



SPECIFICATIONS FOR PORT CHESTER – RYE UNION FREE SCHOOL DISTRICT

CLASSROOM ALTERATIONS VARIOUS FACILITIES



FULLER AND D'ANGELO PROJECT #: 21430.00

OWNER: PORT CHESTER – RYE UNION FREE SCHOOL DISTRICT
ADDRESS: 113 Bowman Avenue
CITY: Port Chester, NY 10573



ARCHITECTS:
FULLER AND D'ANGELO, P.C.
Architects and Planners
45 Knollwood Road Suite 401
Elmsford, NY 10523



The undersigned certifies that to the best of his knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of the New York State Uniform Fire Prevention and Building Code, The State Energy Conservation and Construction Code Standards of the Department of Education.

Date: 6/8/21

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**SECTION 00 0115
LIST OF DRAWING SHEETS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 DRAWING INDEX

- A. Drawings are listed on Drawing G-1 for all contracts.
- B. Drawings are the property of the Architect and shall not be used for any other purpose other than contemplated by the Drawings and Project Manual.

PART 2 - PRODUCTS (NOR USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

**SECTION 00 2113
INSTRUCTION TO BIDDERS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DOCUMENT INCLUDES

- A. Bid Documents and Contract Documents
 - 1. Definition
 - 2. Contract Documents Identification
 - 3. Availability
 - 4. Examination
 - 5. Inquiries/Addenda
 - 6. Product/Assembly/System Substitutions
- B. Site Assessment
 - 1. Prebid Conference
- C. Qualifications
- D. Bid Submission
 - 1. Bid Depository
 - 2. Bid Ineligibility
- E. Bid Enclosures/Requirements
 - 1. Security Deposit
 - 2. Consent of Surety
 - 3. Performance Assurance
 - 4. Bid Form Requirements
 - 5. Bid Form Signature
 - 6. Additional Bid Information
- F. Offer Acceptance/Rejection
 - 1. Duration of Offer
 - 2. Acceptance of Offer

1.3 RELATED DOCUMENTS

- A. Document 01 1000 - Summary of Contract.
- B. Document 00 1113 - Invitation to Bid.
- C. Section 00 4100 - Bid Form.
- D. Section 00 4336 - List of Subcontractors.
- E. Section 00 4401 - Qualification of Bidders.
- F. Section 000 4460 - Certification of Compliance With the Iran Disinvestment Act or:
- G. Section 000 4470 - Declaration of Bidder's Inability to Provide Certification of Compliance with the Iran Divestment Act.
- H. Section 00 5200 - Form of Agreement.
- I. Section 00 6000 - Bonds and Certificates.
- J. Section 00 7200 - General Conditions.
- K. Section 01 2100 - Allowances.
- L. Section 01 5000 - Temporary Facilities and Controls

- M. Section 01 7000 - Execution.
- N. Section 01 7800 - Closeout Submittals.

1.4 BID SUBMISSION

- A. Bids signed and under seal, executed, and dated will be received at the office of Port Chester-Rye UFSD, 113 Bowman Avenue, Port Chester, New York Port Chester, New York 10753 before 11:00 AM. local time on the 16th day of June, 2021.
- B. Offers submitted after the above time shall be returned to the bidder unopened.
- C. Offers will be opened publicly immediately after the time for receipt of bids.

1.5 INTENT

- A. The intent of this Bid request is to obtain an offer to perform work to complete Classroom Renovations at the Various Locations for a Stipulated Sum contract, in accordance with the Contract Document.

1.6 NEW YORK STATE WICK'S LAW

- A. This project is exempt from the New York State Wick's Law separate bid requirements.
 - 1. Refer to Section 00 4336 - List of Subcontractors for further requirements.

1.7 LUMP SUM BIDS

- A. Lump Sum Bid will be received for one (1) prime contract as follows:
 - 1. General Construction .

1.8 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

- A. Work of this proposed Contract comprises renovations, including general construction, mechanical, and electrical Work.

1.9 CONTRACT TIME

- A. Perform the Work within the time stated in Section 01 1000 - Summary of Contract. All work for this project shall not commence prior to the issuance of Letter of Award by the Owner. Failure to complete the work within scheduled time(s) shall subject the Contractor to being assessed damages incurred by the Owner, including but not limited to, Owner, Owner's Representative, Fuller and D'Angelo, P.C., Owner's staff, overtime, and legal costs as required to complete the project.
 - 1. The bidder, in submitting an offer, accepts the Contract Time period stated for performing the Work.

1.10 BID DOCUMENTS AND CONTRACT DOCUMENTS

- A. Definitions: All definitions set forth in the General Conditions of the Contract and Section 01 4216 - Definitions are applicable to these Instructions to Bidders.
- B. Bid Documents: Contract Documents supplemented with Plans and Specifications, Bid Securities, Bidders Proposal, Certification of Compliance with Iran Divestment Act, Declaration of Bidders Inability to Provide Certification of Compliance, Contractor's Qualification Statement, Insurance certification, and Issued Addenda.
- C. Bid, Offer, or Bidding: Act of submitting an offer under seal.
- D. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.

1.11 CONTRACT DOCUMENTS IDENTIFICATION

- A. The Contract Documents are identified as Project Number 21 430.00, as prepared by Fuller and D'Angelo, P.C. located at 45 Knollwood Road, Elmsford, NY 10523, and with contents as identified in the Project Manual.

1.12 AVAILABILITY

- A. One copy of Bid Documents on CD, in PDF format can be obtained by bidders, subcontractors and suppliers at no cost if picked up at the Port Chester-Rye UFSD, Purchasing Office 113 Bowman Avenue,

Port Chester, New York Port Chester, New York 10753. If shipping is requested bidder shall furnish the Port Chester-Rye UFSD with a Fed Ex or UPS account number.

- B. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

1.13 EXAMINATION

- A. Bid Documents may be viewed at the office of Fuller and D'Angelo, P.C. ,45 Knollwood Road, Elmsford, New York 10523.
- B. Upon receipt of Bid Documents verify that documents are complete. Notify Fuller and D'Angelo, P.C. should the documents be incomplete.
- C. Immediately notify Fuller and D'Angelo, P.C. upon finding discrepancies or omissions in the Bid Documents.
- D. Should any conflict occur in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated on the more costly method of doing the work, unless he shall have requested for and obtained a decision in writing from the Architect before the submission of his bid, as to what shall govern.

1.14 INQUIRIES/ADDENDA

- A. Direct questions to Architect.
- B. Addenda are written or graphic instruments issued prior to the Bid Date which modify or interpret the bidding documents, including Drawings and Specifications, by additions, deletions, clarifications or corrections. Addenda will become part of the Contract Documents when the Construction Contract is executed. Include resultant costs in the Bid Amount.
 - 1. The Architect will issue addenda, if necessary, to answer such questions.
 - 2. RFI's **not** resulting in an addendum may be issued to all plan holder at the discretion of Architect.
- C. Bidders shall rely on answers contained in such addenda and **shall not** rely upon any oral answers given by any employee or agent of the Owner, Owner's Representative, and Architect.
- D. Questions: Any and all questions about the interpretation or clarification of the Bid Documents, or about any other matter affecting the Work or pertaining to the bid must be directed in writing on the form in Section 00 2115 - RFI Form to the: Architect:
 - Fuller and D'Angelo, P.C.
 - 45 Knollwood Road
 - Elmsford, NY 10523
 - Attention: Frank DiFato, RA
 - Voice: 914-592-4444
 - E-mail: frankd@fullerdangelo.com
- E. Clarifications requested by bidders must be in writing not less than 2 days before date set for receipt of bids. The reply will be in the form of an Addendum, if required, a copy of which will be forwarded to known recipients .

1.15 PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS

- A. Refer to Section 01 2500 - Substitution Procedures for requirements.

1.16 PREBID CONFERENCE

- A. A bidders conference has been scheduled for 3:00 PM on the 14th day of June, 2021. Bidders are requested to meet at the front entrance of the Park Elementary School located at Park Avenue, Port Chester, New York 10753 with additional facilities following at 4:00 PM. . Prospective bidders are strongly encouraged to attend
- B. Attendance is non mandatory. Bidder are strongly advised to attend.
- C. All bidders, subcontractors and suppliers are invited.
- D. Representatives of Owner's Representative and Architect will be in attendance.

- E. Summarized minutes of this meeting may be circulated to all known bidders. These minutes will not form part of the Contract Documents.
- F. Information relevant to the Bid Documents will be recorded in an Addendum, issued to Bid Document recipients.

1.17 QUALIFICATIONS

- A. Evidence of qualifications:
- B. Bidder shall submit with their bid proposal a properly executed Contractor's Qualification Statement Section 00 4401.
- C. In accordance with the requirements of General Municipal Law §103-g, the bidder is required to include with its bid make such certification, either (1) the "Certification of Compliance with the Iran Divestment Act" or, in the case where the bidder is unable to make such certification, ((2) the form titled "Declaration of Bidder's Inability to Provide Certification of Compliance with the Iran Divestment Act". Refer to Section 00446 & 00447.

1.18 SUBCONTRACTORS/SUPPLIERS/OTHERS

- A. Owner reserves the right to reject a proposed subcontractor for reasonable cause.
- B. Refer to General Conditions for additional requirements..
- C. Refer to Section 00431 Supplement A List of Subcontractors for additional requirements.

1.19 SUBMISSION PROCEDURE

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Submit one copy of the executed offer on the Bid Forms included in the project manual, signed and sealed, with the required security in a closed opaque envelope, clearly identified with bidder's name, project name and Port Chester-Rye UFSD's name on the outside.
 - 1. Double Envelope: Insert in the closed and sealed Bid Form envelope listed above a List of Contractors for Non-Wicks projects in a large opaque envelope and label this envelope as noted above.
- C. Improperly completed information, irregularities in security deposit, may be cause not to open the Bid Form envelope and declare the bid invalid or informal.
- D. Proposals must be submitted on the Form provided by the Architect, included in the project manual, with all blanks appropriately filled in. They must be submitted in sealed envelopes bearing on the outside the name and address of the bidder title of the project and trade.
- E. To submit a bid for a bid package, the bidder shall photo copy or remove the proposal form for that bid package from the Project Manual. Then the bidder should complete, sign and submit the form as required herein. If a bidder is bidding on more than one bid package, there must be on fully completed and signed form for each package being bid. The bidder should not submit the entire Project Manual with the bid proposal.
- F. All bid prices shall be filled in, both in words and figures. Signatures shall be in ink and in longhand. Proposals which are incomplete, conditional or obscure may be rejected as informal. Additional copies of the Proposal Form will be furnished by the Architect upon request.
 - 1. In case of a discrepancy between the words and figures, the written word, not the figures, will govern.
- G. Bidder's shall not rely on oral statements made by any employee or agent of the Architect's Consultant(s) Owner's Representative and Architect. Before submitting a proposal, bidders shall fully inform themselves as to all existing conditions and limitations and shall include in the Proposal a sum to cover the cost of all items included in the Contract
- H. No oral or telephonic proposals or modifications of proposals will be considered.

1.20 BID INELIGIBILITY

- A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of the be declared unacceptable.
- B. Bid Forms, Appendices, and enclosures that are improperly prepared may, at the discretion of Port Chester-Rye UFSD be declared unacceptable.
- C. Failure to provide security deposit, bonding or insurance requirements may, at the discretion of Port Chester-Rye UFSD, invalidate the bid.
- D. Failure to provide all costs, including Base Bid, Allowances, Alternate and Total Base Bid will at the discretion of Port Chester-Rye UFSD invalidate the bid.

1.21 SECURITY DEPOSIT

- A. Bids shall be accompanied by a security deposit as follows:
 - 1. Bid Bond of a sum no less than 10 percent of the Bid Amount on AIA A310 Bid Bond Form. or certified check will be required for all proposals.
 - 2. Refer to Section 00 6000 for additional requirements.
- B. Endorse the Bid Bond in the name of the Port Chester-Rye UFSD as obligee, signed and sealed by the principal (Contractor) and surety.
- C. The security deposit will be returned after delivery to the Port Chester-Rye UFSD of the required Performance and Payment Bonds by the accepted bidder.
- D. Include the cost of security deposit in the Bid Amount.
- E. After a bid has been accepted, all securities will be returned to the respective bidders .
- F. If no contract is awarded, all security deposits will be returned.

1.22 CONSENT OF SURETY

- A. Submit with the Bid: The attorney in fact who executes the required bonds on behalf of the surety to affix thereto an original certified and current copy of his power of attorney indicating the monetary limit of such power.

1.23 PERFORMANCE ASSURANCE

- A. Accepted Bidder: Shall provide a Performance and Payment Bonds bond, as described in Section 00 6000 and the General Provisions prior to the execution of the Contract, the bidder to furnish bonds covering the faithful performance of the Contract and the payment of all obligations arising thereunder in such form and amount as the Owner may prescribe and with such sureties secured through the bidder's usual sources as may be agreeable to the parties.
- B. Include the cost of Performance and Payment Bonds in the Bid Amount.
- C. The bidder shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto an original certified and current copy of his power of attorney indicating the monetary limit of such power

1.24 INSURANCE

- A. There are special insurance requirements on this project. Refer to 00 7200 - General Conditions Article 11 (AIA 201) for a summary description of the required coverages. The Owner reserves the right to refuse the award of a Contract to any apparent low bidder who fails to provide the specified insurance certificates at the required time.
 - 1. The Owner and Architect shall be listed as "Additionally Insured" on all applicable policies.
- B. All insurance purchased by Contractor shall constitute primary insurance and primary coverage for all risks insured and that any other liability insurance that Owner and Architect may procure or maintain is secondary and that there shall be no contribution by such insurance until insurance provided by the Contractor is exhausted.

1.25 BID FORM REQUIREMENTS

- A. Complete all requested information in the Bid Form and Appendices.

1.26 SALES AND USE TAXES

- A. The Owner is a tax exempt entity, so there shall be no charge for sales or use taxes. The Owner will document this status as requested. Refer to General Conditions AIA 201 Article 3.6.3.

1.27 FEES FOR CHANGES IN THE WORK

- A. Refer to the General Provisions Refer to the General Conditions AIA 201 Article 7.

1.28 BID FORM SIGNATURE

- A. The Bid Form shall be signed by the bidder, as follows:
1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
 2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
 3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.
 4. Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

1.29 EQUIVALENCY CLAUSE

- A. Where, in these specifications, certain kinds, types, brands, or manufacturers of material are named, they shall be regarded as the standard of quality. Where two or more are named the Contractor may select one of those items, subject to meeting the requirements of the specified product.. If the contractor desires to use any kind, type, brand, or manufacture of material other than those named in the specification, he shall indicate in writing, and prior to award of the contract, what kind, type, brand, or manufacture is included in the base bid for the specified items. Submit information describing in specific detail, wherein it differs from the quality and performance required by the base specifications, and such other information as may be required by the Owner. Contractor shall refer to Section 01 2500 and utilized Substitution Request Form attached to Section 01 2500.

1.30 NONDISCRIMINATION

- A. All Contractors and Subcontractors of all tiers and all vendors shall comply with all pertinent provisions of the State, Local and Federal law against discrimination in employment practices. Refer to Section 01 3306 - Non-Discrimination Clauses.

1.31 PREVAILING WAGES

- A. New York State law requires the payment of prevailing wages on the project, as listed in Section 01 3554 - Prevailing Wage Rates.

1.32 ADDITIONAL BID INFORMATION

- A. Submit the following Supplements concurrent with bid submission:
1. Section 00 4336 - List of Subcontractors.
 2. Section 00 6000 - Bonds and Certificates for Bid Bond, Performance and Payment Bond.
 3. Section 00 4401 - Qualification of Bidders.
 4. Section 00 4402 Hold Harmless Agreement
 5. Section 00 4460 - Certification of Compliance With the Iran Disinvestment Act **or** Section 00 4470 - Declaration of Bidder's Inability to Provide Certification of Compliance with the Iran Divestment Act.

6. Section 00 4476 - Insurance Certification.

- B. The bidder by making his bid represents that he has read and understands the bidding documents.
- C. The bidder by making his bid represents that he has visited the site and familiarized himself with the local conditions under which the work is to be performed. Visits to the site shall be arranged through the Pre-Bid Conference.

1.33 DURATION OF OFFER

- A. Bids shall remain open to acceptance and shall be irrevocable for a period of 45 days after the bid closing date, except as otherwise provided in General Municipal Law §103 (11).

1.34 ACCEPTANCE OF OFFER

- A. Port Chester-Rye UFSD reserves the right to accept or reject any or all offers.
- B. The bidder acknowledges the right of the Port Chester-Rye UFSD to reject any or all bids and to waive any informality or irregularity in any bid received. In addition, the bidder recognizes the right of the Port Chester-Rye UFSD, at its discretion to reject a bid if the bidder fails to furnish any required bid security, or to submit the information required by the bidding documents, including Section 00 4401 - Qualification of Bidders or if the bid is incomplete or irregular.

1.35 POST-BID PROCEDURE

- A. The bid proposal, proposed subcontractors, the Contractor's Qualification Statement,, and Information received from owners of other projects will be considered to determine whether the contractor is the "lowest responsible bidder" in making the award. The Owner's Representative and Architect may make such investigation as the Owner, Owner's Representative, and Architect deems necessary to determine the responsibility of any bidder or to determine the ability of any bidder to perform the Work. Such investigation shall begin with a review of Section 00 4401 - Qualification of Bidders and shall include such additional information as shall be required herein.
- B. When requested by the Owner, bidders shall furnish all information and data required by the Owner within the time and in the form and manner requested by the Owner. Upon notification from the Owner, the apparent low bidder shall furnish, within three (3) working days after the bid opening, Two (2)copies of the following information in writing:
 - 1. Evidence of the bidder's financial responsibility, including a certified financial statement prepared by a certified public accountant. The financial statement shall include, but not limited to the following:
 - a. Current assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses):
 - b. Net Fixed Assets.
 - c. Other Assets.
 - d. Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes):
 - e. Other Liabilities (e.g., Capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).
 - f. The names, addresses and phone numbers of the subcontractors and suppliers that the bidder proposes to use on the project.
 - g. A bar-chart showing the bidder's proposed plan and schedule to complete the bidder's work in accordance with the milestones and phasing plan.
 - h. The insurance certificates required by the Bid Documents.
 - i. The names, addresses and phone numbers of the subcontractors and suppliers that the bidder proposes to use on the project.
 - j. Resumes for Contractor's proposed supervisory staff, including qualifications for specialized expertise or any certification(s) required to perform the Work.
 - k. Names of proposed major sub-contractors (more than 15% of the bid amount) and a listing of the related trade of work and value.

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
INSTRUCTION TO BIDDERS

- l. Any special coordination requirements with other trades.
- m. Any special storage and staging requirements for construction materials.
- n. Any other special requirements.
- o. A proposed schedule of values for the bidder's work.
- p. A proposed list of submittals and a proposed schedule for making them, all keyed to the bar-chart.
- q. References and experience:
 - a) List of all past contracts with K12 Public School Districts
 - b) Provide three (3) references (Name, Title, and Phone Number) associated with three (3) different projects (public or private sector) of similar size, scope and complexity to the one identified in this contract. Additionally, include the names of two major suppliers used for each of these three (3) projects.
2. After receipt of the above information, the Owner will designate a time and place for the meeting between the Owner and Architect and the apparent low bidder. The apparent low bidder's principal, project manager and site superintendent will attend that meeting, at which time the parties will discuss the bidder's responsiveness, responsibility and qualifications.
3. The Owner reserves the right to disapprove the use of any proposed Subcontractor, and in such event, the bidder shall submit the name of another Subcontractor in like manner within the time specified by the Owner, as set forth in General Conditions.
4. To the fullest extent allowed by law, the Owner reserves the right to reject any bid if the evidence required by the Owner is not submitted or fails to satisfy the Owner that the bidder is responsible, able and qualified to carry out the obligations of the Contract or to complete the Work as contemplated. The Owner will consider the information received in determining whether or not to accept a proposal.
5. Acceptance of a proposal will be a notice in writing signed by a duly authorized representative of the Owner.
6. Any bidder whose proposal is accepted will be required to sign the Owner/Contractor Agreement no later than ten (10) days after notification of Notice of Award or five (5) days following receipt of Contract, whichever is later.
7. In the event that the Owner should reject the proposal of the bidder, the Owner may elect to meet with the next lowest bidder and to consider the information as provided above. In the event that the proposal of the next lowest bidder is rejected, the Owner may elect to meet with the third lowest bidder and repeat the above process. At all times the Owner retains the right to reject all bids.
8. The Owner reserves the right to accept one of the two projects if the budgets shall not allow to award both.

END OF SECTION

SECTION 00 2115
RFI FORM

CONTRACTOR'S REQUEST FOR INFORMATION NO. _____

F&D RFI NO: _____
(F&D USE)

NAME OF PROJECT: Classroom Renovations
FACILITY: Various Facilities
NAME OF OWNER: Port Chester-Rye UFSD
DATE: _____
A/E PROJECT NO: 21430.00
ARCHITECT: Fuller and D'Angelo, P.C.
45 Knollwood Road, Elmsford, NY 10523

FROM (CO. NAME): _____
CONTACT NAME: _____
SUBJECT: _____
DISCIPLINE/TRADE: _____
DWG./SPEC. REFERENCE: _____
QUESTION: _____

___ FIELD CONDITION _____
___ DRAWING/SPEC _____
___ DISCREPANCY _____
___ OWNER CHANGE _____
___ CLARIFICATION _____
___ CONTRACTOR'S SUGGESTION (IF APPLICABLE): _____

ANSWER

ARCHITECT'S SIGNATURE: _____ DATE: _____

Note: review and any responses to this request for information by the architect/engineer is strictly for design intent only and does not constitute acknowledgement or acceptance of any cost or schedule implications unless specifically presented by the contractor. By submission of this request for information, the contractor assumes all responsibility in the absence of an approved change order or work directive.

END OF SECTION

**SECTION 00 4100
BID FORM**

THE PROJECT AND THE PARTIES

TO:

Port Chester-Rye UFSD
113 Bowman Avenue
Port Chester, New York Port Chester, New York 10753

FOR:

Classroom Renovations
Various Facilities
Various Locations

DATE: _____ (Bidder to enter date)

SUBMITTED BY: _____

Bidder's Full Name _____
Address _____
City, State, Zip _____

1.1 OFFER

A. Having examined the Place of The Work and all matters referred to in the Bidding Requirements and the Contract Documents prepared by Fuller and D'Angelo, P.C. for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform Classroom Renovations at the Various Facilities for the Sum of:

1. BASE BID

a. The Base Bid of this Proposal for all work required by the Contract Documents for the work is as follows:

_____ (\$ _____) DOLLARS

2. CASH ALLOWANCES

a. The total Cash Allowance as indicated in Section 01 2100 - Allowances Allowances is Twenty-Five Thousand _____ (\$25,000.00) DOLLARS

B. TOTAL BASE BID

1. The Total Base Bid of this Proposal for all work required by the Contract Documents is as follows:

_____ (\$ _____) DOLLARS

C. The undersigned further understands and agrees that he is to furnish and provide all the necessary material, machinery, plant, implements, tools, labor, services, skill and other items of whatever nature required, and to do and perform all the work necessary under the Contract, to complete the work in accordance with the drawings and specifications and any addenda thereto, and to accept in full compensation therefore the amount of the Total Base Bid stated, modified by such additive- or deductive alternatives, if any as are accepted by the Owner.

D. We have included the required security Bid Bond as required by the Instruction to Bidders.

E. We have included the required performance assurance bonds in the Bid Amount as required by the Instructions to Bidders.

F. All applicable federal taxes are included and NY taxes are excluded from the Bid Sum.

1.2 ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for forty-five (45) days from the bid closing date.
- B. If this bid is accepted by Port Chester-Rye UFSD within the time period required we will:
 - 1. Execute the Agreement within seven days of receipt of Notice of Award.
- C. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Port Chester-Rye UFSD by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.

1.3 REJECTION OF BIDS

- A. The undersigned agrees that the Owner shall have the right to accept or reject any or all bids

1.4 CONTRACT TIME

- A. If this Bid is accepted, we will:
 - 1. Complete all the work covered by this Proposal with a commencement date of NO EARLIER THAN Award of Contract by Owner. Work shall be phased as indicated in 01 1000 Summary of Contract. Failure to complete each phase of work by dates indicated **will result in liquidated damages** as stated in the General Conditions AIA 201-17 Article 8.

1.5 CHANGES TO THE WORK

- A. Refer to General Conditions AIA 201-17 Article 7

1.6 ADDENDA

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.
 - 1. Addendum # _____ Dated _____.
 - 2. Addendum # _____ Dated _____.

1.7 BID FORM SUPPLEMENTS

- A. The following shall be attached to this Bid Form and are considered an integral part of this Bid Form:
 - 1. Section 00 6000 - Project Forms Bid Bond.
 - 2. Section 00 4336 - List of Subcontractors as required by Non Wick's law provision.
 - 3. Section 00 4401 - Qualification of Bidders.
 - 4. Section 00 4402 - Hold Harmless Agreement
 - 5. Section 00 4460 - Certification of Compliance with the Iran Disinvestment Act OR
 - 6. Section 00 4470 - Declaration of Bidder's Inability to Provide Certification of Compliance .
 - 7. Section 00 4476 - Insurance Certification.

1.8 NON-COLLUSIVE BIDDING CERTIFICATION

- A. By submission of this bid or proposal:
 - 1. The undersigned bidder and the person or persons signing on behalf of the bidder, and should this bid be a joint bid, each party thereto, certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:
 - a. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
 - b. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.
 - c. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

1.9 BIDDER'S FURTHER AFFIRMATION AND DECLARATION

- A. The above name bidder and should this bid be a joint bid each party thereto, further affirm and declares:
 - 1. That said bidder is of lawful age and the only one interested in this bid; and that no other person, firm or corporation, except those herein above named, has any interest in this bid or in the contract proposed to be entered into.
 - 2. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same work, and is in all respects fair and without collusion or fraud.
 - 3. That said bidder is not in arrears to the Port Chester-Rye UFSD upon debt or contract, and is not a defaulter, as surety or otherwise upon any obligation to the said Port Chester-Rye UFSD
 - 4. That no member of the Port Chester-Rye UFSD or any officer or employee of the Port Chester-Rye UFSD or person whose salary is payable in whole or in part from the said school district treasury, or the spouse of any foregoing is or shall be or become interested, directly or indirectly, as a contracting party, partner, stockholder, surety or otherwise, in this bid, or in the performance of the Contract, or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof.
 - 5. That he/she has carefully examined the site of the work and that, from his/her own investigations, he/she has satisfied him/herself as to the nature and location of the work, and character, quality and quantity of materials, and all difficulties likely to be encountered, the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions, and all other items which may, in any way, affect the work or its performance.
 - 6. That if a corporation, this bid or proposal containing the Non-Collusive Binding Certification and the foregoing Affirmation and Declaration has been authorized by the Board of Directors of such Corporation, which authorization includes the signing and submission of this bid or proposal and the inclusion therein of the said Certificate of Non-Collusion and Affirmation and Declaration as the Act and Deed of the Corporation.

1.10 BID FORM SIGNATURE(S)

The Corporate Seal of

(Bidder - print the full name of your firm)

was hereunto affixed in the presence of:

(Authorized signing officer, Title)

(Seal)

(Authorized signing officer, Title)

If the Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

Subscribed and sworn before me this day of ____ 20__

Notary Public: _____

My Commission Expire: _____

END OF BID FORM

**SECTION 00 4336
LIST OF SUBCONTRACTORS**

PARTICULARS

1.1 NEW YORK STATE WICK'S LAW

- A. Construction contracts of one million five hundred thousand dollars (\$1,500,000.00) or less will not require the preparation of separate contracts for plumbing and gas fitting; steam heating, hot water heating, ventilation and air conditioning apparatus; and electric wiring and standard illuminating fixtures
- B. Each bidder on a public work contract, where the preparation of separate contracts is not required, shall submit with its bid, in a separate sealed envelope, a list that names each subcontractor that the bidder will use to perform work on the contract, and the agreed upon amount to be paid to each for: (a) plumbing and gas fitting; (b) steam heating, hot water heating, ventilation and air conditioning apparatus; and (c) electric wiring and standard illuminating fixtures.
- C. After the low bid is announced, the sealed list of subcontractors submitted with the bid shall be opened and the names of such subcontractors shall be announced. Thereafter, any changes of subcontractors or agreed-upon amount to be paid to each shall require the approval of the Owner upon a showing of legitimate construction need for such change.
- D. The sealed lists of subcontractors submitted by all other bidders shall be returned to them unopened after the contract award.

Herewith is the list of Subcontractors referenced in the bid submitted by:

(Bidder) _____

TO Port Chester-Rye UFSD.

Dated _____ and which is an integral part of the Bid Form.

The following work will be performed (or provided) by Subcontractors and coordinated by us:

E. LIST OF SUBCONTRACTORS

A. HVAC SUB-CONTRACTOR NAME _____
_____ \$ _____) DOLLARS

B. ELECTRICAL SUB- CONTRACTOR NAME _____
_____ \$ _____) DOLLARS

Note: If work is to be performed by bidder's own forces indicate "By Bidder".

END OF SECTION

SECTION 00 4401
QUALIFICATION OF BIDDERS

1.1 REQUIREMENTS

- A. The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.
- B. With the submittal of the Bid Proposal Form, **the bidder shall attach this Qualification of Bidders** and shall answer all the questions and provide all information requested herein. Failure to answer these questions or provide information requested in full may be cause for rejection of the bidder's proposal. If more space is needed, attach additional sheets with reference to subject paragraph.
- C. The Owner reserves the right to consider, but not limited to, the financial responsibility, experience and reputation in the construction industry, as well as the specific qualifications listed below and elsewhere in this document in considering bids and awarding the contract. Port Chester-Rye UFSD reserves the right to waive any informalities if, at its discretion the interest of the Port Chester-Rye UFSD will be better served.
- D. To demonstrate qualification for performing the Work of this Contract, bidders may be requested to submit written evidence of financial position and current commitments, license to perform work in the State of NY .
- E. Each Company (Bidder) shall have been in existence under the same name for no less than five (5) years.
- F. Each Company (Bidder) shall have successfully completed three (3) projects within the last five (5) years substantially **similar in scope, size, complexity and dollar value** to the work of this project.
- G. Each Company (Bidder) shall furnish, on the attached form, the three (3) three projects of it has performed during the most recent five (5) years including, but not limited to, the name and address of the project, the name of the awarding entity/owner, the name of the awarding entity's/owner's representative, construction manager and architect, current telephone numbers where each can be reached, the description of the project, general scope of the contractor's work, contract price, dates of performance, whether the contract was terminated for cause or convenience, whether the contract was completed on time and whether liquidated damages were assessed against the contractor, and if so, to any items above provide a written explanation.
 1. The Owner's representative and Architect reserves the right to require additional information it deems appropriate concerning the history of the contractor's performance of each such contract.
- H. The final determination of whether the contractor possesses the requisite experience rests in the sole discretion of the Owner and Architect.
- I. To be considered qualified, in addition to the items listed in the Contractor's Qualification Statement, bidder must demonstrate to the Owner's representative and Architect's satisfaction:
 1. The Corporation, partnership, sole proprietorship of the entity in whose name the bid is submitted has no less than the previous five (5) years performing or coordinating the Work which they are bidding on.
 2. The bidder is not currently involved in bankruptcy proceedings.
 3. The bidder is capable of and intends to perform the work with its own employees in accordance with the following:
 - a. Notwithstanding any other provisions of the Contract Documents, Contractor shall perform at least 75% of the field work (persons below level of foreman) by its own employees.
 - b. Notwithstanding any other provisions of the Contract Documents of the field work by its own employees Sub-contractors for HVAC, Plumbing, and Electrical shall perform at least seventy-five (75)% of the field work (persons below level of foreman) by its own employees.

- c. For the purpose of the preceding paragraph, any part of the work performed by supervisory personnel (persons above level of foreman) or by the office personnel and such items as bonds, certificates, shop drawings and similar items shall not be considered part of the percentage of work required to be performed by the Contractor's employees.
4. Each subcontractor must have a minimum of five (5) years experience in the work and/or applicable trade.
5. The bidder will perform the work with sufficient personnel as required to comply with the schedule.
6. Field Superintendent must have at least five (5) years experience as a working field superintendent and must speak English or have a translator available at all times at no cost to the Owner.

1.2 QUESTIONNAIRE:

Submitted to: Port Chester-Rye UFSD
Address: 113 Bowman Avenue
City/Town: Port Chester, New York Port Chester, New York 10753
Submitted By: _____
Corporation _____ Partnership _____ Individual _____
Address: _____
Principal Office: _____
Other: _____
Project: Classroom Renovations
Facility: Various Facilities
Type of Work: (file separate for each Classification of Work)
1. General Construction and Related Work.

1.3 ORGANIZATION

- A. How many years has your organization been in business as a Contractor? _____
 1. How many years has your organization been in business under its present business name? _____
 2. Under what other or former names has your organization operated?

- B. What is the firm's bonding range?
Single: _____ Aggregate: _____
- C. If your organization is a corporation, answer the following:
 1. Date of Incorporation: _____
 - a. State of Incorporation: _____
 - b. President's Name: _____
 - c. Vice-president's name(s): _____
 - d. Secretary's name: _____
 - e. Treasurer's name: _____
- D. If your organization is a partnership, answer the following:
 1. Date of organization: _____
 - a. Type of partnership (if applicable): _____
 - b. Name(s) of general partner(s): _____

- E. If your organization is individually owned, answer the following:
 1. Date of organization: _____

2. Name of owner: _____

F. If the form of your organization is other than those listed above, describe it and name the principals:

1.4 OWNERSHIP, MANAGEMENT, AFFILIATION

A. Identify each person who is or has been ,within the past five years, an owner of 5.0% or more of the firm's shares, one of the five largest shareholders, a director, an officer, a partner or the proprietor, or a managerial employee.

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: _____ Director: Yes ___ No ___ Officer: Yes ___ No ___ Title _____ artner: Yes ___ No ___

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: _____ Director: Yes ___ No ___ Officer: Yes ___ No ___ Title _____ Partner: Yes ___ No ___

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: _____ Director: Yes ___ No ___ Officer: Yes ___ No ___ Title _____ Partner: Yes ___ No ___

B. Has the firm or any firm listed in response to questions above defaulted or been terminated and its surety called upon to complete, any contract awarded within the past five years Yes ___ No ___ If yes, give date(s), agency (ies)/owner(s), project(s), contract numbers, and describe including the result:

C. List below any projects performed by the bidder in the past five (5) years on which any of the following events occurred:

1. Were any extension of time were requested by the contractor, Yes ___ No ___ and were such requests granted? Yes ___ No ___

2. Was litigation and/or arbitration commenced by either the Owner or the bidder as a result of the work of the project performed by the bidder? Yes ___ No ___

3. Were any liens filed on the project by subcontractors or material suppliers of the bidder? Yes ___ No ___

4. Did the bidder make any claims for extra work on the project, and did said claim result in a change order? Yes ___ No ___

5. If Yes:

Project Name/Address _____

Type of Event _____

Name & Phone # of Owner: _____

Contact Person at Owner: _____

D. For all contracts within the past five years: (a) List all liens or claims over \$25,000 filed against the firm and remaining undischarged or unsatisfied for more than 90 days; and (b) list and describe all liquidated damages assessed: _____

1.5 OTHER INFORMATION

A. Within the past five years has the firm, any affiliate, any predecessor company or entity or any person identified in questions number 1.1 through 1.2 above been the subject of any of the following: (Respond to each question and describe in detail the circumstances of each affirmative answer: (Attach additional pages if necessary).

