completion

In accordance with the General Conditions, Article 28 Progress Payments, (insert GC's name) hereby requests a reduction of retainage to an amount of insert written percent Percent (insert numerical percent%). The following list of items required under the General Conditions is in compliance with the terms of the contract and has been verified by the General Contractor.

- DAS Contractor Performance Evaluation Score is a minimum of **Sixty (60%) Percent**.
- Timely submission of an appropriate and complete CPM Schedule and Schedule of Values, in compliance with the Contract requirements and the prompt resolution of the Owner's and/or A/E's comments on the submitted material resulting in an appropriate basis for progress of the Work.
- Timely and proper submission of all Contract Document required submissions: including but not limited to Shop Drawings, material certificates and material samples and the prompt resolution of the Owner's and/or Architect's or Engineer's comments on the submitted material resulting in an appropriate progress of the Work.
- Proper and adequate supervision and home office support of the Project.
- The Work completed to date has been installed or finished in a manner acceptable to the Owner.
- The progress of the Work is consistent with the approved CPM Schedule.
- All approved credit Change Orders have been invoiced.
- All Change Order requests for pricing are current.
- The General Contractor has and is maintaining a clean worksite in accordance with the Contract Documents.
- All Subcontractor payments are current at the time of reduction request.
- General Contractor is compliant with set-aside provisions of the contract.

General Contractor Certification: _____
(Written Name) (Signature) (Date)

Project Manager Recommendation: _____
(Written Name) (Signature) (Date)

Approved:
Allen V. Herring, P.E.
CT DCS Chief Engineer

(Signature) (Date)

**Supplementary Conditions of the Contract for Construction
For Design - Bid - Build
Department of Construction Services
State of Connecticut**

1.1 SUPPLEMENTARY CONDITIONS:

1.1.1 These Supplementary Conditions modify the State of Connecticut, Department of Construction Services, Section 00 72 13 General Conditions of the Contract for Construction for Design – Bid- Build (Rev. 12.02.11), and other provisions of the Contract Documents as indicated below. All provisions which are not so modified remain in full force and effect.

1.1.2 The terms used in these Supplementary Conditions which are defined in the Section 00 72 13 General Conditions of the Contract for Construction for Design – Bid- Build (Rev. 12.02.11), have the meanings assigned to them in the General Conditions.

2.0 SECTION 00 72 13 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION FOR DESIGN - BID – BUILD:

2.1 ADD Subsection 3.6 to ARTICLE 3, CORRELATION OF CONTRACT DOCUMENTS, as follows:

3.6 In accordance with Public Act No. 11-51 (Effective July 1, 2011), wherever the term "Commissioner of Public Works" is used in the "Bidding Documents" or "Project Manual" the term "Commissioner of Construction Services" shall be substituted in lieu thereof; and wherever the term "Department of Public Works" is used in "Bidding Documents" or "Project Manual", the term "Department of Construction Services" shall be substituted in lieu thereof.

END OF SECTION

010000 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Number [MHA1145](#) is entitled [RVS: Dutton Home – Basement Bathroom Renovations](#). 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: Renovation of two (2) existing bathrooms to meet ADA compliance.
- C. This Project **does not exceed** the Threshold Limits as defined by the Connecticut General Statutes.
- D. Project Location: [Connecticut Valley Hospital](#), located in [Middletown](#), Connecticut, [06457](#).

010001 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 [Loretta Eisler](#), Project Manager. The Project Manager is located at [Connecticut Valley Hospital – Shew Hall, Room 220, PO Box 351, Middletown, CT, 06457](#). Phone: [\(860\) 262-5302](#); Fax: [\(860\) 262-5307](#); E-mail: Loretta.Eisler@ct.gov.
 - 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 [Connecticut Valley Hospital, Middletown, CT, 06457](#).
 - 1. The Agency Representative is John McCarthy. The Agency Representative's title is [Plant Facilities Engineer](#). The Agency Representative is located at [Cotter Building, Connecticut Valley Hospital, Middletown, CT, 06457](#). Phone: [\(860\) 262-5725](#); E-mail: John.McCarthy@ct.gov.
 - a. 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.

010002 ARCHITECT AND ENGINEER

- A. The Architectural Firm is [DMHAS Engineering Services](#), and is located at [Connecticut Valley Hospital – Shew Hall, 2nd Floor, PO Box 351, Middletown, CT, 06457](#). The Architect representing the firm for this project is [Steven Hecimovich](#). Phone: [\(860\) 262-5301](#); Fax: [\(860\) 262-5307](#); E-mail: Steven.Hecimovich@ct.gov.
 - 1. The Architect and Engineer or their accredited representative is referred to in the Contract Documents as "Architect" or "Architects" or "Engineer" or "Engineers" or by pronouns which imply them. As information for the Contractor, the Architect's or Engineer's status is defined as follows:
 - a. The Architect and Engineer will not make interpretations or decisions directly to the Contractor. All interpretations or decisions will be conveyed through the Construction Administrator.
 - b. As the authorized representative of the Department of Construction Services 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."

2. 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.

010003 CONSTRUCTION ADMINISTRATOR:

- A. The Construction Administrator is [Loretta Eisler, DMHAS Engineering Services](#) and is located at [Connecticut Valley Hospital – Shew Hall, Room 220, PO Box 351, Middletown, CT, 06457](#). Phone: (860) 262-5302; Fax: (860) 262-5307; E-mail: Loretta.Eisler@ct.gov.
 1. The Construction Administrator is referred to in the Contract Documents as "Construction Administrator" or "Construction Manager" or by pronouns which imply it. All communications concerning the project will be directed through the Construction Administrator or a designated representative(s).
 2. As information to the Contractor, the Construction Administrator's status is defined as follows:
 - a. The Construction Administrator is the Owner's Agent who will, among other 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.

010010 SUMMARY OF WORK

- A. Summary of Work includes but is not limited to the following:
 - 1 *Interior Demolition;*
 - 2 *Cutting and Patching;*
 - 3 *Metal Stud and Gypsum Board partitions;*
 - 4 *Doors, Frames, and Hardware;*
 - 5 *Tiling, Acoustic Ceiling;*
 - 6 *Toilet Compartments;*
 - 7 *Painting;*
 - 8 *HVAC;*
 - 9 *Plumbing;*
 - 10 *Electrical.*
- 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 90 Calendar Days of commencement of the Work.

010011 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.

010012 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.

010013 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 requested, they will be available at the direct additional cost of their reproduction to the contractor.

010014 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.

010015 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 egress plans for Owner approval and for Office of State Building Official and Office of State Fire Marshal for approval if required.

010019 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.

010027 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 010010 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 010700 "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.

1. 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 010700 "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 Construction Services, 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.

010035 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, unreviewed 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 010631 “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.

010040 COORDINATION

- A. Construction Administrator:
1. The Construction Administrator is identified in Division 01 Section 010003 “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 010050 “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."

010045 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."

010095 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.

010120 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. The State shall perform testing of any suspect Lead Containing Materials and pay for costs associated with complying with United States Department of Labor 29 CFR 1926.62 (c) – 1926.62 (d) (2) (i) (A) regarding the use of respirators and measuring of exposure limits that may be at concentrations exceeding fifty micrograms per meter of air over an eight hour period.
- 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. If testing for asbestos has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair, the results of the asbestos testing are available upon request and are for information purposes only. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of asbestos. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
 4. See also General Conditions Article 23 "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 40CRF 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.

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 010045 "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 010045 "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 010045 “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 010700 “Project Closeout,” clean Agency occupied areas of Work.

010121 SALVAGEABLE MATERIALS

- A. The Contractor shall be responsible for removing the following salvageable items and turning them over to the Agency:
 - 1. *Refer to the Contract Drawings for salvageable items.*

010200 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. *Preparation of record documents.*
- j. *Use of the premises.*
- k. *Parking availability.*
- l. *Office, work, and storage areas.*
- m. *Equipment deliveries and priorities.*
- n. *Safety procedures.*
- o. *First aid.*
- p. *Security.*
- q. *Housekeeping.*
- r. *Working hours.*
- s. *Coordination with Audio-Visual and Telecommunications.*

B. Progress Meetings:

1. The Construction Administrator will conduct progress meetings, bi-weekly, at the Project Site or at regular intervals as agreed upon at the Pre-construction Conference. The Construction Administrator will notify the Owner, the Architect, and the Contractor of the scheduled Progress Meeting dates. Coordinate dates of Progress Meetings with preparation of Application for Payment requests.
2. Attendees: In addition to representatives of the Contractor, Construction Administrator, Owner and the Architect, subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities may be requested to attend these meetings on an as needed basis. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work. The Contractor shall include the site superintendent as a minimum.
3. Agenda: Progress Meetings shall review and correct or approve minutes of the previous Progress Meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
 - a. Construction Schedule: Review progress since the last Progress Meeting. Determine where each activity is in relation to the required Contractor's "Construction Schedule" and whether each activity is on time, 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.

010300 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 01 Section 010631 "Equals and Substitutions".
 - k. Submittals shall comply with all requirements in Division 01 Section 010740 "Warrantees and Bonds".
 - l. Submittals shall comply with all requirements in Division 01 Section 010040 "Coordination".
 - m. Submittals shall comply with all requirements in Division 01 Section 010730 "Operation & Maintenance Manuals".
- B. Administrative Submittals: Refer to other Division 01 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 01 Section 010027 "Application for Payment" specifies requirements for submittal of the Schedule of Values.
 2. Division 01 Section 010040 "Coordination" specifies requirements governing preparation and submittal of required Coordination Drawings.
 3. Division 01 Section 010200 "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
 4. Division 01 Section 010310 "Construction Schedules."

5. Division 01 Section 010315 "CPM Schedule" specifies requirements for contractor's schedule submittal.
6. Division 01 Section 010380 "Construction Photographs" specifies requirements for submittal of periodic construction photographs.
7. Division 01 Section 010400 "Quality Control" specifies requirements for submittal of inspection and test reports.
8. Division 01 Section 010631 "Equals and Substitutions" specifies requirements for submittal of requests to use products other than those specified.
9. Division 01 Section 010700 "Contract Closeout" specifies requirements for submittal of Project Record Documents and warranties at project closeout.
10. Division 01 Section 010740 "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 01 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 four (4) 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 his 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 four (4) 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 01 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.

010310 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 010027 "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.

010515 TEMPORARY TELEPHONE

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

010525 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.

010530 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.

010535 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 Construction Services 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.

010540 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".

010545 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.

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- 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."

010550 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.

010570 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."

010580 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.

010585 IDENTIFICATION BADGES

- A. Identification Badges for Contractor's Personnel and Visitors:
 - 1. The Contractor will provide each person working or visiting at the site with an identification badge, bearing the name of the person, their title, and employer name.
 - 2. Badges are to be worn on outer garment where visible at all times while at the construction site.
 - 3. Temporary "Door Access" badges will be issued by the Agency, as needed.

010600 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.

010631 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.

010700 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 010400 "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, 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 010730 "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 01 Section 010570 "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.

010740 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 **081416 – Flush Wood Doors**: Solid Wood Core: Lifetime for interior doors.
 2. Section **087100 – Door Hardware**: Closers: 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 Construction Services
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 Construction Services 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 01 - GENERAL REQUIREMENTS

SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Items indicated to be removed and salvaged remain Owner's property. Remove, clean, and deliver to Owner's designated storage area.
- B. Comply with all Local, State and Federal regulations regarding hauling and disposal of all construction and demolition waste.
- C. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- D. Hazardous Materials: If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Maintain services/systems indicated to remain and protect them against damage during selective demolition operations. Before proceeding with demolition, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of the building.
- B. Locate, identify, shut off, disconnect, and cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
- C. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- D. Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes.
- E. Provide temporary weather protection to prevent water leakage and damage to structure and interior areas.
- F. Protect walls, ceilings, floors, and other existing finish work that are to remain. Erect and maintain dustproof partitions. Cover and protect furniture, furnishings, and equipment that have not been removed.

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SELECTIVE STRUCTURE DEMOLITION
PAGE 2 OF 2

- G. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction.
- H. Promptly remove demolished materials from Owner's property and legally dispose of them. Do not burn demolished materials.
- I. Erect and maintain fire-resistant partitions where required on drawings or to comply with Connecticut State Fire Codes.

END OF SECTION 024119

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Model code evaluation reports for wood-preservative treated wood, fire-retardant treated wood, engineered wood products, and metal framing anchors.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: Provide dressed lumber, S4S, marked with grade stamp of inspection agency.
- B. Engineered Wood Products: Acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.