1. A judgment of conviction for any business-related conduct constituting a crime under state or federal law No ___ Yes ___

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
QUALIFICATION OF BIDDERS

2. A criminal investigation or indictment for any business-related conduct constituting a crime under state or federal law? No__ Yes__
 3. A grant of immunity for any business-related conduct constituting a crime under state and federal law? No__ Yes__
 4. A federal or state suspension or debarment? No__ Yes__
 5. A rejection of any bid for lack of qualifications, responsibility or because of the submission of an informal, non-responsive or incomplete bid? No__ Yes__
 6. A denial or revocation of prequalification? No__ Yes__
 7. A voluntary exclusion from bidding/contracting agreement? No__ Yes__
 8. Any administrative proceeding or civil action seeking specific performance or restitution in connection with any public works contract except any disputed work proceeding? No__ Yes__
 9. An OSHA Citation and Notification of Penalty containing a violation classified as serious? No__ Yes__
 10. An OSHA Citation or Notification of Penalty containing a violation classified as willful? No__ Yes__
 11. A prevailing wage or supplement payment violation? No__ Yes__
 12. A State Labor Law violation deemed willful? No__ Yes__
 13. Any other federal or state Citations, Notices, violation orders, pending administrative hearings or proceedings or determinations of a violation of any labor law or regulation? No__ Yes__
 14. Any criminal investigation, felony indictment or conviction concerning formation of or any business association with, an allegedly false or fraudulent women's, minority or disadvantaged business enterprise? No__ Yes__
 15. Any denial, desertification, revocation or forfeiture of Women's Business Enterprise, Minority Business Enterprise or Disadvantaged Business Enterprise status? No__ Yes__
 16. Rejection of a low bid on a State contract for failure to meet statutory affirmative action M/WBE requirements? No__ Yes__
 17. A consent order with the NYS Department of Environmental Conservation or a federal, state or local government enforcement determination involving a violation of federal or state environmental laws? No__ Yes__
 18. Any bankruptcy proceeding? No__ Yes__
 19. Any suspension or revocation of any business or professional license? No__ Yes__
 20. Any citations, notices, violation orders, pending administrative hearings or proceedings or determinations for violation of hearings or proceedings or determinations for violation of:
 - a. Federal, state or local health laws, rules or regulations? No__ Yes__
 - b. Federal, state or local environmental laws, rules and regulations? No__ Yes__
 - c. Unemployment insurance or workers compensation coverage or claim requirements. No__ Yes__
 - d. ERISA (Employee Retirement Income Security Act) No__ Yes__
 - e. Federal, state or local human rights laws. No__ Yes__
 - f. Federal, state or local labor laws. No__ Yes__
 - g. Federal or state security laws. No__ Yes__
 - h. Withdrawal or an agreement to withdraw a bid submitted to a public owner or a request by a public owner to withdraw a bid? No__ Yes__
- B. During the five year period preceding the submissions of this bid, has the bidder been named as a party in any lawsuit in an action involving a claim for personal injury or wrongful death arising from performance of work related to any project in which it has been engaged? If the answer to this question is yes, list all such lawsuits, the index number associated with said suit and the status of the lawsuit at the time of the submission of this bid. No__ Yes__
- C. During the five year period preceding the submission of this bid, has the bidder been the subject of proceedings before the Department of Labor for alleged violations of the Labor Law as it relates to the

payment of prevailing wages and/or supplemental payment requirements? If the answer to this question is yes, please list each such instance of the commencement of a Department of Labor proceeding, for which project such proceeding was commenced, and the status of the proceeding at the time of the submission of this bid. No__ Yes__

- D. During the five year period preceding the bidder's submission of this bid, has the bidder been the subject of proceedings involving allegations that it violated the Worker's Compensation Law including but not limited to the failure to provide proof of worker's compensation or disability coverage and/or any lapses thereof. If the answer to this question is yes, list such instance of violation and the status of the claimed violation at the time of disposition of this bid. No__ Yes__
- E. Has the bidder, its officers, directors, owner and/or managerial employees been convicted of a crime or been the subject of a criminal indictment during the five years preceding the submission of this bid? If the answer to this question is yes, list the name of the individual convicted or indicted the charge against the individual and the date of submission of the charge. No__ Yes__
- F. During the five year period preceding the bidder's submission of this bid, has the bidder been charged with and/or found guilty of any violations of federal, state, or municipal environmental and/or health laws, codes, rules and/or regulations. If the answer to this question is yes, list the nature of the charge against the bidder, the date of the charge, and the status of the charge at the time of the submission of this bid. No__ Yes__
- G. Has the bidder ever defaulted or had its surety called upon to complete any contract awarded within the past five years. If the answer to this question is yes, list the projects, the dates and the nature of the termination (convenience, suspension, for cause). No__ Yes__
- H. Has any officer or partner of the bidder's organization ever defaulted or had its surety called upon to complete any contract awarded within the past five years or been an officer or partner of some other organization that has been terminated from a project by an owner? If yes, state: No__ Yes__
- I. Name of Individual(s) _____ Name of Organization(s) Reason(s)

1.6 LICENSING

- A. List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration of license numbers, if applicable.

- B. List jurisdictions in which your organization's partnership or trade name is filed:

- C. Has any director, officer, owner or managerial employee had any professional license suspended or revoked? If the answer is yes, list the name of the individual, the professional license he/she formally had, whether the license was revoked or suspended and the date of the revocation or suspension. No__ Yes__

1.7 EXPERIENCE

- A. List the categories of work that your organization will perform with its own forces:

- B. Claims and Suits. (If the answer of any of the questions below is yes, please attach details.)
 - 1. Have you or has any director, officer, owner or managerial employee ever failed to complete any work awarded to them? If yes, list the project(s) the date(s) and the reason(s) for the failure to complete. No__ Yes__
 - 2. Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers? No__ Yes__

3. Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years? No___ Yes___
 4. Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.) No___ Yes___
- C. On a separate sheet, list all construction projects presently your organization has in progress or completed, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.
- D. State total worth of work in progress and under contract:

- E. On a separate sheet, list all projects, not listed above, that your organization has completed or in progress in the past five years, giving the name of the project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.
- F. State average annual amount of construction work performed during the past five years: _____

- G. On a separate sheet, list the construction experience and present commitment of the key individuals of your organization.

1.8 APPRENTICE PROGRAM

- A. Has the Firm have in place apprenticeship agreements appropriate for the type and scope of work to be performed, that have been registered with, and approved by, the Commissioner of the New York State Department of Labor pursuant to the requirements found in Article 23 of the Labor Law. No__ Yes__

1.9 REFERENCES

- A. Trade reference: _____
- B. Bank references: _____
- C. Surety: _____
1. Name of present bonding company: _____
 2. Name and address of agent: _____
 3. Name or previous bonding company: _____

1.10 CERTIFICATION

- A. The undersigned recognizes that this questionnaire is submitted for the purpose of the Port Chester-Rye UFSD awarding a contract or approving a subcontract; acknowledges that the Port Chester-Rye UFSD may in its discretion, by means which it may choose, determine the truth and accuracy of all statements made herein; acknowledge that intentional submission of false or misleading information may constitute a felony under Penal Law §210.40 or a misdemeanor under Penal Law §210.35 or §210.45, and may also be punishable by a fine of up to \$10,000.00 or imprisonment of up to five years under 18 U.S.C. §1001; and states that the information submitted in this questionnaire any attached pages is true, accurate and complete.

Dated at this day of _____

Name of Organization: _____

By: _____ Title _____

being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading. Subscribed and sworn before me this day of: _____

Notary Public: _____ My Commission Expire: _____

1.11 See Project Information Form attached.

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
QUALIFICATION OF BIDDERS

PROJECT NAME: _____

Company work was performed under: _____

Who was Co. Principal in charge: _____

Location: _____

COST OF CONTRACT: _____ **FINAL COST OF WORK:** _____

DESCRIPTION OF WORK:

OWNERS NAME:

OWNER CONTACT: NAME _____ **PHONE** _____ **E.MAIL** _____

CM NAME(IF APPLICABLE): _____

CM CONTACT: NAME _____ **PHONE** _____ **E.MAIL** _____

ARCHITECT FIRM: _____

ARCHITECT CONTACT: _____ **PHONE** _____ **E.MAIL** _____

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
QUALIFICATION OF BIDDERS

PROJECT NAME: _____
Company work was performed under: _____
Who was Co. Principal in charge: _____
Location: _____
COST OF CONTRACT: _____ **FINAL COST OF WORK:** _____
DESCRIPTION OF WORK:

OWNERS NAME:

OWNER CONTACT: NAME _____ **PHONE** _____ **E.MAIL** _____
CM NAME(IF APPLICABLE): _____
CM CONTACT: NAME _____ **PHONE** _____ **E.MAIL** _____
ARCHITECT FIRM: _____
ARCHITECT CONTACT: _____ **PHONE** _____ **E.MAIL** _____

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
QUALIFICATION OF BIDDERS

PROJECT NAME: _____

Company work was performed under: _____

Who was Co. Principal in charge: _____

Location: _____

COST OF CONTRACT: _____ **FINAL COST OF WORK:** _____

DESCRIPTION OF WORK:

OWNERS NAME:

OWNER CONTACT: NAME _____ **PHONE** _____ **E.MAIL** _____

CM NAME(IF APPLICABLE): _____

CM CONTACT: NAME _____ **PHONE** _____ **E.MAIL** _____

ARCHITECT FIRM: _____

ARCHITECT CONTACT: _____ **PHONE** _____ **E.MAIL** _____

END OF SECTION

SECTION 00 4402
HOLD HARMLESS AGREEMENT

_____ herein the "CONTRACTOR" assumes responsibility for any and all injury to or death of any and all persons, all injury to or death of any and all persons, including the CONTRACTOR'S agents, servants and employees, and in addition thereto, for any and all damages to property caused by or resulting from or arising out of any act or omission in connection with this contract or the prosecution of work hereunder, whether caused by the CONTRACTOR or the CONTRACTOR'S agents, servants or employees, or the CONTRACTOR'S subcontractors or suppliers, and the CONTRACTOR shall indemnify and hold harmless the owner, the Port Chester-Rye UFSD, and the (engineer/architect) Fuller and D'Angelo, P.C. , their employees and consultants from and against any and all loss and/or expense which they or either of them may suffer or pay as a result of claims or suits due to, because of or arising out of any and all such injuries, deaths and/or damage. The CONTRACTOR if requested, shall assume and defend at the CONTRACTOR'S own expense, any suit, action or other legal proceedings arising therefrom, and the CONTRACTOR hereby agrees to satisfy, pay and cause to be discharged of record any judgment which may be rendered against the owner or architect arising therefrom.

Dated at _____ this day of 202_ .

Signed, Sealed and Delivered

Signed _____

Name: _____

in the presence of : _____

Name _____ Title _____

END OF SECTION

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
CERTIFICATION OF COMPLIANCE WITH THE IRAN DISINVESTMENT ACT

SECTION 00 4460
CERTIFICATION OF COMPLIANCE WITH THE IRAN DISINVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I, _____, being duly sworn, deposes and says that he/she is the _____ of the _____ Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

SIGNED

SWORN to before me this

_____ day of _____ 202__

Notary Public: _____

END OF SECTION

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE
IRAN DIVESTMENT ACT.

SECTION 00 4470

**DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH
THE IRAN DIVESTMENT ACT.**

Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (e.g. banking, energy, real estate)

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

I, _____ being duly sworn, deposes and says that he/she is the
_____ of the _____ Corporation and the foregoing
is true and accurate.

SIGNED

SWORN to before me this

_____ day of _____ 202_

Notary Public: _____

**BIDDERS SHALL COMPLETE THIS FORM IF THEY CANNOT CERTIFY THAT THE BIDDER
/CONTRACTOR OR ANY PROPOSED**

**SECTION 00 4476
INSURANCE CERTIFICATION**

BID OR PROJECT NO. # 21430.00

NAME OF PROJECT: Classroom Renovations

Insurance Representative's Acknowledgement:

We have reviewed the insurance requirements set forth in the bid and are capable of providing such insurance to our insured in accordance with such requirements in the event the contract is awarded to our insured and provided our insured pays the appropriate premium.

INSURANCE REPRESENTATIVE: _____ **Tele. #:** _____

ADDRESS: _____

Are you an agent for the companies providing the coverage?

Yes _____ No _____

DATE: _____

Signature Insurance Representative

Bidder's Acknowledgement:

I acknowledge that I have received the insurance requirements of this bid and have considered the costs, if any, of procuring the required insurance and will be able to supply the insurance required in accordance with the bid, if it is awarded. I understand that a certificate of insurance must be submitted with my contract and if it is not, the Port Chester-Rye UFSD will reject my bid and award to the next lowest qualified bidder.

FIRM NAME:

_____ **Tele.#** _____

ADDRESS: _____

DATE: _____

Bidder's Signature

**SECTION 00 5200
FORM OF AGREEMENT**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 FORM OF AGREEMENT

- A. AIA Document A101, Owner-Contractor Agreement Form - Stipulated Sum 2017 Edition, forms the basis of Contract between the Owner and Contractor A draft copy is attached.

1.3 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

DRAFT AIA® Document A101® - 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the « » day of « » in the year «2021»
BETWEEN the Owner:

Port Chester-Rye UFSD
113 Bowman Avenue
Port Chester, Ny 10573

and the Contractor:

« »
« »
« »
« »

for the following Project:

Port Chester-Rye UFSD
Classroom Alterations
Various Facilities

The Architect:

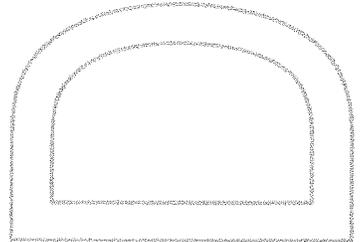
« Fuller & D'Angelo, P.C.
45 Knollwood Road
Elmsford NY 10523»

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101®-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201®-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.



ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

TABLE OF ARTICLES

1 THE CONTRACT DOCUMENTS
2 THE WORK OF THIS CONTRACT
3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
4 CONTRACT SUM
5 PAYMENTS
6 DISPUTE RESOLUTION
7 TERMINATION OR SUSPENSION
8 MISCELLANEOUS PROVISIONS
9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A LIST OF DRAWINGS
EXHIBIT B LIST OF SPECIFICATIONS
EXHIBIT C INSURANCE AND BONDS
EXHIBIT D CONTRACTOR'S PROPOSAL

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

A date set forth in a Letter of Award issued by the Owner.

§ 3.2 The Contract Time shall be measured from the date of commencement of stated in the Letter of Award.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

[« »] As indicated in Section 01 1000-Summary of Contract for various phases work and overall completion.

§ 3.3.2 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be « » (\$ « »), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
None	

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.

Item	Price	Conditions for Acceptance

§ 4.3 Allowances, if any, included in the Contract Sum:

Item	Price
Cash Allowance	\$25,000.00

§ 4.4 Unit prices, if any:

Item	Units and Limitations	Price per Unit (\$0.00)

§ 4.5 Liquidated damages, if any:

« »

§ 4.6 Other:

« »

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments (Refer to Section 01 2000 Price and Payment Procedures for Additional Requirements)

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the « » day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the « » day of the « » following month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than « » (« ») days after the Architect receives the Application for Payment.

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor and approved by the Architect in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™-2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed in accordance with Section 01 2000 Price and Payment Procedures.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner will withhold five percent (5%), as retainage, from the payment otherwise due:

§ 5.1.7.2 The Contractor agrees that maximum payment for each progress payment shall be 95% of the total Contract Sum. The balance of Contract, (Final Payment) shall not be made until all Punch List Items are completed and Close-Out Documents are submitted and approved by the Architect.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201-2017, including all punch list items and submitted all Close-Out requirements and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued to the Owner by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

« »

§ 5.3.1 Payments due and unpaid under the Contract shall not bear interest.

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201-2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201-2017, the method of binding dispute resolution shall be as follows:

[~~X~~] Litigation in a court of competent jurisdiction in the County of ***** State of *****.

« »

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201-2017 as revised for this project

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201-2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201-2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner's representative:

« » Ray Renda, Supt. of Buildings and Grounds

« »

« »

« »

« »

« »

§ 8.3 The Contractor's representative:

« »

« »

« »

« »

« »

« »

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Contractor shall purchase and maintain insurance as set forth in in Article 11 of AIA Document A201™-2017, General Conditions as revised for this project.

§ 8.5.1 The Contractor shall provide bonds as set forth in Section 00 6000.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201-2017, may be given in accordance with AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

§ 8.7 Other provisions:

« »

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

.1 AIA Document A101™-2017, Standard Form of Agreement Between Owner and Contractor

.5 Drawings

Number	Title	Date
Refer to Exhibit A		

.6 Specifications

Section	Title	Date	Pages
Refer to Exhibit B			

.7 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:
Exhibit C Insurance and Bonds

.9 Other documents, if any, listed below:

NAME	Date	Pages
Exhibit D Contractor's Proposal»	*****	*****

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

« »« »

(Printed name and title)

CONTRACTOR (Signature)

« »« »

(Printed name and title)

**SECTION 00 6000
BONDS AND CERTIFICATES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Attorney-in-fact who execute said bonds on behalf of a surety must affix thereto a certified and effectively dated copy of their Power of Appointment and Certification of an officer of the surety that the Power of Attorney continues in effect.

1.2 BID BOND:

- A. A Bid Bond will be required for this project. The American Institute of Architects Document A310, February 2010 edition entitled "Bid Bond" shall be the contract bond form for this project. Each individual bid shall be accompanied by a check upon a duly authorized State, National Bank or Trust Company, duly certified in the sum equal to TEN (10%) percent of the total amount of the bid, or a Bid Bond in the amount of TEN (10%) of the bid, payable to the Owner, and shall be enclosed in an envelope containing the bid; as a guarantee that the Bidder will, after the award is made to him, enter into a bona fide contract with the Owner for the work, and furnish the bonds and liability policies as required under the specifications. If, for any reason, whatsoever, the Bidder fails to enter into a proper contract and to execute the proper bonds, as required by these specifications, the amount of said guarantee be retained by the Owner shall be the difference between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the Work.
 - 1. Each bid bond must also be accompanied by the written consent of the Surety Company authorized to do business in the State of New York and be Best "Secured" rated or better.
- B. All certified checks, except the check of the Bidder to whom a contract is awarded, will be returned to the respective Bidders, as soon as the Letter of Award has been issued by the Owner.
 - 1. The check of the Bidder, to whom a contract has been awarded, shall be retained until the contract has been executed and all bonds together with an approved liability insurance policy are filed with the Owner.

1.3 PERFORMANCE AND PAYMENT BOND:

- A. A Performance and Labor and Material Payment Bond will be required for this project. The bond premiums will be paid for by the Contractor.
- B. The American Institute of Architects, AIA Document A312, 2010 edition, entitled "Performance Bond" and AIA Document A312, 2010 edition, entitled "Payment Bond" and shall be the contract bond form for this project. AIA Document A311 is not acceptable.
- C. Each bond shall be a sum equal to One Hundred (100%) of the Contract Sum and shall be in a form satisfactory to the Owner, and shall be underwritten by a surety company authorized to do business in the State of New York.
- D. Every Bond must display the Surety's Bond Number.
- E. Each bond must be accompanied by an original Power of Attorney, giving the name of attorney's in fact and extent of bonding capacity.
- F. The Surety Company shall be obligated for the bonds for a two year period after substantial completion.
- G. All Surety Companies shall be permitted to do business in the State of New York and be A.M. Best Rating of "A" or better as to Policy Holder Ratings and "VII" or better as to Financial Size category.
- H. A rider including the following provisions shall be attached to each Bond
 - 1. Surety hereby agrees that it consents to and waives notice of any addition, alteration, omission, change or other modification of the Contract Documents. Such addition, alteration, change, extension of time, or other modification of the Contract Documents, or a forbearance on the part of

either the Owner or the Contractor to the other, shall not release the Surety of its obligations hereunder and notice to the Surety of such matters is hereby waived.

2. Surety further agrees that in event of any default by the Owner in the performance of the Owner's obligations to the Contractor under the Contract, the Contractor or Surety shall cause written notice of such default (specifying said default in detail) to be given to the Owner and the Owner shall have thirty (30) days from the time after receipt of such notice within which to cure such default, or such additional reasonable period of time as may be required if the nature of such default is such that it cannot be cured within thirty (30) days. Such Notice of Default shall be sent by certified or registered U.S. Mail, return receipt requested, first-class postage prepaid to Owner.
3. Surety agrees that it is obligated under the bonds to any successor, grantee or assignee of the Owner.

END OF SECTION



AIA® Document A310™ – 2010

Bid Bond

CONTRACTOR:

SURETY:

OWNER:

Port Chester-Rye UFSD
113 Bowman Avenue
Port Chester, Ny 10573

BOND AMOUNT: \$

PROJECT:

Port Chester-Rye UFSD
Classroom Alterations
Various Facilities

ADDITIONS AND DELETIONS:

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this day of ,

(Contractor as Principal)

(Seal)

(Witness)

(Title)

(Surety)

(Seal)

(Witness)

(Title)

Init.



AIA[®] Document A312™ – 2010

Performance Bond

CONTRACTOR:

(Name, legal status and address)

(Row deleted)

OWNER:

Port Chester-Rye UFSD
113 Bowman Avenue
Port Chester, Ny 10573

CONSTRUCTION CONTRACT

Date:

Amount: \$ 0.00

(Row deleted)

Description:

Port Chester-Rye UFSD
Classroom Alterations
Various Facilities

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

Signature: _____

Name and

Title:

(Any additional signatures appear on the last page of this Performance Bond.)

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name and

Title:

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Init.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 When the Claimant has satisfied the conditions of Paragraph 4, and has submitted all supporting documentation and any proof of claim requested by the Surety, the Surety shall, with reasonable promptness, notify the Claimant of the amounts that are undisputed and the basis for challenging any amounts that are disputed, including, but not limited to, the lack of substantiating documentation to support the claim as to entitlement or amount, and the Surety shall, with reasonable promptness, pay or make arrangements for payment of any undisputed amount; provided, however, that the failure of the Surety to timely discharge its obligations under this paragraph or to dispute or identify any specific defense to all or any part of a claim shall not be deemed to be an admission of liability by the Surety as to such claim or otherwise constitute a waiver of the Contractor's or Surety's defenses to, or right to dispute, such claim. Rather, the

Init.

Claimant shall have the immediate right, without further notice, to bring suit against the Surety to enforce any remedy available to it under this Bond.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

.1 Surety hereby agrees that it consents to and waives notice of any addition, alteration, omission, change or other modification of the Contract Documents. Such addition, alteration, change, extension of time, or other modification of the Contract Documents, or a forbearance on the part of either the Owner or the Contractor to the other, shall not release the Surety of its obligations hereunder and notice to the Surety of such matters is hereby waived.

.2 Surety further agrees that in event of any default by the Owner in the performance of the Owner's obligations to the Contractor under the Contract, the Contractor or Surety shall cause written notice of such default (specifying said default in detail) to be given to the Owner and the Owner shall have thirty (30) days from the time after receipt of such notice within which to cure such default, or such additional reasonable period of time as may be required if the nature of such default is such that it cannot be cured within thirty (30) days. Such Notice of Default shall be sent by certified or registered U.S. Mail, return receipt requested, first-class postage prepaid to Owner.

.3 Surety agrees that it is obligated under the bonds to any successor, grantee or assignee of the Owner

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: _____

Name and Title: _____

Address: _____

Signature: _____

Name and Title: _____

Address: _____



AIA[®]

Document A312™ – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

Name, legal status and principal place of business

(Row deleted)

OWNER:

Port Chester-Rye UFSD
113 Bowman Avenue
Port Chester, Ny 10573

CONSTRUCTION CONTRACT

Date:

Amount: \$ 0.00

(Row deleted)

Description:

Port Chester-Rye UFSD
Classroom Alterations
Various Facilities

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name and

Title:

Signature: _____

Name and

Title:

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party.)

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Init.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all documents..

Init.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to allow Contractor access to site to complete project in accordance with the contract schedule.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

.1 Surety further agrees that in event of any default by the Owner in the performance of the Owner's obligations to the Contractor under the Contract, the Contractor or Surety shall cause written notice of such default (specifying said default in detail) to be given to the Owner and the Owner shall have thirty (30) days from the time after receipt of such notice within which to cure such default, or such additional reasonable period of time as may be required if the nature of such default is such that it cannot be cured within thirty (30) days. Such Notice of Default shall be sent by certified or registered U.S. Mail, return receipt requested, first-class postage prepaid to Owner.

.2 Surety agrees that it is obligated under the bonds to any successor, grantee or assignee of the Owner

.3 Each material or equipment supplier or subcontractor shall provide a partial release of liens every 60 days or as otherwise agreed upon between Owner and Contractor.

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: _____

Name and Title: _____

Address: _____

Signature: _____

Name and Title: _____

Address: _____

**SECTION 00 7200
GENERAL CONDITIONS**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 FORM OF GENERAL CONDITIONS

- A. AIA Document A201, General Conditions of the Contract for Construction, 2017 Edition, attached, is the General Conditions between the Owner and Contractor and has been revised. All deletions and additions have been incorporated, and is hereby made a part of the specifications. All references to the General Conditions within these specifications shall mean "General Conditions of the Contract for Construction" the American Institute of Architects, A.I.A., Document A201, 2017 Edition, as revised.

1.3 RELATED REQUIREMENTS

- A. Section 00 5200 - Form of Agreement

1.4 SECTION 01 4216 - Definitions.

END OF DOCUMENT

AIA[®] Document A201[®] – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

Port Chester-Rye UFSD
Classroom Alterations
Various Facilities.

THE OWNER:

Port Chester-Rye UFSD
113 Bowman Avenue
Port Chester, Ny 10573

THE ARCHITECT:

Fuller and D'Angelo, P.C.
Architects and Planners
45 Knollwood Road
Elmsford, N.Y. 10523

TABLE OF ARTICLES

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2	OWNER
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7	CHANGES IN THE WORK
8	TIME
9	PAYMENTS AND COMPLETION
10	PROTECTION OF PERSONS AND PROPERTY
11	INSURANCE AND BONDS
12	UNCOVERING AND CORRECTION OF WORK
13	MISCELLANEOUS PROVISIONS

ADDITIONS AND DELETIONS:

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503[™], Guide for Supplementary Conditions.

14 TERMINATION OR SUSPENSION OF THE CONTRACT

15 CLAIMS AND DISPUTES

(Paragraphs deleted)

16 NO DAMAGES FOR DELAY

(Paragraphs deleted)

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Subsubcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties. Any discrepancy between these General Provisions and the various sections of the specifications the General Provisions shall prevail.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other 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.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

Init.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 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.

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

§ 1.2.4 In the event of conflict, ambiguity and/or unclear circumstances between any of the requirements of the Contract Documents, the requirement that is most inclusive of the highest quality and/or of the highest cost shall govern. The Contractor herewith agrees that no extra compensation shall be awarded to him, since he herewith received specific instructions to the procedure and values of the work.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

Init.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will establish the protocols for the development, use, transmission, and exchange of digital data. Neither the Owner, Architects or its agents are obligated to provide any available digital data or information to the Contractor.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth, shall be at the using or relying party's sole risk and without liability to the other party and its Contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative. Refer to Section 01 4216 for additional definitions.

(Paragraphs deleted)

§ 2.2 Information and Services Required of the Owner

§ 2.2.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for the building permit, necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. All permits required from local agencies required for construction shall be paid for by the Contractor.

(Paragraphs deleted)

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number. Refer to Section 01 4216 for additional definitions.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys, if available, describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited and investigated 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.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, and at frequent intervals during the progress of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor. The Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a Contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.2.1 Should the Contractor perform any construction activity knowing it involves an error, inconsistency or omission in the Contract Documents without reporting such error, inconsistency or omission in the Contract Documents to the Architect, the Contractor shall be solely responsible for such performance and shall bear all costs of correction.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect or Owner's Representative, any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, including architect's, engineer's, and attorney's fees, subject to Section 15.1.7, as would have been avoided if the Contractor had performed

such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

§ 3.2.5 Except as to any reported errors, inconsistencies or omissions, and to concealed or unknown conditions defined in Paragraph 3.2.4, by executing the Agreement, the Contractor represents the following:

§ 3.2.5.1 The Contract Documents are sufficiently complete and detailed for the Contractor to (1) perform the work required to produce the results intended by the Contract Documents and (2) comply with all the requirements of the Contract Documents, within the time permitted for the completion of the work.

§ 3.2.5.2 The Work required by the Contract Documents, including, without limitation, all construction details, construction means, methods, procedures and techniques necessary to perform the work, use of materials, selection of equipment and requirements of product manufacturers will be consistent with: (1) good and sound practices within the construction industry; (2) generally prevailing and accepted industry standards applicable to Work; (3) requirements of any warranties applicable to the work; and (4) all laws, ordinances, regulations, rules and orders which bear upon the Contractor's performance of the work.

§ 3.2.6 Building-In: Contractor(s) and subcontractors shall note the parts and materials which must be built in as the work progresses, including but not limited to all templates, forms, sleeves, inserts, parts, blocks, anchors, etc. for all work throughout and shall furnish to or set for the Contractor for General Construction in time to prevent delay in the work. Contractors shall also comply with Section 01 7000 Cutting and Patching.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors including Subcontractors of a Subcontractor.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Contractor is solely responsible for managing labor and labor relations, including labor disputes or concerted activity, direct or indirect, without any delays or interference with the work schedule and/or other Contractors at the site. No delay in the performance of the Work shall be excused by reason of labor problems affecting the Contractor or any Subcontractor. In the event of strikes or labor disputes by other separate prime Contractors, or other Contractors performing work for the Owner under other Contracts, each

Contractor shall continue with its work and provide all necessary manpower as required to maintain the schedule and completion dates of the project.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive. Any request by the Contractor to make modifications to the work or substitutions shall not in any way cause or result in the delay of the ordering of any materials or equipment or the scheduling of the Work. Any such request shall require a minimum of thirty days' notice to the Owner and Architect and shall include full documentation of all costs and the time necessary. The full cost of any request by the Contractor for a modification or substitution, including but not limited to the cost of fees for the review of such request by the Owner and Architect or legal counsel and any delay time, shall be borne by the Contractor. Refer to Section 01 2500 Substitution Procedures.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them. Should any disorderly, incompetent, or objectionable person be hired or employed by a Contractor, upon or about the premises of the Owner, for any purpose or in any capacity, he shall upon the request of the Architect, be discharged from the work, and not again be employed thereon without the written permission of the Architect.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. In the event of a conflict between provisions of the contract documents, provisions providing for the longest warranty period shall apply.

§ 3.5.2 The warranties set forth herein shall survive termination of this Contract.

§3.5.2.1 The Contractor agrees to assign to the Owner at the time of final completion of the Work, any and all manufacturer's warranties relating to materials and labor used in the work and further agrees to perform the work in such a manner so as to preserve any and all such manufacturer's warranties.

§3.5.2.2 All new installations, assemblies, systems, equipment, and labor and materials installed by this Contractor shall be guaranteed against all defects and failures for a minimum period of 2 years from the date of final completion.

§3.5.2.3 For the above stated time periods from the date of final completion, the Contractor shall, at his own expense, promptly repair and put into first class condition any workmanship and materials in which defects may develop, and shall, at his own expense, promptly replace all defective equipment, apparatus, fixtures and materials, to the full satisfaction of the Owner.

§3.5.2.4 The date of final completion of all work shall be stated in writing by the Engineer/Architect, and as acknowledged in writing by the Contractor.

§3.5.2.5 During the guarantee period, the Contractor shall be responsible for all costs, incurred in making the defective work good, both for labor and materials, and for all resulting injuries and damages to the building and to equipment.

§3.5.2.6 The warranty provided by the Contractor is in addition to any warranty provided by equipment and material manufacturer. The Contractor's guarantee period shall not negate the longer guarantee period provided by equipment and material manufacturers.

§3.5.2.7 The Contractor warrants good title to all materials, supplies and equipment installed or incorporated in the work.

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§3.5.2.8 The Contractor for itself and its successors and assigns, warranties to the Owner and their successors and assigns:

- a. The Warranty shall remain in effect for a period of time specified in this section and by appropriate Divisions of Specifications.
- b. The Contractor will make good at its own cost and expense all defects and all damage caused to the Owner, in all Work and all trades required by the Contract Documents for Warranty Work. All corrections to defective Work shall be made at the convenience of the Owner.

§ 3.5.2.9 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence at the completion of the Work and issuance of the Certificate of Substantial Completion.

§ 3.6 Taxes

§ 3.6.1 The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.6.2 Contractor shall pay all applicable local, state, federal and other taxes and licenses.
Add the following for public projects

§ 3.6.3 The Owner is exempt from sales and use taxes for materials fully incorporated into the Work of the Contract as accepted and approved by the Architect. The Owner will take title to materials used in the Project in order to permit tax exemption. The Contractor shall pay all other sales, consumer, use and similar taxes incurred in connection with the Work provided by the Contractor. The Owner's exemption from sales and use tax does not apply to machinery, equipment, tools and other items purchased, leased, rented or acquired for the Contractor's use in part or entirely in connection with the Work. Upon request of the Owner or the Architect, the Contractor shall provide a bill of sale or other instrument indicating the quantities and types of materials purchased directly by the Contractor or Subcontractor for incorporation into the Work. Upon delivery of the materials to the Project sites, the Contractor shall mark or otherwise identify the materials to be incorporated into the Work. The Owner's tax exemption shall apply only to materials so identified and accepted.

§ 3.6.3.1 Owner shall provide required exempt documentation when requested

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided Paragraph 2.2.1 in the Contract Documents, the Contractor shall secure and pay for all other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded. The Contractor shall pay any costs or fees incurred to comply with such requirements, any fines or penalties imposed for failing to comply and any costs or fees incurred by Owner due to any failure to comply. If the Contractor fails to give such notices, the Contractor shall be liable for and shall indemnify and hold harmless the Owner (including its Board of Education), the Architect and their respective consultants, employees, officials, officers and agents against any resulting fines, penalties, judgements or damages, including reasonable attorney's fees imposed on or incurred by the parties indemnified hereunder.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.2.1 The Contractor shall procure and obtain all bonds required of the Owner or by the municipality in which the project is located or by any other public or private body with jurisdiction over the Project. In connection with such bonds, the Contractor shall prepare all applications, supply all necessary back-up material and furnish the surety with any required personal undertakings. The Contractor shall also obtain and pay all charges for all approvals for street closings, parking meter removal and other similar matters as may be necessary or appropriate from time to time for the performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to (or if Contractor should have known it to be contrary to) applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall be responsible for such Work and shall bear all costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 5 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2

(Paragraphs deleted)

Refer to Section 01 2100 Allowances.

(Paragraph deleted)

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. The superintendent shall be at the site at all times when work is being performed and fluent in English.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent including addresses and telephone numbers of the members of his organization who can be contacted in the event of an off-hour emergency at the building site. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed. The Superintendent shall be changed upon request of the Owner for good cause.

§ 3.10 Contractor's Construction and Submittal Schedules Refer to 01 3000 for additional requirements.

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's approval a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the

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Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. Revisions to schedule shall be approved by the Owner.

§ 3.10.1.1 All of the dates provided for in any of the schedules prepared by the Contractor and submitted to the Architect, including all milestone and submittal dates, shall be considered to be "time of the essence" and may not be changed or modified without the Owner and Architect's specific written approval.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in accordance with the most recent approved schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or Subcontractor or a Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work. All shop drawings are the product and property of the Contractor.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By approving and submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and

coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

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

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

(Paragraphs deleted)

§ 3.12.11 Comply with Submittal Procedures. If this Section conflicts with Section 01300, Section 01300 shall control.

3.13 Use of Site

§ 3.13.1 The Contractor(s) shall have limited access to the site, inside and outside of the building. Comply with other sections regarding limited access. The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.13.2 The Contractor shall coordinate the Contractor's operations with, and secure the approval of, the Owner's Representative before using any portion of the site.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents. Refer to Section 01 01731 or Section 01 1700 for additional requirements.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.15.3 Prior to occupancy the Owner must perform custodial cleaning of the work area. If the Contractor has not removed construction debris, equipment, tool etc. which will prevent the Owner to perform custodial cleaning the Contractor will be back charged for additional cleaning costs incurred by the Owner.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

(Paragraph deleted)

§3.18.1 Indemnity Agreement - Compliance with the foregoing requirements as to insurance shall not relieve the Contractor from liability under the indemnity agreement set forth in the general conditions as amended

§3.18.1.1 To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless the owner, the owner's representative, the architect, the architect's consultants, and agents and employees of any of them, from and against claims, damages, losses and expenses, including , but not limited to, attorneys fees and disbursements, arising out of or resulting from performance of the work, including, but not limited to, such claims, damages, losses and expenses attributable to bodily injury, sickness, disease, or death, or to injury or to destruction of tangible property (other than the work itself) including loss of use resulting there from, but only to the extent caused in whole or in part by acts or omissions of the Contractor, asubcontractor anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate abridge or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in the general conditions or supplementary general conditions.

§3.18.1.2 In the event that any party is requested but refuses to honor the indemnity obligations hereunder, then the

party indemnifying shall in addition to other obligations, pay the cost to the party requesting indemnification or seeking enforcement and enforcing this indemnity requirement including, but not limited to attorney's fees.

§3.18.1.3 In addition, to the extent not covered above, the Contractor or subcontractor shall defend, indemnify and hold harmless the Owner, Owner's Representative, Architect, Architect's Consultants, and agents and employees of any of them, from any and all claims, losses, damages, suits, obligations, fines, penalties, costs, charges and expenses, which may be imposed or incurred by or asserted against any of them by reason of any act or omission of such Contractor, or any subcontractor, or any person or firm directly or indirectly employed by such Contractor with respect to violations of OSHA requirements, rules and/or regulations

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents and to perform such inspections and observations as are necessary to allow the Architect to review and approve change orders, claims of any kind and interim and general requisitions for payment, all in accordance with the applicable provisions of the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of, the Contractor, SubContractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.8.1 Neither the Owner, Owner's Representative nor Architect may issue instructions to the Contractor to change the amount of the contract, except by properly executed Change Order.

§4.2.8.2 Instructions are issued by the Owner through the Owner's Representative or Architect, to the Contractor. The instructions shall not be carried out by the Contractor prior to a written order in the form of a change order, signed by the Owner, Architect and Contractor, authorizing a change in the Contract amount or an adjustment to the Contract Sum.

§4.2.8.3 No amount shall be payable by the Owner to the Contractor for performance of work without an executed change order. Comply also Article 7.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith. Should the Architect's written interpretations, in the opinion of the Contractor, show additional work, or work of more expensive character than that shown or inferred by the Contract Drawings, it shall be the duty of the Contractor to so notify the

Architect within five (5) days from receipt of same in order that proper adjustment may be made if found justifiable in the opinion of the Architect and the Owner. The Contractor shall assume full responsibility for all such work done without the approval of the Architect and the Owner

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

(Paragraph deleted)

§ 5.1. A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor..

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor within 10 days after award of the Contract, shall notify the Owner and Architect in writing, of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Copies of all subcontractor contracts are to be provided to the Owner's Representative.

§ 5.2.2 Contractor shall not award any work to any subcontractor or supplier without prior written approval of the Architect and Owner's Representative. Approval will not be given until Contractor submits to the Architect a written statement concerning the proposed award to the subcontractor. The statement shall contain such information as the Architect or Owner's Representative will require.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner and Architect have no reasonable objections. No increase in the Contract Price shall be allowed where a subContractor is rejected by the Architect or Owner who is deemed unqualified to perform the work subcontracted by the Contractor or having too many current projects handled by insufficient personnel.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

(Paragraphs deleted)

§ 5.2.5 Notwithstanding any other provisions of the Contract Documents, General Construction Contractor shall perform at least Twenty-five (25) % of the field work by its own employees.

.1 Prime/Sub Contractors for HVAC, Plumbing and Electrical shall perform at least seventy-five (75) % of the field work by its own employees.

.2 Roofing Contractors, if any shall perform at least sixty-five (65) % of the field work by its own employees, including wood blocking, insulation, roofing, flashings, roof accessories, skylights and sheet metal work.

§ 5.2.5.2 For the purpose of the preceding paragraph, any part of the work performed by supervisory personnel (persons above level of foreman) or by the office personnel and such items as bonds, certificates, shop drawings and

similar items shall not be considered part of the percentage of work required to be performed by the Contractor's employees.

§ 5.3 Sub-Contractual Relations

§ 5.3.1 By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-Subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors. The agreement between the Contractor and Subcontractor shall not provide, nor shall the Contract Documents be deemed to provide, any rights, remedies or redress by the Subcontractor(s) against the Owner.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other Contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation. Should any Contractor sustain any damage or delay through any act or omission of any other Contractor having a contract with the Owner for the delivery and/or the installation of materials, supplies, equipment, plant, or appliances, or should the Contractor sustain any damage or delay through any act or omission of a subcontractor, the Contractor shall have no claim against the Owner or their Architects for such damage or delay, but shall have a right to recover or to claim such damage only from the other Contractor or subcontractor.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

(Paragraph deleted)

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed

construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities, or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.2.6 Claims and other disputes and matters in question between the Contractor and a separate Contractor shall be subject to the provisions of Article 15

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. Change Orders shall be submitted in total amounts for a particular change not in installments for each trade thereafter. All partial change order submissions will be rejected and returned to each Contractor for completion.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.
- .4 In case where allowances as shown on the bid form and accepted by the Owner, they shall be used to determine the amount of addition to or deduction from the Contract Price. The unit prices or allowances when mutually agreed to be fair and equitable by Owner and Contractor will be made part of the Agreement.

§ 7.2.2 Final determination of all claims shall be by the Owner.

§ 7.3 Construction Change Directives

§ 7.3.1 If the Construction Change Directive involves an adjustment to the contract price, the adjustment will be computed by the Architect in form conforming to 7.3.3.5.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon.
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee: or
- .4 All additions and deductions to the Contract Price not covered by unit prices resulting from changes in the Work shall be determined by the following outline:
- .5 CONTRACT WORK
 - a. Materials (Itemized Breakdown) _____
 - b. Rent of Equipment (Listed separately) _____
 - Sub-Total #1(items a & b) _____
 - c. Sales Taxes (where applicable on Sub-Total #1) _____
 - d. Labor (Itemized Breakdown) _____
 - e. Insurance (Workmen's Compensation Social security or as otherwise required and/or specified) _____
 - Sub-Total #2 (items c, d & e) _____
 - f. Overhead & Profit (% x Sub-Total #2) _____
As per Article 7.3.
 - g. Sub-contract Work
(If applicable, in identical breakdown, as shown above Sub-Total #1 & 2) _____
 - h. Contractor's overhead & profit on sub-contract changes (5%) _____
 - Sub-Total #3 (items f, g & h) _____
 - i. TOTAL QUOTATION (Sub totals 1, 2, 3) _____

§ 7.3.3.1 Change Orders shall be submitted in total amounts for a particular change, not in installments for each trade thereafter. All partial change order submissions will be rejected and returned to the Contractor for completion.

- .1 Overhead and profit combined, included in the total cost to the Owner, shall be based on the following schedule:
 - For the Contractor, for any Work performed by the Contractor's own forces, ten percent (10%) of the cost.
 - For the Contractor, for Work performed by Contractor's sub-contractor, five percent (5%) of the amount due the subcontractor.
 - For each subcontractor or subcontractor involved, ten percent (10%) of the cost
- .2 Cost to which overhead and profit is to be applied shall be limited to the following:
 - Labor.
 - Cost of Materials, including sales tax and cost of delivery.
 - Workers' or Workmen's Compensation Insurance.
 - Rental value of equipment and machinery.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

(Paragraphs deleted)

§ 7.3.4.1 In order to facilitate checking of quotations for extras or credits, all proposals, shall be accompanied by a complete itemization of costs including labor, materials and sub-contracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are sub-contracts, they shall be itemized also. All change orders without such itemization will be returned to the Contractor for resubmission

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15. Failure to timely file any claim in accordance with the requirements set forth therein shall constitute a waiver of such claim.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost decrease as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work, not in dispute and completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

§7.4.1 The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. The work included in such order shall be performed by the Contractor at no additional cost to the Owner and shall not form the basis for a claim for an extension of the Contractor's time to complete its Work. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time. The Contractor shall perform the work included in such orders so as to cause no delay to its Work and/or the work of other contractors engaged by the Owner in connection with the Project.

§7.4.2 Minor Changes in the work are not to be construed as Change Orders. A signed minor change order is not an approved change order.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work. The date shall not be postponed by the failure to act of the Contractor or of persons or entities for whom the Contractor is responsible.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

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§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.3.1 As a condition precedent to Substantial Completion, the Owner has received all certificates of occupancy and any other permits, approvals, licenses, and other documents from any governmental authority having jurisdiction over the Work necessary for the beneficial occupancy of the Project or any part thereof

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.1.5 Dates indicated in Section 01 1000 Summary of Contract or Section 01 11010 Milestone Schedule are dates critical to the Owner's operations that establish when a part of the work is to commence or be complete. All Milestone Dates are of the essence and shall have the same meaning as Substantial Completion for the purpose of Liquidated Damages in this Article 8. Liquidated damages applied to Substantial Completion shall apply to Milestone Dates

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not commence, except by agreement or instruction of the Owner in writing, the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control or (3) by other causes that the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine. No extension of time will be granted for changes in the work or labor disputes, or work stoppage due to asbestos removal. This paragraph shall control where a conflict appears among the contract documents.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 Notwithstanding anything to the contrary in the Contract Documents, an extension in the Contract Time, to the extent permitted under Paragraph 8.3.1, shall be the sole remedy of the Contractor for any (1) delay in the commencement, prosecution or completion of the Work, (2) hindrance or obstruction in the performance of the work, (3) loss of productivity, or (4) other similar claims (collectively referred to in this Paragraph 8.3.3 as delays) whether or not such delays are foreseeable, unless a delay is caused by acts of the Owner constituting active interference with the Contractor's performance of the Work, and only to the extent such acts continue after the Contractor furnishes the Owner with notice of such interference. In no event shall the Contractor be entitled to any compensation or recovery of any damages, in connection with any delay, including, without limitation, consequential damages, lost opportunity costs, impact damages or other similar remuneration. The Owner's exercise of any of its rights or remedies under the Contract Documents (including, without limitation, ordering changes in the work, or directing suspension, rescheduling or correction of the work), regardless of the extent or frequency of the Owner's exercise of such rights or remedies, shall not be construed as active interference with the Contractor's performance of the Work.

§8.4 LIQUIDATED DAMAGES

8.4.1 Contractor realizes that time is of the essence on this Contract and the date of Substantial Completion shall be no later than the date set forth in Article 3.2 of the Contract. The Contractor understands that substantial disruption of the Owner's educational process will occur if the project is not completed by the date of substantial completion. In the event the Contractor fails to substantially complete the work under this contract by said scheduled date(s), the sum per calendar day, as follows:

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General Construction Contract

\$500

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and will, at the sole discretion of the Owner, be subtracted from the payment due the Contractor (or, if the amount due the Contractor as Payment is insufficient, any deficiency shall be paid by the Contractor to the Owner), except in cases where a delay is due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Government, in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, freight embargoes, or delays of Subcontractors or Suppliers due to such causes. Delay in acquisition of materials other than by reason of or freight embargoes will not constitute a delay excusable under this provision unless approved by the Owner in writing.

§8.4.2 Within five calendar days from the occurrence of any such delay, the Contractor shall notify the Owner, in writing, of the cause of delay. The Owner will ascertain the facts and extent of the delay, and extend the time for completing the Work when, in his judgment, the findings of fact justify such an extension. Owner's findings of fact will be final.

§8.4.3 In addition to Liquidated Damages, the Contractor shall be liable for all additional costs incurred by the Owner due to the failure of the Contractor to complete each Phase as required. The additional costs shall include but not be limited to the following:

§8.4.3.1 Staff, as required, to make the facility accessible to the Contractor; for the Architect and Consultants to perform inspections after the completion date of each phase. Expenses and costs incurred by the Owner for additional services of the Owner's Representative, in addition to additional inspections.

§8.4.3.2 The cost of additional inspections by the Architect and their consultants will be at the rate of \$250.00 per hour.

§8.4.4 The said sum per calendar day and additional costs set out above, shall constitute the Liquidated Damages incurred by the Owner for each day of delay beyond the agreed upon dates of substantial completion. Such Liquidated Damages shall be in addition to any other damages (other than reason of delay) Owner may incur as a result of Contractor's breach of Contract, to include those which may be incurred pursuant to of the General Conditions.

§8.4.5 In addition to the liquidated damages described above, in the event the Contractor fails to complete all work under this Contract by said Scheduled Dates, the Contractor will, at the sole discretion of the Owner, not be permitted to perform any work during normal hours. Such work shall only be performed after hours, Saturdays, Sundays, holidays, or periods when the facility is unoccupied, at no additional cost to the Owner. This paragraph in no way limits any other rights, or remedies of the Owner under this Contract.

§8.4.6 All costs will be subtracted from payment due the Contractor (or, if the amount due the Contractor for payment is insufficient, any deficiency shall be paid by the Contractor to the Owner.

§8.4.7 This section shall in no way prevent the Owner from enforcing any other remedies it may be entitled to pursuant to the Contract, including the right of termination, and in the cases of termination, any damages suffered by the Owner shall not be considered damages by reason of delay, regardless of the reason for termination.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum (Refer to Section 01 2000 Price and Payment Procedures for additional requirements)

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit cost allowances are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit cost allowances to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit cost allowances shall be equitably adjusted.

§ 9.1.3 Notwithstanding anything to the contrary contained in the Contract Documents, the Owner may withhold any payments to the Contractor if and for so long as the Contractor fails to perform any of its obligations or otherwise is in default under any of the Contract Documents; provided, however, that any such hold back shall be limited to an amount sufficient in the reasonable opinion of the Owner to cure any such default or failure of performance by the Contractor.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect for approval, before the first Application for Payment, allocating the entire

Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This approved schedule shall be used as a basis for reviewing the Contractor's Application for payment

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers and shall reflect retainage if provided for in the Contract Documents. Comply with Section 01 2000 Price and Payment Procedures.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and installed. If approved in advance by the Owner, payment be made for materials and equipment suitably stored on the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such material and equipment or otherwise protect the Owner's interest, and shall include applicable insurance and storage Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor. with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.2.1 All materials and equipment, including materials and equipment stored on-site but not yet incorporated into the Work, upon which partial payments have been made shall become the property of the Owner, but the care and protection of such materials and equipment shall remain the responsibility of the Contractor until incorporation into the Work, including maintaining insurance coverage on a replacement cost basis without voluntary deductible. Notwithstanding payment by the Owner, all warranties and/or guarantees required by the Contract Documents shall not begin to run until the Contractor has completed its Work.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.3.4 Application for all Payments must be accompanied by certified payroll records and all releases of liens for previous applications **from Contractor and their subcontractors** and a sworn and notarized statement that all subcontractors have been paid to at least 95% of previously requisitioned sums. In the event a lien is filed on the Owner's property, by any entity, due to the actions of the Contractor, regardless of the relationship between the lien and the work performed on this project all payments will be held in abeyance until such lien is bonded or removed.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within ten business days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part in part as provided in Section 9.5.1; .

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied,
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 failure to carry out the Work in accordance with the Contract Documents
- .8 Failure to comply with scheduled milestone or submittal dates.
- .9 damages resulting from the Contractor's failure to notify the Architect of errors or inconsistencies between and among the Contract Documents;
- .10 failure of the Contractor and/or its Subcontractors to comply with the requirements for maintaining record drawings.
- .11 the Architect's discovery or observation of work which has been previously paid for by the Owner which is defective and/or incomplete.
- .12 such other acts and/or omissions by the Contractor in connection with the performance of its Work that do not comply with the Contract Documents; or
- .13 the amount requested exceeds the percent completion of work on the Project site(s).

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

(Paragraph deleted)

§ 9.7 Failure of Payment

§ 9.7.1 If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within ten business days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within thirty business days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon ten additional business days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received.

§ 9.8 Substantial Completion (Refer to Section 01 7800 for additional requirements)

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Owner's Representative and Architect a comprehensive list of items to be completed or corrected prior to final payment. The Contractor shall proceed promptly to complete and correct the items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's Representative and Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its

intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Owner's Representative and Architect to determine Substantial Completion. **If the Architect is required to inspect the Contractor's work more than twice, the Contractor shall be back charged for the cost of the Architect's services for the additional inspections.**

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents. The Contractor understands that no retainage will be paid until all work, including punch lists items are complete and submission of all close out documents as listed in Section 01 7800 Closeout Submittals are approved.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner's Representative, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment (Refer to Section 01 7800 for additional requirements)

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner's Representative and Architect will promptly make such inspection. When the Owner's Representative and Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Owner's Representative and Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.1.1 If the Contractor's Work is not accepted by the Owner after final inspection and additional time is required to complete items identified during the final inspection, the date starting the warranty periods described in the Contract Documents shall be set by the Architect at his discretion, but no later than the date of the Final Certificate for Payment.

§ 9.10.1.2 If the Architect is required to perform more than one final inspection because the Contractor's Work fails to comply with the requirements of the Contract Documents, the amount of compensation paid to the Architect by the Owner for additional services shall be deducted from the final payment to the Contractor.

§ 9.10.2 Neither final payment nor any retained percentage shall become due until the Contractor submits to the Architect (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, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) completion of all punch list items, (6) submission of all close out documents as listed in Section 01 7800 Closeout Submittals (7) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, (8) Architect's punch list certifying all punch list items have been completed with each item signed off by the Owner's Representative and Contractor. and (9) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and 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, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance 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 the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment may be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents.
- .3 terms of special warranties required by the Contract Documents: or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment; or
- .5 defective work or concealed conditions appearing after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. Prior to beginning any work, the Contractor shall submit a copy of its safety plan to the Architect. The Contractor shall make the participation of its Subcontractors in its safety plan and program mandatory. The Contractor and its Subcontractors shall conduct their operations in accordance with the Safety Guides for Construction issued by New York State Education Department ("SED") and the Contractor's Safety Plan and Program.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall provide for the safety and protection of the Project sites, all persons who come in contact with the Work and all real and personal property located at or adjacent to the Project sites. Without limitation to the foregoing, the Contractor shall, at Contractor's sole cost and expense, take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby, including but not limited to students, staff, volunteers and agents of the Owner and the Architect;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor;
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement during construction; and
- .4 The work on the project of any other Contractors or any property of any other Contractors work on the project

§ 10.2.1.1 The Contractor shall maintain at the project site MSDS documentation for all material brought on site.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

- .4 shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement during construction; and
- .5 the work and operations of the Owner or other separate contractors and the property of the Owner as well as any other contractors working on the Project.

§ 10.2.2.1 Any and all fines or citations levied against the Owner, Architect, or Owner's Representative due to the failure of the Contractor to comply with statutes, ordinances, codes, rules, regulations, or lawful orders of any governing authority, shall be paid for by the Contractor. This shall include any interest or late charges which accrue due to the Contractor's failure to remit payment upon receipt of such levies.

§ 10.2.2.2 Any reference made to rules and regulations promulgated by various governmental agencies with the Specifications or Construction Drawings are for the Contractor's benefit. The issuance of compliance to said regulations by workers employed by the Contractor or by Subcontractors is the sole responsibility of the Contractor; and that, notwithstanding any reference to any rule or regulation, that the Architect, the Architect's or any representative of the Owner is not assuming any duty to provide supervision of construction methods or processes.

- .1. Each Contractor shall assign one person from his staff to be on-site safety coordinator.
- .2 Each Contractor is solely responsible for overall job site safety, the safety of his employees and the conduct of his Work and that of his subcontractors.
- .3 Each Contractor affirms he is fully versed in all State, Federal and local regulations pertaining to safety including OSHA regulations, and pertaining to construction operations.
- .4 All personnel have appropriate Department of Labor certification.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.3.1 The Contractor shall be responsible for all costs incurred by the Owner caused by false security alarms and false fire alarms set off by the Contractor, its Subcontractors, employees, suppliers, officers, directors or servants.

§ 10.2.3.2 All safety equipment including but not limited to hard hats and other personal protective materials and equipment (masks, face shields, gloves, etc.) required for the Contractor to perform its work are to be supplied by the Contractor and/or its Subcontractors.

§ 10.2.3.4 The Contractor acknowledges that the Labor Law of the State of New York, and regulations adopted thereunder, place upon both the Owner and Contractor certain duties and that liability for failure to comply therewith is imposed on both the Owner and Contractor regardless of their respective fault. The Contractor hereby agrees that, as between the Owner and the Contractor, and to the extent permitted by law, the Contractor is solely responsible for compliance with all such laws and regulations imposed for the protection of persons performing the Contract. For additional indemnity obligations see Section 3.18 of these General Conditions.

§ 10.2.3.5 When all or a portion of the Work is suspended for any reason, the Contractor shall securely fasten down all coverings and protect the Work, as necessary, from injury by any cause.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.4.1 When use or storage of hazardous materials or equipment or unusual construction methods are necessary to promulgate the Work, the Contractor shall give the Owner reasonable advance notice, and shall maintain on the site, a full set of safety instructions relating to all such materials.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, employees, agents, or representatives of any of the above or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents and for on-site safety. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

§ 10.2.8.1 If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.2.8.2 The Contractor shall promptly report in writing to the Architect and the Owner all accidents arising out of or in connection with the Work which cause death, personal injury or property damage, giving full details and statements of any witnesses.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Owner shall only be responsible to pay for the services of the laboratory if the material or substance reported by the Contractor is found to be hazardous. When the material or substance has been identified the Contractor shall submit a proposal to abate the material. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused in whole or in part by negligent acts or omissions of the Owner, anyone directly or indirectly employed by the Owner or anyone for whose acts the Owner may be liable.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

(Paragraph deleted)

§ 10.4 Emergencies

In an emergency "immediately" affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7. The word "immediately", for the purposes of this paragraph shall mean a time period which is less than the time it would take to notify the Owner's Representative of the emergency.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§11.1.1 All insurance purchased by Contractor shall constitute primary insurance and primary coverage for all risks insured and that any other liability insurance that the school district or Fuller and D'Angelo, P.C. may procure or maintain is secondary and that there shall be no contribution by such insurance until insurance provided by the Contractor is exhausted. All policies shall be provided by insurers licensed to conduct business in New York State.

§11.1.1.1 The following insurance coverages and requirements must be provided by the Contractor and evidence of same must be certified to the Owner, Owner's Representative and Architect prior to commencing any work under this contract, and original certificates of insurance shall be furnished prior to the contract signing.

§ 11.1.1.4 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed.
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees.
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees.
- .4 Claims for damages insured by usual personal injury liability coverage.
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom.
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle: and
- .7 Claims for bodily injury or property damage arising out of completed operations: and

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- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

§11.1.2 Certificates of Insurance:

- .1 Each certificate shall include the following clause: It is agreed that prior to any cancellation of, or material change in the policies certified to on this Certificate, 30 days written notice, by certified mail, return receipt requested, shall be sent to the Owner, Owner's Representative and Architect prior to the effective date of such change or cancellation.
- .2 Shall specifically describe the work to be performed and the job site location.
- .3 Shall include to the fullest extent permitted by law, the Contractor shall, defend, indemnify and hold harmless the Owner, Architect, Owner's Representative, their respective Consultants and their respective members, directors, officers, agents, employees, successors, and assigns (collectively "Indemnitees") from and against any and all losses, claims, costs, damages, expenses, and attorneys' fees, arising out of or resulting from the performance of the Work, or by Contractor's breach of this Agreement, except to the extent caused by the sole negligence or willful misconduct of any Indemnitee hereunder. T
- .4 **The Contractor and each of its Subcontractors and to all Shared Services Contracts (Purchase Order Agreements)** shall include the Owner, Architect, Construction Manager and their Consultants as Additional Insureds on their casualty and commercial liability insurance policies on a primary and non-contributory basis, including a waiver of subrogation, acceptable to Owner, and shall not include any exclusions that limit the scope of coverage beyond that provided to the named insured and the endorsement shall not require a written agreement with the Additional Insureds.
- .5 **Additional Insured** status shall be provided by ISO endorsement CG 20 38 04 13 and CG 20 37.
- .6 A copy of the endorsement(s) providing additional insured sections must be attached to the Certificates.
- .7 Shall use the forms adopted and/or required by the New York State Workers' Compensation Board for proof of Workers' Compensation and NYS Disability Insurance, an ACORD certificate is not acceptable proof
- .8 **Renewal Certificates of Insurance:** Renewal Certificates of Insurance must be filed with the Owner, Owner's Representative, Architect **at least five (5) days** prior to the expiration of any policy

(Paragraph deleted)

§11.1.3 The Contractor acknowledges that failure to obtain such insurance on behalf of the Owner constitutes a material breach of contract and subjects it to liability for damages, indemnification and all other legal remedies available to the Owner. The Contractor is to provide the Owner with a Certificate of Insurance, evidencing the requirements have been met, prior to the commencement of the work or use of the facilities. Failure to provide said insurance shall cause the immediate suspension of all work and possible cancellation of this contract.

(Paragraphs deleted)

§11.1.4 The Contractor agrees to carry as a minimum the following insurance in such form and with such insurers as are satisfactory to the Owner covering the work hereof:

- .1 **Workmen's Compensation Insurance:** Statutory Workmen's Compensation Insurance coverage as required by the State Law in which the project site is located, and in the state in which the Contractor is domicile, and licensed to do business, and for all of his employees to be engaged in work on the project under this contract, and in case such work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the employees to be engaged in such work. Provide Statuary Limits and Coverages
- .2 **Employers Liability Insurance:** Not less than \$1,000,000 for all employees to be engaged in work on the Project.
- .3 **Commercial General Liability Insurance** Including Premise/Operations, Independent Contractors, Products and Completed Operations, Broad Form Contractual, Broad Form Property Damage, Broad Form General Liability Endorsement and blanket coverage for underground hazards; X (explosion) C (collapse) U (underground).

Minimum Limits:

Each Occurrence:	\$1,000,000.00
General & Product Liability Aggregate:	\$2,000,000.00.
(General Aggregate to apply on a per	

project basis).	
Personal Injury:	\$1,000,000.00.
Fire Damage Legal:	\$50,000.00.
Medical Payment:	\$10,000.00

Other Requirements: No Explosion, Underground, Collapse (XCU) exclusions.

.3 Bodily injury including death arising from any occurrence for the period and time for this specific work contract, including any contractual agreement assuming liability of Owner by terms of contract agreement in an amount of not less than the amount as stated above.

a. Coverage and limits required in no way restrict or relieve the Contractor from the full and complete responsibility for all injuries and/or damages and it is suggested that the Contractor consult their agent or broker to be certain their coverage, in form and limits, is sufficient for their needs.

.4 Automobile Insurance. Business Automobile liability insurance coverage format shall be as required by the state law in which any and all vehicles are registered, and must include all owned, hired or non-owned vehicle es in the following amounts:

Minimum limits:

Bodily Injury -	\$1,000,000.00 each accident
Property Damage -	\$1,000,000.00 each accident
or a combined single limit of	\$1,000,000.00

.5 Conditions of Coverage Bodily Injury and Property Damage coverage under both General and Automobile Insurance shall include the "occurrence" basis wording. In the event of cancellation of insurance, the Owner shall be given advance notice of 30 days by the insured carrier and such to stipulated in the insurance contract.

.6 Umbrella/Excess Liability Insurance. Limit: \$5,000,000.00 per occurrence and aggregate excess over Underlying Comprehensive General Liability, Automobile Liability, Employers Liability Policies.

.7 Self-Insured Retention \$10,000.00 per occurrence.

.8 Owner Contractor Protective Liability Insurance (OCP): If the Contract amount is **greater than \$500,000.00** the Contractor shall purchase and maintain an Owner's Protective Liability policy naming the Owner, Owner's Representative, and Fuller & D'Angelo, P.C. as named insured. The original and duplicate policy shall be filed with Owner and the policy shall remain in effect until the job is formally accepted by the Owner.

Limits of Liability for project up to 1,000,000.:	\$1,000,000.00 each occurrence.
	\$2,000,000.00 aggregate

Limits of Liability for project over 1,000,001:	\$2,000,000 each occurrence
	\$4,000,000 aggregate. 9

Asbestos/Lead/Hazardous Materials Liability Insurance : With coverage for the services rendered for the Owner, including, but not limited to removal, replacement enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, including coverage for third-party liability claims for bodily injury, property damage and clean-up costs in addition to Insurance specified, The Contractor shall provide the following liability insurance:

Workman's Compensation: State: Statuary

Applicable Federal: (e.g., Longshoremen, harbor work, Work at or outside U.S. Boundaries): Statuary

Employer's Liability: \$100,000

Said policy shall be endorsed to indicate that the term "Insured" shall include the "Owner" Owner's Representative, and Fuller & D'Angelo, P.C. Architects & Planners and be deemed to include their authorities, boards, bureaus, departments and officers thereof in their official capacities.

Said policy shall be endorsed to indicate that the Contractor is solely responsible for the premium cost of the policy including any audit adjustments.

Said policy shall contain a 30-day notice of cancellation clause with said notice to be sent to the Owner, Owner's Representative, and Fuller & D'Angelo, P.C. Architects & Planners by certified mail.

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Minimum limits:

\$2,000,000 per occurrence/\$3,000,000, including products and completed operations. If a retroactive date is used, it must pre-date the inception of the contract

If automobiles are to be used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage (ISO endorsement CA 9948) as well as proof of MCS 90:

- .10 Builders Risk:** Unless otherwise provided for hereunder, the Contractor shall purchase and maintain throughout the course of the entire contract, and until final acceptance, a Builders Risk Policy providing a Builder's Risk Coverage Form or Builder's Risk Renovation Form in an amount equal to 100% of the construction replacement cost.

The coverage format shall be the "Special Coverage" form (all risk) **naming** the Owner, the Contractor and all subcontractors and suppliers as their interest appear. Loss, if any, shall be payable to the Owner as trustee for all interests. Contractor shall be solely responsible for the cost of any deductible.

- .11 Flood and Earthquake Coverage:** The Contractor, prior to commencing any work on the project, shall ascertain whether the site is subject to the perils of Flood, Mudslide and/or earthquake. If the exposure is present, the Contractor, at his sole cost expense, shall purchase and maintain coverage for the duration of the contract.

The Contractor, prior to signing of the Architect with a written report and notice from a P.E. as to the Flood and Earthquake exposures at the site and indicate what coverage, if any is to be provided.

- .12 Equipment, Tools and Supplies:** By signing this contract, the Contractor agrees and understands that he is solely responsible for all loss to any tools, equipment, or supplies, owned, rented, or leased, stored at or off the site. Further, the Contractor certifies that he has provided or will provide notice to this effect to all subcontractors and suppliers.

§11.1.5 Subcontractors Insurance: The Contractor agrees to provide all subcontractors with a copy of these insurance requirements and further, agrees to require all subcontractors, manufacturers and suppliers to provide evidence of insurance of the same coverage and limits as are required from the Contractor pursuant to Section 11.1.4.

(Paragraph deleted)

§11.1.6 The Contractor shall maintain a separate record of each subcontractors' insurance certificates and said records shall be available for inspection by the Owner, Owner's Representative and Architect for a period of 2 years from the date of final acceptance.

§11.1.7 The Contractor shall not permit any subcontractors on the site until acceptable certificates of insurance have been filed and approved.

§11.1.8 Waiver of Subrogation: All property insurance policies carried by the Contractor and his subcontractors shall contain a "Waiver of Subrogation" clause (including equipment floaters) to the effect that the Contractor agrees to waive all rights of subrogation against the Owner, Owner's Representative and Architect.

§11.1.9 The signing of this contract acknowledges that the Contractors have notified their insurance carriers accordingly.

§11.1.10 Renewal Certificates of Insurance: Renewal Certificates of Insurance must be filed with the Owner, Owner's Representative and Architect **at least 30 days** prior to the expiration of any policy

§11.1.11 Job Safety: The Contractor shall assign one person from his staff to be on the job site safety coordinator. The Contractor is solely responsible for overall job site safety, the safety of his employees and the conduct of his work and that of his subcontractors.

§11.1.11.1 The Contractor agrees to cooperate and comply in full with the insurance representatives of the Owner, Owner's Representative and Architect. with respect to any safety recommendations or requirements.

§11.1.11.2 The Contractor affirms he is fully versed in all State, Federal and local regulations pertaining to safety including OSHA and Department of Labor regulations, pertaining to his trade and construction operations.