2.2 TREATED MATERIALS

- A. Preservative-Treated Materials: AWPA C2
 - 1. Use treatment containing no arsenic or chromium.
 - 2. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent.
 - 3. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- B. Provide preservative-treated materials for items indicated on Drawings, and the following:
 - 1. Wood members in connection with roofing, flashing, vapor barriers, and waterproofing.
 - 2. Concealed members in contact with masonry or concrete.
 - 3. Wood framing members that are less than 18 inches above the ground.
 - 4. Wood floor plates that are installed over concrete slabs-on-grade.
- C. Fire-Retardant-Treated Materials: Comply with performance requirements in AWPA C20.
 - 1. Use Exterior type for exterior locations and where indicated.
 - 2. Use Interior Type A, High Temperature (HT) for enclosed roof framing, framing in attic spaces, and where indicated.
 - 3. Use Interior Type A, unless otherwise indicated.
 - 4. Identify with appropriate classification marking of a testing and inspecting agency acceptable to authorities having jurisdiction.

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ROUGH CARPENTRY
PAGE 2 OF 3

2.3 LUMBER

- A. Miscellaneous Lumber: Standard, Stud, or No. 3 grade with 19 percent maximum moisture content of any species. Provide for nailers, blocking, and similar members.

2.4 ENGINEERED WOOD PRODUCTS

- A. Engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be demonstrated by comprehensive testing.
- B. Laminated-Veneer Lumber: Manufactured with exterior-type adhesive complying with ASTM D 2559. Allowable design values determined according to ASTM D 5456.
 - 1. Extreme Fiber Stress in Bending, Edgewise: 2250 psi (15.5 MPa) for 12-inch nominal- (286-mm actual-) depth members.
 - 2. Modulus of Elasticity, Edgewise: 1,500,000 psi (10 300 MPa)

2.5 PLYWOOD BACKING PANELS

- A. Telephone and Electrical Equipment Backing Panels: Plywood, Exposure 1, C-D Plugged, fire-retardant treated, not less than 1/2 inch thick.

2.6 MISCELLANEOUS PRODUCTS

- A. Fasteners: Size and type indicated. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
 - 1. Power-Driven Fasteners: CABO NER-272.
 - 2. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.
- B. Metal Framing Anchors: Structural capacity, type, and size indicated.
 - 1. Use anchors made from hot-dip galvanized steel complying with ASTM A 653/A 653M, G60 coating designation for interior locations where stainless steel is not indicated.
 - 2. Use anchors made from stainless steel complying with ASTM A 666, Type 304 for exterior locations and where indicated.
- C. Sill-Sealer: Closed-cell neoprene foam, 1/4 inch (6.4 mm) thick.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Securely attach rough carpentry to substrates, complying with the following:
 - 1. CABO NER-272 for power-driven fasteners.
 - 2. Published requirements of metal framing anchor manufacturer.

END OF SECTION 061000

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product data.
- B. Environmental Limitations: Do not proceed with installation of joint sealants when ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 40 deg F.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS

- A. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under service and application conditions.
- B. Where Another Type Is Not Specified, One of the Following:
 - 1. Single-component, nonsag polysulfide sealant, ASTM C 920, Type S; Grade NS; Class 12-1/2; Uses NT, M, G, A, and O.
 - 2. Single-component, neutral-curing silicone sealant, ASTM C 920, Type S; Grade NS; Class 25; Uses T, NT, M, G, A, and O.
 - 3. Single-component, nonsag urethane sealant, ASTM C 920, Type S; Grade NS; Class 25; and Uses NT, M, A, and O.
- C. Sealant for Use in Interior Joints in Ceramic Tile and Other Hard Surfaces in Kitchens and Toilet Rooms and Around Plumbing Fixtures:
 - 1. Single-component, mildew-resistant silicone sealant, ASTM C 920, Type S; Grade NS; Class 25; Uses NT, G, A, and O; formulated with fungicide.
- D. Sealant for Interior Use at Perimeters of Door and Window Frames:
 - 1. Latex sealant, single-component, nonsag, mildew-resistant, paintable, acrylic-emulsion sealant complying with ASTM C 834.
- E. Acoustical Sealant for Exposed Interior Joints:
 - 1. Nonsag, paintable, nonstaining, latex sealant complying with ASTM C 834.
- F. Acoustical Sealant for Concealed Joints:

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JOINT SEALANTS
PAGE 2 OF 2

1. Nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce transmission of airborne sound.

2.2 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer.
- B. Cylindrical Sealant Backings: ASTM C 1330, of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with ASTM C 1193.
- B. Comply with ASTM C 919 for use of joint sealants in acoustical applications.

END OF SECTION 079200

SECTION 081113 - HOLLOW METAL FRAMES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data and Shop Drawings.
- B. Comply with ANSI/SDI A250.8.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cold-Rolled Steel Sheets: ASTM A 1008/A 1008M, suitable for exposed applications.
- B. Hot-Rolled Steel Sheets: ASTM A 1011/A 1011M, free of scale, pitting, or surface defects.
- C. Frame Anchors: ASTM A 591/A 591M, 4OZ ((12G)) coating designation; mill phosphatized.
- D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.

2.2 HOLLOW METAL FRAMES

- A. Products:
 - 1. Ceco Door Products
 - 2. Curries Company
 - 3. Ambico Ltd.
 - 4. Steelcraft Mfg. Co.
 - 5. DMHAS Engineer Approved Equal.
- B. Frames: ANSI A250.8; conceal fastenings unless otherwise indicated.
 - 1. Steel Sheet Thickness for Interior Doors: 0.053 inch (1.3 mm).
 - 2. Fabricate interior frames with mitered or coped corners **knocked down for field assembly**.
 - 3. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcement plates from same material as frames.
 - 4. Frame Anchors: Not less than 0.042 inch (1.0 mm) thick.
- C. Door Silencers: Three on strike jambs of single-door frames.
- D. Grout Guards: Provide where mortar might obstruct hardware operation.
- E. Prepare frames to receive hardware according to ANSI A250.6 and ANSI A115 Series standards.

SECTION 08 11 13
HOLLOW METAL FRAMES
PAGE 2 OF 2

- F. Reinforce frames to receive surface-applied hardware.
- G. Prime Finish: Manufacturer's standard, factory-applied coat of lead- and chromate-free primer complying with ANSI/SDI A250.10 acceptance criteria.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install hollow metal frames to comply with ANSI/SDI A250.11.
- B. Prior to installation, inspect all frames for rack, twist, and “out of square” conditions.
- C. Frames shall be located in place prior to enclosing walls and ceilings. Set frames accurately in position, plumbed and braced securely until permanent anchors are set. Remove shipping bar spreader and insert a wood spreader, cut to the opening width, and notched to clear the stops.
- D. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying rust-inhibitive primer.

END OF SECTION 081113

SECTION 081416 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Samples for factory-finished doors.
- B. Quality Standard: WDMA I.S.1-A.
- C. Forest Certification: Provide doors produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."

PART 2 - PRODUCTS

2.1 DOOR CONSTRUCTION, GENERAL

- A. WDMA I.S.1-A Performance Grade:
 - 1. Extra Heavy Duty unless otherwise indicated.
- B. Particleboard-Core Doors: Provide **blocking in particleboard cores or provide** structural composite lumber cores instead of particleboard cores for doors with exit devices or protection plates.
 - 1. Core Construction: Mat formed wood particleboard core, complying with ANSI A 208.1, Grade LD-2.
 - a. Bonding: Stiles and rails bonded to core, then entire unit abrasive planed before veneering.
 - b. Top Rail: 5 inch one to three-ply closed grain, solid hardwood or Structural Composite Lumber.
 - c. Bottom Rail: Hardwood or Structural Composite Lumber. Provide 5 inch deep rail where concealed door seal or kick plate is scheduled.
 - 2. Blocking:
 - a. Provide lock block reinforcement where mortised hardware is scheduled.
 - b. Provide 5 inch hardwood or Structural Composite Lumber at intermediate-height where exit devices are scheduled.
 - 3. Manufacturers: Subject to compliance with requirements, provide manufacturer and product from one of the following:
 - a. Algoma Hardwoods, Inc.

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FLUSH WOOD DOORS
PAGE 2 OF 3

- b. Ampco, Inc.
- c. Eggers Industries
- d. Haley Brothers, Inc.
- e. Marshfield Door Systems, Inc.
- f. Oshkosh Architectural Door Company
- g. VT Industries, Inc.
- h. Mohawk Flush Doors
- i. DMHAS Engineer Approved Equal.

2.2 FLUSH WOOD DOORS

A. Doors for Transparent Finish:

- 1. Interior Solid-Core Doors: Premium grade, five-ply, particleboard cores.
 - a. Faces: Hardwood Birch Veneer

2.3 FABRICATION AND FINISHING

- A. Factory fit doors to suit frame-opening sizes indicated and to comply with clearances specified.
- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3.
- C. Factory finish doors indicated for transparent finish with stain to match existing doors and manufacturer's standard finish complying with **WDMA System TR-6, catalyzed polyurethane** for grade specified for doors.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install doors to comply with manufacturer's written instructions, WDMA I.S.1-A, and as indicated.
- B. Align and fit doors in frames with uniform clearances and bevels. Machine doors for hardware. Seal cut surfaces after fitting and machining.
- C. Clearances: As follows, unless otherwise indicated:
 - 1. 1/8 inch at heads, jambs, and between pairs of doors.
 - 2. 1/8 inch from bottom of door to top of decorative floor finish or covering.
 - 3. 1/4 inch from bottom of door to top of threshold.
- D. Repair, refinish, or replace factory-finished doors damaged during installation, as directed by Architect.

- E. Protect doors as recommended by door manufacturer to ensure that wood doors will be without damage or deterioration at time of Substantial Completion.

END OF SECTION 081416

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Hardware manufacturer product data sheets.

PART 2 - PRODUCTS

2.1 HARDWARE

A. Hinges:

1. Five knuckle ball-bearing heavy weight steel hinges with steel pins equal to Hager BB1168HT – 4-1/2” x 4-1/2” with Hospital Tip and US10 Satin Bronze finish.
2. 3 hinges for 1-3/4-inch- (45-mm-) thick doors 90 inches (2300 mm) or less in height.

B. Push / Pull Plates:

1. Push Plate: Rockwood Manufacturing Co. 70B US10 – 0.050” Thick x 3-1/2” x 15” Plate with Satin Bronze finish, or equal.
2. Pull Plate: Rockwood Manufacturing Co. 102 x 70B US10 – 5-1/2” CTC, 5/8” Dia. Pull, 3-1/2” x 15” Plate with Satin Bronze finish, or equal.
3. Mount push plate on interior side (room side) of door, pull plate on exterior side (corridor side).

C. Closers:

1. Provide parallel-arm closers equal to Corbin Russwin DC3000 Series with 691 Light Bronze finish.
2. Include adjustable delayed opening feature (accessible to people with disabilities) on closers.
3. Mount closers on interior side (room side) of door opening.

- D. Provide hardware finishes as specified, unless otherwise indicated.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Mount hardware in locations recommended by the Door and Hardware Institute unless otherwise indicated.

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DOOR HARDWARE
PAGE 2 OF 2

3.2 HARDWARE SCHEDULE

A. Hardware Set:

1. Hinges.
2. Closer.
3. Push Plate.
4. Pull Plate.
5. ADA Compliant Threshold.

END OF SECTION 087100

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data.

PART 2 - PRODUCTS

2.1 PANEL PRODUCTS

- A. Provide in maximum lengths available to minimize end-to-end butt joints.
- B. Water-Resistant Gypsum Backing Board: ASTM C 630/C 630M or ASTM C 1396/C 1396M, 5/8" thickness.

2.2 ACCESSORIES

- A. Trim Accessories: ASTM C 1047, formed from galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet. For exterior trim, use accessories formed from hot-dip galvanized-steel sheet, plastic, or rolled zinc.
 - 1. Provide cornerbead at outside corners unless otherwise indicated.
 - 2. Provide LC-bead (J-bead) at exposed panel edges.
 - 3. Provide control joints where indicated.
- B. Aluminum Accessories: Extruded-aluminum accessories indicated with manufacturer's standard corrosion-resistant primer.
- C. Joint-Treatment Materials: ASTM C 475/C 475M.
 - 1. Joint Tape: Paper unless otherwise recommended by panel manufacturer.
 - 2. Joint Compounds: Setting-type taping compound and drying-type, ready-mixed, compounds for topping.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install gypsum board to comply with ASTM C 840.
 - 1. Isolate gypsum board assemblies from abutting structural and masonry work. Provide edge trim and joint sealant.