§11.1.12 Products, Completed Operations: The Contractor is required to, and agrees to carry Products and Completed Operations coverage.

§11.1.13 Certificates of Insurance shall be filed to this effect, annually with the Owner, Owner's Representative, Architect and the Contractor shall obtain and record like certificates from his subcontractors

§11.1.14 Insurance Carriers: All insurance carriers providing coverage on the project must be **licensed** to do business and issue the type of insurer the carrier is providing to the Contractor in the State in which the project is located, and in the State in which the Contractor is domicile.

The companies must be Best "Secured" rated or better. This requirement applies to all subcontractors as well.

11.1.15 If at any time, any policy required herein shall be or become unsatisfactory to the Owner, as to form or substance, or if the issuing company shall be or become unsatisfactory, the Contractor, upon written notice from the Owner, shall promptly replace said unsatisfactory insurance.

§11.1.16 Failure to provide, maintain or deliver satisfactory insurance during this project, at the election of the Owner, the contract may be declared suspended, discontinued, or terminated.

§11.1.17 Failure to provide and maintain proper insurance under this contract shall not relieve, nor be construed to conflict with or otherwise limit the contractual obligations of the Contractor

§11.1.18 In the event that any claims, or claims aggregate be in excess of the insured amounts, filed by reasons of any operations under this contract, the Owner, at it's sole opinion, may withhold from payments due or to become due the Contractor amounts equal to the excess of such claims, until the Contractor has provided evidence of additional financial security covering such claims, in a form satisfactory to the Owner.

§11.1.19 All the policies of insurance referred to in this Article 11 shall be issued in the names of the Owners, the Architect, the General Contractor, and his subcontractors. Said policy shall be endorsed to indicate that the term "Insured" shall include the "Owner" Owner's Representative, Architect and be deemed to include their authorities, boards, bureaus, departments and officers thereof in their official capacities. In all cases regarding insurance referred to in these specifications, certificates shall be provided to the Owners, Owner's Representative, Construction Manager and Architect.

§11.1.19.1 In the event that any of the insurance coverage to be provided by the Contractor to the Owner and Architect contains a deductible, or the insurance provided by the Owner and Architect contains a deductible, the Contractor shall indemnify and hold the Owner and the Architect harmless from the payment of such deductible, for all claims arising from any acts or omissions of Contractor or Contractor's officers, directors, employees, Subcontractors, suppliers or any others engaged by Contractor directly or indirectly to perform Contractor's Work on the Project, which deductible shall in all circumstances remain the sole obligation and expense of the Contractor

§ 11.1.20 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located. Refer to Section 00 6000 Bonds and Certificates.

11.1.21 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.22 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

(Paragraphs deleted)

§ 11.3 Waivers of Subrogation

§ 11.3.1 If permitted by the respective insurance companies, the Owner and Contractor waive all rights against (1) each other and any of their subcontractor, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractor(s), if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractor s, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that neither the Owner's Representative or Architect has not specifically requested to examine prior to its being covered, the Owner's Representative or Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Owner's Representative and Architect's services and expenses made necessary thereby, shall be at the Contractor's expense. If prior to the date of Substantial Completion, the Contractor, a subcontractor or anyone for whom either is responsible uses or damages any portion of the Work, including, without limitation, mechanical, electrical, plumbing and other building systems, machinery, equipment or other mechanical device, the Contractor shall cause such item to be restored to "like new" condition at no expense to the Owner

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within two years after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The two-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The two-year period for correction of Work shall be extended by corrective Work performed by the Contractor pursuant to this Section 12.2 except as to the corrective work performed and subject to the continued existence of any manufacturer's warranty, if applicable.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the two-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be affected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

§ 13.1.1 This Contract shall be governed by and interpreted in accordance with the substantive laws of the State where the Project is located without recourse to principles of choice of law. The venue of any dispute resolution proceedings or actions shall be in the county in which the Project is located

§ 13.1.1 The Contractor shall at all times observe and comply with all Federal, State and Local Laws, rules and regulations and all policies, rules, regulations and protocols of the Owner, in any manner affecting the Work and all such orders as exist at present and those which may be enacted in the future, by bodies or tribunals having jurisdiction or authority over the Work and the Contractor shall indemnify and save harmless the Owner and its Board of Education, employees, officers, agents, or servants against any claim or liability arising from, or based on, a violation of any such law, ordinances, regulation, order or decree by the Contractor or the Contractor's officers, directors, employees, Subcontractors and suppliers.

§ 13.1.1.1 Historical lack of enforcement of any law, local or otherwise, shall not constitute a waiver of Contractor's responsibility for compliance with such law in a manner consistent with the Contract Documents unless and until the Contractor has received written consent for the waiver of such compliance from the Owner.

§ 13.1.2 The Contractor specifically agrees, as required by New York Labor Law, Sections 220 and 220-d, as amended, that:

- .1 No laborer, workman or mechanic in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or any part of the Work contemplated by the Contract, shall be permitted or required to work more than eight hours in any one calendar day or more than five days in any one week, except in the emergencies set forth in the Labor Law.
- .2 The wages paid for a legal day's work shall not be less than the prevailing rate of wages as defined by law.
- .3 The minimum hourly rate of wages to be paid shall not be less than that stated in the Specifications, and any redetermination of the prevailing rate of wages after the Contract is approved shall be deemed to be incorporated therein by reference as of the effective date of redetermination and shall form a part of this Contract. The Labor Law provides that the Contract may be forfeited, and no sum paid for any work done thereunder on a second conviction for willfully paying less than:
 - (a) The stipulated wage scale as provided in Labor Law, Section 220, Subdivision 3, as amended; or
 - (b) The stipulated minimum hourly wage scale as provided in Labor Law, Section 220-d, as amended.

§ 13.1.3 The Contractor specifically agrees, as required by the provisions of New York Labor Law Section 220-e, as amended, with respect to operations performed within the territorial limits of New York State, that:

- .1 In hiring of employees for the performance of work under this Contract or any subcontract hereunder, or for the manufacture, sale or distribution of materials, equipment or supplies hereunder, no Contractor, Subcontractor nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates.
- .2 No Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed, color, disability, sex or national origin.
- .3 There may be deducted from the amount payable to the Contractor by the Owner under this Contract a penalty of fifty (\$50.00) dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of this Section 13.1.3.
- .4 The Contract may be cancelled or terminated and all monies due under the Contract forfeited for a second or any subsequent violation of the terms and conditions set forth in this Section 13.1.3.

§ 13.1.4 The Contractor shall comply with all the provisions of the Immigration Reform and Control Act of 1986 and regulations promulgated pursuant thereto and shall require its Subcontractors to comply with same. The Contractor shall and does hereby agree to fully indemnify, protect, defend, and hold harmless the Owner, Owner's Board of

Education, agents and employees from and against any penalties, fees, costs, liabilities, suits, claims, or expenses of any kind or nature, including reasonable attorney's fees, arising out of or resulting from any violation or alleged violation of the provisions of said laws by Contractor or its Subcontractor(s) in connection with the Work of the Contract Documents.

§ 13.1.5 The Contractor shall maintain policies of employment as follows:

- .1 The Contractor and the Contractor's Subcontractors shall not discriminate against any employee or applicant for employment because of age, creed, race, religion, color, sex, national origin, sexual orientation, gender identify or expression, military status, disability, predisposing genetic characteristics, familial status, marital status or status as a victim of domestic violence. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their age, race, creed, religion color, sex, national origin, sexual orientation, gender identify or expression, military status, disability, predisposing genetic characteristics, familial status, marital status or status as a victim of domestic violence. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.
- .2 The Contractor and the Contractor's Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to age, creed, race, religion, color, sex, national origin, sexual orientation, gender identify or expression, military status, disability, predisposing genetic characteristics, familial status, marital status or status as a victim of domestic violence.

§ 13.1.6 Dust Hazards - The Contract shall be void if the Contractor fails to install, maintain, and effectively operate appliances and methods for the elimination of harmful dust when a harmful dust shall have been identified in accordance with Section 222-a of the Labor Law of the State of New York.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law or in equity or by other agreement and such rights and remedies shall survive acceptance of the Contractor's Work and/or any termination of the Contract .

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.3.3 Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures.. Refer to Section 01 4000 Quality Requirements for additional requirements.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall not bear interest.

§ 13.6 TIME LIMITS ON CLAIMS

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law

§ 13.7 LIENS

§ 13.7.1 If the Contractor or any of its subcontractors or suppliers should cause a Mechanic's Lien to be placed upon the property, then the Contractor shall be liable for any and all legal or bonding or insurance fees related to the removal of the Mechanic's Lien or the defense of any Mechanic's Lien enforcement or foreclosure proceeding. Such legal or bonding or insurance fees shall also be a deduction by the Owner from any moneys due or to become due to the Contractor.

§ 13.8 Sexual Harassment Prohibited

Federal and state laws and the policies of the Owner prohibit sexual harassment of employees. Sexual harassment includes any unwelcome sexual advances, requests for sexual favors or other verbal or physical conduct of a sexual nature that create a hostile or offensive working environment for students, employees and volunteers of the Owner and employees, agents, consultants, suppliers, subcontractors and others engaged directly or indirectly by Contractor to perform work on the Projects. The Contractor shall exercise control over its employees, agents, consultants, subcontractors, and suppliers so as to prohibit acts of sexual harassment of students, employees and volunteers of the Owner. In the event the Owner, in its reasonable judgment, determines that the Contractor or its employees, agents, consultants, subcontractors and/or suppliers have committed an act of sexual harassment, upon notice from the Owner, the Contractor shall cause such person to be removed and shall take such other action as may be reasonably necessary to cause such sexual harassment to cease. In the event the Contractor or its employees, agents, Subcontractors or suppliers believes it has been the subject of sexual harassment by the Owner, its elected and appointed officials,

students, volunteers, vendors, employees or agents, it shall give notice to the Owner; so, the Owner can take such action as may be reasonably necessary to cause any sexual harassment to cease.

§ 13.8 General Provisions

§ 13.8.1 Each party hereto agrees to do all acts and things and to make, execute and deliver such written instruments, as shall from time be reasonably required to carry out the terms and provisions of the Contract Documents.

§ 13.8.2 Each Contractor is obligated, by virtue of entering into a contract with the Owner, to ensure that absolutely no asbestos containing material is used in conjunction with the Work. It is the Contractor's sole responsibility to provide assurance that no asbestos containing material is built into the construction, nor does any equipment used in the construction contain any asbestos containing material. If asbestos containing material is found, at any time during or after the construction is completed, it shall be the responsibility of the Contractor who installed said material to remove it and replace it with new non-asbestos containing material, as per federal, state and local mandates, and to indemnify all their employees, agents, or servants or any third parties including but not limited to the Owner and the Architect, and their respective servants or employees for any costs or damages incurred on account of personal injury or death or property damage caused by, arising out of, or in any way incidental to, or in connection with the performance of the Work hereunder. This provision will be limited only to the extent required by law and shall survive the termination or expiration of the Contract.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped; or
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents.

§ 14.1.2 If one of the reasons described in Section 14.1.1 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

(Paragraphs deleted)

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor:

- .1 refuses or fails to supply enough properly skilled workers, materials or equipment to complete the Work in a diligent, efficient, timely, workmanlike, skillful and careful manner.
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.
- .5 If the Contractor fails to satisfy or bond any filed liens against the Owner in the Performance of his contract.
- .6 disregards the instructions of the Architect or the Owner (when such instructions are based on the requirements of the Contract Documents);
- .7 breaches any warranty made by the Contractor under or pursuant to the Contract Documents.
- .8 fails to furnish the Owner with assurances satisfactory to the Owner evidencing the Contractor's ability to complete the Work in compliance with all the requirements of the Contract Documents.
- .9 fails after commencement of the Work to proceed continuously with the construction and completion of the Work for more than ten (10) days, except as permitted under the Contract Documents.

- .10 fails or neglects to prosecute the Work in such a manner to reasonably assure completion within the contract time;
- .11 fails to keep the Project free from strikes, work stoppages, slowdowns, lockouts or other disruptive activity;

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, three days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished and the Contractor will be back charged for all costs incurred by the Owner.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.2.5 The Owner may take over the work for one of the reasons stated in sub-paragraph 14.2.1 after giving the Contractor and the Contractor's Surety, if any, three days' written notice. The Contractor will be back charged for costs incurred by the Owner.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate any part the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work;
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- .4 proceed to complete the performance of the remaining Work on the Contract which has not been so terminated

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, and any deposits or down payments which the Contractor has made pursuant to the Agreement which cannot, in the exercise of good faith and due diligence by the Contractor, be refunded or applied as a credit in the Contractor's favor to other charges, provided, however, that if

such deposits or down payments are not refundable, Contractor shall assign the applicable contract, agreement, purchase order, etc. to the Owner who, at its election, may require performance of same. The Contractor hereby waives and forfeits all other Claims for payment and damages, including, without limitation, overhead and profit related to Work terminated by the Owner pursuant to this Section 14.4.

§ 14.4.4 In case of a termination pursuant to this Section 14.4, the Owner will issue a Construction Change Directive or authorize a Change Order, making any required adjustment to the Date of Substantial Completion and/or the sum of Contract monies remaining to be paid to the Contractor. The Owner shall be credited for (1) payments previously made to the Contractor for the terminated portion of the Work, (2) Claims which the Owner has against the Contractor under the Contract, and (3) the value of the materials, supplies, equipment or other items that are to be disposed of by the Contractor that are part of the Contract Sum; multiplied by 15% representing the Contractor's overhead and profit.

§ 14.4.5 For the remaining portions of the Contractor's Work which have not been terminated pursuant to this Section 14.4, the terms and conditions of the Contract with the Owner shall remain in full force and effect. The Contractor shall continue to prosecute that portion of its Work that was not terminated pursuant to this Section 14.4.

§ 14.5 Limitation of Owner's Liability

§ 14.5.1 The Owner shall not be responsible for damages or for loss of anticipated profits on Work not performed on account of any termination of the Contractor by it.

§ 14.5.2 The Owner shall not be liable to the Contractor for punitive damages on account of any termination of the Contractor and the Contractor hereby expressly waives its right to claim such damages against the Owner.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents. As is set forth in other provisions of this Contract, delay in the Contractor's ability to complete the work may, in appropriate circumstances, give rise to a claim for additional time, but will under no circumstances be the basis of a claim for damages

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within ten days after occurrence of the event giving rise to such Claim.

(Paragraph deleted)

§15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

Init.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

§ 15.1.5.1 If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

(Paragraphs deleted)

§ 15.1.7.1 The timelines provided herein for the making of claims shall be a condition precedent to any payment for such claims or the granting of any extension of time. Failure of the Contractor to comply with the time and notice provisions of this Article shall be an absolute bar to making any payment to or extending the time of the Contractor for such claim. All claims of any type seeking any monies, or an extension of time shall be accompanied by full documentation. A claim submittal without full documentation shall be rejected by the Architect and, if not timely resubmitted within the original claim period, as set forth above, shall be waived.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render a decision approving or rejecting the Claim or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties..

§ 15.2.6 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

(Paragraph deleted)

§ 15.2.7 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

(Paragraph deleted)

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract shall be subject to non-binding mediation.

§ 15.3.2 The parties agree that claims, disputes or other matters in question between the parties to this Agreement, arising out of or relating to this Agreement or the breach thereof shall, before the commencement of litigation or a party availing itself of self-help remedies, be submitted to a third party neutral Mediator agreed to by both parties or, if the parties cannot agree, appointed by the American Arbitration Association, at a non-binding Mediation that shall not exceed one calendar day. The parties may be represented by counsel at the Mediation, but no party may engage the Mediator as its representative after the Mediation. Statements made and documents provided or exchanged as part of the Mediation shall be for settlement purposes only and subject the applicable rules or regulations that govern such matters. All mediation shall take place within 30 days of any demand for same of and cost shall be shared by both parties.

(Paragraphs deleted)

§ 15.4 Arbitration

§ 15.4.1 The Contractor and the Owner shall not be obligated to resolve any claim or dispute related to the contract by arbitration; any reference arbitration in the Contract Documents is deemed void. If a discrepancy is found in the Contract Documents, this paragraph shall be considered the final say.

(Paragraphs deleted)

ARTICLE 16 - NO DAMAGES FOR DELAY

§16.1 Notwithstanding any other terms or conditions set forth in the Contract Documents, general or supplementary conditions, the Contractor agrees to make no claim for damages for delay in the performance of the work occasioned by any act or omission of the owner or any of its representatives, and agrees that any such claim shall be fully compensated for by an extension of time to complete the Work, unless a delay is caused by acts of the Owner constituting active interference with the Contractor's performance of the Work, and only to the extent such acts continue after the Contractor furnishes the Owner with notice of such interference. The Contractor hereby expressly assumes the risk of all such delays to the Work, unless the Contract Schedule is extended for excusable delays.

§16.2 Contractor agrees and acknowledges that payment for the Work may have been obtained through obligations or bonds which have been sold after public referendum. In the event the Work is suspended or canceled as a result of the order of any court, agency, department entity or individual having jurisdiction, or in the event the Work is suspended or canceled due to the fact that a court, agency, department, entity or individual having jurisdiction has issued an order, the result of which is that the afore said obligations or bonds are no longer available for payment for the work, Contractor expressly agrees that it shall be solely entitled to payment for work accomplished until a notice of suspension or cancellation is served upon the Contractor. Contractor expressly waives any and all rights to institute an action, claim, cause of action or similar for any damages it may suffer as a result of the suspension or cancellation of the Work and/or its Contract pursuant to this section.

**SECTION 01 1000
SUMMARY OF CONTRACT**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 PROJECT

- A. Project Name: Classroom Renovations
- B. Facility: Various Facilities
- C. Owner's Name: Port Chester-Rye UFSD.
- D. Architect's Name: Fuller and D'Angelo, P.C.

1.3 DEFINITIONS

- A. Refer to Section 01 4216 for Definitions.

1.4 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Section 00 5200 - Form of Agreement.
- B. Local custom and trade-union jurisdictional settlements do not control the scope of Work included in contract. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, the affected contractor(s) shall promptly negotiate a reasonable settlement to avoid or minimize the pending interruption and delays.

1.5 RELATED REQUIREMENTS

- A. Section 00 5200 - Agreement Form: Contract Sum, retainages and Changes in the Work.
- B. Section 01 2000 - Price and Payment Procedures.
- C. Section 01 2100 - Allowances.
- D. Section 01 3553 - Site Safety and Security Procedures.
- E. Section 01 5000 - Temporary Facilities and Controls.
- F. Section 01 5500 - Vehicular Access and Parking
- G. Section 01 7000 - Execution.

1.6 JURISDICTIONAL DISPUTES

- A. The Contractor shall ensure that its work continues uninterrupted during the pendency of a labor dispute and be liable to the Owner for all damages suffered by the Owner occurring as a result of work stoppages, slowdowns, disputes or strikes

1.7 SUBCONTRACTORS/SUPPLIERS

- A. Refer to Section 00 4336 - List of Subcontractors required to be submitted with the Bid Proposal.

1.8 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of removals, repairs and alterations work is shown on drawings.
- B. Renovate the following areas, complete including operational mechanical and electrical work and finishes:

1.9 WORK BY OWNER

- A. Port Chester-Rye UFSD will supply and install the following:
 - 1. Core Cylinders for doors.
 - 2. Public Address and central clock system .
 - 3. Data cabling, devices and programming.

1.10 OWNER OCCUPANCY

- A. Port Chester-Rye UFSD intends to continue to occupy portions of the existing buildings during the entire construction period.
- B. Cooperate with Port Chester-Rye UFSD to minimize conflict and to facilitate Port Chester-Rye UFSD's operations.
- C. Schedule the Work to accommodate Owner's occupancy and requirements of this Section.

1.11 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas of work as directed by Owner and/or Architect.
- B. Arrange use of site and premises to allow:
 - 1. Port Chester-Rye UFSD occupancy.
 - 2. Work by Port Chester-Rye UFSD.
 - 3. Use of site and premises by the public.
- C. Provide access to and from site as required by law and by Port Chester-Rye UFSD:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Existing building spaces may not be used for storage unless approved by the Owner.
- E. Contractors shall comply with Local Noise Ordinance. Work disrupting the community must be performed with the following hours:
 - 1. Monday thru Friday: 7 AM to 9 PM.
 - 2. Weekends/ Holidays: 9 AM to 6 PM.
- F. Construction deliveries shall not occur during the hours of 7:30 AM and 9:00 AM and 2:00 PM and 3:00 PM, when school buses are arriving or leaving the school grounds, when school is in session..
- G. During the entire construction period the Contractor shall have limited use of the site in phasing and/or schedule of work time table included in this section.
 - 1. The Contractor shall limit their use of the premises to the work indicated, so as to allow for Owner occupancy and use by the public during the period when the Owner occupies the building.
 - 2. Contractor is to maintain clear and unobstructed paths of exit discharge from **all existing exits**.
 - 3. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all time. Do not use these areas for parking or storage of materials.
 - 4. Lock automotive type vehicles such as passenger cars and trucks and other types of mechanized and motorized construction equipment, when parked and unattended, to prevent unauthorized use. Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place.
- H. Only materials and equipment, which are to be used directly in the work, shall be brought to and stored on the project site by the Contractor. After equipment is no longer required for the work, it shall be promptly removed from the project site. Protection of construction materials and equipment stored at the project site from weather, theft, damage and all other adversity is solely the responsibility of the Contractors.
- I. The Contractor(s) and any entity for which the Contractor is responsible shall not erect any sign on the Project site without the prior written consent of the Owner, which may be withheld in the sole discretion of the Owner.
- J. Contractor shall ensure that the work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the work and all adjacent areas. The work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, the contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of:

1. Any areas and buildings adjacent to the site of the work or;
- K. Without prior approval of the Owner, Owner's Representative, and Architect, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitations, lavatories, toilets, entrances and parking areas other than those designated by the Owner's Representative. Without limitation of any other provision of the Contract Documents, the Contractor shall use its best efforts to comply with the rules and regulations promulgated by the Owner's Representative in connection with the use and occupancy of the Project Site, and the Building, as amended from time to time. The Contractor shall immediately notify the Owner's Representative in writing if during the performance of the Work, the Contractor finds compliance with any portion of such rules and regulations to be impracticable, setting forth the problems of such compliance and suggesting alternatives through which the same results intended by such portions of the rules and regulations can be achieved. The Owner's Representative may, in the Owner's Representative's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirements of the rules and regulations. The Contractor shall also comply with all insurance requirements, applicable to use, and occupancy of the Project Site and the Building.
- L. Maintain the existing building in a safe and weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period. When work is scheduled after hours clean and remove all temporary barriers and protection so that the building can be occupied the following day when normal building occupancy will occur.
- M. Keep public areas such as hallways, stairs, elevator lobbies and toilet rooms free from accumulation of waste material, rubbish or construction debris.
- N. Smoking, drinking of alcoholic beverages or open fires will not be permitted on the project site.
- O. Utility Outages and Shutdown:
 1. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Port Chester-Rye UFSD and authorities having jurisdiction.
 2. Prevent accidental disruption of utility services.

1.12 AVAILABILITY OF EXISTING BUILDING

- A. The existing building work areas will be available to the Contractor(s) as follows:
 1. Notice of Award to Summer Recess (No physical work, measuring and shop drawing production)
 - a. 3:00 PM thru 9:00 PM Monday thru Friday if access into the facility is required.
 2. Start of Construction to Completion date
 - a. June 28, 2021 thru July 5, 2021
 - a) 7:00AM thru 9:00 PM Monday thru Friday.
 - b. July 6, 2021 thru July 29, 2021
 - a) 12:00 PM thru 9:00 PM Monday thru Thursday.
 - b) 7:00 AM thru 9:00 PM Friday.
 - c. July 30, 2021 thru August 27, 2021
 - a) 7:00 AM thru 9:00 PM Monday thru Friday.
 3. Start of School: If project runs over completion date:
 - a. 3:00 PM thru 10:30 PM Monday thru Friday.
 4. **Owner shall pay for all Custodial and Building Engineering personnel to be present when contract work is taking place. Contractor to coordinate times weekly Owner's Representative for the following weeks' work. This does not include custodial time for cleaning any debris left by the Contractor.**
- B. If the Contractor requests the use of the facility for off-hours to maintain the scheduled completion date, the Contractor shall pay all additional costs in connection with opening, providing security and project management expenses incurred with no costs to the Owner. All expenses shall be deducted from the Contractors contract price. Comply with other portions of this Section.

1. Weekend, Holiday and Night Work:
 - a. The contractor shall make no claim for delay for the inability of the Owner to make the site available for off-hours work. Should the Owner make the site available during these hours at the contractor's request, the cost will be borne by the Contractor.
- C. The Contractor shall be required to perform scheduled work within the existing building only during the time periods indicated and shall include in the bid all costs for labor, material, etc. Including premium time to perform the work, per phase per time period. All work to be completed within dates set, no overtime will be paid by the owner to complete the work per the schedule.

1.13 COMPLETION OF WORK AFTER SCHEDULED COMPLETION DATE

- A. Contractor(s) shall perform work only within these limitations and all manpower, equipment, etc., shall be provided as required to complete the work as per schedule. In the event the contractor does not complete the work as scheduled all work to be performed shall be performed after 3:00 PM when the facility(s) are unoccupied and approved by the Owner's Representative. All related costs for all trades shall be borne by the Contractor.
- B. The Contractor shall prepare a progress schedule, in detail, listing items of work, for each building and the time required for each item.
- C. The Contractor shall provide necessary manpower, equipment, etc., as required to maintain schedule developed within the time limitations as described below.
- D. School calendar is available on the Port Chester UFSD web site. Calendar is subject to modifications for civil service holidays, changes in education programs, snow days, etc. An updated calendar will be provided at a later date.

1.14 WORK SEQUENCE

- A. Start Date of Contract: Letter of Award of Contract.
- B. Construct Work in accordance to Contractor's schedule agreed to and approved by the Owner's Representative during the construction period: In no case shall the Contractor's schedule exceed the contract completion date.
- C. Phase 1: Prior to June 29, 2021.
 1. Tasks: Contracts, Bonds and Insurance, Progress Schedule, Schedule of Values, Field verification of existing conditions, and Submittals
 2. Completion Phase 1: July 6, 2021
- D. Phase 2: June 29, 2021.
 1. File and Post Asbestos Notice (Middle School).
 2. Completion Phase 2: July 9, 2021
- E. Phase 3: July 6, 2021.
 1. Start Construction All Buildings except Middle School.
 2. Completion Phase 3: August, 15, 2021
- F. Phase 4: July 9, 2021.
 1. Start abatement at Middle School.
 2. Completion Phase 4: July 9, 2021
- G. Phase 5: July 10, 2021.
 1. Testing and Clearance at Middle School.
 2. Completion Phase 5: July 11, 2021
- H. Phase 6: July 12, 2021.
 1. Start Construction (Middle School).
 2. Completion Phase 6: August, 15, 2021
- I. Phase 7: Architect's Punch List All schools: August 16, 2021
 1. Completion Phase 7: August 18, 2021.

- J. Phase 8: Contractor's Punch List All schools: August 19, 2021
 - 1. Completion Phase 8: August 27, 2021.
- K. Phase 9: Closeout Submittals: August 30, 2021
 - 1. Completion Phase 9: September 24, 2020
- L. Coordinate construction schedule and operations with Owner's Representative.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Provisions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Change procedures.
- C. Procedures for preparation and submittal of application for final payment.

1.3 RELATED REQUIREMENTS

- A. Section 00 5200 - Form of Agreement: Contract Sum, retainages, payment period.
- B. Section 00 7200 - General Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- C. Section 01 2100 - Allowances: Payment procedures relating to allowances.
- D. Section 01 7800 - Closeout Submittals: Closeout requirements, final payment and project record documents.

1.4 SCHEDULE OF VALUES

- A. Form to be used: [AIA G702/703].
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample, in PDF format to Fuller and D'Angelo, P.C. for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date Letter of Award.
- E. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify bonds and sub-contractors.
- F. Revise schedule to list approved Change Orders, with each Application For Payment.
- G. Provide a separate line item for the following: (where applicable)
 - 1. Bonds. (Bond premium may be paid when invoice of premium is provide).
 - 2. Labor and materials, when payment is anticipated for material not installed
 - 3. Submittals. (2% Minimum of contract amount)
 - 4. Each allowance.
 - 5. Meeting attendance. (1% Minimum of contract amount)
 - 6. As-built Drawings. (1% Minimum of contract amount)
 - 7. Punch List (1% Minimum of contract amount).
 - 8. Final Cleaning
 - 9. Closeout Documents 2% Minimum of contract amount
 - 10. Identify line items being performed by subcontractors.
 - 11. Authorized change orders.

1.5 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement but not more than one per month.
- B. Forms filled out by hand will not be accepted.
- C. Execute certification by signature of authorized officer.
- D. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
PRICE AND PAYMENT PROCEDURES

- E. Submit one (1) electronic "pencil copy", in PDF format, of each Application for Payment to Fuller and D'Angelo, P.C. for approval.
- F. After Fuller and D'Angelo, P.C.'s approval of the "pencil copy" submit three hard copies Fuller and D'Angelo, P.C.
- G. Include the following with the application:
 - 1. Transmittal letter as specified for submittals in Section 01 3000.
 - 2. Construction progress schedule, revised and current as specified in Section 01 3000.
 - 3. Partial Waivers of Mechanic's Lien: With each Application for Payment, submit partial waivers of mechanic's liens from contractor, subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
 - a. Waiver Forms: Submit waivers of lien on forms, provided by the Architect 01 2005.
 - 4. When an application shows completion of an item, submit final or full waivers.
 - 5. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 6. Submit Final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 - 7. Certified Payrolls; All Applications for Payment must be accompanied with certified payrolls for all Contract Work performed. **In addition each contractor and sub-contractor shall submit to the Owner within thirty days after issuance of its first payroll, and every thirty days thereafter**, a transcript of the original payroll record subscribed and affirmed as true under penalties of perjury. The Owners shall be required to receive and maintain such payroll records. The original payrolls or transcripts shall be preserved for three years from the completion of the work on the awarded project.
 - a. Submit certification that all personnel listed on certified payrolls have successfully completed an OSHA construction safety and health course of at least 10 hours prior to performing any work on the project.
- H. Liens: No Payment will be made when a lien is filed against Owner by contractor or any subcontractor, or supplier or other entities until such lien is removed, bonded or similar action acceptable to the Owner
- I. Project record documents as specified in Section 01 7800, shall be available for review by Port Chester-Rye UFSD as a prerequisite for approval of payment.
- J. Payments for stored materials (whether on-site but not installed, or stored in secured warehouse) will require a Bill of Lading showing the exact value. In no case will more than 90% be approved if the item is not installed. Insurance certificates will be provided specific to materials stored (for on or off site items)
- K. The Owner shall retain Five (5) percent of the amount of each payment.

1.6 INITIAL APPLICATION FOR PAYMENT:

- A. Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. Executed contract.
 - 2. Approved bonds.
 - 3. Approved insurance certificates.
 - 4. Names of full time project manager, on site superintendent, and foreman. Refer to Article 11 of the General Provisions.
 - 5. List of suppliers and fabricators: Refer to Section 01 1000 Summary of Contract(s) .
 - 6. Approved Schedule of Values.
 - 7. Contractor's Construction Schedule..
 - 8. Contractor's Submittal Schedule.

1.7 APPLICATION FOR PAYMENT AT SUBSTANTIAL COMPLETION

- A. Comply with Requirements of Section 01 7800.

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

1.8 MODIFICATION PROCEDURES

- A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Owner's Representative and Fuller and D'Angelo, P.C. will issue instructions directly to the Contractor.
- B. For other required changes, Owner's Representative and Fuller and D'Angelo, P.C. will issue a document instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
 - 1. Refer to the General Conditions AIA 201 Article 7.3 for additional information.
- C. Computation of Change in Contract Amount: As specified in the Agreement and Provisions of the Contract.
- D. Execution of Change Orders: Fuller and D'Angelo, P.C. will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.9 APPLICATIONS FOR PAYMENT WHEN BEHIND SCHEDULE

- A. When the project falls behind schedule the contractor shall demonstrate the actions to be taken to put the project back on schedule.
 - 1. Payments will not approved until satisfactory evidence is presented to put the project on schedule.

1.10 APPLICATION FOR PAYMENT AFTER SCHEDULED COMPLETION DATE

- A. In the event the work is not completed by the schedule date, listed in Section 01 1000 - Summary of Contract, and in addition to the other remedies described, the Fuller and D'Angelo, P.C. will not review progress payment requisitions submitted after the construction completion date, and the District will not issue any progress payments after that date, until all work is completed.

1.11 APPLICATION FOR FINAL PAYMENT

- A. Comply with 01 7800 - Closeout Submittals.
- B. It is understood by the Contractor that the maximum payment due the contractor prior to final payment shall be Ninety (95%) of the Contract amount and the final Five (5%) will be due only after the completion and submittal of all requirements of Section 01 7800 - Closeout Submittals are met, including completion of all "punch list" items..

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2005
PARTIAL RELEASE OF LIEN**

CONTRACTOR/SUBCONTRACTOR/VENDOR'S LETTERHEAD

Name of Facility: Various Facilities
Address: Various Locations
Name of Owner: Port Chester-Rye UFSD
Name of the Contractor/Subcontractor/Vendor: _____
Address: _____
Trade/Vendor: _____
Application # _____ Dated _____.

We certify that we have completed _____% of our Contract.
Prior to this requisition we have received payment equal to _____% of of our contract amount.
The undersigned, upon receipt of the above requisition payment hereby releases and discharges the Owner of and from any liability or obligation in any way related to or arising out of this project up to and including the date of this document.

The undersigned further covenants and agrees that it shall not in any way claim or file a mechanic's or other lien against the premises of the above designated project, or any part thereof, or against any fund applicable thereto for any of the work, labor, materials heretofore furnished by it in connection with the improvement of said premises.

The undersigned further warrants that, in order to induce the Owner to release this partial payment, they have paid all claims for labor, material, insurance, taxes, equipment, etc., employed in the prosecution of the work above, to date of this requisition.

The undersigned hereby releases and agrees to hold the Owner harmless from any and all claims in connection with the furnishing of such labor and materials, etc., for the construction of the aforementioned project.

The undersigned further guarantees that all portions of the work furnished and/or provided by them are in accordance with the contract and that the terms of the contract with respect to these guarantees will hold for the period specified in said contract.

IN WITNESS WHEREOF, we have executed under seal this release on the above date and to be legally bound hereby:

WITNESS: _____ FIRM: _____
BY: _____

State of New York, County of _____ subscribed and sworn to before me this ____ day of _____ 202_____

Notary public
My commission expires _____

END OF SECTION

**SECTION 01 2100
ALLOWANCES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Cash allowance.

1.3 RELATED REQUIREMENTS

- A. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

1.4 CASH ALLOWANCES

- A. Costs Included in Cash Allowances: Contractor's costs for products, delivery, installation, labor, payroll, taxes, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from the Cash Allowance and shall be determined in accordance with Article 7 of the General Conditions. Cost of product to contractor or subcontractor, less applicable trade discounts, less applicable taxes.
- B. Fuller and D'Angelo, P.C. Responsibilities:
 - 1. Consult with Architect, for consideration and selection of products, suppliers, and installers.
 - 2. Select products in consultation with Port Chester-Rye UFSD and transmit decision to Contractor.
 - 3. Prepare Change Order.
- C. Contractor Responsibilities:
 - 1. Assist Fuller and D'Angelo, P.C. in selection of products, suppliers, and installers.
 - 2. Obtain proposals from suppliers and installers and offer recommendations.
 - 3. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
 - 4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
 - 5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.
- D. Differences in costs will be adjusted by Change Order.

1.5 SCHEDULE OF CASH ALLOWANCE

- A. CASH ALLOWANCE - Cost Included in Cash Allowance : As selected by the Owner to perform various miscellaneous work as directed by the Owner.
 - 1. TOTAL CASH ALLOWANCE
Twenty Five Thousand 00/100 _____ (\$25,000.00)
(to be included in Bid form and costs within Total Bid Amount)

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2500
SUBSTITUTION PROCEDURES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Procedural requirements for proposed substitutions.

1.3 RELATED REQUIREMENTS

- A. Section 00 2113 - Instruction to Bidders: Restrictions on timing of substitution requests.
- B. Section 01 3000 - Administrative Requirements: Submittal procedures, coordination.
- C. Section 01 6000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling and restrictions on timing of substitution requests.
- D. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: Restrictions on emissions of indoor substitute products.

1.4 DEFINITIONS

- A. Refer to General Conditions and Section 01 4216 - Definitions for additional definitions.
- B. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
 - 1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
 - a. Unavailability.
 - 2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
 - a. Substitution requests offering advantages solely to the Contractor will not be considered.
- C. Substitutions: Changes in products, materials, equipment, and methods of construction from those required or specified by the Contract Documents and proposed by Contractor.
- D. Basis-of-Design Or Equal Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," or "or equal", including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers **shall be submitted as substitutions.**
- E. Where two or more articles, materials, apparatus, products or processes are listed as acceptable by reference to trade name or otherwise, the choice of these will be optional to the bidder. All other products these shall be considered as "substitutions" and shall be submitted in accordance to Section 01 2500 - Substitution Procedures.
- F. Where articles, materials, apparatus, products or processes are listed by reference to a named specified item as "or Equal", these shall be considered as "substitutions" and shall be submitted in accordance to Section 01 2500 - Substitution Procedures.
- G. The bidder is made aware that the Architect will make the final determination as to what constitutes an equal.
- H. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

- A. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
 - 1. Note explicitly any non-compliant characteristics.
- B. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
- C. Limit each request to a single proposed substitution item.
 - 1. Submit an electronic PDF format document, combining the request form with supporting data into single document.
 - 2. Deliver sample to Architect.

3.2 SUBSTITUTION PROCEDURES AFTER AWARD OF CONTRACT

- A. Submittal Form:
 - 1. Submit substitution requests by completing the form attached to this section. See this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.
- B. Architect will consider requests for substitutions only within 15 days after date Letter of Award.
- C. Substitutions will not be considered under one or more of the following circumstances:
 - 1. During the bidding phase.
 - 2. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
 - 3. Without a separate written request.
 - 4. When acceptance will require revisions to Contract Documents.

3.3 RESOLUTION

- A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.
- B. Architect will notify Contractor in writing of decision to accept or reject request.
 - 1. Architect's decision following review of proposed substitution will be noted on the submitted form.

3.4 ACCEPTANCE

- A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

3.5 CLOSEOUT ACTIVITIES

- A. See Section 01 7800 - Closeout Submittals, for closeout submittals.
- B. Include completed Substitution Request Forms as part of the Project record. Include both approved and rejected Requests.

3.6 ATTACHMENTS

- A. A facsimile of the Substitution Request Form (During Construction) required to be used on the Project is included following this section.

SUBSTITUTION REQUEST FORM

SUBSTITUTION REQUEST No. _____

(After the Bidding Phase)

Project: Classroom Renovations

Substitution Request Number: _____

From: _____

Date: _____

A/E Project Number: 21430.00

Contract For: _____

Specification Title: _____ Description: _____

Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution:

Manufacturer: _____ Address: _____ Phone: _____

Trade Name _____ Model no.: _____

Installer: _____ Address: _____ Phone: _____

History: _____ New product ___ 2-5 years old ___ 5-10 yrs old ___ More than 10 years old

Differences between proposed substitution and specified product:

Point-by-point comparative data attached - REQUIRED

Reason for not providing specified item: _____

Similar Installation:

Project: _____ Architect: _____

Address: _____ Owner: _____

Date Installed: _____

Proposed substitution affects other parts of Work: ___ No ___ Yes; explain _____

Savings to Owner for accepting substitution: _____ (\$ _____)

Proposed substitution changes Contract Time: ___ No ___ Yes Add _____ Deduct _____ days.

Supporting Data Attached: ___ Drawings ___ Product Data ___ Samples ___ Tests Reports

The Undersigned certifies:

Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.

Same warranty will be furnished for proposed substitution as for specified product.

Same maintenance service and source of replacement parts, as applicable, is available.

Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.

Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.

Proposed substitution does not affect dimensions and functional clearances.

Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

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Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments:

A/E's REVIEW AND ACTION

____ Substitution approved - Make submittals in accordance with Specification Section 01330

____ Substitution approved as noted - Make submittals in accordance with Specification Section 01330.

____ Substitution rejected - Use specified materials.

____ Substitution Request received too late - Use specified materials.

_____ Date: _____

Additional Comments: __ Contractor __ Subcontractor __ Supplier __ Manufacturer __ A/E

END OF SECTION

**SECTION 01 3000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. General administrative requirements.
- B. Preconstruction meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Contractor's daily reports.
- F. Submittals for review, information, and project closeout.
- G. Number of copies of submittals.
- H. Submittal procedures.

1.3 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary of Contract: occupancy, .
- B. Section 01 3553 Security and Site Safety
- C. Section 01 7000 - Execution: Construction Progress Schedule and Additional coordination requirements.
- D. Section 01 7800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

1.4 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Comply with requirements of Section 01 7000 - Execution for coordination of execution of administrative tasks with timing of construction activities.

1.5 PROJECT COORDINATOR

- A. Project Coordinator: Ray Renda, Supt. of Buildings and Grounds.
- B. Cooperate with the Owner's Representative in allocation of mobilization areas of site, access, traffic, and parking facilities.
- C. Comply with instructions of the Owner's Representative for use of temporary utilities and construction facilities.
- D. Make all submittals to Fuller and D'Angelo, P.C.:

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PRECONSTRUCTION MEETING

- A. Fuller and D'Angelo, P.C. will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Port Chester-Rye UFSD.
 - 2. Fuller and D'Angelo, P.C.
 - 3. Contractor.
 - 4. Contractor's Field Superintendent.
- C. Fuller and D'Angelo, P.C. will record minutes and distribute copies within five days after meeting to all participants. Contactor shall distribute to all entities of the Contractor affected by decisions made.

3.2 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the work at maximum bi-monthly intervals.
- B. Attendance Required: Project superintendent, contractor(s), major Subcontractors and suppliers, and Consultants as appropriate to agenda topics for each meeting.
 - 1. Contractor.
 - 2. Port Chester-Rye UFSD.
 - 3. Fuller and D'Angelo, P.C. .
 - 4. Contractor's superintendent.
 - 5. Suppliers as appropriate to agenda topics for each meeting.

3.3 WEEKLY COORDINATION MEETINGS

- A. The Contractor shall schedule and hold weekly general project coordination meetings with the Owner's Representative, to review the work schedule for the week in order to insure the planned work does not conflict with facility operations.

3.4 CONSTRUCTION PROGRESS SCHEDULE

- A. Within 5 days after date Letter of Award, the Contractor shall submit preliminary schedule .
- B. If preliminary schedule requires revision after review, submit revised schedule within 5 days.
- C. Submit updated schedule with each Application for Payment.
- D. General Content
 - 1. Show complete sequence of construction by activity, by building with dates for beginning and completion of each element of construction.
 - 2. Identify each item by specification section number.
 - 3. Identify work of each building and each separate work item in each building and other logically grouped activities.
 - 4. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
 - 5. Provide legend for symbols and abbreviations used.
- E. Bar Charts
 - 1. Include a separate bar for each major portion of Work or operation.
 - 2. Identify the first work day of each week.

3.5 DAILY CONSTRUCTION REPORTS

- A. Include only factual information. Do not include personal remarks or opinions regarding operations and/or personnel.

3.6 SUBMITTAL SCHEDULE

- A. Submit to Fuller and D'Angelo, P.C. for review a schedule for submittals in tabular format.

3.7 SUBMITTALS FOR REVIEW

- A. All submittals are the product and the property of the Contractor. The Owner, Owner's Representative , or Architect shall not be responsible for the contractor's construction means, methods or techniques: safety precautions or programs; Acts or admissions; or failure to carry out the work in accordance to the contract documents
- B. Shop Drawing Submittal Log no later than five (5) days after award of contract.
- C. Submit to Fuller and D'Angelo, P.C. for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- D. Samples will be reviewed for aesthetic, color, or finish selection.
- E. The Architect shall review and approve or take other appropriate action on the Contractor submittals, such as shop drawings, product data, samples and other data, which the Contractor is required to submit, but

only for the limited purpose of checking for conformance with the design concept and the information shown in the Construction Documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. The Architect's review shall be conducted with reasonable promptness while allowing sufficient time in the Architect's judgment to permit adequate review. Review of a specific item shall not indicate that the Architect has reviewed the entire assembly of which the item is a component. **The Architect shall not be responsible for any deviations from the Construction Documents not brought to the attention of the Architect, in writing, by the Contractor.** The Architect shall not be required to review partial submissions or those for which submissions of correlated items have not been received.

- F. Marking or comments on shop drawings shall not be construed as relieving the Contractor from compliance with the contract project plans and specifications, nor departure therefrom. The contractor remains responsible for details and accuracy for conforming and correlating all quantities, verifying all dimensions, for selecting fabrication processes, for techniques of assembly and for performing their work satisfactorily and in a safe manner.
- G. Initial Review: Allow 5 working days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
- H. Resubmittals: Contractor shall resubmit within 5 working days after receiving submittal.
- I. Allow 5 working days for processing each re submittal.
- J. **Architect will review the original submittal and one (1) re submittal. Additional reviews will be additional services provided to the Owner and charged accordingly. The Owner will back charge the contractor accordingly.**
- K. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- L. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.

3.8 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Fuller and D'Angelo, P.C.'s knowledge as contract administrator or for Port Chester-Rye UFSD.

3.9 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Refer to Section 01 7800 - Closeout Submittals.

3.10 NUMBER OF COPIES OF SUBMITTALS

- A. Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. All submittals shall be in electronic format and conforming to the following:
 - 1. Each item shall be in a separate file.
 - 2. Each file name shall start with the specification section number and contain an abbreviated explanation of what it contains; for example:

- a. 08 1416 Flush Wood Doors;
 3. Add Revision number (Rev2 Rev3, etc) to the file name when resubmitting items, for example:
 - a. 08 1416 Flush Wood Doors Rev 1;
 4. Provide a Cover Sheet with each item - in the same file as the technical submittal.
 5. Do not email multiple electronic submittals- rather burn the submittals on a CD and send the CD via FedEx or other overnight mail.
 6. Do not send MSDS with the technical submittals; collate all of the MSDS needed for the entire project in three ring binders, organized by specification section, and submit the binders to the Owner and maintain one copy at the project site.
- C. Samples: Submit the number specified in individual specification sections; one of which will be retained by Owner's Representative.
1. Approved sample will be retained at the project site.
 2. Retained samples will not be returned to Contractor unless specifically so stated.
 3. Submit with each sample, in electronic PDF format, data, cuts, photos, color, charts, etc. for each sample.

3.11 SUBMITTAL PROCEDURES

- A. General Requirements:
1. Use a separate transmittal for each item.
 2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
 3. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 4. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. For each submittal for review, allow 5 days excluding delivery time to and from the Contractor.
 5. Provide space for Contractor and Fuller and D'Angelo, P.C. review stamps.
- B. Product Data Procedures:
1. Submit only information required by individual specification sections.
 2. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
1. Contractor's submittal of shop drawings certifies that the contractor has reviewed and coordinated this shop drawing and they are in conformance to the plans, specifications, applicable codes and other provisions of the Contract Documents.
- D. Deliver submittals to Fuller and D'Angelo, P.C.'s e-mail address.

3.12 SUBMITTAL REVIEW

- A. Submittals for Review: Fuller and D'Angelo, P.C. will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Fuller and D'Angelo, P.C. will acknowledge receipt and review. See below for actions to be taken.
- C. Fuller and D'Angelo, P.C.'s actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
- D. Fuller and D'Angelo, P.C. 's and consultants' actions on items submitted for review:
1. Authorizing purchasing, fabrication, delivery, and installation:
 - a. "No Exceptions Taken", or language with same legal meaning.
 - b. "Make Corrections Noted", or language with same legal meaning.

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2. Not Authorizing fabrication, delivery, and installation:
 - a. "Revise and Resubmit".
 - a) Resubmit revised item, with review notations acknowledged and incorporated.
 - b. "Rejected".
 - a) Submit item complying with requirements of Contract Documents.
- E. Fuller and D'Angelo, P.C. 's actions on items submitted for information:
1. Items for which no action was taken:
 - a. "Received" - to notify the Contractor that the submittal has been received for record only.
 2. Items for which action was taken:
 - a. "Reviewed" - no further action is required from Contractor.

SUBMITTAL COVERSHEET

**Port Chester-Rye UFSD
Classroom Renovations
Various Facilities**

ARCHITECT: Fuller and D'Angelo, P.C.
45 Knollwood Rd.
Elmsford, NY10523

CONSTRUCTION MANAGER: Port Chester-Rye UFSD
113 Bowman Avenue.
Port Chester, New York

OWNER: Port Chester, New York 10753

CONTRACTOR: _____ **CONTRACT:** _____
ADDRESS: _____
DATE _____ **TELEPHONE:** _____ **EMAIL:** _____

Facility Name: Various Facilities
Type of Submittal: Re-submittal: [] No [] Yes [] Certificate [] Warranty [] Color Sample
[] Shop Drawings [] Product Data [] Schedule [] Sample [] Test Report [] Certificate
SUBMITTAL DESCRIPTION: _____

PRODUCT NAME: _____
MANUFACTURER: _____
SUBCONTRACTOR/ _____
SUPPLIER: _____
SPEC.# _____ **DWG. #s** _____ **PAR.#:** _____ **RM. OR DETAIL #s:** _____

STAMP SHEET

Contractor Review Statement: We the undersigned certify that we have reviewed and coordinated this shop drawing and they are in conformance to the plans, specifications, applicable codes and other provisions of the Contract Documents

Contractor Remarks And Stamp:

Architect's Comments and Stamp:

Consultant's Comments and Stamp

END OF SECTION

**SECTION 01 3306
NON-DISCRIMINATION CLAUSES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 REQUIREMENTS

- A. During the performance of this contract, the contractor agrees as follows:
1. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color or national origin, and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, creed, color or national origin. Such action shall be taken with reference, but not be limited, to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.
 2. The contractor will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the State Commission for Human Rights, advising such labor union or representative of the contractor's agreement under these clauses hereinafter called "non-discrimination clauses" and requesting such labor union or representative to agree in writing, standing or otherwise, that such labor union or representative will not discriminate against any member or applicant for membership because of race, creed, color or natural origin. Such action shall be taken with reference, but not limited, to: recruitment, employment job assignment, promotion, upgrading, demotion, transfer, layoff, or termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training. Such notice shall be given by the Contractor, and such written agreement shall be made by such labor union or representative, prior to the commencement of performance of this contract. If such labor union or representative fails or refuses so to agree in writing the Contractor shall promptly notify the State Commission of Human Rights of such failure or refusal.
 3. The Contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Commission for Human Rights setting forth the substance of the provisions of clauses and such provisions of the State's laws against discrimination as the State Commission for Human Rights shall determine.
 4. The Contractor will state, in all solicitation or advertisements for employees placed by or on behalf of the contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color or national origin.
 5. The Contractor will comply with the provisions of Section 291-299 of the Executive Law and the Civil Rights Law, will furnish all information and reports deemed necessary by the State Commission for Human Rights under these non-discrimination clauses and such sections of the Executive Law, and will permit access to his books, records and accounts by the State Commission for Human Rights, the Attorney General and the Industrial Commissioner for purposes of investigation to ascertain compliance with these non-discrimination clauses and such sections of the Executive Law and Civil Rights Law.
 6. This contract may be forthwith canceled, terminated or suspended, in whole or in part by the Owner upon the basis of a finding made by the State Commission for Human Rights that the contractor has not complied with these nondiscrimination clauses, and the Contractor may be declared ineligible for future contracts made by or on behalf of the Owner or agency of the Owner, until he or it satisfies the State Commission for Human Rights that he or it has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such findings shall be made by the State Commission for Human Rights after conciliation efforts by the Commission have failed to achieve compliance with these nondiscrimination clauses and after a verified complaint has been filed with the Commission, notice thereof has been given to the

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Contractor and an opportunity has been afforded him to be heard publicly before three members of the Commission. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions or remedies otherwise provided by law.

7. If this Contract is canceled or terminated under the above clause, in addition to other rights of the Owner, provided in this contract upon its breach by the Contractor, the Contractor will hold the Owner harmless against any additional expenses or costs incurred by the Owner in completing the work or in purchasing the services, materials, equipment or supplies contemplated by this contract, and the Owner may withhold payments from the contractors in an amount sufficient for this purpose and recourse may be had against the surety on the performance bond if necessary.
8. The Contractor will include the provisions of these clauses in every sub-contract or purchase order in such a manner that such provisions will be binding upon each sub-contractor or vendor as to operations to be performed within the State of New York. The Contractor will take such action in enforcing such provisions of such Sub-Contract or purchase order as the contracting agency may direct, including sanctions or remedies for non-compliance. If the contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor shall promptly so notify the Attorney General, requesting him to intervene and protect the interests of the Owner.

END OF SECTION

**SECTION 01 3307
SED SPECIAL REQUIREMENTS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies special requirements of State Education Department, including Commissioner's Regulation Part 155.5, 155.7
 - 1. Copies of Commissioner's Regulation Part 155.5, 155.7 are available on the State Education Department's web site. www.p12nysed.gov

1.3 CERTIFICATE OF OCCUPANCY

- A. The occupied portion of any school building shall always comply with the minimum requirements necessary to maintain a Certificate of Occupancy.

1.4 GENERAL SAFETY AND SECURITY DURING CONSTRUCTION

- A. All construction materials shall be stored in a safe and secure manner.
 - 1. Fences around construction supplies or debris shall be maintained.
 - 2. Gates shall always be locked unless a worker is in attendance, to prevent unauthorized entry.
 - 3. During exterior renovation work, overhead protection shall be provided for any sidewalks or areas immediately beneath the work site or such areas shall be fenced off and provided with warning signs to prevent entry.
 - 4. Workers shall be required to wear photo-identification badges at all times for identification and security purposes while working at occupied sites.

1.5 SEPARATION OF CONSTRUCTION

- A. Separation of construction areas from occupied spaces. Construction areas that are under the control of a contractor and therefore not occupied by district staff or students shall be separated from occupied areas. Provisions shall be made to prevent the passage of dust and contaminants into occupied parts of the building. Periodic inspection and repairs of the containment barriers must be made to prevent exposure to dust or contaminants. Metal stud and gypsum board (Type X) must be used in exit ways or other areas that require fire rated separation. Heavy duty plastic sheeting may be used only for a vapor, fine dust or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas.
 - 1. A specific stairwell and/or elevator may be assigned for construction worker use during work hours, when approved by the Owner. Workers may not use corridors, stairs or elevators designated for students or school staff.
 - a. Large amounts of debris must be removed by using enclosed chutes or a similar sealed system. There shall be no movement of debris through halls of occupied spaces of the building. No material shall be dropped or thrown outside the walls of the building.
 - b. All occupied parts of the building affected by renovation activity shall be cleaned at the close of each work day. School buildings occupied during a construction project shall maintain required health, safety and educational capabilities at all times that classes are in session.

1.6 FIRE PREVENTION

- A. There is no smoking on school property for fire prevention and New York State Law.
- B. Any holes in floors or walls shall be sealed with a fire resistant material.
- C. Owner shall maintain existing fire extinguishers.
- D. Fire alarm and smoke detection systems shall remain in operation at all times.

1.7 CONSTRUCTION DIRECTIVES

- A. Construction Noise. Construction and maintenance operations shall not produce noise in excess of 60 dba in occupied spaces or shall be scheduled for times when the building or affected building spaces are not occupied or acoustical abatement measures shall be taken.
 - 1. Construction Fume Control: The Contractor shall be responsible for the control of chemical fumes, gases, and other contaminants produced by welding, gasoline or diesel engines, roofing, paving, painting, etc. to ensure they do not enter occupied portions of the building or air intakes.
 - 2. Off-Gassing Control. The Contractor shall be responsible to ensure that activities and materials which result in "off-gassing" of volatile organic compounds such as glues, paints, furniture, carpeting, wall covering, drapery, etc., are scheduled, cured or ventilated in accordance with manufacturer's recommendations before a space can be occupied.

1.8 ASBESTOS/LEAD PAINT/HAZARDOUS MATERIAL

- A. Asbestos/Lead Test Asbestos Letter. Indication that all school areas to be disturbed during renovation or demolition have been or will be tested for lead and asbestos.
- B. Asbestos Code Rule 56. Large and small asbestos abatement projects as defined by 8 NYCRR 155.5(k) shall not be performed while the building is occupied. Note: It is SED's interpretation that the term "building" as referenced in this section, means a wing or major section of a building that can be completely isolated from the rest of the building with sealed non combustible construction. The isolated portions (the occupied portion and the portion under construction) of the building must contain separate code compliant exits. The ventilation systems must be physically separated and sealed at the isolation barrier(s).
 - 1. Asbestos TEM. The asbestos abatement area shall be completely sealed off from the rest of the building and completely cleaned and tested by TEM prior to re-entry by the public.
- C. Lead Abatement Projects. A project that contains materials identified to be disturbed which tests positive for lead shall include that information in the Construction Documents. The Construction Documents must address the availability of lead testing data for the building and include a statement that the OSHA regulations be followed and that cleanup and testing be done by HUD protocol.
- D. Hazardous Material: A project that disturbs or may disturb PCB containing material will have all work done in accordance with all applicable regulations.
- E. **There has been previous Owner testing of the work area and known asbestos has been identified.**

1.9 VENTILATION

- A. The work, as scheduled in the existing building, is to be performed when the facility is unoccupied. In the event that work is required to be performed during times when the building is occupied, all existing ventilation system between areas of work and areas of occupancy shall be disconnected, separated and code complying ventilation requirements be provided the occupied area. Prior to such work commencing the contractor shall submit a plan, for review indicating procedure to be taken. Also see paragraph 1.5 above for additional requirements."

1.10 ELECTRICAL CERTIFICATION:

- A. The electrical subcontractor shall obtain UL Certification or Inspection from a Certified Electrical Organization for electrical installation.

1.11 EXITING

- A. Exiting: For work to be performed when school is in session all exiting will be clear and usable at all times. For work to be performed when school is not in session or after hours maintain legal exiting.
- B. Exits required shall be clear and usable at all times.
- C. All modifications or changes to the exiting plan shall be approved by Owner's Representative and Architect.

1.12 CONSTRUCTION WORKER IN OCCUPIED AREAS

- A. No worker shall be permitted in areas occupied by students. If access is required by the contractor's personnel they will be supervised by District personnel. Contractor shall provide 24 hour notice to the Owner when such access will be required.
- B. The Owner shall not allow students into the Library, during the work time hours of 3PM to 11PM and on Weekends when construction is occurring.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 3553
SITE SAFETY AND SECURITY PROCEDURES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. The safety requirements, which must be followed by the Contractor during the execution of this contract.
- B. The Contractor agrees that the work will be completed with the greatest degree of safety and:
 - 1. To conform to the requirements of the Occupational Safety and Health Act (OSHA) and the Construction Safety Act including all standards and regulations that have been or shall be promulgated by the governmental authorities which administer such acts, and shall hold the Owner's Representative and Architect, and all their employees, consultants and representatives harmless from and against and shall indemnify each and everyone of them for any and all claims, actions, liabilities, costs and expenses, including attorneys fees, which any of them may incur as a result of non-compliance.
- C. Security measures including entry control, personnel identification, and miscellaneous restrictions.

1.3 REFERENCES:

- A. Code of Federal Regulations OSHA Safety and Health.

1.4 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary of Contract: Use of premises and occupancy .
- B. Section 01 5000 - Temporary Facilities and Controls: Barriers and enclosures.

1.5 DEFINITIONS

- A. Public shall mean anyone not involved with or employed by the contractor to perform the duties of this contract.
- B. Site shall mean the limits of the work area.
- C. Contractor shall mean the Contractor, his/her subcontractors and any other person related to the contract execution.

1.6 SECURITY PROGRAM

- A. Security and Protection Facilities and Services shall be the responsibility of the the Contractor and all costs shall be included in their bid.
- B. Protect Work: Existing premises and Port Chester-Rye UFSD's operations from theft, vandalism, and unauthorized entry.
- C. Coordinate with Owner's security program.
- D. Maintain program throughout construction period until directed by Owner's Representative.

1.7 ENTRY CONTROL

- A. The existing building contains a security alarm system maintained and operated by the Owner. Access into the existing building shall not be permitted unless the owner is notified and arrangements made to deactivate the system
- B. Restrict entrance of persons and vehicles into Project site .
- C. Allow entrance only to authorized persons with proper identification.
- D. Port Chester-Rye UFSD will control entrance of persons and vehicles related to Port Chester-Rye UFSD's operations.
- E. Coordinate access of Owner's Representative's personnel to site in coordination with Owner's Representative and Owner security forces.

- F. Traffic Control
1. Contractor shall maintain access for emergency vehicles and pedestrians and protect from damage all persons and property within the limits of and for the duration of the contract;
 2. Conduct construction operations so that the traveling public and pedestrian safety is subjected to a minimum of hazard and delay.
 3. Contractor shall perform the following minimum requirements as directed by Owner's Representative.
 - a. Keep the surface of all pavements used by the public free and clean of all dirt, debris, and masonry or other obstructions to provide safe traveled ways.
 - b. Control dust and keep the traveled way free from materials spilled from hauling and construction equipment.
 - c. Provide all cones, barricades, signs and warning devices as may be required and/or as ordered by Owner's Representative to safely carry out the foregoing. All such signs and devices shall be fabricated and placed in accordance with the latest "Federal Manual on Uniform Control Devices". Use of Open Flares Is Prohibited.
 4. Ingress and Egress
 - a. Contractor shall provide and maintain at all times safe and adequate ingress and egress to and from site at existing or at new access points consistent with work, unless otherwise authorized by the Owner's Representative or Architect
 5. If, upon notification by Owner's Representative, and the contractor fails to correct any unsatisfactory condition within 24 hours of being so directed, Owner's Representative will immediately proceed with adequate forces to properly maintain the project and the entire cost of such maintenance shall be deducted (back charged) from any moneys due the contractor
 6. All traffic control costs shall include the base bid of furnishing all labor, material and equipment including the cost of any and all incidental required by job conditions as ordered by Port Chester-Rye UFSD.

1.8 FIRE PREVENTION AND CONTROL

- A. The Contractor shall provide Fire Extinguishers as follows: Provide type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical fires or grease-oil-flammable liquid fires. In other locations provide either type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case.
- B. All required exits, fire alarm, and security and similar systems shall be maintained and operable throughout the entire construction contract.
- C. Free access to fire hydrants and standpipe connections shall be maintained at all times during construction operations. Portable fire extinguishers shall be provided by the Contractor and made conveniently available throughout the construction site. Contractor(s) shall notify their employees of the location of the nearest fire alarm box at all locations where work is in progress.
- D. The Contractor shall take all possible precautions for the prevention of fires. Where flame cutting torches, blow torches, or welding tools are required to be used within the building, their use shall be as approved by the Owner's Representative at the site. When welding tools or torches of any type are in use, have available in the immediate vicinity of the work a fire extinguisher of the dry chemical 20 lbs. Type. The fire extinguisher(s) shall be provided and maintained by the Contractor doing such work.
- E. Fuel for cutting and heating torches shall be gas only and shall be contained in Underwriters laboratory approved containers.
- F. Storage of gas shall be in locations as approved by the Owner and subject to Fire Department regulations and requirements.
- G. No volatile liquids shall be used for cleaning agents or as fuels for motorized equipment or tools within a building except with the express approval of the Owner and/or Architect and in accordance with local

codes. On-site bulk storage of volatile liquids shall be outside the buildings at locations directed by the Owner, who shall determine the extent of volatile liquid allowed within the building at any given time.

1.9 PERSONNEL IDENTIFICATION

- A. Provide identification badge or other approved identification to each person authorized to enter premises.
- B. Maintain a list of accredited persons, submit copy to Port Chester-Rye UFSD on request.
- C. Fingerprinting: The Contractor acknowledges and agrees that he/she or its employees may be subject to fingerprinting and a criminal history record check as may be required by the Educational Law of the State of State of New York. In such an event, Contractor agrees to cooperate with Port Chester-Rye UFSD and to complete any and all forms or procedures, all at no cost or expense to the Port Chester-Rye UFSD.

1.10 RESTRICTIONS

- A. Do not allow cameras on site or photographs taken except by written approval of Port Chester-Rye UFSD.

PART 2 PRODUCTS -

2.1 MATERIALS

- A. Refer to Section 01 5000 - Temporary Facilities and Controls for additional barrier requirements.

PART 3 EXECUTION

3.1 GENERAL

- A. In the performance of its contract, the Contractor shall exercise every precaution to prevent injury to workers and the public or damage to property.
 - 1. The Contractor shall, at their own expense, provide temporary structures, place watchmen, design and erect barricades, fences and railings, give warnings, display such lights, signals and signs, exercise such precautions against fire, adopt and enforce such rules and regulations, and take such other precautions as may be necessary, desirable or proper or as may be directed.
 - 2. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work to be done under this contract. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss including but not limited to:
 - a. All employees working in connection with this contract, and other persons who may be affected thereby.
 - b. All the work materials and equipment to be incorporated therein whether in storage on or off site; and including trees, shrubs, lawns, walks, pavements, facilities not designated for removal, relocation or replacement in the course of construction.
- B. The Contractor's duties and responsibilities for the safety and protection of the work: shall continue until such time as all the work is completed and contractor has removed all workers, material and equipment from the site, or the issuance of the certificate of final completion, whichever shall occur last.
- C. The Contractor shall use only machinery and equipment adapted to operate with the least possible noise, and shall so conduct his operations that annoyance to occupants of the site and nearby homes and facilities shall be reduced to a minimum
- D. It shall be the responsibility of the Contractor to insure that all employees of the contractor and all subcontractors, and any other persons associated with the performance of their contract shall comply with the provisions of this specification.
- E. The Contractor shall clean up the site daily and keep the site free of debris, refuse, rubbish, and scrap materials. The site shall be kept in a neat and orderly fashion. Before the termination of the contract. The Contractor shall remove all surplus materials, falsework, temporary fences, temporary structures, including foundations thereof.
- F. The Contractor shall follow all rules and regulations put forth in the Code of Federal Regulations (OSHA Safety and Health Standards).

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
SITE SAFETY AND SECURITY PROCEDURES

END OF SECTION

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

**SECTION 01 3554
PREVAILING WAGE RATES**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 PROVISIONS OF LAW DEEMED INSERTED

- A. Each and every provision of law and clauses required by law to be inserted in the Contract shall be deemed to be inserted herein and the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion.
- B. The Contractor and subcontractors shall comply with applicable provisions of the Labor Law and all other state laws and Federal and Local statutes ordinances, codes, rules and regulations and orders which are applicable to the performance of this contract. The Contractor shall likewise require all sub-contractors to comply therewith. The attention of the Contractor is particularly, but not exclusively, directed to Sections 220 through 223 of the New York State Labor Law and Sections 109 of the New York State Municipal Corporations Law and the following:
 - 1. The Contractor shall post the prevailing wages in a conspicuous place on the job site.
 - 2. Posters shall list the Department of Labor's Public work field offices with telephone numbers.
- C. All contractors and subcontractors shall furnish each of its workers with written notification of the applicable prevailing wage rates and supplements at the commencement of and at periodic intervals during the performance of the Work as required by the New York Labor Law
- D. The Contractor shall provide and keep certified payroll records at the job site.
- E. Prevailing Wages Schedule for this project can be obtained by the bidders on the DOL web site as follows:
 - 1. <http://www.labor.ny.gov/workerprotection/publicwork/PWContents.shtm>.
 - 2. Click on: "Request for Wage and Supplement Information" (PW39).
 - 3. View "Previously Requested Prevailing Wage Schedule" using PRC# 2021005412
- F. NOTE THESE WAGE RATES ARE EFFECTIVE UNTIL JUNE 30, of each year. Updated schedules will be available on the Department of Labor web site: www.labor.state.ny.us

END OF SECTION

**SECTION 01 4000
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Quality assurance.
- B. Control of installation.
- C. Mock-ups.
- D. Tolerances.
- E. Manufacturers' field services.
- F. Defect Assessment.

1.3 RELATED REQUIREMENTS

- A. Section 01 2100 - Allowances: For payment of allowances .
- B. Section 01 3000 - Administrative Requirements: Submittal procedures.
- C. Section 01 4216 - Definitions.
- D. Section 01 4219 - Reference Standards.
- E. Section 01 6000 - Product Requirements: Requirements for material and product quality.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Test Reports: After each test/inspection, promptly submit two copies of report to and to Owner's Representative and Fuller and D'Angelo, P.C..
 - 1. Test report submittals are for Owner's Representative and Fuller and D'Angelo, P.C.'s knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.
- C. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Owner's Representative and Fuller and D'Angelo, P.C., in quantities specified for Product Data.
- D. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner and Owner's Representative's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- E. Manufacturer's Field Reports: Submit reports for Owner's Representative and Fuller and D'Angelo, P.C.'s benefit as contract administrator.