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GYPSUM BOARD
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2. Single-Layer Fastening Methods: Fasten gypsum panels to supports with screws.
3. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written recommendations and temporarily brace or fasten gypsum panels until fastening adhesive has set.

B. Finishing Gypsum Board: ASTM C 840.

1. At concealed areas, provide Level 1 finish: Embed tape at joints.
2. At substrates for tile, provide Level 2 finish: Embed tape and apply separate first coat of joint compound to tape, fasteners, and trim flanges.
3. Unless otherwise indicated, provide Level 4 finish: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges.

END OF SECTION 092900

SECTION 093000 - TILING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data for tile and installation materials and Samples for tile.
- B. Floor Tiles: Static coefficient of friction not less than 0.6, per ASTM C 1028.

PART 2 - PRODUCTS

2.1 CERAMIC TILE

- A. Ceramic tile that complies with Standard grade requirements in ANSI A137.1, "Specifications for Ceramic Tile."
- B. Ceramic Mosaic Floor Tile: **Glazed, vitreous or impervious natural clay or porcelain** cushion-edged tile.
 - 1. Products:
 - a. American Olean
 - b. Crossville, Inc.
 - c. Daltile
 - d. DMHAS Engineer Approved Equal.
 - 2. Surface: **Smooth, without** abrasive admixture.
 - 3. Module Size: **2 by 2 inches (50.8 by 50.8 mm)**
 - 4. Color: **As selected** by Agency.
 - 5. Tiles back- or edge-mounted into sheets.
- C. Glazed Wall Tile: Cushion-edged, flat tile.
 - 1. Products:
 - a. American Olean
 - b. Daltile
 - c. Seneca Tiles, Inc.
 - d. DMHAS Engineer Approved Equal
 - 2. Module Size: **6 by 6 inches (152 by 152 mm)**.
 - 3. Color: **As selected** by Agency.
 - 4. Finish: **Bright, opaque** glaze.
 - 5. Tiles mounted using non-sagging Thin-Set Mortar with latex additive.

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TILING

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- D. Glazed Wall Tile Trim Units: Matching characteristics of adjoining flat tile and coordinated with sizes and coursing of adjoining flat tile where applicable.
 - 1. Base for Thin-Set Mortar Installations: Coved, module size **matching wall tile**.
 - 2. Wainscot Cap for Thin-Set Mortar Installations: Surface bullnose, module size **matching wall tile**.
 - 3. External Corners for Thin-Set Mortar Installations: Surface bullnose, module size **same as adjoining tile**.

2.2 STONE THRESHOLDS

- A. **Marble thresholds complying with ASTM C 503** fabricated to be not more than **1/2 inch (12.7 mm)** above adjoining finished floor surfaces, with transition edges beveled on a slope of no greater than 1:2 (must be ADA compliant).
 - 1. Color: **White**.
 - 2. Description: Uniform fine-to-medium grained white stone with gray veining.
 - 3. Finish: **Polished**.

2.3 INSTALLATION MATERIALS

- A. VOC Limit for Adhesives: 65 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- B. Waterproofing Membranes for Thin-Set Installations: ANSI A118.10, fabric-faced polymer sheet product.
- C. Setting and Grouting Materials: Comply with material standards in ANSI's "Specifications for the Installation of Ceramic Tile" that apply to materials and methods indicated.
 - 1. Thin-Set Mortar Type: **Latex-portland cement**.
 - a. Products:
 - 1) Custom Building Products
 - 2) Laticrete International, Inc.
 - 3) MAPEI Corporation
 - 2. Grout Type: **Polymer modified** unless otherwise indicated.
 - a. Products:
 - 1) Custom Building Products
 - 2) Laticrete International, Inc.
 - 3) MAPEI Corporation
 - 3. Grout Color: **As selected** by Agency.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with tile installation standards in ANSI's "Specifications for the Installation of Ceramic Tile" that apply to materials and methods indicated.
 - 1. For installations indicated below, follow procedures in ANSI's "Specifications for the Installation of Ceramic Tile" for providing 95 percent mortar coverage.
 - a. Tile floors in wet areas.
 - b. Tile floors composed of rib-backed tiles.
- B. Comply with TCA's "Handbook for Ceramic Tile Installation."
- C. Floor Tile Installation Method(s):
 - 1. Over Concrete Subfloors: TCA **F113 (thin-set mortar on concrete)**.
 - 2. Over Waterproof Membranes: TCA **F122 (thin-set mortar over waterproof membrane on concrete)**.
- D. Wall Tile Installation Method(s):
 - 1. Over Gypsum Board: TCA **W243 (thin-set mortar on gypsum board)**.
- E. Do not install tile over waterproofing until waterproofing has cured and been tested to determine that it is watertight.
- F. Lay tile in grid pattern, unless otherwise indicated. Align joints where adjoining tiles on floor, base, walls, and trim are the same size.
- G. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.
- H. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- I. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- J. Stone Thresholds: Install stone thresholds in same type of setting bed as adjacent floor unless otherwise indicated.
- K. Cleaning: On completion of placement and grouting, clean all tile surfaces so they are free of foreign matter.

END OF SECTION 093000

SECTION 095123 - ACOUSTICAL TILE CEILINGS

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-01 Specification sections, apply to work of this section.

1.1 WORK INCLUDED

- A. Suspended metal grid system.
- B. Perimeter trim.

1.2 REFERENCES

- A. ASTM C635 – Metal Suspension System for acoustic tile and lay-in panel ceilings.
- B. ASTM C636 – Installation of metal ceiling suspension system for acoustic type and lay-in panels.

1.3 REGULATORY REQUIREMENTS

- A. Conform to code for the fire rated assembly and combustibility requirements for materials.
- B. Provide complete seismic restraints for suspended grid system new and existing per code requirements. 2003 International Building Code with 2005 Connecticut Supplements.

1.4 SUBMITTALS

- A. Submit samples and product data under provisions of General Conditions and Section 01 03 00.

1.5 SECTION REQUIREMENTS

- A. Surface-Burning Characteristics of Panels: ASTM E 1264, Class A, materials, tested per ASTM E 84.
- B. Fire-Resistance-Rated Assemblies: Provide materials and construction identical to those tested in assemblies per ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

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ACOUSTICAL TILE CEILINGS
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PART 2 - PRODUCTS

2.1 ACOUSTICAL TILE

A. Products: Acceptable Manufacturers

1. Armstrong
2. Celotex
3. U.S.G. Acoustic Products
4. Gold Band

B. ACOUSTIC UNIT MATERIALS (based on Armstrong # 574)

1. 2' x 2' Acoustic Panels conforming to the following:
 - a. Type and Form: To match existing in Building.
 - b. Pattern: To match existing in Building
 - c. Surface Color: White.
 - d. Light Reflectance (LR) Coefficient: .86
 - e. Noise Reduction Coefficient (NRC): Not less than 0.70
 - f. Ceiling Attenuation Class (CAC): Not less than 35.
 - g. Fire Hazard Classification: Class A

C. Edge Detail: Square

D. Thickness: 3/4 inch

E. Modular Size: 24 by 24 inches

2.2 LAY-IN SUSPENSION SYSTEM

A. Ceiling Suspension System: Grid: 2 x 2, ASTM C 635, intermediate-duty structural classification; components die cast and interlocking.

1. Acceptable Manufacturers:
 - a. Armstrong
 - b. Donn Corporation
 - c. Chicago Metallic Corporation

B. Attachment Devices: Size for 5 times the design load indicated in ASTM C 635, Table 1, Direct Hung, unless otherwise indicated. Comply with seismic design requirements.

- C. Accessories: Stabilizer bars, clips, splices, and edge moldings as required for suspended grid system.
- D. Grid Materials: Commercial quality cold rolled steel with galvanized coating.
- E. Grid Finish: White
- F. Support Channels and Hangers: Galvanized steel, size and type to suit application, to rigidly secure acoustic system including mechanical and electrical components with maximum deflection of 1/360. Suspension system shall be diagonally braced with wire at 4'-0" O.C.
- G. Wire Hangers, Braces, and Ties: Zinc-coated carbon-steel wire; ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - 1. Size: Provide yield strength at least 3 times the hanger design load (ASTM C 635, Table 1, Direct Hung), but not less than 0.135-inch- (3.5-mm-) diameter wire.
- H. Seismic Struts: Manufacturer's standard product designed to accommodate seismic forces.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Verify that conditions are ready to receive work.
- B. Verify that layout of hangers will not interfere with other work.
- C. Beginning of installation means acceptance of existing conditions.

3.2 INSTALLATION

- A. Install acoustic ceiling system in accordance with manufacturer's instructions and as supplemented in this Section.
- B. Install system capable of supporting imposed loads to a deflection of 1/360 maximum.
- C. Install after major above ceiling work is complete. Coordinate the location of hangers with other work.
- D. Hang system independent of walls, columns, ducts, pipes, and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- E. Laterally brace entire suspension system to meet seismic requirements.
- F. Where ducts and other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- G. Locate system according to reflected ceiling plans.

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- H. Do not support other ceiling mounted components on main runners or cross runners. Support fixture loads by supplementary hangers.
- I. Install edge molding at intersection of ceiling and vertical surfaces, using longest practical lengths. Miter corners. Provide edge moldings at junctions with other interruptions. Field rabbet panel edge. Where round obstructions occur, provide preformed closers to match edge molding.
- J. Fit acoustic units in place, free from damaged edges or other defects detrimental to appearance and function.
- K. Lay direction patterned units in basket weave pattern. Fit border neatly against abutting surfaces.
- L. Install hold-down clips to retain panels tight to grid system if noted on drawings.
- M. Ceiling Suspension System Installation: Comply with ASTM C 636 and CISCA's "Ceiling Systems Handbook."
 - 1. Fire-Rated Assembly: Install fire-rated ceiling systems according to tested fire-rated design.

END OF SECTION 095123

SECTION 099100 - PAINTING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Summary: Paint exposed surfaces, new and existing, unless otherwise indicated.
 - 1. Do not paint prefinished items, items with an integral finish, operating parts, and labels unless otherwise indicated.
- B. Submittals:
 - 1. All manufacturers Product Data.
 - 2. Supply 2 copies of all MSDS sheets for products.
- C. Mockups: Full-coat finish Sample of each type of coating, color, and substrate, applied where directed.
- D. Extra Materials: Deliver to Owner **1 gallon** of each color and type of finish coat paint used on Project, in containers, properly labeled and sealed.

1.2 QUALITY ASSURANCE

- A. Product Manufacturer: Company specializing in manufacturing quality paints and finish products with five years experience.
- B. Applicator: Company specializing in commercial painting and finishing with five years documented experience.

1.3 REGULATORY REQUIREMENTS

- A. Conform to code for flame/fuel/smoke rating requirements for finishes.

1.4 DELIVERY, STORAGE, HANDLING

- A. Deliver products to site under provisions of General Conditions.
- B. Store and protect product under provisions of General Conditions.
- C. Deliver products to site in sealed and labeled containers; inspect to verify acceptance.
- D. Container labeling to include manufacturer's name, type of paint, brand name, brand code, coverage, surface preparation, drying time, clean up, color designation, and instructions for mixing and reducing.

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- E. Store paint materials at minimum ambient temperature of 45 degrees Fahrenheit and a maximum of 90 degrees Fahrenheit, in well ventilated area, unless required otherwise by manufacturer's instructions.

PART 2 - PRODUCTS

2.1 PAINT

A. Acceptable Manufacturers:

1. Pratt & Lambert Paints
2. PPG
3. Pittsburgh Paint
4. Benjamin Moore
5. 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 INSPECTION

- A. Verify that surfaces are ready to receive work as instructed by product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Beginning of installation means acceptance of substrate.

3.2 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. Correct minor defects and clean surfaces which affect work of this Section.
- C. Shellac and seal marks which may bleed through surface finishes.
- D. Impervious surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

- E. Clean and prepare surfaces in an area before beginning painting in that area. Schedule painting so cleaning operations will not damage newly painted surfaces.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 - 1. Use brushes only for interior painting and where the use of other applicators is not practical.
 - 2. Use rollers for finish coat on interior walls.
- 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. Do not apply finishes to surfaces that are not dry.
- D. Apply each coat to uniform finish.
- E. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
- F. Sand lightly between coats to achieve required finish.
- G. Allow applied coat to dry before next coat is applied.