1.5 REFERENCES AND STANDARDS - See Section 01 4219

1.6 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Port Chester-Rye UFSD will employ and pay for services of an independent testing agency to perform specified testing which is the responsibility of the Owner.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Contractor Employed Agency:
 - 1. Laboratory: Authorized to operate in NY.
 - 2. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Should manufacturers' instructions conflict with Contract Documents, request clarification from Fuller and D'Angelo, P.C. before proceeding.
- C. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- D. Have work performed by persons qualified to produce required and specified quality.
- E. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.2 MOCK-UPS

- A. Accepted mock-ups establish the standard of quality the Fuller and D'Angelo, P.C. will use to judge the Work.
- B. Notify Owner's Representative and Fuller and D'Angelo, P.C. five (5) working days in advance of dates and times when mock-ups will be constructed.
- C. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- D. Obtain Fuller and D'Angelo, P.C.'s approval of mock-ups before starting work, fabrication, or construction.

3.3 TOLERANCES

- A. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Fuller and D'Angelo, P.C. before proceeding.
- B. Adjust products to appropriate dimensions; position before securing products in place.

3.4 TESTING AND INSPECTION

- A. See individual specification sections for testing and inspection required.
- B. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not assume any duties of the Contractor.
 - 3. Agency has no authority to stop the Work.
- C. Contractor Responsibilities:
 - 1. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 2. Notify Owner's Representative and Fuller and D'Angelo, P.C. and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
- D. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Owner's Representative. Payment for re testing will be charged to the Contractor by deducting testing charges from the Contract Sum.
- E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.5 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and to initiate instructions when necessary.

3.6 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not complying with specified requirements.

END OF SECTION

**SECTION 01 4100
REGULATORY REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY of Reference Standards

- A. Regulatory requirements applicable to this project are the following:
- B. 29 CFR 1910 - Occupational Safety and Health Standards; current edition.
- C. NFPA 101 - Life Safety Code; 2015.
- D. New York State Uniform Fire and Building Codes known as the "Building Codes of the State of New York" and consist of the following:
 - 1. Building Code of New York State
 - 2. State Education Department Planning Standards, including Commissioner's Regulation Part 155.5, 155.7
 - 3. Energy Conservation Construction Code of New York State
 - 4. Fire Code of New York State
 - 5. Mechanical Code of New York State
 - 6. Classification of Construction: Type II.
 - 7. Occupancy Classification: Education E
 - 8. State Education Department: Planning Standards is applicable to the work. Any conflicts between the Building Codes of New York and the State Education Department Planning Standards, the most restrictive shall apply. Copies of the Planning standards are available at the SED web site.
- E. Electrical Certification: The Electrical sub-contractor shall obtain UL Certification or Inspection from a Certified Electrical Organization for certification of electrical installations.
- F. Any items of work specified herein and shown on the drawings which conflict with aforementioned rules, regulations and requirements, shall be referred to the Fuller and D'Angelo, P.C. for decision, which decision shall be final and binding.
- G. The work shall not be deemed to have reached a state of completion until the certificates have been delivered.
- H. EPA - Environmental Protection Agency
- I. UL - Underwriters Laboratories
- J. OSHA Part 1926 Safety and Health Regulations for Construction.

1.3 MANDATORY OSHA CONSTRUCTION SAFETY AND HEALTH TRAINING

- A. Effective July 18, 2008 - Pursuant to NYS Labor Law §220-h - On all public work projects all laborers, workers and mechanics working on the site are required to be certified as having successfully completed an OSHA construction safety and health course of at least 10 hours prior to performing any work on the project.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 4216
DEFINITIONS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section supplements the definitions contained in the General Conditions and individual sections..
- B. Other definitions are included in individual specification sections.

1.3 DEFINITIONS

- A. Owner: The term "Owner shall mean Port Chester-Rye UFSD and their duly authorized representative.
 - 1. The word "Owner" and the words "School Board", "City School District", "Board of Education", "Union Free School District", "Central School District", etc., shall have the same meaning.
- B. Architect: The term "Architect" or "Engineer" or the words "Architect/Engineer" shall mean the Professional Engineer/Architect responsible for the contract documents Fuller & D'Angelo, P.C. Architects & Planners 45 Knollwood Road, Elmsford, N.Y. 10523.
- C. Owner's Representative: The term Owner's Representative shall mean Ray Renda Superintendent of Buildings and Grounds
- D. Contractor for Construction: The term "Contractor for Construction", "General Contractor" "Contractor for General Work" "Construction Contractor" shall have the same meaning.
- E. "Approved": The term "approved," when used in conjunction with Architect's action on Contractor's submittals, applications, and requests, is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract and Section 01 3000 Administrative Requirements.
- F. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by Architect, requested by Architect, and similar phrases.
- G. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on Drawings; or to other paragraphs or schedules in Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference.
- H. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- I. "Installer": An installer is Contractor or another entity engaged by Contractor, as an employee, subcontractor, or contractor of lower tier, to perform a particular construction operation, including installation, erection, application, and similar operations.
- J. The term "experienced," when used with the term "installer," means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- K. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades people of the corresponding generic name.
- L. "Project site" is the space available for performing construction activities, either exclusively or in conjunction with others performing other work as part of Project.
- M. The term "Building Code" shall mean the Building Code of the State of New York including all amendments and reference standards to date.

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
DEFINITIONS

- N. "Work" - Labor, materials, equipment, apparatus, controls, accessories, and all other items customarily furnished and/or required for proper and complete disconnection and reconnection, installation of new work.
- O. "Wiring" - Conduit, fittings, wire, junction and outlet boxes, switches, cutouts, and receptacles and all items necessary or required in connection with or relating to such wiring.
- P. "Concealed" - Embedded in masonry or other construction, installed behind wall furring, within double partitions, or hung ceilings, in trenches, or in crawl spaces.
- Q. "Exposed" - Not installed underground or "Concealed" as defined above.
- R. Furnish: The term "furnish" means to supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations..
- S. Install: The term "install" describes operations at Project site including unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- T. Product: Material, machinery, components, equipment, fixtures, and systems forming the work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into the work result. Products may be new, never before used, or re-used materials or equipment.
- U. Project Manual: The book-sized volume that includes the procurement requirements (if any), the contracting requirements, and the specifications.
- V. Provide: To furnish and install complete and ready for the intended use.
- W. Supply: Same as Furnish.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Temporary electric power and light.
- B. Temporary telephone service.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Temporary enclosures.
- F. Waste removal facilities and services.
- G. Construction aids and miscellaneous services and facilities.
- H. Temporary fire protection
- I. Environmental protection.

1.3 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements for submittals.
- B. Section 01 3553 - Site Safety and Security Procedures
- C. Section 01 7000 - Execution for progress cleaning requirements.
- D. Section 01 5500 - Vehicular Access and Parking.
- E. Section 08 1416 - Flush Wood Doors for temporary doors if required for occupancy.
- F. Section 08 7100 - Door Hardware for temporary doors if required for occupancy.

1.4 QUALITY ASSURANCE

- A. Regulations: The contractor shall comply with industry standards and with applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
 - 1. Building code requirements.
 - 2. Health and safety regulations.
 - 3. Police, fire department and rescue squad rules.
 - 4. Environmental protection regulations
- B. Standards: The contractor shall comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."

1.5 PROJECT CONDITIONS

- A. General: The contractor shall provide each temporary service and facility ready for use at each location, when first needed to avoid delays in performance of work. Maintain, expand as required, and modify as needed throughout the progress of the work. Do not remove until services or facilities are no longer needed, or are replaced by the authorized use of completed permanent facilities.
- B. Conditions of Use: Operate temporary services and facilities in a safe and efficient manner. Do not overload, and do not permit temporary services and facilities to interfere with the progress of work, or occupancy of existing facility by owner. Do not allow unsanitary conditions, public nuisances or hazardous conditions to develop or persist on the site.

- C. Temporary Construction and Support Facilities: Maintain temporary facilities in a manner to prevent discomfort to users. Take necessary fire prevention measures. Maintain temporary facilities in a sanitary manner so as to avoid health problems.
- D. Security and Protection: Maintain site security and protection facilities in a safe, lawful, publicly acceptable manner. Take measures necessary to prevent site erosion.

1.6 TEMPORARY UTILITIES

- A. Port Chester-Rye UFSD will provide the following:
 - 1. Electrical power , consisting of connection to existing facilities.
- B. Provide and pay for all electrical power required for construction purposes.
- C. Existing facilities may be used.

1.7 DIVISION OF RESPONSIBILITIES

- A. The contractor is responsible for the following:
 - 1. Installation, operation, maintenance, and removal of each temporary facility usually considered as its own normal construction activity, as well as the costs and use charges associated with each facility.
 - 2. Plug-in electric power cords and extension cords.
 - 3. All hoisting and scaffolding for its own work.
 - 4. Collection and disposal of its own hazardous, dangerous, unsanitary, or other harmful waste material.
 - 5. Collection of general waste and debris and disposing into **containers provided by the Contractor. Daily removal of construction debris is required.**
 - 6. Secure lockup of its own tools, materials and equipment.
 - 7. Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.
 - 8. Temporary telephone service.
 - 9. Temporary toilets, including disposable supplies.
 - 10. First Aid Station and Supplies.
 - 11. Disposal of wastes containers.
 - 12. Barricades, warning signs, and lights.
 - 13. Temporary Fire Protection.
 - 14. Temporary dust control.
- B. The Contractor shall maintain all existing systems, including but not limited to, power, lighting, fire alarm, intercom, etc., within the existing building operational at all times for Owner occupancy and construction.
- C. Contractor shall provide temporary light system for their work in the area of construction to achieve adequate footcandle levels to work within.
- D. Contractor may use Owners power, if modifications are required the costs shall be borne by the Contractor.

1.8 USE CHARGES

- A. General: Cost or use charges for temporary facilities are not chargeable to the Owner and Architect. The Architect and Owner will not accept a Contractor's cost or use charges for temporary services or facilities as a basis of claim for an adjustment in the Contract Sum or the Contract Time.
 - 1. Water Service Use Charges: Water from the Owner's existing water system may be used without metering, and without payment for use charges.
 - 2. Electric Power Service Use Charges: Electric power from the Owner's existing system may be used without payment of use charges. Contractor and Sub-Contractors shall exercise measures to conserve energy usage.

3. Temporary Utility Services: Where Owner's existing services is inadequate or would disrupt owners use of the existing facility, contractor shall provide utility services for the temporary use at the project site from the utility company, and pay all costs, including use charges.
4. Contractor may elect to use alternative temporary services and facilities equivalent to those specified, subject to acceptance by the Architect/Engineer.

1.9 TELECOMMUNICATIONS SERVICES

- A. The Contractor shall provide and pay for its own telephone service. Provide mobile phone service for all field superintendents and foreman.
- B. At central location provide a list of important telephone numbers, including the following:
 1. Local police and fire department.
 2. Doctor.
 3. Ambulance service.
 4. Contractor's temporary and home office.
 5. Owner's Representative temporary and home office
 6. Architect's home office.
 7. Owner's home office.
 8. Principal subcontractors temporary and home office

1.10 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization at each building.
- B. Toilets: Use of the Owner's existing toilet facilities will not be permitted
- C. Maintain daily in clean and sanitary condition.

1.11 BARRIERS

- A. Refer to Section 01 3553 - Site Safety and Security Procedures.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.12 FENCING

- A. Provide fencing enclosing stored material and waste containers.
- B. Construction: Commercial grade chain link fence.
- C. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.

1.13 INTERIOR ENCLOSURES

- A. Refer to Section 02080 Asbestos Abatement for additional Requirements.
- B. Provide temporary dustproof partitions to separate work areas from occupied areas, to prevent penetration of dust and moisture into occupied areas, and to prevent damage to existing materials and equipment.
- C. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

1.14 SECURITY - See Section 01 3553

1.15 VEHICULAR ACCESS AND PARKING - See Section 01 5500

1.16 WASTE REMOVAL

- A. See Section 01 7419 - Construction Waste Management and Disposal, for additional requirements.

1.17 HOISTS AND TEMPORARY ELEVATOR USE

- A. Elevator Use: Owner's existing elevator may not be used by the Contractor.

1.18 MISCELLANEOUS PROVISIONS

1.19 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 STORAGE FACILITIES

- A. Materials delivered to the site shall be safely stored and adequately protected against loss or damage. Particular care shall be taken to protect and cover materials that are liable to be damaged by the elements.
- B. Due to limited on site storage space, the Contractor shall coordinate delivery of his materials with the Owner who will determine when large deliveries shall be made and shall be designate storage locations on site for delivered materials. All stored materials must be stored in locked, watertight trailers, paid for by applicable contractor.

3.2 SCAFFOLDING AND STAGING

- A. All scaffold, staging and appurtenances thereto shall comply in total to the requirements of Safety and Health Regulations for Construction Chapter XVII of OSHA, Part 1926 and all related amendments.

3.3 FIRE PREVENTION AND CONTROL

- A. Refer to Section 01 3553 - Site Safety and Security Procedures.
- B. The Contractor shall comply with the safety provisions of the National Fire Protection Association's "National Fire Codes" pertaining to the work and, particularly, in connection with any cutting or welding performed as part of the work

3.4 DISCONTINUE, CHANGES AND REMOVAL

- A. The Contractors shall:
 - 1. Discontinue all temporary services required by the Contract when so directed by the Owner's Representative.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

END OF SECTION

SECTION 01 5510
TRAFFIC AND PEDESTRIAN ACCESS & CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Contractor shall maintain traffic for the duration of the contract and protect the traveling public and pedestrians from all damage to persons and property within the limits of and for the duration of the contract; all in accordance with the plans and specifications.
- B. It is specifically noted that while school is in session, there are children playing at recess, walking to outdoor gym classes, etc. Contractor's trucks must be walked from the project site to the main traffic loop and vice versa, with a separate monitoring individual to insure children's safety. See 01 1000 - Summary for delivery black out times.

1.3 MAINTAINING AND PROTECTING TRAFFIC

- A. Contractor shall maintain and protect traffic by so conducting his construction operations that the traveling public and pedestrian safety is subjected to a minimum of hazard and delay. In order to adequately maintain and protect traffic, contractor shall perform the following additional minimum requirements as directed by Owner's Representative:
 - 1. Keep the surface of all pavements used by the public free and clean of all dirt, debris, stone, timber or other obstructions to provide safe traveled ways.
 - 2. Provide all cones, barricades, signs and warning devices as may be required and/or as ordered by the Owner's Representative to safely carry out the foregoing. All such signs and devices shall be fabricated and placed in accordance with the latest "Federal Manual on Uniform Control Devices". Use of Open Flares Is Prohibited.
 - 3. Contractor to post temporary construction signs, including construction traffic signs, safety signs, security signs, and no trespassing signs as required.

1.4 INGRESS AND EGRESS

- A. Contractor shall provide and maintain at all times safe and adequate ingress and egress to and from site at existing or at new access points consistent with work, unless otherwise authorized by the Owner's Representative.

END OF SECTION

**SECTION 01 6000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Re-use of existing products.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.

1.3 RELATED REQUIREMENTS

- A. Section 01 2500 - Substitution Procedures: Substitutions made during procurement and/or construction phases.
- B. Section 01 4000 - Quality Requirements: Product quality monitoring.
- C. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: Requirements for VOC-restricted product categories.

1.4 REFERENCE STANDARDS

1.5 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- B. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
- C. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
- D. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- E. Substitutions: Changes in products, materials, equipment, and methods of construction from those required or specified by the Contract Documents and proposed by Contractor.
- F. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.
- G. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

1.6 SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 10 days after date of Letter of Award.
 - 2. For products specified only by reference standards, list applicable reference standards.

- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

1.7 ASBESTOS

- A. Asbestos: All products, materials, etc., used in conjunction with this Project shall be Asbestos-Free.
 - 1. Contractor shall provide a certified letter to the Owner's Representative or Construction Manager stating that no asbestos containing material has been used in this project. Refer to Section 01 7800 - Closeout Submittals.
- B. HVAC subcontractor must provide test results upon completion from a New York State accredited testing lab certifying that all pipe insulation and joints on this project contain no asbestos.
 - 1. This certification shall be based on a sampling of 10% of all linear feet of pipe insulation, (unless manufacturer's certificate is submitted).

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

- A. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor and remove from site.

2.2 NEW PRODUCTS

- A. Provide new products for all unless otherwise specifically required or permitted by the Contract Documents.
- B. Use of products having any of the following characteristics is not permitted:
 - 1. Made outside the United States, its territories, Canada, or Mexico.
 - 2. Made using or containing CFC's or HCFC's.
- C. Where other criteria are met, Contractor shall give preference to products that:
 - 1. If used on interior, have lower emissions, as defined in Section 01 6116.
 - 2. If wet-applied, have lower VOC content, as defined in Section 01 6116.

2.3 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named. Submit on form in Section 01 2500 - Substitution Procedures.
- C. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Administrative Requirements". All products, other than "Basis of Design", shall be submitted as a substitution. Show compliance with requirements. Submit on form in Section 01 2500 - Substitution Procedures.

PART 3 EXECUTION

3.1 SUBSTITUTION LIMITATIONS

- A. See Section 01 2500 - Substitution Procedures.

- B. Fuller and D'Angelo, P.C. will consider requests for substitutions only within 10 days after date Letter of Award.
- C. Substitutions will not be considered during the bidding phase.
- D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- E. Substitution Submittal Procedure (after contract award):
 - 1. Substitution Request Form: Refer to Section 01 2500 - Substitution Procedures.

3.2 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.3 STORAGE AND PROTECTION

- A. Provide protection of stored materials and products against theft, casualty, or deterioration.
- B. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. .
- C. Store and protect products in accordance with manufacturers' instructions.
- D. Store with seals and labels intact and legible.
- E. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- F. For exterior storage of fabricated products, place on sloped supports above ground.
- G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- H. Comply with manufacturer's warranty conditions, if any.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 01 6116
VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Requirements for Indoor-Emissions-Restricted products.
- B. Requirements for VOC-Content-Restricted products.
- C. VOC restrictions for product categories listed below under "DEFINITIONS."

1.3 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittal procedures.
- B. Section 01 4000 - Quality Requirements: Procedures for testing and certifications.
- C. Section 01 6000 - Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.
- D. Section 07 9005 - Joint Sealers: Emissions-compliant sealants.
- E. Section 09 9123 - Interior Painting.

1.4 DEFINITIONS

- A. Indoor-Emissions-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Interior paints and coatings applied on site.
 - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
 - 3. Flooring.
 - 4. Products making up wall and ceiling assemblies.
 - 5. Thermal and acoustical insulation.
 - 6. Free-standing furniture.
- B. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Interior paints and coatings applied on site.
 - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
- C. VOC-Restricted Products: All products of each of the following categories when installed or applied on-site in the building interior:
- D. Interior of Building: Anywhere inside the exterior weather barrier.
- E. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
- F. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.
- G. Inherently Non-Emitting Materials: Products composed wholly of minerals or metals, unless they include organic-based surface coatings, binders, or sealants; and specifically the following:
 - 1. Concrete.
 - 2. Clay brick.
 - 3. Metals that are plated, anodized, or powder-coated.
 - 4. Glass.
 - 5. Ceramics.
 - 6. Solid wood flooring that is unfinished and untreated.

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

1.5 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings; 2005 (Reapproved 2013).
- C. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers; California Department of Public Health; v1.1, 2010.
- D. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board; 2007.
- E. CHPS (HPPD) - High Performance Products Database; Current Edition at www.chps.net/.
- F. CRI (GLP) - Green Label Plus Testing Program - Certified Products; www.carpet-rug.org; current edition.
- G. SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168; current edition.
- H. SCS (CPD) - SCS Certified Products; current listings at www.scs-certified.com.
- I. UL (GGG) - GREENGUARD Gold Certified Products; current listings at <http://http://productguide.ulenvironment.com/QuickSearch.aspx>.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Evidence of Compliance: Submit for each different product in each applicable category.
- C. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.

1.7 QUALITY ASSURANCE

- A. Indoor Emissions Standard and Test Method: CAL (CDPH SM), using Standard Private Office exposure scenario and the allowable concentrations specified in the method, and range of total VOC's after 14 days.
 - 1. Wet-Applied Products: State amount applied in mass per surface area.
 - 2. Paints and Coatings: Test tinted products, not just tinting bases.
 - 3. Evidence of Compliance: Acceptable types of evidence are the following;
 - a. Current UL (GGG) certification.
 - b. Current SCS (CPD) Floorscore certification.
 - c. Current SCS (CPD) Indoor Advantage Gold certification.
 - d. Current listing in CHPS (HPPD) as a low-emitting product.
 - e. Current CRI (GLP) certification.
 - f. Test report showing compliance and stating exposure scenario used.
 - 4. Product data submittal showing VOC content is NOT acceptable evidence.
 - 5. Manufacturer's certification without test report by independent agency is NOT acceptable evidence.
- B. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
- C. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

PART 2 PRODUCTS

2.1 MATERIALS

- A. VOC-Content-Restricted Products: VOC content not greater than required by the following:
 - 1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES

VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

2. Joint Sealants: SCAQMD 1168 Rule.
3. Paints and Coatings: Each color; most stringent of the following:
 - a. 40 CFR 59, Subpart D.
 - b. SCAQMD 1113 Rule.
 - c. CARB (SCM).

PART 3 EXECUTION

3.1 FIELD QUALITY CONTROL

- A. Port Chester-Rye UFSD reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Port Chester-Rye UFSD.
- B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor.

END OF SECTION

**SECTION 01 7000
EXECUTION**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Inspections prior to start of work.
- B. Examination, preparation, and general installation procedures.
- C. Requirements for alterations work, including selective removals and asbestos/lead abatement.
- D. General installation of products.
- E. Progress cleaning.
- F. Protection of installed construction.
- G. Correction of the Work.
- H. Pre-installation meetings.
- I. Removals and dust control.
- J. Cutting and patching.
- K. Dust control
- L. Cleaning and protection.
- M. Final Cleaning.
- N. Starting of systems and equipment.
- O. Demonstration and instruction of Port Chester-Rye UFSD personnel.
- P. Closeout procedures, including Correction Punch List
- Q. General requirements for maintenance service.

1.3 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary of Contract: Limitations on working in existing building; continued occupancy; work sequence.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, Electronic document submittal service.
- C. Section 01 4000 - Quality Requirements: Testing and inspection procedures.
- D. Section 01 5000 - Temporary Facilities and Controls: Temporary dust controls.
- E. Section 01 3553 - Site Safety and Security Procedures.
- F. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties .
- G. Section 07 8400 - Firestopping.
- H. Section 07 9200 - Joint Sealants.
- I. Individual Product Specification Sections:
 - 1. Advance notification to other sections of openings required in work of those sections.
 - 2. Limitations on cutting structural members.

1.4 REFERENCE STANDARDS

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.

1.6 QUALIFICATIONS

- A. Refer to Section 00 4400 - Qualifications of Bidders
- B. Refer to individual sections for additional requirements.

1.7 PROJECT CONDITIONS

- A. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.

1.8 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean-up of work of separate sections.
- F. After Port Chester-Rye UFSD occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Port Chester-Rye UFSD's activities.

1.9 CODES, PERMITS, FEES, ETC. Refer to Section 01 4100 Regulatory Requirements

1.10 MANDATORY OSHA CONSTRUCTION SAFETY AND HEALTH TRAINING

- A. Effective July 18, 2008 - Pursuant to NYS Labor Law §220-h - On all public work projects all laborers, workers and mechanics working on the site are required to be certified as having successfully completed an OSHA construction safety and health course of at least 10 hours prior to performing any work on the project.

PART 2 PRODUCTS

2.1 MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 2500 Substitution Procedures.
- D. Barriers shall be constructed of sturdy lumber having a minimum size of 2 x 4.

1. Signs shall be made of sturdy plywood of 1/2" minimum thickness and shall be made to legible at a distance of 50 feet.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Prior to start of construction take photographs, video's or similar documentation as evidence of existing project conditions as follows:
 1. Interior views: Each room and areas of outside work area which could be construed as caused by the contractor.
 2. Exterior views: Each area of work and areas of outside work area which could be construed as caused by the contractor.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

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

3.3 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Owner's Representative and Architect four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 1. Review conditions of examination, preparation and installation procedures.
 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Owner's Representative and Architect, participants, and those affected by decisions made.

3.4 REMOVAL AND DUST CONTROL

- A. The following procedures shall be followed when removals will create dust:
 1. Asbestos and lead containing material shall be removed as per asbestos and lead abatement sections of the specifications.
 2. Exterior
 - a. Work must be in compliance with OSHA Construction Standard (29 CFR 1926.62).
 - b. Windows directly below, above and adjacent to the work area shall be closed.
 - c. Provide tarps on the outside of the building to catch all dust, debris and paint chips when items are being removed and installed.
 3. Interior:
 - a. Floor surfaces shall be provided with a minimum of one layer of six mil plastic.
 - b. All air vents in the room shall be closed, shut off and sealed.
 - c. Access to all rooms undergoing removals shall be restricted to prevent unauthorized entry.

- d. All moveable objects will be moved away from the vicinity of the removals by the Contractor. The Contractor shall cover with a drop cloth.
- e. All corridors used by Contractors shall be mopped and left clean daily.
4. Contractor shall provide labor for daily cleanup on the interior and the exterior of the building as required or directed by the Owner's Representative. Any visible debris shall be removed prior to occupancy the following day.
 - a. Only wet cleaning methods and/or HEPA vacuuming shall be used to clean.
5. All debris shall be disposed of properly in accordance with Federal, State and Local Regulations. Refer to Section 01 5000 - Temporary Facilities and Controls and asbestos and lead abatement sections for containers required.
6. Do not leave any openings unprotected at end of work day or during periods of excessive cold weather or precipitation.
7. At completion of each work area HEPA vacuumed and wet wiped.

3.5 GENERAL INSTALLATION REQUIREMENTS

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- D. Saw cut all concrete slabs.
- E. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- F. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- G. Make neat transitions between different surfaces, maintaining texture and appearance.

3.6 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 1. Verify that construction and utility arrangements are as indicated.
 2. Report discrepancies to Owner's Representative before disturbing existing installation.
 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas.
- C. Remove existing work as indicated and as required to accomplish new work.
 1. Remove items indicated on drawings.
 2. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 3. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- D. Services (Including but not limited to HVAC and Electrical): Remove, relocate, and extend existing systems to accommodate new construction.
 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.

- a. Identify new equipment installed, but not in service, with appropriate signage or other forms of identification. indicating "Not in Service".
 - b. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - c. Provide temporary connections as required to maintain existing systems in service.
 - d. Perform all switchovers, shutdowns, etc after hours, weekends, holidays or times when the building is not occupied. All switchover scheduling shall be approved by the Owner.
4. Remove abandoned pipes, ducts, equipment, ceilings, partitions, and light fixtures, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- E. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch as specified for patching new work.
- F. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
- G. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- H. Refinish existing surfaces as indicated:
1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- I. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- J. Do not begin new construction in alterations areas before removals is complete.
- K. Comply with all other applicable requirements of this section.

3.7 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. Perform whatever cutting and patching is necessary to:
1. Complete the work.
 2. Fit products together to integrate with other work.
 3. Provide openings for penetration of mechanical, electrical, and other services.
 4. Match work that has been cut to adjacent work.
 5. Repair areas adjacent to cuts to required condition.
 6. Repair new work damaged by subsequent work.
 7. Remove samples of installed work for testing when requested.
 8. Remove and replace defective and non-complying work.
- C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- E. Restore work with new products in accordance with requirements of Contract Documents.
- F. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.

- H. Patching:
 - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 - 2. Match color, texture, and appearance.
 - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.
- I. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.

3.8 SPECIAL REQUIREMENTS

- A. All existing systems are required and shall remain operational during the performance of the work.
- B. Notwithstanding anything contained in the Contract Documents to the contrary, the contractor shall not be permitted to disrupt operation of any building system or any of the services without Owner's Representative's prior written consent, which shall not be unreasonably withheld. Any request to perform such work shall be in writing, received by Owner's Representative and Architect no less than five (5) working days prior to the commencement of the request for disruption, and shall detail:
 - 1. The exact nature and duration of such interruption;
 - 2. The area of the Building affected, and;
 - 3. Any impact upon the Construction Schedule caused by such proposed temporary disruption. All Work shall be performed during the hours and on the days set forth in the Specifications.

3.9 MISCELLANEOUS PROVISIONS:

- A. Except as otherwise indicated comply with applicable requirements of Division- 23 and 26 sections for mechanical provisions within units of general Divisions 2-14 work. Except as otherwise indicated, comply with applicable requirements of Division-26 sections for electrical provisions within units of general (Divisions 2-14) work.

3.10 FIRE PREVENTION AND CONTROL Refer to Section 01 3553

3.11 WATCHMAN

- A. The Owner and Owner's Representative will not provide watchman. The Contractor will be held responsible for loss or injury to persons or property or work where his work is involved and shall provide such watchman and take such precautionary measures as he may deem necessary to protect his own interests.

3.12 SECURITY SYSTEM Refer to 01 3553 -

3.13 VERIFICATION OF CONDITIONS

- A. All openings, measurements, door frames, existing conditions and other similar items or conditions shall be field measured prior to submission of any shop drawings or manufacturers literature for approval.
 - 1. The Contractor shall investigate each space into and through which equipment must be moved. Equipment shall be shipped from manufacturer in sections, of size suitable for moving through restricted spaces. Where sectional fabrication and or delivery cannot be achieved, openings, enlargements etc shall be provided by each contractor whose equipment requires access, at no additional cost to the Owner.

3.14 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- C. The Contractor is responsible for their own daily debris removal into containers provided by the Contractor. Working areas are to be broom swept on a daily basis by the Contractor.
- D. The Contractor is responsible to provide dust protection for their construction-related activities.

3.15 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.16 SYSTEM STARTUP

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- D. Verify that wiring and support components for equipment are complete and tested.
- E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- F. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.17 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.
- B. Testing, adjusting, and balancing HVAC systems: See Section Refer to HVAC Section 23 00260 Testing, Adjusting and Balancing.

3.18 FINAL CLEANING

- A. Final cleaning shall be the responsibility of the Contractor and all costs for final cleaning shall be included in the Base Bid. Final cleaning responsibility shall be limited to all new additions and areas where renovations occur.
- B. Execute final cleaning prior to Substantial Completion.
- C. Use cleaning materials that are nonhazardous.
- D. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- E. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- F. Replace filters of operating equipment.
- G. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- H. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

- I. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
- J. Remove tools, construction equipment, machinery, and surplus material from Project site.
- K. Remove labels that are not permanent.
- L. Touch up and otherwise repair and restore marred, exposed finishes and surfaces evidence of repair or restoration. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show
- M. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
- N. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- O. Leave Project clean and ready for occupancy.
- P. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

3.19 CLOSEOUT PROCEDURES Refer to Section 01 7800

END OF SECTION

SECTION 01 7600
PROCEDURES AND SPECIAL CONDITIONS, SINGLE PRIME

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DESCRIPTION OF WORK

- A. The types of minimum requirements for procedures and performance or control work of a general nature, to be fulfilled collectively by the prime contractor.

1.3 USE OF PREMISES Refer to Section 01100 Summary of Contract(s)

1.4 MISCELLANEOUS PROVISIONS:

- A. Except as otherwise indicated comply with applicable requirements of Division-26 sections for electrical provisions within units of general (Divisions 2-14) work.

1.5 DISSIMILAR METAL

- A. Wherever dissimilar metals would otherwise come in contact with each other, they must be isolated by use of an approved, permanent non-staining material. Where one of the metals is aluminum, a coat of zinc-chromate primer followed by a coat of alkali-resistant bituminous paint shall be applied.

1.6 MODIFICATION OF WORK

- A. Where necessary, because of job or space conditions, the Contractor shall modify his work to suit these conditions, within accepted standards and limitations. No allowance will be made for this modification. Comply with Section [01200].
 - 1. If work is executed without regard for other trades as cited above, the Architect may direct its removal and modification. No allowance will be made for this work.

1.7 QUIET OPERATION

- A. All work shall operate under all conditions of load without any sound or vibration which, in the opinion of the Architect or Owner's Representative, is objectionable. In the case of moving machinery, sound or vibration noticeable outside the room in which it is installed, or annoyingly noticeable inside its own room, will be considered objectionable. Sound or vibration conditions considered objectionable by the Architect or Owner's Representative shall be corrected in an approved manner by the Contractor at his expense. Provide vibration isolators on all moving machinery.

1.8 ACCESSIBILITY, SIZE AND LOCATION OF EQUIPMENT AND WORK

- A. The Contractor shall investigate each space into and through which equipment must be moved. Equipment shall be shipped from manufacturer. in sections. of size suitable for moving through restricted spaces.
- B. The Contractor shall be responsible for the sufficiency of the size of shafts and chases, the adequate thickness of partitions, and sizes of duct enclosures, for the proper installation of his work. They shall cooperate with the all other contractors whose work is in the same spaces and shall advise the Construction Contractor of their requirements. Such spaces and clearances shall, however, be kept to the minimum size required.
- C. The Contractor shall locate all equipment, which must be serviced, operated or maintained in fully accessible positions. Equipment shall include, but not be limited to: panels, controllers, racks, etc. Minor deviations from drawings may be made to allow for better accessibility, but changes of magnitude or which involves extra cost shall not be made without approval.

1.9 ACCESS DOORS Refer to Section 08310 for additional requirements.

- A. Provide all access doors for all dampers, valves, cleanest, junction boxes, pull boxes or similar items located above finished ceilings or ceiling breaks or extensions, behind finished walls or below finished floors. The access doors shall be steel, hinged types as required for type of construction.

1. Where feasible locate all dampers, valves, cleanest, junction boxes, pull boxes or similar items above acoustical tile ceiling.

1.10 PROTECTION OF WORK AND MATERIAL

- A. Each Contractor shall be responsible for the protection of all his work and shall make good all damage which may occur to his work prior to the date of the final acceptance. Ends of piping and/or conduit shall be plugged during construction to prevent debris and water from entering therein.
 1. Mechanical and electrical equipment shall be delivered and stored at the site, properly packed and crated. Each piece of equipment shall remain packed and crated at location until final installation. Uninstalled and installed equipment and materials shall be protected against damage by weather, water, paint, plaster, moisture, fumes, dust or physical damage.

1.11 DAMAGE TO OTHER WORK

- A. Each Contractor shall be held responsible for and be required to make good at his own expense any and all damage done to the Owners property, adjoining property, and/or to any work or material in place in the premises, or included in his contract, which is caused by his work or workmen. The decision as to which contractor is responsible for specific damages shall be the responsibility of the Architect/Engineer.
 1. From the commencement to the completion of the Project, each Contractor shall keep the parts of the work and the buildings free from accumulation of water no matter what the source or cause of

1.12 SUPPORTS FROM OVERHEAD CONSTRUCTION

- A. Where overhead equipment does not permit fastening of supports for equipment, furnish at no additional cost to the Owner, additional framing, supplementary steel, etc., as required, subject to approval by the Architect. Specific types of hangers and supports which are required in certain areas are to be installed as indicated on the drawings.

1.13 SALVAGEABLE MATERIALS:

- A. The Owner will prepare a list of salvageable items it wishes to retain. All salvageable items shall be delivered by the Contractor to a storage area designated by the Owner on site. All demolished equipment etc., except those items specifically requested by the Owner shall become the Contractor's property and shall be removed from the premises.

1.14 CONSERVATION:

- A. General: It is a requirement for each prime contractor's supervision and administration of the work, that construction operations be carried out with the maximum possible consideration given to conservation of energy, water and materials.

1.15 MATERIALS AND WORKMANSHIP

- A. All material, apparatus and accessories shall be new and of the best quality of their respective kind.
 1. Work and materials shall conform to the latest applicable requirements of the New York State Building Code including Reference Standards or National Board of Fire Underwriters and Local Municipal codes, where applicable.
 2. All labor shall be performed in a first-class workmanlike manner, and adequate supervision must be provided to insure against neglect or faulty installations of any part of the systems during the progress of the work.
 3. Any inferior material and/or workmanship shall be removed at once, when directed by the Architect or Owner's Representative and replaced with material and workmanship in accordance with the true intent and meaning of the drawings and specifications, at no additional cost to the Owner.
 4. If material or equipment is installed before it is approved, as to manufacture and shop drawings, the Contractor shall be liable for the removal and replacement at no extra charge, if in the opinion of the Architect the material or equipment does not meet the intent of the drawings and specifications.
 5. If after installation (with or without prior approval) operation of any equipment proves to be unsatisfactory by reasons of defects, workmanship, error or omissions, the Owner reserves the right

to operate equipment until it can be removed from service for correction or replacement by the Contractor. The Contractor shall pay for the repair of all damage to work of other prime contractors caused by this defective equipment and its correction or replacement.

6. No advertising matter exclusive of nameplates containing required data shall appear on any equipment without the written consent of the Architect. The equipment furnished under this specification shall be essentially the standard product of a manufacturer regularly engaged in the manufacture of such equipment. Where two or more units of the same class of equipment are required, the units shall be products of a single manufacturer; however, the component parts of the equipment need not be products of the same manufacturer.

1.16 SELECTIVE REMOVAL OF EXISTING ELECTRICAL AND RELATED WORK

- A. Comply with 01 7330 Selective Removals and Section 26 0150 Electrical
- B. All selective removal work shall be in accordance with the time schedule as specified herein.
 1. All electrical removals shall be performed as required to complete the work as intended.
 2. Remove all electrical apparatus, equipment, specialties, controls, hangers, bases supports, conduit, panels, switches, wiring, and electrical fixtures, etc., that are not incorporated in the new layout or required.
 3. Where removal is indicated, or implied, or not incorporated in the new layout, the item itself is to be removed completely together with all connecting conduits, specialties, supports, controls, etc. Connecting conduits are to be removed back to the mains and panels where they are to be capped or disconnected. All abandoned open ends shall be sealed and capped or disconnected. Patching and finishing of all surfaces to match existing shall be performed by Contractor doing the removal.
 4. Where existing conduit, etc., enter inaccessible trenches, tunnels, shafts, walls, and ceilings, inside of the existing building, they shall be cut back at least 2" into such inaccessible spaces and shall be suitably capped and sealed by the Contractor.
 5. The Contractor shall exercise all normal caution to prevent unnecessary cutting and damage to the existing building. Any excessive damage, as determined by the Owner shall be repaired and paid for by the Contractor causing the damage.

1.17 GENERAL LABELING

- A. All mechanical and electrical equipment such as unit ventilators, heating and ventilating units, exhaust fans, etc., together with their component parts, control boards, electric panels, gauges, thermometers, switches, controls, valves, dampers shall have appropriate descriptive labels, identification tags and nameplates, furnished and installed under the respective control under which the corresponding item is provided, and shall be properly placed and permanently secured to (or adjacent to) the item being installed.
 1. In general, labels shall be the lamacoid type of sufficient size to permit easy identification, black coated, white edged, with letters 3/16" high. Major equipment, apparatus, control boards, electric panels, etc., shall have 8" x 4" lamacoid plates with lettering of appropriate size.
 2. Submit complete schedules, listings, and descriptive data, together with samples for checking and approval before purchasing.
 3. Mount of laminated plastic boards with transparent surface all valves, and charts, wiring diagrams, control diagrams, instruction charts, permits, etc.

1.18 PAINTING

- A. All apparatus, cabinets, etc., furnished under the Electrical Sections of the specifications, shall be provided with a priming coat, and enamel finish. All patched surfaces and surfaces where removals have occurred (by each Contractor) shall receive a prime coat and a finish coat to match adjacent surfaces acceptable to the Architect or Owner's Representative unless noted otherwise.
 1. All finish painting of new insulated and uninsulated piping, new duct work, apparatus, and appurtenances, will be performed by each contractor, unless noted otherwise.

1.19 WIRING

- A. The wiring of prewired equipment or apparatus is specified under the corresponding sections of the Specifications. The Electrical system design is based on 120 Volt volt systems. ,

1.20 SUPPORTS FROM OVERHEAD CONSTRUCTION

- A. Where overhead construction does not permit fastening of supports for equipment, furnish additional framing, subject to approval by Architect or Owner's Representative.

1.21 UNDERWRITERS' LABORATORIES CERTIFICATION

- A. All mechanical and electrical equipment shall bear the UL label of approval where such inspection service is furnished for the particular type of equipment.

1.22 LOCATIONS AND MEASUREMENTS

- A. The locations of fixtures, appliances, conduits, etc., are specified and shown on the plans as accurately as possible, but in all cases, they are to be adjusted to the surrounding conditions. Contractor must take all measurements at the building, and should the space allotted for any appliance be inadequate, it shall be the Contractor's responsibility to immediately notify in writing, and shall he fail to do so, he must bear the expense necessary to correct the conditions. All work shall be coordinated with the work of other trades.

1.23 GROUNDING

- A. Standards set forth by the latest edition of the National Electric Code, relative to the grounding of system and equipment, shall be followed together with the rules and regulations of the Utility Company. All non-current carrying metal parts shall be solidly grounded. All motor frames that are not clamped to supply conduits shall be grounded by suitable wire and ground clamp.
 - 1. The identified neutral wire or white wire of the interior wiring system shall be permanently grounded to the water services. The grounded wire shall be connected to the supply side of the main service switch and mechanically connected to an approved ground clamp and securely bonded to the water service at the point of entry. The ground connection shall be made on the supply side of the first main control valve. The conductors shall be protected from mechanical injury by rigid steel conduit to which the conductors shall be securely bonded in each length of connection. Conduit system shall be securely grounded to the above described ground of wiring system.
 - 2. Ground connections to water mains shall be made to non-current carrying metal parts of distribution panels, instrument cases, and instrument transformer cases.

1.24 JURISDICTIONAL DISPUTES Refer to Section 01100

1.25 FIRESTOPPING:

- A. All openings thru walls, floors, shafts, etc. shall be fire stopped with approved material to maintain rating. See Section 07840.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

**SECTION 01 7800
CLOSEOUT SUBMITTALS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Project record documents.
- B. Warranties.

1.3 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Individual Product Sections: Specific requirements for operation and maintenance data.
- C. Individual Product Sections: Warranties required for specific products or Work.

1.4 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion:
 - 1. Prepare a list of items to be completed and corrected, the value of items on the list, and reasons why the Work is not complete.
 - 2. Substantial Completion shall be when all work is completed, including all punch lists.
- B. Prior to issuance of the Certificate of Substantial Completion, submit, in writing, a request to the Owner's Representative and Architect a request to perform site inspection for the purpose of preparing a "punch list".
- C. On receipt of request Owner's Representative and Architect will prepare a punch list. Certificate of Substantial Completion after completion of all punch list items or will notify Contractor of items, either punch list list or additional items identified by Architect, that must be completed or corrected before certificate will be issued
- D. Certificate of Substantial Completion will be issued **after completion of all punch list items** or Owner's Representative and Architect will notify Contractor of items, either punch list or additional items identified by Architect, **that must be completed or corrected before certificate** will be issued. After completion of "punch list" items submit the following:
 - 1. Application for Payment showing 100 percent completion for portion of the Work claimed as substantially completed the following:
 - 2. Manufacturer's Warranties (guarantees).
 - 3. Contractor's Warranties (two years) and extended Warranties
 - 4. Test/adjust/balance records.
 - 5. Maintenance Manuals and Instructions Manuals
 - 6. Final cleaning.
 - 7. Architect's punch list certifying all punch list items have been completed and signed off by the Owner's Representative and Contractor.
 - 8. Removal of temporary facilities and services.
 - 9. Removal of surplus materials, rubbish and similar elements.
 - 10. As Built Drawings.
 - 11. Project Record Documents.

1.5 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Owner's Representative and Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will not process a final Certificate for Payment until after the inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - a. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
- B. Following Final Inspection acceptance of work submit the following:
 1. Submit a final Application for Payment according to Section 01 2000 - Price and Payment Procedures.
 2. Submit certified copy of Architect's Substantial Completion punch list items endorsed and dated Contractor and Owner's Representative certifying each item has been completed or otherwise resolved for acceptance.
 3. Update final statement, accounting for final changes to the Contract Sum.
 4. Release of liens from Contractor and all entitles of the Contractor.
 5. AIA Document G707 Consent of Surety to Final Payment.
 6. Final assessed damages settlement statement, if any.
 7. Contractor's Affidavit of Release of Liens (AIA G706A).
 8. Contractors Affidavit of Payment of Debts and Claims (AIA G706)
 9. Contractor's Certification of Payment of Prevailing Wage Rates.
 10. Contractor's Certification of Compliance that products comply with VOC requirements stated in Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
 11. Contractor's Certified Statement that no asbestos containing material was incorporated into the project.
 12. Asbestos Manifest.
 13. Underwriters Certificate.

1.6 SUBMITTALS

- A. Contractor shall submit all documentation identified in this section within thirty (30) days from the time the Contractor submits the list of items to be corrected; as referred to in Article 14.4.1 of the General Conditions, "in addition to other rights of the Owner set forth elsewhere in the Contract Documents, to include but not limited to withholding of final payment. If the documentation has not been submitted within thirty 30 day period, the Owner will obtain such through whatever means necessary. The Contractor shall solely be responsible for all expenses incurred by the Owner, provided the Owner has advised the Contractor of this action thirty 30 days prior to the culmination date and again, seven 7 days prior to the culmination date by written notice.
- B. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- C. Operation and Maintenance Data:
 1. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Owner's Representative and Architect comments. Revise content of all document sets as required prior to final submission.
 2. Submit one sets of revised final documents in final form within 10 days after final inspection.
- D. Warranties
 1. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:

1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. Reviewed shop drawings, product data, and samples.
- B. Ensure entries are complete and accurate, enabling future reference by Port Chester-Rye UFSD.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Field changes of dimension and detail.
 2. Details not on original Contract drawings.

3.2 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue or black-line white prints of the Contract Drawings and approved Shop Drawings at the project site.
- B. The Contractor is responsible for marking up Sections that contain its own Work and for submitting the complete set of record Specifications as specified.
- C. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
1. Accurately record information in an understandable drawing technique.
- D. Content: Types of items requiring marking include, but are not limited to, the following:
1. Revisions to details shown on Drawings.
 2. Actual equipment locations.
 3. Changes made by Change Order or Construction Change Directive.
 4. Changes made following Owner's Representative and Architect's written orders.
 5. Details not on the original Contract Drawings.
- E. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
- F. Mark important additional information that was either shown schematically or omitted from original Drawings.
- G. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- H. **Provide final record drawings on CD in PDF format.**

3.3 FORMAT

- A. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Contractor shall certify and sign.
- B. Identify Record Drawing as follows:
1. Project name.
 - a. Date.
 - b. Designation "PROJECT RECORD DRAWINGS."
 - c. Name of Owner's Representative and Architect.
 - d. Name of Contractor.

e. Contractor shall certify and sign each drawing

3.4 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- E. Provide servicing and lubrication schedule, and list of lubricants required.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.
- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Additional Requirements: As specified in individual product specification sections.

3.5 WARRANTIES

- A. Obtain warranties, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Port Chester-Rye UFSD's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.

**CHECKLIST FOR PROJECT CLOSEOUT
AND PROCESSING OF FINAL PAYMENT**

JOB TITLE: - Port Chester-Rye UFSD Classroom Renovations Various Facilities

CLOSE-OUT SUBMITTALS: (As Applicable)

PREVAILING WAGE CERTIFICATION.

UL CERTIFICATION.

**THREE (3) RING BINDER BROCHURES OF OPERATION AND MAINTENANCE
MANUALS FOR ALL EQUIPMENT INSTALLED ON THE PROJECT INCLUDING
THE FOLLOWING:**

**TYPED OR PRINTED INSTRUCTIONS COVERING THE CARE AND OPERATIONS
OF EQUIPMENT AND SYSTEMS FURNISHED AND INSTALLED.**

TEST/BALANCING REPORTS.

FINAL SURVEY

**MANUFACTURERS INSTRUCTION BOOKS, DIAGRAMS, SPARE PARTS
LISTS COVERING ALL EQUIPMENT.**

- [] **INSTRUCTION OF OWNER'S REPRESENTATIVE IN CARE AND MAINTENANCE OF NEW EQUIPMENT.**
- [] **ALL APPROVED SHOP DRAWINGS.**
- [] **CERTIFICATES OF COMPLIANCE AND INSPECTION. (WHERE APPLICABLE ELECTRIC, ELEVATOR, ETC.)**
- [] **SPARE PARTS AND MAINTENANCE MATERIALS. (RECEIPT SIGNED BY FIELD SUPERINTENDENT)**
- [] **EVIDENCE OF COMPLIANCE WITH REQUIREMENTS OF GOVERNING AUTHORITIES (CERTIFICATES OF INSPECTION ELECTRICAL).**
- [] **CERTIFICATES OF INSURANCE FOR PRODUCTS AND COMPLETED OPERATIONS.**
- [] **NOTARIZED STATEMENT THAT ONLY NON-ASBESTOS MATERIALS WERE INSTALLED ON THIS PROJECT.**
- [] **FULLY EXECUTED CERTIFICATE OF SUBSTANTIAL COMPLETION: AIA G704.**
- [] **CONTRACTOR'S WRITTEN TWO-YEAR WARRANTY AND EXTENDED WARRANTIES (IF ANY REQUIRED).**
- [] **DOL PW 200 FORM.**
- [] **PROJECT RECORD DOCUMENTS.**
- [] **AS-BUILT DRAWINGS.**
- [] **EVIDENCE OF PAYMENT AND RELEASE OF LIEN**
- [] **CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS: AIA G706.**
- [] **CONTRACTOR'S AFFIDAVIT OF RELEASE OF LIENS - AIA G706A PRIME CONTRACTORS AND SUBCONTRACTORS.**
- [] **CONSENT OF SURETY TO FINAL PAYMENT AIA G707.**
- [] **ARCHITEC'S SUBSTANTIAL COMPLETION FORM AIA G-704**
- [] **ARCHITEC'S SUBSTANTIAL COMPLETION FORM to SED**

REFER TO SECTION 01 7800 PAR 1.4 AND 1.5 FOR ADDITIONAL REQUIREMENTS. FINAL PAYMENT WILL NOT BE PROCESSED UNTIL ALL ITEMS INDICATED ARE RECEIVED IN ACCORDANCE WITH SECTION 01 7800 - CLOSEOUT SUBMITTALS.

END OF SECTION

ASBESTOS REMOVAL AND DISPOSAL

PART 1 - GENERAL

1.01 Scope of work

A. The asbestos abatement project will consist of the removal and disposal of assumed asbestos containing 9"x 9" vinyl floor tiles and mastic and associated asbestos containing debris at Room 110 of Port Chester Middle School located at 113 Bowman Ave, Port Chester, NY 10573.

B. The work shall include but not to be limited to the removal of:

Room #	Location	Material	Quantity
Room #110	Area around the perimeter of closet wall	9"x 9" beige VFT & mastic	50 SF

TOTAL: 50 SF

Removal and disposal of approximately 50 square feet of assumed asbestos containing 9"x9" beige floor tile and mastic to facilitate the proposed expansion of the classroom 110. See drawing HM-100 (dated 06/04/2021) for the location of asbestos materials. Asbestos removal of floor tile and mastic shall be conducted using containment procedures for a small project as outlined in New York State Industrial Code Rule 56 and the contract documents. Contractor is responsible for removal of all layers of floor tile/mastic down to the substrate, if floor tile is located below walls and/or cabinets slated for demolition, then contractor shall demolish and remove cabinets, walls, etc. to access floor tile and mastic. All contaminated debris shall be disposed of as asbestos containing material in accordance with all applicable rules and regulations.

C. The Contractor shall be aware of all Conditions of the Project and is responsible for verifying quantities and locations of all Work to be performed. Failure to do so shall not relieve the Contractor of its obligation to furnish all labor and materials necessary to perform the Work.

D. All Work shall be performed in strict accordance with the Project Documents and all governing codes, rules, and regulations, the more stringent shall apply.

E. Working hours shall be as required and approved by the Owner. Asbestos abatement activities including, but not limited to, work area preparation, gross removal activities, cleaning activities, waste removal, etc. may need to be performed during 'off-hours' (including nights and weekends). In addition, multiple mobilizations may be required to perform the work identified in this project. The Contractor shall coordinate and schedule all Work with the facility and Owners' representative.

NOTE:

- 1) The abatement areas shown on the drawings are provided for guidance only and no claims are made as to their accuracy. **The Contractor is alone responsible for determining the actual abatement quantities. If quantities differ the Contractor is responsible for bringing the discrepancy to the Owner/Engineer's attention before any removal work proceeds. Once the project is started the Contractor shall be responsible for the removal of all asbestos containing materials at the contractors cost regardless of differences in the stated quantities provided in this specification.**

- 2) **In the event that clearance samples do not pass, the Asbestos Abatement Contractor will be responsible for all costs associated with resampling.**
- 3) Removal of the asbestos containing materials from this building will be conducted in accordance with NYS Industrial Code Rule 56, applicable variances, a site-specific variance (if required) and the contract documents.
- 4) During the project other trades will be working in the building, the Asbestos Contractor shall coordinate all of his work with the other trades as required.
- 5) The Contractor is responsible for using "standard of care" when applying or removing tape, spray adhesive or any other type of bonding material from the walls, floors or ceilings. If damage is sustained to an area during the work procedure directly related to the negligence of the contractor, then that Contractor is responsible for returning the area back to its original condition unless otherwise noted.
- 6) Critical barriers and the doorways shown on the drawing shall be covered with three layers of at least six-mil polyethylene sheeting sealed with tape.
- 7) The Contractor shall be responsible for all utility cable protection within the Work Zone Limits.
- 8) The Contractor is required to abide by the most current Prevailing Wage Rates at the time of the abatement project.
- 9) The Contractor shall furnish all labor, materials, services, insurance, patents, and equipment necessary to carry out the removal operation. All work will be conducted in compliance with EPA, OSHA, and NYS regulations, and any other applicable federal, state, and local regulations and in accordance with these specifications. In the event there is a conflicting point between these provisions, the most stringent one shall apply.

1.02 Definitions

- A. **ABATEMENT**: Procedures to control fiber release from Asbestos-Containing Materials. This includes encapsulation, enclosure, and removal.
- B. **AIRLOCK**: A system for permitting egress without permitting air movement between a contaminated area and an uncontaminated area, typically consisting of two Curtained Doorways at least 3 feet apart.
- C. **AIR MONITORING**: The process of measuring the fiber content of a specific volume of air in a stated period of time.
- D. **AREA MONITORING**: Sampling of asbestos fiber concentrations within the asbestos control area and outside the asbestos control area, which is representative of the airborne concentrations of asbestos fibers in the breathing zone.

- E. AMENDED WATER: Water containing a wetting agent or surfactant.
- F. ASBESTOS: Any hydrated mineral silicate separable into commercially usable fibers, including but not limited to chrysotile (serpentine), amosite (cumington-grunerite), crocidolite (riebeckite), tremolite, anthophyllite, and actinolite.
- G. ASBESTOS CONTAINING MATERIAL (ACM): Any Asbestos or any material containing more than one percent of Asbestos by weight or volume.
- H. ASBESTOS CONTAMINATED OBJECTS: Any object which has been contaminated by Asbestos or Asbestos Containing Material. This shall include all unprotected porous materials in an Asbestos Work Area.
- I. ASBESTOS CONTROL AREA: An area where Asbestos Abatement operations are performed, which is isolated by physical boundaries to prevent the spread of asbestos dust, fibers, or debris.
- J. ASBESTOS WASTE: Any Asbestos Containing Material or Asbestos Contaminated Objects requiring disposal.
- K. AUTHORIZED VISITOR: The Owner, the Engineer, or a representative of any regulatory or other agency having jurisdiction over the project.
- L. CLEAN ROOM: An uncontaminated area or room which is part of the Worker Decontamination Enclosure System, with provisions for storage of workers' street clothes and protective equipment.
- M. COMPETENT PERSON: One who is capable of identifying existing asbestos hazards in the Workplace and who has the authority to take prompt corrective measures to eliminate them as specified in 29 CFR 1926.32(f); Reference 29 CFR 1926.58(b) for duties and responsibilities.
- N. CRITICAL BARRIER: Any windows, HVAC diffusers (exhaust or return), pipe sleeves, penetrations, doorways or any other openings leading to an occupied area of the building or to the outside.
- O. CURTAINED DOORWAY: A device to allow egress from one room to another while permitting minimal air movement between the rooms, typically constructed of three overlapping sheets of plastic over an existing or temporary door frame. Attach a weight to each sheet and seal at alternating edges so as to produce a zig-zag pattern of entrance or exit.
- P. ENCAPSULANT: A liquid material which can be applied to Asbestos-Containing Material, and which controls the possible release of Asbestos fibers from the Asbestos Containing Material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). This may also be used to seal surfaces from which asbestos containing materials have been removed.
- Q. ENCAPSULATION: All herein specified procedures necessary to coat materials with an encapsulant to control the possible release of Asbestos fibers into the ambient air.
- R. ENCLOSURE: All herein specified procedures necessary to complete enclosure of Asbestos Containing Materials behind an airtight and impermeable barrier.

- S. EQUIPMENT ROOM: A contaminated area or room which is part of the Worker Decontamination Enclosure System, with provisions for the storage of contaminated clothing and equipment.
- T. FIXED OBJECT: A unit of equipment or furniture in the Work Zone which cannot be removed from the Work Zone.
- U. FRIABLE ASBESTOS MATERIAL: An Asbestos Containing Material that can be crumbled, pulverized, or reduced to powder when dry, by hand pressure or will crumble, be pulverized or produce powder when subjected to specific mechanical operation.
- V. HEPA FILTER: A high efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 micrometers in diameter.
- W. HEPA VACUUM EQUIPMENT: High efficiency particulate air (absolute) filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters shall be of 99.97% efficiency for retaining fibers of 0.3 micrometers or larger.
- X. HOLDING AREA: A chamber between the Washroom and an uncontaminated area in the Waste Decontamination Enclosure System. The Holding Area comprises an airlock.
- Y. MOVABLE OBJECT: A unit of equipment or furniture in the Work Zone which can be removed from the Work Zone.
- Z. NEGATIVE PRESSURE SYSTEM: A local exhaust system equipped with HEPA filtration that is capable of maintaining a minimum pressure differential of minus 0.05 inch of water column relative to adjacent unsealed areas.
- AA. NON-FRIABLE ASBESTOS MATERIAL: An Asbestos Containing Material in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the Asbestos is well bound and that when dry cannot be crumbled, pulverized or reduced to powder by hand pressure and will not be subject to mechanical operations.
- BB. PERSONNEL DECONTAMINATION ENCLOSURE SYSTEM: A Decontamination Enclosure System for Workers, typically consisting of an Airlock, an Equipment Room, a second Airlock, a Shower room, a third Airlock, and a Clean Room.
- CC. PERSONAL MONITORING: Sampling of airborne asbestos fiber concentrations within the breathing zone of an employee.
- DD. REMOVAL: All herein specified procedures necessary to strip all Asbestos Containing Materials from the designated areas.
- EE. SHOWER ROOM: A room between the Clean Room and the Equipment Room in the Worker Decontamination Enclosure System, with hot and cold running water and suitably arranged for complete showering during decontamination. The Shower Room comprises an airlock between the Equipment Room and the Clean Room.
- FF. SURFACTANT: A chemical wetting agent added to water to improve penetration of water into the Asbestos Containing Materials.

- GG. TIME WEIGHTED AVERAGE (TWA): An 8-hour time weighted average of airborne fiber concentration per cubic centimeter of air. Three samples are required to establish the 8-hour time weighted average.
- II. WASHROOM: A room between the Work Zone and the Holding Area in the Waste Decontamination Enclosure System. The Washroom comprises an airlock.
- JJ. WASTE DECONTAMINATION ENCLOSURE SYSTEM: A Decontamination Enclosure System for materials and equipment, typically consisting of an Airlock, a Washroom, a second Airlock, and a Holding Room.
- KK. WET CLEANING: The process of eliminating Asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as Asbestos Waste.
- LL. WORK SITE: Premises where Asbestos Abatement is taking place. The Work Site includes, but is not limited to the Work Zone, the Personnel and Waste Decontamination Systems, the staging area, the disposal route and the loading dock.
- MM. WORK ZONE: Any area indicated on the Drawings as Asbestos Abatement areas or as areas with Asbestos Containing Material.

1.03 Submittals

- A. Submit the following items to the Engineer for review twenty (20) days prior to the commencement of Work associated with this section:
1. EPA Notification: The form required by the Environmental Protection Agency in accordance with the National Emission Standard for Asbestos, 40 CFR Part 61.
 2. New York State Department of Labor Notification: The form required by the State of New York Asbestos Control Program in accordance with Article 30 of the New York State Labor Law.
 3. Any proposed project specific variance to any of the applicable regulations.

Upon return of submittals from the Engineer with an action stamp indicating that the submissions have been reviewed and comply with the contract documents, file all notifications with the appropriate agencies in accordance with all applicable regulations and these specifications. Pay the appropriate fees. All filing fees and associated costs shall be borne by the Contractor.

- B. Submit the following items to the Engineer for review ten (10) days prior to the commencement of Work associated with this section. No Work shall begin until ALL submittals are returned with an action stamp indicating that the submission is in accordance with these specifications.
1. NOTIFICATIONS: Stamped received copies of the notifications (EPA only) and variances listed above in item A, as well as copies of the canceled checks used to pay all associated fees.

2. CONTRACTOR'S CERTIFICATION: Documentation confirming licensing by New York State Commission of Labor for asbestos Work in accordance with Industrial Code Rule 56.
3. WORKER DOCUMENTATION: Current copies of the AHERA certificates, New York State Department of Labor Asbestos Handling Certificates, Medical Exams and Respirator Fit Tests for all employees performing the Work of this Section.
4. EMPLOYEE RELEASE FORM: Prior to allowing an employee to perform any Work on the project, submit the properly executed Employee Release Form for each employee. A copy of this form is included herein.
5. CONTINGENCY PLANS: A copy of emergency, security, and contingency plans as follows:
 - a. A plan to provide for emergency and fire evacuation of personnel from the Work Zone in an emergency. File a copy of this plan with the local fire and/or ambulance unit.
 - b. A plan for maintaining the security of the Work Zone. The security plan shall provide a means of preventing accidental or unauthorized entry. Provide security to the decontamination facility and all points of potential access to the Work Zone 24 hours per day during abatement. Submit the form of security and safety log that will be maintained on the project.
 - c. A contingency plan addressing emergency, equipment failures, and barrier failure. Include the telephone numbers of at least three (3) responsible persons who shall be in the position to dispatch men and equipment to the project in the event of an emergency.
6. LANDFILL: Written evidence that the landfill to be used for disposal of asbestos is approved for disposal of asbestos by the New York State Department of Environmental Conservation (NYS Part 360 Permit) and by the US EPA. In the event the landfill is not located in New York State, approval from the agency having jurisdiction over the landfill must be received. Documentation that the proposed hauler and landfill have the proper permits and are willing to accept the asbestos waste.

The hauler must have a Waste Transporter Permit pursuant to Article 27, Titles 3 and 15, of the Environmental Conservation Law from the New York State DEC, Division of Hazardous Substance Regulations (NYS Part 364 Permit).
7. MATERIAL SAFETY DATA SHEETS: For all products intended to be used on the project, a Materials Safety Data Sheet in accordance with the OSHA Hazard Communication Standard 29 CFR 1910.1200. Include a separate attachment indicating the specific worker protection equipment required for each material.
8. PRESSURE MONITORING DEVICES: Manufacturer's data on type of equipment to be used to provide a continuous record of pressure differentials. Provide a drawing showing locations and number of units to be used.

9. AIR FILTRATION DEVICES: Manufacturer's data on type of equipment to be used to remove airborne asbestos.
10. ROOM INSPECTION: Inspect all areas in which Work is to be performed. Inspection shall occur in the presence of representatives of the Owner and Engineer. Record any existing damage to components, such as walls, doors, windows, carpeting, fixtures, and equipment. Any damaged components found after completion of the Work will be repaired at the Contractor expense. Make arrangements for the inspection, notify the participants, record the findings, and issue minutes of the inspection to all participants.
11. SCHEDULES: A copy of construction, staffing, and equipment schedules:
 - a. A construction schedule stating critical dates of the job including start and completion of mobilization, activation, deactivation, and demobilization of all Work activities (including mobilization, Work Zone preparation, asbestos abatement, inspection and clearance monitoring, each phase of refinishing, and final inspections). Update schedule with each partial payment request. Changes in schedule are subject to the Engineer's approval and require three (3) days prior notice.
 - b. A schedule of staffing stating number of workers per shift, name and number of supervisor(s) per shift, hours per shift, shifts per day, and total days to be worked.
 - c. A schedule of equipment to be used including numbers and types of all major equipment such as high efficiency particulate absolute (HEPA) air filtration units, HEPA vacuums, and airless sprayers.
12. INSURANCE POLICIES: The Environmental Contractor shall purchase and maintain during the life of this contract the insurances stipulated herein. This insurance must be purchased from a New York State licensed A.M. Best Rated "A" or "A+" carrier. The following list of Additionally Insured must be included under insurance policies held by the Contractor on this project with the exception of Workmen's Compensation and Employer's Liability Insurance, shall be named as additional insureds for the Commercial General Liability, Umbrella Liability, Hazardous Material Abatement General Liability and Business Automobile Policy:
 - a. Port Chester-Rye UFSD and its employees
 - b. Fuller & D'Angelo Architects and its employees
 - c. Total Quality Environmental Inc. and its employees
 - (1) *Workmen's Compensation and Employer's Liability Insurance*: Statutory Workmen's Compensation and Employer's Liability Insurance for all of his employees to be engaged shall require the Subcontractor similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work.
 - (2) *Commercial General Liability*:
Explosion, Collapse & Underground Coverage shall be provided.

Products & Complete Operations Aggregate shall be maintained for a period of two years after final acceptance of the Owner.

- (3) *Automobile Insurance*: Comprehensive Automobile Liability Insurance on owned, hired, or non-owned vehicle in amounts not less than \$1,000,000 Combined Single Limit each occurrence.
 - (4) *Conditions of Coverage*: Bodily Injury and Property Damage coverage under both Commercial General and Commercial Automobile Insurance shall include the "occurrence" basic wording, which means an event or continuous or repeated exposure to conditions, which results bodily injury, sickness or disease including death at any time resulting therefrom. Coverage shall include liability arising from water damage, and property in care, custody and control of Contractor and Subcontractor.
 - (5) *Hazardous Material Abatement General Liability Occurrence Insurance*: A policy without a sunset clause, in amounts not less than \$1,000,000, each occurrence, naming the Owner as the Certificate Holder. Also, include insurance policies of any subcontractor, including the Sudden and Accidental Pollution Liability Insurance required of the Hauler.
 - (6) *Contractor's Contingent Liability*: The Contractor shall procure, and for, and maintain such insurance as will protect the Contractor from his contingent liability for damages and for injury to the person or property of another which may arise from the operations of all Subcontractors under this Contract.
 - (7) *Contractor's and Employee's Equipment*: The Contractor assumes responsibility for all injury or destruction of the Contractor's materials, tools, machinery, equipment, appliances, shoring, scaffolding, false and form work, and personal property of Contractor's employees from whatever cause arises. Any policy of insurance secured covering the Contractor or Subcontractors leased or hired by them and any policy of insurance covering the contractor or subcontractors against physical loss or damage to such property shall include an endorsement waiving the right of subrogation against the Owner for any loss or damage to such property.
 - a. Coverage, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment.
 - b. The form of the Certificate of Insurance shall be AIA Document G705, Certificate of Insurance. In addition to the Certificate of Insurance, the Contractor shall provide the Owner with copies of any endorsements subsequently issued amending coverage or limits.
13. **AIR SUPPLY SYSTEM**: Manufacturer's product information for each component used in the Type "C" supplied air respiratory system, including NIOSH and MSHA Certifications for each component in an assembly and/or the entire assembly. Provide a notarized certification that the system is capable of providing Grade "D" breathable air. Submit a

copy of the manufacturer's operations manual for the air purification system and the carbon monoxide monitor.

Prepare a drawing showing the assembly of components into a complete supplied air respiratory system. Document the number and size of electric air pumps and/or air supply tanks to be kept at the site at all times to ascertain that sufficient air is being supplied to the maximum number of users. Prepare a diagram showing the location of the electric air pumps, the air supply tanks and the hose line connections. The use of gas compressors will not be allowed. Submit complete operating and maintenance instructions for all components and systems as a whole. Bind manual in a form suitable for field use.

- C. Daily during the conduct of abatement activities, submit to the Engineer the following:

Printouts from pressure differential monitoring equipment marked with date and Work start/stop times for each day. Use printout paper that indicates elapsed time in intervals no greater than one hour. Indicate on each day recording times of starting and stopping abatement Work, type of Work in progress, breaks, and filter changes. Cut printout into segments by day and label with project name, Contractor's name and date.

- D. Within thirty (30) days of removal from the premises, submit to the Owner the disposal certificate(s) from the landfill receiving the Asbestos Waste stating dates and quantities received.

- E. Within seven (7) days of completion of all Work associated with this Section submit to the Owner, the following:

1. A bound copy of the job logbook showing sign in and sign out of all persons entering the Work Zone, including name, date, time, and position or function and a general description of daily activity. Keep these records on file for the duration of employment plus 30 years.
2. A notarized statement attesting that all personnel performing any work under this Contract were compensated in accordance with the prevailing wage rates contained herein.