3.4 PROTECTION

- A. Protect elements surrounding the work of the Section from damage or disfiguration.
- B. Repair damage to other surfaces caused by work of this Section.
- C. Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.

3.5 CLEANING

- A. As work proceeds, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of work maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris.
- C. Collect cotton waste, clothes, and materials which may constitute a fire hazard, place in closed metal containers and remove daily from site.

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3.6 INTERIOR PAINT APPLICATION SCHEDULE

A. Concrete:

1. Semigloss Alkyd: Two coats over primer/sealer: MPI INT 3.1D.

B. Concrete Masonry Units:

1. Semigloss Latex: Two coats over latex block filler: MPI INT 4.2C.

C. Steel (Excluding Radiators – See Section 099400):

1. Semigloss, Alkyd Enamel: Two coats over quick-drying alkyd primer: MPI INT 5.1E.

D. Galvanized Metal:

1. Semigloss, Alkyd Enamel: Two coats over cementitious galvanized-metal primer: MPI INT 5.3C.

E. Dressed Lumber (Excluding Doors):

1. Semigloss Alkyd: Two coats over alkyd primer: MPI INT 6.3B.

F. Gypsum Board:

1. Semigloss Latex Enamel: Two coats over latex primer/sealer: MPI INT 9.2C.

END OF SECTION 099100

SECTION 099400 - STEEL POWDER COATING

PART 1 - GENERAL

1.1 SCOPE

- A. This practice describes methods of preparing surfaces of bare steel for powder coating and the application of powder coating materials.
 - 1. Powder coating is a dry finishing process using finely ground particles of pigment and resin, electrostatically charged, and sprayed onto a part to be coated. The parts are electrically grounded so that the charged particles project at them adhere to the surface and are held there until melted and fused into a smooth coating in the curing oven. Powder coatings when properly applied, have been found to provide uniform, durable, high quality finish with superior film integrity. Because they contain little or no volatile emissions, they are fully regulatory compliant.
- B. The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.
- C. This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the application of regulatory limitations prior to use.

1.2 REFERENCED DOCUMENTS

- A. ASTM Standards:
 - B 117 - 07a Standard Practice for Operating Salt Spray (Fog) Apparatus
 - D 2794 - 93(2004) Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
 - D 3363-05 Standard Test Method for Film Hardness by Pencil Test
 - D 3359 - 08 Standard Test Methods for Measuring Adhesion by Tape Test
 - E 376 Practice for Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Test Methods
- B. Society for Protective Coatings Specifications:
 - Surface Preparation Specification No. 1 Solvent Cleaning
 - Surface Preparation Specification No. 2 Hand Tool Cleaning
 - Surface Preparation Specification No. 3 Power Tool Cleaning
 - Surface Preparation Specification No. 6 Blast Cleaning

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STEEL POWDER COATING
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1.3 SUMMARY OF PRACTICES

- A. This practice describes the methods of preparation and application of powder coating. The key to achieving good adhesion between powder coatings and bare steel is surface preparation. The surface must be entirely free from iron oxides (rust) prior to powder coating. Any rust, or other metal oxides, that remain on the surface of the product can potentially retain air or moisture. Upon heating during the curing stages of the powder application, the oxides may release water vapor or air, which can expand and penetrate the powder coating, causing blisters or voids.
 - 1. The significant problem associated with the use of polyester powders on bare steel products is the adhesion of the coating to the bare steel surface caused by rust. However, the oxide layer must be removed to provide a pure metal surface for proper coating bond. This is a common problem in applying coatings on to bare steel surfaces whether paint or powder coating. The proper preparation of the bare steel substrate and application of the coating system can develop the adhesion and coverage necessary to overcome this problem and result in a satisfactory service life.

- B. Variations in surface preparation produce end conditions that differ; hence they do not necessarily yield identical results when coatings are subsequently applied. Service conditions will dictate the type of surface preparation to be selected, although the quality produced by any individual process may vary with different compositions of the bare steel surface.

PART 2 - EXECUTION

2.1 SIGNIFICANCE AND USE

- A. The proper preparation and application of powder coating is dependent on the following steps: preparation, chemical pretreatment, thermal pretreatment, application of powder coating material, and curing.

2.2 PROCESSES FOR PREPARING BARE STEEL FOR POWDER COATING

- A. The key to preparing the substrate is removing the oxide layer, providing a pure metal surface for the coating to which to bond. All metal surfaces and welds to be powder coated shall be thoroughly cleaned of rust, mill scale, slag, dirt, oil or grease and other foreign substances. Iron oxide formation is often not visible to the naked eye; therefore, in any atmosphere, powder coating should be started as soon as possible after surface preparation.
 - 1. Surface Cleaning: Bare steel surfaces must be clean and free of oil and grease before they are powder coated. This can be accomplished by power washing the article to remove surface contaminants.
 - 2. Solvent cleaning: Solvent cleaning may be performed for the removal of dirt, oil, grease, drawing and cutting compounds, and detrimental weld fume deposits by the use of solvents and other materials. Typical cleaning solvents, such as mineral spirits or high-flash naphtha, can be used to remove oil and grease. The procedure to be used is as specified in SSPC Surface Preparation Specification 1. Proper rags or brushes should be used to wipe the parts.

Note 1 - Caution: These rags or brushes should be cleaned or recycled often since oil can accumulate on their surfaces and be transferred back to the part. Small parts may be dipped or cleaned in ultrasonic baths of solvents. After cleaning, rinse thoroughly in hot water or water under pressure. Allow to dry completely before proceeding.

3. Hand or Power Tool Cleaning: Hand or power tool cleaning may be used to clean light deposits of rust by products as specified in SSPC Surface Preparation Specification 2 or 3.
4. Blast Cleaning: For the removal of all dirt, grease, rust scale, foreign material and mill scale, rust, old paint and slag to the extent that staining is limited to light shadows, slight steaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied paint. Bare steel surfaces have a layer of iron oxide that must be removed before powder coating will adhere to the bare steel. Blast cleaning shall be performed in accordance with SSPC Surface Preparation Specification 6. After blasting operations are completed, all surfaces shall be cleaned of blasting products and other residue by the use of compressed air or vacuumed.

2.3 PRETREATMENT OF STEEL PRIOR TO POWDER COATING

- A. Chemical Treatment: Chemical pretreatment is necessary to promote powder coating adhesion by providing a proper substrate on the steel surface to passivate the steel surface by providing a conversion coating to receive the powder coating material. Presently, the most common method of chemical pretreatment is to use a phosphoric acid to provide the conversion coating. This conversion-coating process consists of reacting the steel surface in a phosphate solution containing oxidizing agents and other salts for accelerating the coating action. The steel surface is converted to a crystalline phosphate coating of the proper texture to inhibit corrosion and increase the adherence and durability of the powder coating. This process may be applied by immersion, spray, or soft bristle brush application. After a time period of 3 to 6 min, the surface should be washed with clean water and allowed to completely dry before application of the powder coating system. Powder coating should take place soon after treatment to avoid pick up of surface contaminants.
- B. Pretreatment consists of three main stages with rinses between each stage. These are: cleaning, creation of a conversion coating, and sealing.
 1. Subsequent to the preparation process described in Section 2.2, the surface must receive additional cleaning to achieve maximum performance. The cleaning stage is accomplished by applying a surface active agent to loosen the bond between any residual soil-surface bond by reducing surface tension.
 - a. Subsequent to application of the cleaning agent, the surface is rinsed with a water rinse to neutralize the surface.
 2. After the first rinse, an agent to promote a proper conversion coating, usually a phosphoric acid is applied. These agents may include iron, zinc, zirconium, or other material. The phosphate coating promotes the bonding of the powder coating to the steel. When the clean metal comes in contact with the slightly acidic phosphating solution, pickling occurs. This results in a reduction of the acid concentration at the liquid/metal interface, iron is dissolved, hydrogen evolved, and the phosphate coating is deposited. The coating weight should be in the range of from 35 to 70 mg/ft². Coating weights for other solutions will be determined by the phosphating agent supplier.

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3. After phosphatizing, the surface is again rinsed to flush any remaining phosphate solution, stop the phosphatizing process, and cleanse the surface for final seal rinsing.
4. The final pretreatment stage is seal rinsing. The purpose of the sealing rinse is to enhance the coating's resistance to surface corrosion and paint adhesion. The sealing rinse consists of a sealing agent and water. As a rule of thumb, water with hardness above the moderately high range (i. e. greater than 250 ppm as CaCO₃) should not be used as make up water for the final rinse. Likewise water with a level of combined chlorides and sulfates greater than 100 ppm should not be used. In these cases, demineralized water should be substituted. The most common methods for demineralized water are ion exchange or reverse osmosis.

2.4 APPLICATION OF POWDER COATING MATERIAL

- A. Powder Coat Material - Thermosetting powder coatings will chemically react during baking to form a polymer network which is more resistant to coating breakdown. In addition, thermosetting powder coatings will not remelt after cooling when heat is re-applied. There is a wide variety of powder coating materials in production. The powder coating material manufacturer shall supply a Product Data Sheet specifying application and curing techniques. Also, if the piece in use will be subject to ultraviolet radiation, a super durable formula shall be used to preserve color integrity.
- B. Powder Application - Polyester powder is applied through electrostatic application guns. These can be either using the corona charging method operating at voltages from 50 kV to 100 kV or tribostatic (frictional) charging. The powder particles acquire an electrostatic charge as they pass through the gun transported by low pressure, dehumidified air at a discharge rate of 100-600 g/min, depending on the application. The work being coated is grounded and the charged powder particles are attracted to the surface of the work, where they electrostatically adhere in a uniform layer typically 4 to 10 mils (100-250 microns) thick. (Greater thicknesses, up to 30 mils (750 microns) can be obtained using fluidized bed techniques.) The location and motion of the guns, the transport air pressure, and the types of nozzles used will determine the uniformity of distribution of powder. Complex shapes generally require localized hand spraying to ensure that powder is adequately deposited in all necessary areas on the work.
- C. Polymer Performance - Due to the wide variety of powder coating materials that are available, depending on the type of powder coating material used, the application process should be tailored to the specific powder requirements recommended by the manufacturer. Polyester powders are available in a variety of grades and their performance is generally reflected in the cost of the powders. The highest grades of powders designed for exterior use have excellent UV resistance and as a result have very good gloss and color retention in atmospheric exposure conditions. The higher grades of polyester powders can be expected to pass 1000 hour Salt Spray (ASTM B 117). TCIG (triglycidyl isocyanurate) containing powders provide the best long-term durability. Polyester powders, while performing well in normal atmospheric exposure conditions, may not perform satisfactorily in chemical environments where epoxy powders may be more appropriate. As a rule, the polyester powders should be considered for high performance architectural applications rather than industrial exposures. Epoxies are unsuitable for architectural applications because of their chalking tendencies when exposed to UV radiation.
 1. Like most applied coatings, failures associated with polyester powder coatings that have otherwise been correctly specified are related to the integrity of application. Coating integrity of polyester powder coated steel surfaces is most often affected by inadequate powder coverage in the cured polyester film. Problems associated with powder coverage

are a function of the design of the product being coated and the techniques and equipment used to apply the powder to ensure adequate penetration of the charged powder particles onto all surfaces of the work. It is very difficult for any applied coating less than 4 mils (100 microns) in thickness, applied in a single coat, to be free of holidays in the coating. Therefore, the powder shall be applied in multiple coats. The first coat shall have a thickness of 1.5 to 3 mils. Each intermediate coat shall be partially cured at a temperature of 350°F to insure adhesion. Subsequent coats shall be then applied in 1.5 to 3 mil increments to bring the specimen to its final (cured) thickness as required by the customer specification. In no case will the final (cured) thickness be less than 5 mils.

2.5 CURING

- A. Powder coatings cross link at specific temperatures. In general, thermoplastic resins tend to be of higher molecular weight and require relatively higher temperatures to cure than thermosetting resins. However, the specific temperature and cure schedule as provided by the manufacturer shall be followed as these curing parameters will vary among manufacturers.
- B. The curing oven shall be capable of attaining temperatures required by the powder coating material supplier as defined by the manufacturer's Product Data Sheet. This is typically 350 to 450°F (175 to 230°C). The oven shall sustain the temperature for a sufficient time to insure the coating material is cured as per manufacturer's specifications.
- C. The cure oven temperature should be operated as low as possible. Best results are achieved with lower oven temperatures and longer times as opposed to higher temperatures with shorter times. The lower temperatures will result in longer curing times that will lead to the resealing of any craters that may have formed.
- D. Polyester powders are thermosetting resins that cross link at a specific temperature. For these powders to be fully cured, this temperature must be maintained until the reaction is complete. Elevating the curing temperature above the minimum level will shorten the curing time at the risk of burning the powder. A typical polyester powder will cure in 10 minutes at a metal temperature of 390° F (200°C). At 375°F (190°C), curing time must be extended to 15 minutes, or may be shortened to 8 minutes at 410°F (210°C).

2.6 INSPECTION

The powder coating shall, at a minimum, meet the following requirements:

- Direct impact:** ASTM D 2794 160 in./lb (9.0 m/kg)
- Reverse impact:** ASTM D 2794 160 in./lb (9.0 m/kg)
- Pencil hardness (scratch/gouge):** ASTM D 3363 2H
- Flexibility (Mandrel test):** ASTM D 522 1/8 in. (3m mm)
- Minimum adhesion:** ASTM D 3359 5A,5B (100% crosshatch)
- Salt spray:** ASTM B 117 + 1000 hrs < 2mm
- Gloss loss:** AAMA 2604-05 40% @ 5 yrs (S. Florida)
- Color change:** ASTM D2244 $\geq \Delta\Sigma$ 5.0 (Hunter Scale)

END OF SECTION 099400

SECTION 102116 – SOLID PLASTIC TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Solid plastic toilet compartments and urinal screens.

1.2 REFERENCES

A. ASTM International (ASTM)

1. A167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
2. B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

1.3 SYSTEM DESCRIPTION

A. Compartment Configurations:

1. Toilet partitions: Floor-to-ceiling.
2. Urinal screens: Wall mounted.

1.4 SUBMITTALS

A. Submittals for Review:

1. Shop Drawings: Include dimensioned layout, elevations, trim, closures, and accessories.
2. Product Data: Manufacturer's descriptive data for panels, hardware, and accessories.
3. Samples: 3 x 3 inch samples showing available colors.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 5 years experience in manufacture of solid plastic toilet compartments with products in satisfactory use under similar service conditions.

B. Installer Qualifications: Minimum 3 years experience in work of this Section.

1.6 WARRANTIES

A. Provide manufacturer's 25 year warranty against breakage, corrosion, and delamination under normal conditions.

PART 2 - PRODUCTS

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SOLID PLASTIC TOILET COMPARTMENTS
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2.1 MANUFACTURERS

- A. Contract Documents are based on products by Scranton Products.
- B. Substitutions: DMHAS Engineer Approved Equal.

2.2 MATERIALS

- A. Doors, Panels, Screens, and Pilasters:
 - 1. High density polyethylene (HDPE), fabricated from polymer resins compounded under high pressure, forming single thickness panel.
 - 2. Waterproof and nonabsorbent, with self-lubricating surface, resistant to marks by pens, pencils, markers, and other writing instruments.
 - 3. 1 inch thick with edges rounded to 1/4 inch radius.
 - 4. Color: To be selected by Agency from manufacturer's full color range.
- B. Aluminum Extrusions: ASTM B221, 6463-T5 alloy and temper.
- C. Stainless Steel: ASTM A167, Type 304.

2.3 HARDWARE

- A. Hinges: Stealth integral hinge from door and pilaster material with exposed metal parts on interior of stall.
- B. Door Strike and Keeper:
 - 1. 6 inches long, fabricate from heavy-duty extruded aluminum with bright dip anodized finish, with wrap-around flanges secured to pilasters with stainless steel tamper resistant Torx head sex bolts.
 - 2. Bumper: Extruded black vinyl.
- C. Latch and Housing:
 - 1. Heavy-duty extruded aluminum.
 - 2. Latch housing: Bright dip anodized finish.
 - 3. Slide latch and paddle.
- D. Bumper:
 - 1. Chrome plated Zamak bumper.
 - 2. Equip outswing handicapped doors with second door pull and door stop.
- E. Door Pulls: Chrome plated Zamak.

2.4 COMPONENTS

- A. Urinal Screen Panels: 24 inches wide x 42 inches high, mounted 14 inches above finished floor.

- B. Doors and Dividing Panels: 55 inches high, mounted 14 inches above finished floor.
- C. Pilasters: 82 inches high, fastened to pilaster sleeves with stainless steel tamper resistant Torx head sex bolt, with stainless steel angle attachment to floor and ceiling.
- D. Pilaster Sleeves: 4 inches high, 20 gage stainless steel, secured to pilaster with stainless steel tamper resistant Torx head sex bolt.
- E. Urinal Screen Wall Brackets: 41 inches long, heavy-duty aluminum, bright dip anodized finish, fastened to panel with stainless steel tamper resistant Torx head sex bolts.
- F. Compartment Wall Brackets: 54 inches long, heavy-duty aluminum, bright dip anodized finish, fastened to pilasters and panels with stainless steel tamper resistant Torx head sex bolts.

PART 3- EXECUTION

3.1 INSTALLATION

- A. Install compartments and screens in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Install rigid, straight, plumb, and level.
- C. Locate bottom edge of doors and panels 14 inches above finished floor.
- D. Provide uniform, maximum 3/8 inch vertical clearance at doors.
- E. Not Acceptable: Evidence of cutting, drilling, or patching.

3.2 ADJUSTING

- A. Adjust doors and latches to operate correctly.
- B. Set hinges on in-swinging doors to hold open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return to fully closed position.

END OF SECTION 102116

SECTION 220400 - PLUMBING SYSTEMS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-01 Specification sections, apply to work of this section.

1.02 DESCRIPTION

- A. This Contract is for all labor, materials, and equipment required for the construction of the plumbing systems.
- B. The plumbing systems shall be complete and finished in all respects, tested, and ready for operation.
- C. All materials, equipment, and apparatus shall be new and of first-class quality.
- D. Any apparatus, appliance, material, or work not shown on Drawings, but referred to in the Specifications, or any incidental accessories necessary to make the work complete in all respects and ready for operation, shall be furnished, delivered, and installed without any additional expense to the Owner.

1.03 SCOPE OF WORK

- A. The following is a list of materials, equipment, and devices to be furnished and installed under this Contract:
 - 1. Domestic hot and cold water piping and valves.
 - 2. Sanitary, waste and vent piping within building.
 - 3. Plumbing fixtures and trim, including fixture supports.
 - 4. Pipe insulation.
- B. Plumbing Division - Coordination:
 - 1. The Plumbing Contractor is required to supply all necessary supervision and coordination information to any other trades who are to supply work to accommodate the plumbing installation.
 - 2. Where the Plumbing Contractor is required to install items which he does not purchase, he shall include for such items the coordination of their delivery.

1.04 SUBMITTALS

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A. Submit manufacturer's data sheets (for Engineer's approval), for the following:

1. Plumbing fixtures, supports, and trim.
2. All valves.
3. Pipe insulation, fitting covers, and jacketing.
4. Water hammer arrestors.

PART 2 - PRODUCTS

NOTE: Above-grade shall be considered as piping that is not buried and below grade shall be considered as buried piping.

2.01 **PIPING**

A. Sanitary and Waste:

1. Above-grade sanitary and waste piping four inches (4"): no-hub service-weight cast iron with no-hub couplings, or hub and spigot service weight cast iron with neoprene gasketed joints.
 - a. No hub couplings for above grade shall be heavy duty type with stainless steel shield conforming to ASTM C1540. Husky model HD 2000, Clamp-All 80 or Mission Heavy Weight. No hub couplings shall have minimum of 4 sealing clamps for pipe sizes 1 ¼" through 4" and a minimum of 6 sealing clamps for pipe sizes 5" through 10".
2. Above-grade sanitary and waste roughing piping contained within walls: no-hub service-weight cast iron with no-hub couplings, or hub and spigot service weight cast iron with neoprene gasketed joints.
 - a. No hub couplings for above grade shall be heavy duty type with stainless steel shield conforming to ASTM C1540. Husky model HD 2000, Clamp-All 80 or Mission Heavy Weight. No hub couplings shall have minimum of 4 sealing clamps for pipe sizes 1 ¼" through 4" and a minimum of 6 sealing clamps for pipe sizes 5" through 10".
3. Below-grade sanitary and waste piping: no-hub service-weight cast iron with no-hub couplings, or hub and spigot service weight cast iron with neoprene gasketed joints.
 - a. No hub couplings for below grade shall be extra heavy duty type with 304 stainless steel shield conforming to ASTM C1277. Husky model HD 4000, Clamp-All 125 or MG Couplings. No hub couplings shall have minimum of 4 sealing clamps for pipe sizes 1 ¼" through 4" and a minimum of 6 sealing clamps for pipe sizes 5" through 10".

B. Vent Piping:

1. Above-grade vent piping shall be hubless cast iron with no-hub couplings, or service-weight hub and spigot cast iron with push-on, neoprene-gasketed joints or Type "L" copper with DWV fittings and 95/5 (lead free) solder joints. Do not run PVC through fire walls, or above suspended return air plenum ceilings.

- a. No hub couplings for above grade shall be heavy duty type with stainless steel shield conforming to ASTM C1540. Husky model HD 2000, Clamp-All 80 or Mission Heavy Weight. No hub couplings shall have minimum of 4 sealing clamps for pipe sizes 1 1/4" through 4" and a minimum of 6 sealing clamps for pipe sizes 5" through 10".
- C. Domestic Hot and Cold Water (includes potable domestic hot and cold water):
1. Type "L" copper with cast bronze or wrought copper solder joint pressure fittings. Solder shall be 95% tin and 5% antimony or other NSF approved lead free solder.
 2. Above-grade domestic water piping 2-1/2 inches and larger shall be Type "L" copper with Victaulic "Grooved Tubing System" with mechanical pipe couplings Style #606 with grade "E" EPDM gaskets (green color code) Style #641 Vic-Flange adapters, and Victaulic copper fittings.

2.03 INSULATION

- A. The Plumbing Contractor shall furnish and install insulation on all piping and vessels as required. Insulation shall be continuous (except where pipe penetrates a fire-rated wall or floor, insulation shall be omitted to provide for application of fire-stopping materials at these points) and shall cover all fittings and valves. Provide PVC fitting covers and jacketing (Johns Manville Zeston 2000 or equal) on all exposed fittings and piping.

PART 3 - EXECUTION

3.01 GENERAL

- A. In the following paragraphs, above-grade shall be considered as piping that is not buried and below grade shall be considered as buried piping.
- B. Piping shall be run concealed in all finished areas, where possible, and so arranged that it can be drained at low points.
- C. Water, storm and waste piping shall be supported in such a manner that there is no sagging or noise due to vibration. Waste, storm and vent piping below grade shall be supported on undisturbed earth; and where fill is required below pipe, piping shall be installed on compacted sand fill down to undisturbed earth. Backfill with sand up to the top of the pipe. Pipe shall bear on the barrel and not on the hub.
- D. The run and arrangement of all pipes shall be as directed during installation, and shall be as straight and direct as possible, neatly spaced, forming right angles or parallel line with building walls and other pipes. Offsets with standard fittings will be allowed only to permit pipes to follow walls. All risers shall be erected plumb and true. The work under this Section shall be coordinated with the work of the other Sections in order to avoid interferences of piping and unnecessary cutting of floors and walls. All roughing, underground or concealed in floors or walls, shall be installed and tested before the construction is closed up.
- E. All horizontal runs of piping, except where concealed in partitions, shall be kept as high as possible and close to walls. Other trades shall be consulted so that grouped lines will not interfere with each

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other. Where Drawings call for offsets, they shall be kept close to underside of beams and slabs and run alongside beams, girders or partitions.

- F. Provide all bases and supports not part of the building structure and not specifically indicated to be provided under other Divisions.
- G. Provide access doors for all concealed valves, equipment and cleanouts located in wall, ceiling or column construction. Furnish and install cleanouts located in wall, ceiling or column construction. Turn all access doors over to the General Contractor for installation.
- H. No pipes or devices shall be installed in such a manner as to interfere in any way with the full swing of doors or maintenance access to equipment.
- J. Special precautions shall be taken in the installation of concealed piping to ensure that it is properly installed and tested. Should it be necessary to correct piping improperly installed, this Contractor shall be held liable for any and all damage to other work resulting from the improper piping conditions.
- K. The responsibility for accurately laying out the work rests with the Plumbing Contractor. Should it be found that any of his work is so laid out that interference will occur, he shall report such interference to the Engineer prior to installing work.
- L. Pitch all hose bib water supply piping in unheated areas to low points to allow complete drainage of piping system in winter.

3.02 DRAINAGE PIPING DETAILS

- A. Branch connections shall be made with wye and long tee-wye fittings. Short tee-wye fittings shall be used in vertical piping only. All fittings shall conform to applicable Code requirements.
- B. Cleanouts shall be provided at the foot of all stacks, at changes of direction, at the ends of branch runs.
- C. Every fixture must be trapped and properly vented.

3.03 PRESSURE PIPING DETAILS - GENERAL

- A. Valves shall be provided at the following locations:
 - 1. Main service entrance to building.
 - 2. All branches and riser off mains.
 - 3. All divisions of mains.
 - 4. Supply connections to fixtures or other apparatus.
 - 5. Any locations required by Ordinances, Codes or Regulations.

- B. Provide acceptable dielectric unions or adapters at all connections between ferrous and non-ferrous piping.

3.04 TESTS AND ADJUSTMENTS

- A. Test all portions of the sanitary, waste and vent systems with a minimum of ten (10') feet head of water. No section shall be tested with less than ten (10') feet of head. Systems shall be filled with water for a minimum of 15 minutes before beginning the inspection. Piping shall be tight and leak-free at all points.
- B. Test all concealed or buried piping before closing in construction or backfilling. All tests shall be performed before applying insulation.
- C. Test all equipment controls for proper performance and make all necessary adjustments in the presence of a factory-authorized representative of the equipment manufacturer.
- D. Perform any additional tests required by the local Plumbing Inspector. All tests on the plumbing system shall be performed to the satisfaction of the local Plumbing Inspector and the Owner's representative.

3.05 DISINFECTION / CLEANING

- A. Disinfect all potable water piping systems at the completion of the project prior to building occupancy as follows:
 - 1. Flush thoroughly with potable water.

3.06 PIPING IDENTIFICATION

- A. Plumbing piping systems shall be labeled to identify fluid inside pipes and direction of fluid flow.
- B. Piping labels shall be color coded in accordance with ANSI A13.1.
- C. The following systems shall be labeled as indicated:

<u>SYSTEM</u>	<u>LABEL TEXT</u>
Domestic cold water (potable, in office area and toilet rooms	POTABLE COLD WATER
Domestic hot water (potable, in office area and toilet rooms	POTABLE HOT WATER

- D. Pipe identification labels shall be installed in the following locations:
 - 1. In main mechanical rooms at each major section of pipe when pipe changes direction and at each branch or riser.
 - 2. On each riser inside pipe chases of casework.
 - 3. On all horizontal pipe runs the labels shall be spaced 25 feet apart or less.

SECTION 22 04 00
PLUMBING SYSTEMS
PAGE 6 OF 6

END OF SECTION 220400

SECTION 233423 - CEILING VENTILATORS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data.
- B. Comply with UL 705.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

PART 2 - PRODUCTS

2.1 CEILING-MOUNTED CENTRIFUGAL VENTILATORS

Ceiling-mounted ventilators shall be UL Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit.

- A. Basis-of-Design Product: Broan Model QTR110.
- B. Housing: Corrosion resistant galvanized steel, lined with acoustical insulation. It shall be ducted to a wall cap using 4" diameter round ductwork.
- C. Blower Assembly: Shall be removable, have a centrifugal-type blower wheel and a permanently lubricated motor designed for continuous operation.
- D. Grille: Polymeric construction (white), slotted grille.
- E. Damper/Duct Connector: Non-metallic damper/duct connector shall be included.
- F. Electrical Requirements: Junction box for electrical wiring connection on housing.
- G. Capacities and Characteristics:
 - 1. Air Delivery: 110 CFM and sound level no greater than 1.5 Sones. All air and sound ratings shall be certified by HVI.
 - 2. Static Pressure: 0.10 Ps.
 - 3. Volts: 120VAC
 - 4. Amps: 0.30 Amps
 - 5. Phase: Single phase
 - 6. Frequency: 60 Hz.

SECTION 23 34 23
CEILING VENTILATORS
PAGE 2 OF 2

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Ceiling-Mounted Units: Suspend units from structure using steel wire or metal straps, or per manufacturer's recommendations.
- B. Connect electrical wiring per Contract Drawings. Ground ventilators.

END OF SECTION 233423

SECTION 260100 - BASIC ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Specifications throughout all Divisions of the Project Specifications are directly applicable to this Section, and this Section is directly applicable to them.

1.2 SUMMARY

- A. Drawings are necessarily diagrammatic by their nature and are not intended to show every connection in detail or every pipe or conduit in its exact location.
- B. The intent of the Drawings is to establish the types of systems and functions; not to set forth each item essential to the functioning of the system. Install the Work complete, including minor details necessary to perform the function indicated.
- C. Coordinate the actual locations of electrical outlets and equipment with building features and equipment as indicated on Drawings.

1.3 REFERENCE STANDARDS

- A. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
- B. All reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.

1.4 DEFINITIONS

- A. Concealed: Concealed areas are those areas that cannot be seen by building occupants.
- B. Exposed: Exposed areas are all areas that are exposed to view by building occupants, including areas below counter tops, inside cabinets and closets, inside all equipment rooms, and areas outside the building exterior envelope, exposed to the outdoors.

1.5 QUALITY ASSURANCE

- A. Regulations: Work, materials and equipment shall comply with the latest rules and regulations specified in National Fire Protection Association (NFPA).
- B. Discrepancies: The Drawings and Specifications are intended to comply with listed codes, ordinances, regulations and standards. Where discrepancies occur, immediately notify the Owner's Representative in writing and ask for an interpretation. Should installed materials or workmanship fail to comply, the Contractor is responsible for correcting the improper installation at no additional cost to the Owner. Additionally, where sizes, capacities, or other such features are required in excess of minimum code or standards requirements, provide those specified or shown.

SECTION 26 01 00
BASIC ELECTRICAL REQUIREMENTS
PAGE 2 OF 4

1.6 SUBMITTALS

- A. Product Data: Submit manufacturer's product data sheets for all electrical equipment, devices, and materials, for approval.
- B. Record Documents: In addition to hard copy format, all material submitted as final record products, including approved submittals, shall be submitted to the Owner in its original electronic file format on compact disc. Material may be scanned into electronic file format where necessary.

1.7 DELIVERY, STORAGE AND HANDLING

- A. All equipment and materials shall be delivered to the Project Site clean and sealed for protection.
- B. Moisture: During construction, protect switchgear, transformers, motors, control equipment, and other items from insulation moisture absorption and metallic component corrosion by appropriate use of strip heaters, lamps or other suitable means. Apply protection immediately upon receiving the products and maintain continually.
- C. Damage: Take such precautions as are necessary to protect apparatus and materials from damage. Failure to protect materials is sufficient cause for rejection of the apparatus or material in question.
- D. Finish: Protect factory finish from damage during construction operations until acceptance of the Project. Restore any finishes that become stained or damaged to Owner's satisfaction.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All materials shall meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of authorities having jurisdiction.
- B. Equipment and control systems should match, integrate, communicate or cooperate with Owner's existing systems, such as power monitoring systems, building automation, fire alarm, motor control centers, switchgears, breakers, transformers, and lighting dimming systems.
- C. Conditions: Provide new products of manufacturers regularly engaged in production of such equipment. Provide the manufacturer's latest standard design for the type of product specified. Products shall be U.S. made. Owner reserves the right to approve or disapprove foreign-made products.
- D. NEC and UL: Products shall conform to requirements of the National Electrical Code. Where Underwriters' Laboratories have set standards, listed products and issued labels, products used shall be listed and labeled by UL.
- E. Space Limitations: Equipment selected shall conform to the building features and shall be coordinated with all components. Do not provide equipment that will not meet arrangement and space limitations. Contractor shall submit room layouts with submitted items shown drawn to scale. Submittals will be rejected without floor plan Drawings showing submitted items.
- F. Factory Finish: Equipment shall be delivered with a hard surface, factory-applied finish so that no additional field painting is required except for touch-up.

- G. Common Source: Equipment specified shall be provided by the same manufacturer.
- H. Series Ratings: Overcurrent devices shall have fully rated interrupting capacity. Series rating of devices is unacceptable.

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Unless otherwise noted, remove all electrical materials and equipment from areas indicated for demolition. Removal of equipment shall not interfere with existing operations.
- B. Remove conduit and wire back to panelboards or to nearest junction box that is not being removed and needs to remain in service. Wire shall be removed back to point of origin.
- C. Materials and equipment to be removed, except items specifically noted to be relocated or delivered to the Owner, become property of the Contractor and shall be immediately removed from the Project Site. If the Owner identifies other items during construction, those items become Owner property and will be turned over to the Owner.
- D. Electrical services and controls to items being removed shall be disconnected and removed from the Project Site.
- E. All fluorescent lighting fixtures being removed from the Project Site that will not be turned over to the Owner shall have any PCB-containing ballasts removed from the fixtures for environmental disposal. Ballasts shall remain intact with wire leads at least twelve (12) inches long.
- F. Contractor shall ensure that light switches within the Work area remain operational. Where temporary 120 volt light strings are installed, a switch shall be provided for the light strings near the Project Site entry door.

3.2 INSTALLATION

- A. Installation shall meet or exceed all applicable federal, state and local requirements, referenced standards and conform to codes and ordinances of authorities having jurisdiction.
- B. Installation shall be in accordance with manufacturer's published recommendations.
- C. Cooperation with Other Trades: Cooperate with trades of adjacent, related or affected materials or operations, and with trades performing continuations of this Work in order to effect timely and accurate placing of Work and to coordinate, in proper and correct sequence, the Work of such trades.
- D. Workmanship: Work shall be performed by competent workers skilled in their trade. This installation must be complete.
- E. Concealed Work: Conceal all electrical Work in walls, floors, chases, under floors, underground, and above ceilings except:
 - 1. Where shown or specified to be exposed. Exposed is open to view.
 - 2. Where exposure is necessary to the proper function.

SECTION 26 01 00
BASIC ELECTRICAL REQUIREMENTS
PAGE 4 OF 4

3. Where size of materials and equipment preclude concealment.

F. Provide final electrical connections to equipment furnished under other divisions and by the Owner. Furnish Shop Drawings of equipment indicating the exact number and location of rough-in points. Such final Shop Drawings may indicate adjustments in total number and exact location of rough-in points, and in equipment dimensions. Making adjustments to field conditions is considered a part of the Work required.

1. Roughing-in: When roughing-in electrical branch circuits to various items of equipment, terminate at proper points as directed by Owner. Do not rely on Drawings accompanying these Specifications for rough-in locations, only for general routing of circuiting.

G. Install sleeves in all penetrations of smoke, fire, and sound rated partitions. Install sleeve with a minimum of 1-inch diameter when penetrating the exterior of drywall.

3.3 TESTING

A. Test Conditions:

1. Place circuits and equipment into service under normal conditions, collectively and separately, as may be necessary to determine satisfactory operation. Perform specified tests in the presence of the Owner's representative. Furnish all instruments, wiring, equipment, and personnel required for conducting tests. Demonstrate that the equipment operates in accordance with requirements of the Contract Documents.

END OF SECTION 260100

SECTION 260923 - LIGHTING CONTROL DEVICES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data.
- B. Quality Assurance: Lighting control devices shall be listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 DEVICES

- A. Indoor, Wall-Switch Occupancy Sensors:
 - 1. Products:
 - a. Hubbell: Model AU1277I1, Ivory Color
 - b. WattStopper: UW-100-I, Ivory Color
 - c. Schneider Electric: SLSUWS1277UI, Ivory Color
 - 2. Type: Ultrasonic, Single Circuit, with 1-button for manual/auto control.
 - 3. Power: 120/277 V AC, 50/60 Hz.
 - 4. Ultrasonic Output: 40 kHz.
 - 5. Timer Timeout: Auto Mode – Adjustable 4 to 30 minutes; Fixed Mode – 4, 8, 15, and 30 minutes; Test Mode – 5 seconds.
 - 6. Field of View: 180 degrees.
 - 7. Minimum Coverage Area: 400 sq. ft.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install and aim sensors in locations to achieve at least 90 percent coverage of areas indicated. Do not exceed coverage limits specified in manufacturer's written instructions.
- B. Install field-mounted transient voltage suppressors for lighting control devices in Category A locations that do not have integral line-voltage surge protection.

SECTION 26 09 23
LIGHTING CONTROL DEVICES
PAGE 2 OF 2

- C. Label time switches and contactors with a unique designation.
- D. Verify proper operation of each sensor and adjust time delays.

END OF SECTION 260923

SECTION 265000 - LIGHTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary General Conditions and Division-01 Specification sections, apply to work of this section.

1.2 SUMMARY

- A. This section includes the following:
 - 1. Interior lighting fixtures, lamps, and ballasts.
 - 2. Lighting fixture supports.

1.3 DEFINITIONS

- A. BF: Ballast Factor.
- B. CRI: Color-rendering index.
- C. CU: Coefficient of utilization.
- D. HID: High intensity discharge.
- E. LER: Luminaire efficacy rating.
- F. Luminaire: Complete lighting fixture, including ballast housing if provided.
- G. RCR: Room cavity ratio.

1.4 SECTION REQUIREMENTS

- A. Submittals: Product Data for each type of lighting fixture, arranged in order of fixture designation. Include data on features, accessories, finishes, and the following:
 - 1. Physical description of lighting fixture, including dimensions.
 - 2. Ballast.
 - 3. Energy-efficiency data.
 - 4. Life, output, and energy-efficiency data for lamps.
- B. Shop Drawings: Show details on nonstandard or custom lighting fixtures. Indicate dimensions, weights, methods of field assembly, components, features, and accessories.
 - 1. Wiring diagrams: Power and control wiring.

SECTION 26 50 00

LIGHTING

PAGE 2 OF 3

- C. Fixtures, Emergency Lighting Units, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. Coordinate ceiling-mounted luminaires with ceiling construction, mechanical work, and security and fire-prevention features mounted in ceiling space and on ceiling.

PART 2 - PRODUCTS

2.1 BALLASTS

- A. Ballasts for Linear Fluorescent Lamps:
 - 1. Electronic: Comply with ANSI C82.11 instant-start type.

2.2 REQUIREMENTS FOR INDIVIDUAL LIGHTING FIXTURES

- A. Fixture: 2' x 2' Fluorescent Light
 - 1. Provide product indicated on Drawings or comparable product by one of the following:
 - a. Cooper Lighting – Metalux Model: 2GC8-317A-UNV-EB81-U
 - b. Philips
 - c. H. E. Williams
 - d. Lithonia
 - e. DMHAS Engineer Approved Equal.
 - 2. Voltage: 120 VAC
 - 3. Mounting: Drop ceiling
 - 4. Nominal Dimensions: 24 x 24 inches
 - 5. Lamps: 3 Lamps, 17W, T8
 - 6. Ballast for Fluorescent Lamps: Electronic instant start
 - 7. Quantity of Ballasts per Fixture: One 3-lamp ballast
 - 8. Lens: Acrylic #12
 - 9. External Finish: Baked White Enamel
 - 10. Minimum Spacing to Mounting Height Ratio: See Lighting Plan for required configuration.

PART 3 - EXECUTION

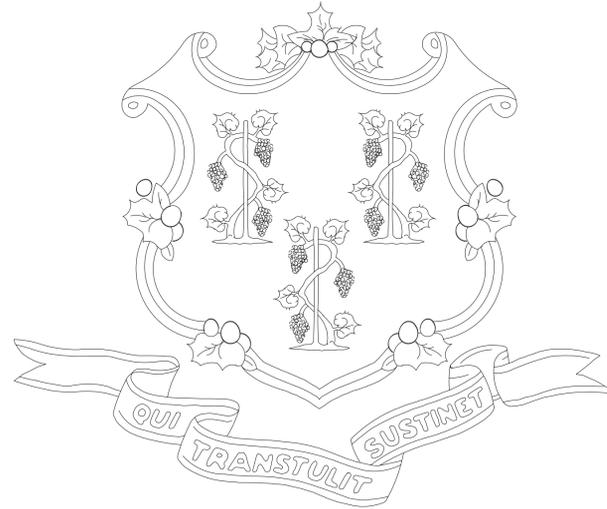
3.1 INSTALLATION

- A. Set units level, plumb, and square with ceiling and walls, and secure.

- B. Support for Recessed Grid-Type Fluorescent Fixtures:
1. Install ceiling support system wires at a minimum of 4 wires for each fixture, located not more than **6 inches** from fixture corners.
 2. Support Clips: Fasten to fixtures and to ceiling grid members at or near each fixture corner with clips that are UL listed for the application.
- C. Lamping: Where specific lamp designations are not indicated, lamp units according to manufacturer's written instructions.

END OF SECTION 265000

STATE OF CONNECTICUT



DANNEL P. MALLOY - GOVERNOR

DEPARTMENT OF MENTAL HEALTH & ADDICTION SERVICES

PATRICIA A. REHMER, MSN - COMMISSIONER

CONNECTICUT VALLEY HOSPITAL

MIDDLETOWN, CONNECTICUT

RIVER VALLEY SERVICES - DUTTON HOME:

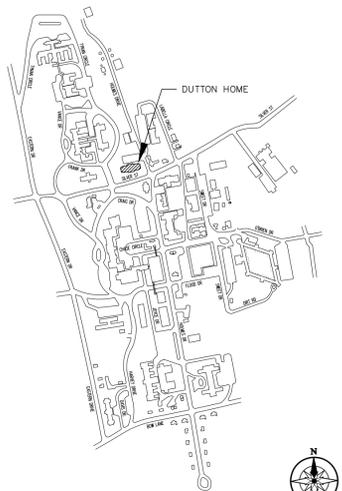
BASEMENT BATHROOM RENOVATIONS

PROJECT NO.: MHA1145

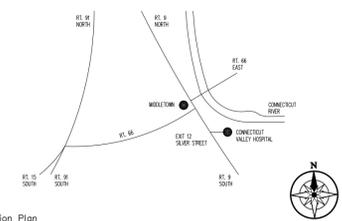
PREPARED BY:
DMHAS - OFFICE OF THE COMMISSIONER
ENGINEERING SERVICES II
MIDDLETOWN, CT 06457

CONTRACT DRAWINGS:

NO.	TITLE
	COVER SHEET
A-1	DEMO PLAN, NEW WORK PLAN, AND REFLECTED CEILING PLAN
A-2	DRAWING LEGENDS AND TYPICAL MOUNTING HEIGHTS



Site Plan: Not to Scale



Location Plan

Approvals

Construction Services _____ Date _____

Agency _____ Date _____

ARCHITECTURAL DEMOLITION LEGEND:

- 1 REMOVE EXISTING DOOR, FRAME, HARDWARE, THRESHOLD, ANCHORS, ETC.
- 2 CUT AND REMOVE EXISTING WALL, AS SHOWN.
- 3 REMOVE ALL EXISTING PARTITION DOORS, PARTITION WALLS, BRACKETS, ETC., AS REQUIRED FOR A COMPLETE REMOVAL.
- 4 REMOVE EXISTING STUB WALL IN ITS ENTIRETY, DOWN TO SLAB.
- 5 REMOVE EXISTING SHOWER CURB, TILE FLOOR, SHOWER PAN, ETC., DOWN TO SLAB.
- 6 REMOVE EXISTING MIRROR.
- 7 REMOVE EXISTING WALL-MOUNTED BATHROOM ACCESSORIES (DISPENSERS). STORE FOR RE-USE.
- 8 REMOVE EXISTING CERAMIC TILE, SETTING MATERIAL, ETC. GRIND SMOOTH IN PREPARATION OF NEW WORK.
- 9 REMOVE EXISTING CERAMIC TILE FLOOR IN ITS ENTIRETY, DOWN TO SLAB. GRIND SMOOTH AND CLEAN IN PREPARATION OF NEW FLOOR.
- 10 REMOVE PORTION OF EXISTING VCT FLOOR TILE, VINYL BASE, AND MASTIC DOWN TO SLAB, AS INDICATED BY CUT LINES. GRIND SMOOTH AND CLEAN IN PREPARATION OF NEW FLOOR.
- 11 REMOVE EXISTING FIRE STANDPIPE HOSE CABINET (STANDPIPE CONNECTION TO BE RE-ROUTED INSIDE UTILITY CLOSET PER MECHANICAL PLAN).
- 12 CUT AND REMOVE PORTION OF EXISTING WALL, AS REQUIRED TO ACCESS 4" SOIL AND 2-1/2" VENT STACK. NOTE: TAKE CARE NOT TO EXCEED 1'-0" MAXIMUM DIMENSION INDICATED.
- 13 REMOVE SECTION OF 2X2 ACOUSTIC CEILING (TILES AND GRID) IN ALCOVE ONLY (TO BE REPLACED WITH NEW). CEILING SECTION TO BE REMOVED SHALL CORRESPOND WITH AREA DIRECTLY ABOVE VCT FLOOR TILE DEMO AREA, AS INDICATED BY CUT-LINES.

MECHANICAL & ELECTRICAL DEMOLITION LEGEND:

- 14 CUT AND CAP EXISTING PLUMBING LINES BELOW FLOOR.
- 15 REMOVE SHOWER VALVE AND HEAD. PRESERVE HOT AND COLD WATER SUPPLY LINES FOR RE-USE. PLUG AND FILL FLOOR DRAIN WITH CEMENT AND SEAL BELOW FLOOR.
- 16 REMOVE EXISTING TOILETS AND FLUSH VALVES. PRESERVE COLD WATER SUPPLY LINES FOR RE-USE. PLUG AND FILL FLOOR DRAINS WITH CEMENT AND SEAL BELOW FLOOR.
- 17 REMOVE EXISTING URINAL AND FLUSH VALVE. CUT BACK AND CAP COLD WATER SUPPLY LINE. PLUG AND FILL FLOOR DRAIN WITH CEMENT AND SEAL BELOW FLOOR.
- 18 REMOVE EXISTING SINK AND ASSOCIATED PLUMBING. CUT BACK AND CAP HOT WATER, COLD WATER, WASTE, AND VENT PIPES.
- 19 REMOVE EXISTING WALL MOUNTED STEAM RADIATOR AND ASSOCIATED VALVES, TRAPS, ETC. PRESERVE PIPING AND STORE RADIATOR FOR RE-USE. RADIATOR TO BE REFINISHED AS SPECIFIED AND RE-INSTALLED PER MECHANICAL PLAN.
- 20 RE-ROUTE EXISTING FIRE STANDPIPE CONNECTION PER MECHANICAL PLAN.
- 21 REMOVE EXISTING LIGHT FIXTURE. PRESERVE WIRING FOR RE-USE.
- 22 REMOVE EXISTING OCCUPANCY SENSOR SWITCH, WIREMOLD, AND ASSOCIATED WIRING BACK TO SOURCE.
- 23 REMOVE EXISTING GFI DUPLEX RECEPTACLE. PRESERVE WIRING FOR RE-USE (CIRCUIT TO BE EXTENDED TO NEW RECEPTACLE LOCATION PER ELECTRICAL PLAN).
- 24 REMOVE EXISTING LIGHT FIXTURE, SWITCH, WIREMOLD, AND ASSOCIATED WIRING BACK TO SOURCE.

ARCHITECTURAL NEW WORK LEGEND:

- 1 INSTALL NEW 2'-8" X 4'-8" X 1-3/4" SOLID CORE BIRCH VENEER DOOR IN NEW HOLLOW STEEL FRAME AND HARDWARE PER SPECIFICATIONS. FINISH DOOR TO MATCH EXISTING IN BUILDING. GROUT FRAME AND INFILL OPENING TO MAKE FLUSH WITH EXISTING CORRIDOR WALL.
- 2 CONSTRUCT NEW 3-5/8" METAL STUD WALL (WITH 5/8" MOISTURE RESISTANT GYP BD ON ONE SIDE) FOR NEW PIPE CHASE.
- 3 INFILL REMAINING STANDPIPE CABINET OPENING W/METAL STUDS AND 5/8" MOISTURE RESISTANT GYP BD TO MAKE FLUSH WITH EXISTING WALL.
- 4 INSTALL NEW 5/8" MOISTURE RESISTANT GYP BOARD OVER EXISTING WALL SURFACES USING ADHESIVE AND MECHANICAL FASTENERS.
- 5 INSTALL NEW 4" X 4" WALL TILE AND COVE BASE FROM FINISHED FLOOR TO 4'-0" AFF ON ALL WALLS. INSTALL TILE USING THINSET OR MASTIC ADHESIVE. COLOR OF TILE AND GROUT TO BE SELECTED BY AGENCY.
- 6 INSTALL NEW 2" X 2" GRADE-5 FLOOR TILE, MATTE FINISH. FLOOR SHALL BE FULLY PREPARED (INCLUDING LEVELING AND FLOATING) TO MAKE SMOOTH, FLAT, AND LEVEL PRIOR TO INSTALLING NEW TILE. INSTALL TILE ON THINSET BASE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. COLOR OF TILE AND GROUT TO BE SELECTED BY AGENCY.
- 7 INSTALL NEW ADA ACCESSIBLE THRESHOLD, 4" WIDE MINIMUM.
- 8 TAPE, PATCH, PRIME, AND PAINT (TWO COATS INTERIOR LATEX SEMI-GLOSS ENAMEL) ALL EXPOSED/UN-TILED WALL SURFACES. PAINT COLOR TO BE SELECTED BY AGENCY.
- 9 INSTALL NEW FLOOR-TO-CEILING TILED PARTITIONS PER SPECIFICATIONS. PROVIDE BLOCKING INSIDE WALL, AS REQUIRED. PARTITION COLOR TO BE SELECTED BY AGENCY.
- 10 INSTALL NEW 24" X 42" WALL HUNG URINAL SCREEN PER SPECIFICATIONS. PROVIDE BLOCKING INSIDE WALL, AS REQUIRED.
- 11 INSTALL NEW 18" X 36" FRAMED STAINLESS STEEL TILTED MIRROR (BRADLEY MODEL 740-1836), CENTERED ABOVE SINK, AT HEIGHT INDICATED ON DWG A-2.
- 12 INSTALL NEW 36" LONG STAINLESS STEEL GRAB BARS AS ILLUSTRATED, 33"-36" AFF. USE APPROPRIATE MOUNTING MEANS TO MEET ADA LOADING.
- 13 INSTALL NEW 2" X 2" ACOUSTIC TILE CEILING AND GRID 7'-6" AFF. TO MATCH EXISTING IN CORRIDOR. SEE REFLECTED CEILING PLAN.
- 14 RE-INSTALL WALL MOUNTED ACCESSORIES (TOILET TISSUE, PAPER TOWEL, AND SOAP DISPENSERS), PREVIOUSLY REMOVED AT HEIGHTS INDICATED ON DWG A-2.
- 15 INSTALL NEW ADA COMPLIANT ROOM SIGNAGE. MOUNT ON WALL ADJACENT TO LATCH SIDE OF DOOR AT HEIGHT INDICATED ON DWG A-2. MEN'S BATHROOM: CAL-ROYAL MODEL MH68 (BLUE). WOMEN'S BATHROOM: CAL-ROYAL MODEL WH68 (BLUE).
- 16 MOUNT SIGN TO OUTSIDE OF CLOSET DOOR INDICATING FIRE STANDPIPE CONNECTION LOCATION (SAFETYSIGN.COM MODEL 25729, 14"X10" - STANDPIPE CONNECTION).

MECHANICAL NEW WORK LEGEND:

- 17 INSTALL NEW FLOOR MOUNTED REAR OUTLET TOILET AS SPECIFIED, ADA ACCESSIBLE, 1" COLD WATER, 4" SANITARY, AND 2" VENT. CONNECT TO EXISTING SERVICES AND EXTEND TO NEW FIXTURE LOCATION.
- 18 INSTALL NEW WALL HUNG URINAL AS SPECIFIED, ADA ACCESSIBLE, 3/4" COLD WATER, 2" SANITARY AND VENT. CONNECT TO EXISTING SERVICES AND EXTEND TO NEW FIXTURE LOCATION. PROVIDE ADEQUATE SUPPORT FRAMING FOR WALL HANGERS AS NEEDED.
- 19 INSTALL NEW CARRIER AND WALL HUNG SINK AS SPECIFIED, ADA ACCESSIBLE, 1/2" HOT AND COLD WATER, 1-1/2" WASTE AND VENT. CONNECT TO EXISTING SERVICES AND EXTEND TO NEW FIXTURE LOCATION.
- 20 INSTALL NEW CARRIER AND WALL HUNG SINK AS SPECIFIED, ADA ACCESSIBLE, 1/2" HOT AND COLD WATER, 1-1/2" WASTE AND VENT. SOURCE HOT WATER FROM MEN'S BATHROOM SINK SOURCE (ROUTE ABOVE CEILING INTO NEW PIPE CHASE). CONNECT COLD WATER, WASTE, AND VENT TO EXISTING SERVICES AND EXTEND TO NEW FIXTURE LOCATION.
- 21 RE-ROUTE/EXTEND EXISTING FIRE STANDPIPE (VALVE & HOSE CONNECTION) TO MAKE ACCESSIBLE FROM INSIDE OF UTILITY CLOSET.
- 22 REFINISH (SANDBLAST AND POWDER COAT) PER SPECIFICATIONS AND RE-INSTALL EXISTING STEAM RADIATOR. PROVIDE AND INSTALL NEW TRAP AND CONTROL VALVE (MACON CONTROLS MODEL MTW). POWDER COAT COLOR TO BE SELECTED BY AGENCY.
- 23 COVER ALL EXPOSED STEAM LINES USING VINYL INSULATION JACKETING AS SPECIFIED.
- 24 INSTALL NEW BATHROOM EXHAUST FAN (BROAN MODEL QTR110), 4" Ø DUCT, AND WALL CAP (BROAN MODEL 885AL) AS SPECIFIED. CORE BORE OPENING THROUGH OUTSIDE WALL TO ACCOMMODATE 4" Ø DUCT. OPENING SHALL BE LOCATED ABOVE NEW 2" X 2" CEILING. SEAL OPENING ALL AROUND DUCT TO MAKE WEATHER TIGHT. LOCATE EXHAUST FAN PER REFLECTED CEILING PLAN. CONNECT WIRING PER ELECTRICAL PLAN.

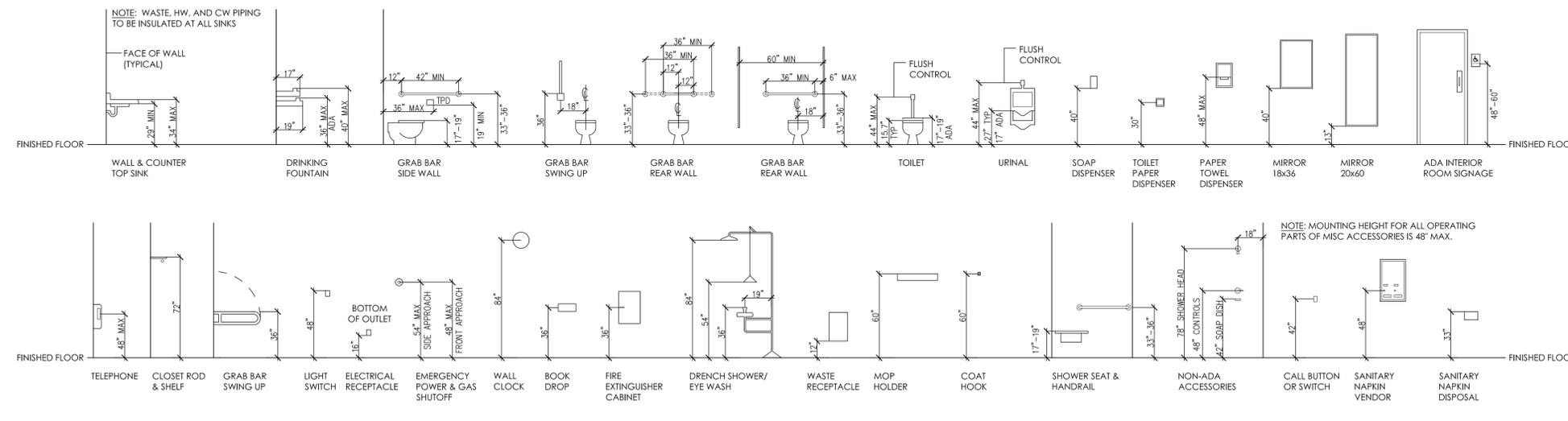
ELECTRICAL NEW WORK LEGEND:

- 25 INSTALL NEW 2" X 2" FLUORESCENT LIGHT FIXTURES AS SPECIFIED AND LOCATED PER REFLECTED CEILING PLAN. CONNECT WIRING PER ELECTRICAL PLAN.
- 26 INSTALL NEW SURFACE MOUNT OCCUPANCY SENSOR SWITCH AND MATCHING NYLON (UNBREAKABLE) WALL PLATE. USE METALLIC WIREMOLD AS REQUIRED. CONNECT WIRING PER ELECTRICAL PLAN.
- 27 INSTALL NEW SURFACE MOUNT GFI DUPLEX RECEPTACLE AND MATCHING NYLON (UNBREAKABLE) WALL PLATE. EXTEND EXISTING CIRCUIT WIRING TO NEW RECEPTACLE LOCATION PER ELECTRICAL PLAN. USE METALLIC WIREMOLD AS REQUIRED.
- 28 INSTALL NEW "CALL-FOR-ASSISTANCE" SYSTEM (EDWARDS MODEL 6536-G5). CONNECT WIRING PER ELECTRICAL PLAN.

DRAWING SYMBOL LEGEND

	FLUORESCENT LIGHT FIXTURE, 2' X 2', SPECIFICATION GRADE T8 TROFFER, ELECTRONIC BALLAST, BAKED WHITE ENAMEL FINISH: COOPER LIGHTING - METALUX MODEL 2GC8-317A-UNV-EB81-U, (3) 17W T8 (24") LAMPS.
	BATHROOM EXHAUST FAN, 110 CFM, 120V/1-PH: BROAN MODEL QTR110
	DUPLEX CONVENIENCE RECEPTACLE, GROUND FAULT INTERRUPTING, 20 AMP/125V, TAMPER RESISTANT HOSPITAL GRADE, IVORY: COOPER MODEL TRVGFH20V; WALL PLATE: NYLON, IVORY, WITH IVORY COLOR SCREW HEADS.
	SWITCH, OCCUPANCY SENSOR, ULTRASONIC, SINGLE CIRCUIT, 1-BUTTON FOR MANL/AUTO CONTROL, IVORY: HUBBELL MODEL AU127711; WALL PLATE: NYLON, IVORY, WITH IVORY COLOR SCREW HEADS.
	"CALL FOR ASSISTANCE" SYSTEM: EDWARDS 6536-G5 CONSISTING OF 6536-G5 HORN/STROBE, 6537 EMERGENCY PULL CORD STATION, AND 592 TRANSFORMER
	POWER WIRING
	SWITCHED WIRING
	LAVATORY, WALL-HUNG, VITREOUS CHINA, ADA ACCESSIBLE, WITH SHROUD/KNEE CONTACT GUARD: AMERICAN STANDARD LAVATORY MODEL 0954.004EC - MURRO UNIVERSAL DESIGN WITH EVERCLEAN, FAUCET HOLES ON 4" CTRS WITH OVERFLOW (WHITE); AMERICAN STANDARD SHROUD/KNEE GUARD MODEL 0059.020EC; DELTA FAUCET MODEL 516LF-HDF - 6" VANDAL RESISTANT HANDLE AND METAL GRID STRAINER ASSEMBLY; WADE LAVATORY CARRIER MODEL 520-08-SC43
	TOILET, FLOOR MOUNTED, ELONGATED BOWL, REAR OUTLET, FLUSHOMETER VALVE, VITREOUS CHINA, ADA ACCESSIBLE, WITH 1-1/2" TOP INLET SPUD: AMERICAN STANDARD TOILET MODEL 3695.001 - PRIOLO FLOWISE 16-1/2" HEIGHT WITH EVERCLEAN (WHITE); AMERICAN STANDARD TOILET SEAT MODEL 5905.110 (WHITE); SLOAN FLUSHOMETER MODEL 111-SM0
	URINAL, WALL-HUNG, FLUSHOMETER VALVE, VITREOUS CHINA, ADA COMPLIANT, WITH 3/4" TOP INLET SPUD: AMERICAN STANDARD URINAL MODEL 6042.005 - DECORUM FLOWISE 0.5 GPF WITH EVERCLEAN (WHITE); SLOAN FLUSHOMETER MODEL 186-0.5-SM0

NOTE: THIS DETAIL MAY CONTAIN ITEMS THAT ARE NOT APPLICABLE TO THIS PROJECT.



1 BASEMENT BATHROOMS - TYPICAL MOUNTING HEIGHTS
A-2 SCALE: 1/4" = 1'-0"

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

drawing title DRAWING LEGENDS AND TYP MOUNTING HEIGHTS	DRAWINGS PREPARED BY OFFICE OF THE COMMISSIONER ENGINEERING SERVICES II	date 12/20/2013
REVISIONS		scale AS NOTED
mark date description	project CT VALLEY HOSPITAL RVS - DUTTON HOME BASEMENT BATHRM RENOVATIONS MIDDLETOWN, CT	drawn by LAE
	approved by SH	drawing no. A-2
	project no. MHA 1145	