1.04 Special Reports

- A. Except as otherwise indicated, submit special reports directly to the Owner and the Engineer within one (1) day of the occurrence requiring the special report, with copies to all others affected by the occurrence.
- B. When an event of unusual and significant nature occurs at the site (examples: failure of negative pressure system, rupture of temporary enclosures, unauthorized entry into Work Zone), prepare and submit a special report listing date and time of event, chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information.
- C. Report any accidents, at the site and anywhere else Work is in progress related to this project. Record and document data and actions. Comply with industry standards.

1.05 Quality Assurance

- A. Where methods or procedures are specified, they shall constitute minimum measures and shall in no way relieve the Contractor of sole responsibility for the means, methods, techniques, sequences, or safety measures in connection with the Work.
- B. Provide foremen who speak fluent English to supervise all abatement activities. Foremen shall be certified as handler supervisors in accordance with Section 902 of the New York State Labor Law Article 30 and have experience in this field and can furnish a record of satisfactory performance on at least three (3) projects for Work of comparable type.
- C. Any proposed Subcontractor performing any Work under this Section "Asbestos Removal and Disposal" shall have similar qualifications. Submit qualifications with the BID for any proposed Subcontractor. Submit Subcontractor qualifications in the same form and quantity as required for the Contractor.

1.06 Applicable Standards and Regulations

- A. Perform all Work in compliance with the most current version of all pertinent laws, rules, and regulations, existing at the time of Work, including, but not limited to:
 - 1. Code of Federal Regulations
 - a. Title 29 CFR Parts 1910.1001, 1910.1200, 1910.134 1926.58 and 1926.1101.
[The Occupational Safety and Health (OSHA) Standards]
 - b. Title 30 CFR Part 61, Subpart G.
[The Transport and Disposal of Asbestos Waste]
 - c. Title 40 CFR, Part 61, Subparts A and M.
[The EPA National Emission Standard for Hazardous Air Pollutants, and the National Emission Standard for Asbestos]
 - d. Title 40 CFR, Part 763,
[Asbestos Containing Materials in Schools; Final Rule and Notice]
 - e. Title 49 CFR Parts 106, 107, and 171-179.
[The Transportation Safety Act of 1974 and the Hazardous Material Transportation Act]
 - f. Public Law 101-637
[ASHARA]
 - 2. New York State Official Compilation of Codes, Rules and Regulations.
 - a. 12 NYCRR, Part 56 "Asbestos ", Industrial Code Rule 56 (DOL)
 - b. 10 NYCRR, Part 73, "Asbestos Safety Program Requirements" (DOH)
 - c. 6 NYCRR. Parts 360-364, Disposal and Transportation
 - d. Labor Law - Article 30 and Sections 900-912.
 - e. All applicable Additions, Addenda, Variances and Regulatory Interpretation Memoranda.

3. Applicable Standards

- a. The American National Standard Institute (ANSI) Practices for Respiratory Protection ANSI Z88.2-1980.
- b. The American National Standard Institute (ANSI) Fundamentals Governing the Design and Operation of Local Exhaust Systems.
- c. UL 586 Test Performance of High Efficiency Particulate Air-Filter Units.
- d. EPA 560/585-024, Guidance for Controlling Asbestos Containing Materials in Buildings (Purple Book).
- e. EPA 530-SW-85-007, Asbestos Waste Management Guidance.
- f. ASTM Standard E1368 "Standard Practice for Visual Inspection of Asbestos Abatement Projects."

B. In the event there is a conflicting point between these provisions, the most stringent one shall apply.

1.07 Project Monitoring and Air Sampling

A. The Owner shall engage the services of an Environmental Consultant (the Consultant) who shall serve as the Owner's Representative in regard to the performance of the asbestos abatement Project and provide direction as required throughout the entire abatement Project period.

B. The Contractor is required to ensure cooperation of its personnel with the Consultant for the air sampling and Project monitoring functions described in this section. The Contractor shall comply with all direction given by the Consultant during the course of the Project.

C. The Consultant shall staff the Project with a trained and certified person(s) to act on the Owner's behalf at the job site. The individual shall be designated as the Project Monitor (PM).

1. The PM shall be on-site at all times the Contractor is on-site. The Contractor shall not be permitted to conduct any Work unless the PM is on-site (except for inspection of barriers and negative air system during non-working days).
2. The PM shall have the authority to direct the actions of the Contractor verbally and in writing to ensure compliance with the Project documents and all regulations. The PM shall have the authority to Stop Work when gross Work practices deficiencies or unsafe practices are observed, or when airborne fiber concentrations outside the removal area exceed 0.01 f/cc or background level.
 - a. Such Stop Work Order shall be effective immediately and remain in effect until corrective measures have been taken and the situation has been corrected.
 - b. Standby time and air sample collection and analysis required to resolve the situation shall be at the Contractor's expense.
3. The PM shall provide the following services:
 - a. Inspection of the Contractor's Work, practices, and procedures, including temporary protection requirements, for compliance with all regulations and Project specifications.
 - b. Provide abatement Project air sampling as required by applicable regulations (NYS, AHERA and the Owner. Sampling will include, but not be limited to background, work area preparation, asbestos handling, final cleaning, and clearance air sampling).
 - c. Verify daily that all Workers used in the performance of the Project are certified by the appropriate regulatory agency.

- d. Monitor the progress of the Contractor's Work and report any deviations from the schedule to the Owner.
 - e. Monitor, verify, and document all waste load-out operations.
 - f. Verify that Contractor is performing personal air monitoring daily, and that results are being returned and posted at the site as required.
 - g. The PM shall maintain a log on site that documents project related Consultant and Contractor actions, activities, and occurrences.
4. The following minimum inspections shall be conducted by the PM. Additional inspections shall be conducted as required by Project conditions and/or the Owner's direction. Progression from one phase of Work to the next by the Contractor is only permitted with the written approval of the PM.
- a. Pre-Construction Inspection: The purpose of this inspection is to verify the existing conditions of the Work Areas and to document these conditions.
 - b. Pre-Commencement Inspection: The purpose of this inspection is to verify the integrity of each containment system prior to disturbance of any asbestos containing material. This inspection shall take place only after the Work Area is fully prepped for removal.
 - c. Work Inspections: The purpose of this inspection is to monitor the Work practices and procedures employed on the Project and to monitor the continued integrity of the containment system. Inspections within the removal areas shall be conducted by the PM during all preparation, removal, and cleaning activities at least twice every Work shift. Additional inspections shall be conducted as warranted.
 - d. Visual Clearance Inspection: The purpose of this inspection is to verify that all material in the scope of work have been properly removed; no visible asbestos debris/residue remains; no pools of liquid or condensation remains; and all required cleaning are complete. This inspection shall be conducted before final clearance testing.
 - e. Post-Clearance Inspection: The purpose of this inspection is to ensure the complete removal of Asbestos Containing Material (ACM) , including debris, from the Work area after satisfactory final clearance sampling and removal of all isolation and critical barriers and equipment from the Work Area.
- D. In order to pass PCM clearance testing, the analysis of each and every sample collected shall indicate that the airborne fiber concentration is less than 0.01 fibers per cubic centimeter or the background level whichever is greater. The Owner will provide area air monitoring as follows:

<u>Sample Type</u>	<u>Analysis Method</u>
Background	PCM
Pre-abatement	PCM
During abatement activities	PCM
Clearance air monitoring	PCM & TEM

- E. In order to pass TEM clearance testing, each and every sample collected shall indicate that the airborne structure concentration is less than 0.01 structures per cubic centimeter or the background level whichever is greater and the average structure concentrations inside the Work Zone shall not be statistically larger than the average of ambient levels as determined by the Z-test.

- F. The method of sampling shall be aggressive or non-aggressive depending on the requirements of applicable regulations. The method of analysis for pre-abatement and during abatement shall be NIOSH 7400 using Phase Contrast Microscopy (PCM). Transmission Electron Microscopy (TEM), in accordance with Appendix A to Subpart E-Interim TEM Analytical Methods and SED requirements, shall be used to analyze all post-abatement samples for this project. The testing laboratory shall be a member of the Environmental Laboratory Approval Program (ELAP).
- G. In case of failure of the initial final air clearance monitoring, the work zone will be retested following immediate recleaning. This process will be repeated as necessary until final air clearance is obtained. All costs and expenses resulting from the additional recleaning and retesting (including sampling and analysis) due to failure of the initial final air clearance shall be borne by the Contractor. The expenses thereby incurred will be deducted from any monies due or that may become due to the Contractor.
- H. The Contractor shall provide security personnel to watch the decontamination facility and all points of potential access to the Work Zone.

1.08 Contractor Air Sampling

- A. In addition to the requirements of ASHA 1926.1101, the Contractor shall be required to perform personal air monitoring every Work shift in each Work Area during which abatement activities occur in order to determine that appropriate respiratory protection is being worn and utilized.
- B. The Contractor shall conduct air sampling that is representative of both the 8-hour time weighted average and 30-min short-term exposures to indicate compliance with the permissible exposure and excursion limits.
- C. The Contractor's laboratory analysis of air samples shall be conducted by an NYS DOH ELAP approved laboratory.
- D. Results of personnel air sample analyses shall be available, verbally, within twenty-four (24) hours of sampling and shall be posted upon receipt. Written laboratory reports shall be delivered and posted at the Work site within five (5) days. Failure to comply with these requirements may result in all work being stopped until compliance is achieved.

1.09 Project Supervisor

- A. The Contractor shall designate a full-time Project Supervisor who shall meet the following qualifications:
 - 1. The Project Supervisor shall hold New York State certification as an Asbestos Supervisor
 - 2. The Project Supervisor shall meet the requirements of a "Competent Person" as defined by OSHA 1926.1101 and shall have a minimum of one year experience as a supervisor.
 - 3. The Project Supervisor must be able to speak, read, and write English fluently, as well as communicate in the primary language of the Workers.
- B. If the Project Supervisor is not on-site at any time whatsoever, all Work shall be stopped. The Project Supervisor shall remain on-site until the Project is complete. The Contractor may not remove the Project Supervisor from the Project without the written consent of the Owner and the Environmental Consultant; however, the Project Supervisor shall be removed from the Project if so, requested by the Owner.

- C. The Project Supervisor shall maintain the Daily Project Log that also includes the entry/exit logs as required by New York State Department of Labor and section 2.03 of the specifications and the Waste Disposal Log (Appendix 8) required by section 4.03 of the specifications.
- D. The Project Supervisor shall be responsible for the performance of the Work and shall represent the Contractor in all respects at the Project site. The Supervisor shall be the primary point of contact for the Asbestos Project Monitor.

- END OF PART 1 -

PART 2 - PRODUCTS

2.01 Air Filtration Unit

- A. Use only Air Filtration Units in compliance with ANSI Z9.2 (1979), Local Exhaust Ventilation. The final filter in each unit shall be of the HEPA type. Use only Air Filtration Units certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3-micron dioctylphthalate (DOP) particles.
- B. Equip the system with the following:
 - 1. An automatic shutdown that will stop the fan in the event of a rupture in the HEPA filter or blocked air discharge.
 - 2. Warning lights and/or alarms to indicate an excessive pressure drop across the filters or an insufficient pressure drop across the filters;
 - 3. A non-resettable elapsed time meter to indicate the total accumulated hours of operation;
 - 4. A gauge or manometer to measure the pressure drop across the filter.

2.02 Asbestos Caution Signs

- A. Use Asbestos Caution Signs as specified in OSHA Title 29 CFR 1910.1001(j) and 1926.58(k). Posting of warning signs in and around the work site should be in cooperation with the Department of Correction and with approval by the Department of Correction.

2.03 Asbestos Caution Labels

- A. Use Asbestos Caution Labels as specified in OSHA Title 29 CFR 1910.1001(j) and 1926.58(k).

2.04 Disposal Bags

- A. Use Disposal Bags which are a minimum six (6) mil in thickness, clear in color and preprinted with the Asbestos Caution Label.

2.05 Encapsulating Material

- A. Encapsulant shall be tinted or pigmented so that application when dry is readily discernible.
- B. The encapsulant solvent or vehicle shall not contain a volatile hydrocarbon

2.06 Temporary Utilities

- A. Shut down and lock out all electrical power to the asbestos Work Areas.
- B. Provide temporary 120–240-volt, single phase, three wires, 100-amp electric service with Ground Fault Circuit Interrupters (GFCI) for all electric requirements within the asbestos Work Area.

1. Where available, obtain from Owners existing system. Otherwise provide power from other sources (i.e., generator).
 2. Provide temporary wiring and "weatherproof" receptacles in sufficient quantity and location to serve all HEPA equipment and tools.
 3. Provide wiring and receptacles as required by the Environmental Consultant for air sampling equipment.
 4. All power to the Work Area shall be brought in from outside the area through GFCI's at the source.
- D. Provide temporary lighting with "weatherproof" fixtures for all Work Areas including decontamination chambers.
1. The entire Work Area shall be kept illuminated at all times.
 2. Provide lighting as required by the Environmental Consultant for the purposes of performing required inspections.

2.07 First Aid Kits

- A. Maintain adequately stocked first aid kits in the Clean Room and Work Zone, in accordance with OSHA requirements.

2.08 High Efficiency Particulate Air (HEPA) Filters

- A. Employ filters which have been individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3-micron dioctylphthalate (DOP) particles, in accordance with Military Standard Number 282 and Army Instructional Manual 136-300-175A. Each filter shall bear a US 586 label to indicate ability to perform under the specified conditions.
- B. Each HEPA filter shall be marked with the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of air flow.

2.09 Glovebags

- A. Use only commercially available Glove bags. Use Glove bags constructed of clear fire-retardant plastic, which have a minimum thickness of six (6) mil.
- B. Use Glove bags appropriately sized for the pipe. Use Glovebags, the dimensions of which exceed the pipe insulation diameter by a factor of four (4).

2.10 Plastic

- A. Use only new fire-retardant plastic sheets of polyethylene, which has a minimum thickness of 6 mil, true grade.
- B. For the initial floor protective layer use only new reinforced plastic sheets of polyethylene, which has a minimum thickness of ten (10) mil, true grade. As an alternative, apply a ten (10) mil thick layer of "Spray-Poly" by Isotek or as approved.

2.11 Plywood

- A. Use only fire-rated CDX plywood, which is at minimum one half inch (1/2") in thickness.

2.12 Respirators

- A. Use only respirators approved by the Mine Safety and Health Administration (MSHA), Department of Labor, or the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

2.13 Sealants

- A. Use a combination fire stop foam and fire stop sealant. Use Dow Corning Fire Stop Foam and Dow Corning Fire Stop Sealant or as approved. Apply in accordance with manufacturer's recommendations.

2.14 Studs

- A. Use only 2" x 4" fire rated CDX or metal studs.

2.15 Supplied Air System

- A. At all times, air supplied to the type "C" respirators shall be Grade "D" Breathable Air as described by OSHA Regulation 29 CFR 1910.134(d)(1), containing less than the following:
- | | |
|-------------------------|-----------------------------------|
| Carbon Monoxide: | 20 parts per million |
| Carbon Dioxide: | 1,000 parts per million |
| Condensed Hydrocarbons: | 5 milligrams per cubic centimeter |
| Objectionable odors: | None |
- B. Provide a minimum of one (1) hour of reserve air for emergency evacuation. Post, in the Work Zone, emergency evacuation procedures to be followed in the event of breathing air system failure. Explain procedures to all workers prior to commencement of the Work.
- C. Water content shall be less than 66 parts per million in order to protect the air purification unit. Certify the air quality of the system prior to beginning asbestos abatement Work and every two weeks during asbestos abatement Work by an independent laboratory certified by the American Board of Industrial Hygiene. Collect samples under the supervision of a Certified Industrial Hygienist. Submit copies of certified test results to the Engineer within five (5) days of the sample collection.

2.16 Vacuums

- A. Use only vacuums equipped with HEPA filters.

2.17 Surfactant (Amended Water)

- A. Wet all asbestos-containing materials prior to removal with surfactant mixed and applied in accordance with manufactures printed instructions.

- END OF PART 2 -

PART 3 - EXECUTION

3.01 Personnel Protection

- A. Satisfy all applicable Worker protection requirements.
- B. Provide protective equipment for use by Workers and designated representatives of the Owner including disposable full body coveralls, respirators and approved cartridges, gloves, hard hats, and goggles. Maintain on site, two (2) sets of protective equipment for the exclusive use of representatives of the owner.
- C. At all times, provide all persons with personally issued and marked respiratory equipment suitable for the asbestos exposure level in the Work Zone. Ensure that all persons properly use this equipment at all times.
- D. As a minimum, half face negative pressure type respirators must be worn by all personnel during Work Zone preparation. If airborne concentrations of asbestos inside the Work Zone exceed 0.1 fibers per cubic centimeter, employ either PAPR or type "C" respiratory protection whichever is appropriate.
- E. PAPRs (Powered Air Purifying Respirators) shall constitute the minimum level of respiratory protection for all persons entering that Work Zone from the time the Work Zone is activated until acceptance.
- F. Should airborne concentrations of asbestos inside the Work Zone exceed 2.0 fibers per cubic centimeter, supply all personnel with personally issued and marked Type "C" supplied air respirators operated in the positive pressure demand mode.
- G. If the permissible respirators fail to provide sufficient protection against volatile substances emitted by any sealants or other chemicals used, the services of a certified industrial hygienist will be procured, at the Contractor's expense, to determine proper respiratory protection. The Owner will not be liable for the cost of increased respiratory protection.
- H. Maintain surveillance of heat stress conditions in the Work Zone. The prevailing Threshold Limit Values (TLVs) for heat stress and the method of heat stress measurement adopted by the American Conference of Governmental Industrial Hygienists (ACGIH) shall govern worker exposure to heat stress.

3.02 Personnel Decontamination Enclosure

- A. Construct and operate the Personnel and Waste Decontamination Enclosure Systems in conformance with all applicable rules and regulations. Locate decontamination units outside of the Work Zone.
- B. Construct the Personnel Decontamination Enclosure System (PDES) as a series of six (6) completely enclosed and connected rooms: an Airlock, an Equipment Room, a second Airlock, a Shower, a third Airlock, and a Clean (locker) Room. Separate rooms with curtained doorways.
 - 1. Ensure that all egress from the Work Zone is through the PDES.

2. Ensure that all persons leaving the Work Zone vacuum themselves of asbestos in the Work Zone and disrobe in the Equipment Room, shower (including washing of hair) with respirator on, and redress in the Clean Room.
 3. Ensure that all persons entering the Work Zone wear clean and new protective clothing and equipment prior to entrance.
 4. Equip the Shower with hot and cold water adjustable at the tap, liquid soap, shampoo and disposable towels.
 5. Leave all contaminated clothing and equipment in the Equipment Room in barrels or bags. Sanitize respirators in the showers. Equip with fresh cartridges in the Clean Room.
 6. No more than one curtained doorway shall be opened at the same time.
- C. Remove all asbestos containing waste materials, equipment, or any other materials through the Waste Decontamination Enclosure System (WDES). The WDES shall consist of a series of four (4) completely enclosed and connected rooms: an Airlock, a Washroom, a second Airlock, and a Holding Area. Separate rooms with curtained doorways. Remove materials, waste and equipment as follows:
1. No more than one curtained doorway shall be opened at the same time.
 2. Before removing any equipment or asbestos from the Work Zone,
 - a. Containerize (or bag) all asbestos;
 - b. Wet clean all equipment and packaged asbestos.
 3. Place equipment and asbestos in the first Airlock. Workers in the Work Zone shall not enter the Airlock and the Curtained Doorway between the Airlock and the Washroom shall remain closed during this procedure.
 4. Uncontaminated Workers in clean new protective equipment shall enter the WDES from outside the Work Zone and enter the Washroom.
 5. While in the Washroom:
 - a. Remove Waste and Equipment from the first Airlock;
 - b. Wet clean all equipment and all packaged asbestos containing waste;
 - c. Place bags and other containers into an additional completely clean bag or wrap in plastic. Bags and plastic used for this purpose shall not enter the Work Zone;
 - d. Place equipment and asbestos in the second Airlock. Workers in the Work Zone shall not enter the Airlock and the Curtained Doorway between this Airlock and the Holding Area shall remain closed during this procedure.

6. Uncontaminated Workers in clean new protective equipment shall enter the Holding Area from the outside area and remove containerized materials from the airlock.
7. All workers shall proceed into the Work Zone for exiting by way of the PDES. Ensure that personnel do not leave the Work Zone through the WDES.

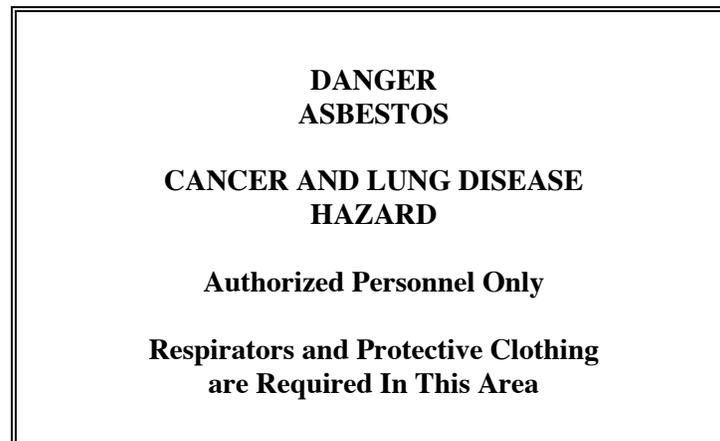
3.03 Work Area Preparation

- A. **Electrical Power:** Unless otherwise indicated, shut down all electric power within the Work Area, as follows:
 1. Lock all circuits, which have been shut off, in the off position and label with a printed tag which reads as follows:

"TEMPORARY DISCONNECT
Due to Asbestos Removal Project
DO NOT ACTIVATE THESE CIRCUITS"
 2. Provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements. Provide all equipment which must remain operable, as well as all temporary ground-fault interrupter circuits for lights and electrical equipment. Individually protect all power equipment used inside each Work Zone with in-line ground fault interrupters. Locate ground-fault interrupter outside of the Work Zone.
 3. Provide all electrical tie-ins and extensions. Provide a temporary panel board, connected to an electric panel designated by the Owner.
- B. **Heating Ventilation and Air Conditioning (HVAC):** Employ all means necessary to prevent contamination and fiber dispersal to other areas of the structure, as follows:
 1. Thoroughly clean all HVAC Equipment and ductwork in the Work Zone. Seal all vents within the Work Zone with tape and plastic. Seal all HVAC duct seams. Wrap all ductwork in two (2) layers of plastic.
 2. Remove all HVAC filters. Pack disposable filters in sealable double plastic bags for disposal at the approved landfill. Replace with new filters after final cleanup. Wet-clean permanent filters; reinstall after final cleanup.
 3. Remove all heating and ventilating equipment grills, diffusers, returns, and other items located on the asbestos bearing surfaces. Wet clean all such items, seal in two (2) layers of plastic and remove from the Work Zone. Reinstall all displaced items after satisfactory clearance air testing.
 4. HVAC systems shall be treated as follows:
 - a. Unless otherwise indicated, shutdown and lockout all heating, ventilating and air conditioning systems. Isolate system at points of entry to the Work Zone; use two (2) layers of plastic.

- b. In cases where the HVAC system serving the Work Zone also serves other areas of the building which must remain in operation,
 - i. Isolate the ductwork entering the Work Zone from the remainder of the system. Cap all ductwork where it passes in or out of the Work Zone with galvanized steel ASTM 5261 in accordance with SMACNA HVAC Duct Construction Standards. Cover with two (2) layers of plastic.
 - ii. Operate the affected HVAC system twenty-four (24) hours per day from the initiation of Work Zone activation until successful final air clearance. Maintain a positive pressure within the operational portion of the HVAC system of 0.05 inch water gauge or greater with respect to the ambient pressure outside of the Work Zone. Install pressure monitoring devices.
- c. In cases where it is necessary for ductwork passing through the Work Zone to remain active, the following conditions are to be maintained:
 - i. Maintain a positive pressure within the HVAC system of 0.05-inch water gauge (or greater) with respect to the ambient pressure outside of the Work Zone: the conditions for this system shall be maintained and be operational twenty-four (24) hours per day from the initiation of Work Zone preparation until successful final air clearance.
 - ii. Test, inspect and record the positive pressure in the duct both at the beginning and at the end of each shift.
 - iii. Monitor the positive pressurization of the duct using instrumentation that will trigger an audible alarm, if the static pressure falls below the set value.
 - iv. Place the supply air fan and the supply air damper for the active positive-pressurized duct in the manual "on" position to prevent shutdown by fail safe mechanisms.
 - v. Shut down and lock out the return air fan and the return air dampers.
 - vi. Cover all active HVAC ducts that pass through the Work Zone with two (2) layers of plastic.
- C. Steam Systems: Unless otherwise noted on the Drawings, shut down all steam systems passing through the Work Zone prior to activation.
- D. Utilities: Provide all water, electrical and waste facility connections, as well as all sanitary drains. The Contractor will not be charged for water used, electricity consumed, or discharges made to sanitary sewers as a part of this project.
- E. Temporary Service Lines: Upon completion of abatement activities, remove all temporary service lines and restore to their original conditions, in a manner acceptable to the Engineer. Repair any part of the permanent service lines, equipment and building facilities disturbed or damaged as a result of the installation or removal of the temporary service lines.

- F. Movable Objects: Movable objects within the Work Area shall be HEPA vacuumed and/or wet-wiped and removed from the Work Area
- G. Fixed Objects: All non-movable equipment in the Work Area shall be completely covered with 2 layers of polyethylene sheeting, at least 6 mil in thickness, and secured in place with duct tape and/or spray adhesive.
- H. Openings: Prior to placing plastic on walls, floors and ceilings, seal off all openings, including, but not limited to corridors, doorways, windows, skylights, ducts, grills, diffusers, and any other penetrations of the Work Zones, with two (2) layers of plastic sealed with tape.
- I. Floor, Wall and Ceiling Penetrations: Prior to any abatement activities fire stop all openings or penetrations that have not already been sealed. This includes both empty holes, expansion joints and holes accommodating items such as cables, pipes, ducts, conduit, etc.
- J. Fire Exits: Frame out emergency exits. Provide double layer 6 mil polyethylene sheeting and tape seal opening. Post as emergency exits only. Within the Work Area, mark the locations and directions of emergency exits throughout the Work Area using exit signs and/or duct tape.
- K. Signs: Outside of the perimeter barrier and at all entrances and exits to the Work Zone, post signs in English, Spanish and any other language spoken at the project location.
1. The signs shall read:



2. Demarcate the regulated area. Post signs at such a distance from the area that an employee will read these signs before entering the area.
- L. All of the above procedures shall be completed prior to the disturbance of any asbestos containing material.

3.04 Negative Air Pressure Filtration System

- A. Provide a portable asbestos filtration system that develops a minimum pressure differential of negative 0.02 in. of water column within all full enclosure areas relative to adjacent unsealed areas and that provides a minimum of 4 air changes per hour in the Work Area during abatement and 6 air changes for non-friable flooring and/or mastic removal.

- B. Such filtration systems must be made operational after critical and isolation barriers are installed but before wall, floor, and ceilings are plasticized and shall be operated 24 hours per day during the entire Project until the final cleanup is completed, and satisfactory results of the final air samples are received from the laboratory.
- C. The system shall include a series of pre-filters and filters to provide High Efficiency Particulate Air (HEPA) filtration of particles down to 0.3 microns at 100% efficiency and below 0.3 microns at 99.9% efficiency. Provide sufficient replacement filters to replace pre-filters every 2 hours, secondary pre-filters every 24 hours, and primary HEPA filters every 800 hours of operation.
- D. A minimum of one additional filtration unit of at least the same capacity as the primary unit(s) shall be installed and fully functional to be used during primary unit (s) filter changing and in case of primary failure.
- E. At no time will the unit exhaust indoors, within 15 feet of a receptor, including but not limited to windows and doors, or adversely affect the air intake of the building. Exhaust ducting shall not exceed 25' in length. Provide construction fencing at ground level exhaust termination locations per Code Rule 56.
- G. Upon electric power failure or shutdown of any filtration unit, all abatement activities shall stop immediately and only resume after power is restored and all filtration units are fully operating. For shutdowns longer than one hour, all openings into the Work Area, including the decontamination enclosures, shall be sealed.
- H. The Contractor shall provide a manometer to verify negative air pressure. Manometers shall be read twice daily and recorded within the Daily Project Log.
- I. There shall be at least a 4-hour settling period after the Work Area is fully prepared and the negative filtration units have been started to ensure integrity of the barriers.
- I. Once installed and operational, the Contractor's Supervisor shall conduct daily inspections of the Work Area to ensure the airtight integrity of the enclosure and operation of the negative air system. Findings shall be recorded within the Daily Project Log. Inspections shall also be conducted on days when no abatement activities are in progress per Code Rule 56 (i.e., weekends).

3.05 Asbestos Removal

Floor Tile / Mastic Removal

Work in this part shall be performed in accordance with ICR 56.

The sequence of abatement activities shall be as follows:

1. The areas worked on shall be unoccupied and blocked off to uncertified personnel with barricade tape and with asbestos warning signs. Only certified personnel will be allowed in the abatement areas during work and up until the time clearance air tests are passed.
2. Construct remote Decontamination Units for personnel and waste in accordance with NYS DOL ICR-56. Use studs, sixteen inches on center, covered with plywood and two (2) sheets of plastic.
3. Construct isolation barriers. Where feasible, use existing walls and partitions. Where necessary, frame temporary partitions with studs sixteen (16) inches center on center. To support plastic for all areas larger than thirty-two (32) square feet, except where one of the dimensions is less than one (1) foot, reinforce temporary partitions with plywood. Test the negative pressure system to ensure that the 0.05 inch differential is present.
4. Establish negative air as per ICR 56-6 for a small project. The negative pressure ventilation units shall be checked on a daily basis for clogging and if need be, replace filters. The exhaust shall continue to outside the building.
5. Operation of negative pressure which shall be maintained at all times in the work areas during the asbestos abatement work to ensure the contaminated air in the work areas does not filter back to an uncontaminated area.
6. Negative air shall be established within the work zones at eight (8) air changes per hour, minimum, and maintained for the duration of the removals.
7. Cover all interior surfaces of the Work Zone with a layer of plastic sealed with tape. Cover floors first (where needed) so that plastic extends at least twelve (12) inches up on walls, then cover walls with plastic to the floor level, thus overlapping the floor material by a minimum of twelve (12) inches. Tape plastic wall covering to plastic floor covering. Seams in floor plastic shall be folded 2-3 times and taped flat. The plastic shall be attached with adhesives, furring strips and screws, tape, staples, etc., sufficient to prevent collapse or sagging of any plastic covering. **Inspect all plastic three times a day for sagging and repair all such sags or failures immediately.**
8. Install a second layer of plastic on all interior Work Zone Surfaces. Repeat procedure detailed above in step 7.
9. Secure a source of water within the Work Zone (other than the Shower within the Decontamination Zone) for wetting and cleaning.

10. Test the negative pressure system prior to any abatement actions to ensure that the 0.05-inch differential is present. Wait twelve (12) hours. Test system again. If the test results are acceptable to the Engineer, the Work Zone will be activated. Do not disturb Asbestos containing materials prior to activation.
11. Wet all Asbestos prior to removal using a wetting agent. Maintain asbestos wet until packaged for disposal. One Worker shall continuously apply amended water while ACM is being removed.
12. Upon removal of ACM from the substrate, the newly exposed surfaces shall be HEPA vacuumed and/or wet cleaned. Surfaces must be thoroughly cleaned using necessary methods and any required solvents to completely remove any adhesive, mastic, etc.
13. All removed material shall be placed into 6 mil plastic disposal bags or other suitable container upon detachment from the substrate. Cleanup of accumulations of loose debris or waste shall be performed whenever there is enough accumulation to fill a single bag or container and minimally at the end of each work shift.
14. Following asbestos removal, the entire work area shall be wet cleaned and HEPA vacuumed.
15. Drying time following abatement can be six (6) hours, minimum.
16. Isolation barriers shall not be dismantled until final clearance sampling has been performed and acceptable results attained. The remaining brown coat shall then be encapsulated prior to vacating the work zone.
17. Air monitoring of each work area shall be conducted in accordance with 56-8. The number of samples required will be dependent on the amount of material being removed.

ALL ACM shall be bagged immediately and brought to the Waste Decontamination Enclosure System. At the Decontamination Enclosure, the bags will be wet wiped, and the waste double bagged.

3.06 Encapsulation

- A. Apply Encapsulating material using an airless sprayer. Comply with manufacturer's recommendations. The Encapsulating material shall be mixed with contrasting color paint to assure proper application.

3.07 Disposal Practices

- A. Wet and properly package all Asbestos prior to removal from the Work Zone via the Waste Decontamination Enclosure System. Remove all residual asbestos from the exterior of any package, drum, bag, or other container of Asbestos prior to removal from the Work Zone. Affix the ASBESTOS CAUTION label, the name of the Owner, the name of the Contractor, the name of any Tenant and the location were generated to all packages, drums, bags or other containers used for Asbestos disposal.

- B. Store all Asbestos Waste in a totally secure manner. Transport all Asbestos Waste to the disposal site within seven (7) days after completing the Work of this section or thirty (30) days after removal, whichever comes first.
- C. Transport Asbestos Waste through the building at the direction of the Engineer at times designated by the Owner. Use sealed carts.
- D. During the transport of Asbestos Waste, on or across public thoroughfares, employ a hauler bearing all required permits for the hauling of asbestos. The haulers shall carry insurance in the same types and amounts as the Contractor. In addition, the hauler shall carry "Sudden and Accidental Pollution Liability Insurance in an amount not less than \$1,000,000.
- E. Dispose of Asbestos Waste at approved landfill bearing all appropriate licenses and permits for asbestos disposal and operated in compliance with all applicable rules and regulations. The Landfill used shall be dedicated for asbestos materials only and shall not accept any other hazardous substances.
- F. Within thirty (30) days of removal from the premises, the Contractor shall provide the Owner with disposal certificate(s) from the approved waste disposal site. Final payment will not be approved until all disposal certificates have been provided.

3.08 Clean-up Procedures

- A. Daily, during abatement activities:
 - 1. Clean-up visible accumulations of loose Asbestos Waste whenever a sufficient amount of Asbestos Containing Material to fill a single asbestos waste bag has been removed. Removal all waste materials from the Work Zone at the end of each work shift. Maintain visible material wet until after cleaning up.
 - 2. Place visible accumulations of Asbestos Waste in containers utilizing non-metallic dust pans and non-metallic squeegees or vacuums.
 - 3. Do not use metal shovels.
 - 4. Wet clean and vacuum all surfaces of the Work Zone on a daily basis.
 - 5. Upon completion of waste removal, wet clean the WDES twice. When the PDES Shower Room alternates as a Washroom, wash the Shower Room immediately with cloths or mops saturated with a detergent solution prior to wet cleaning.
 - 6. Wet clean and vacuum the WDES as appropriate, as a minimum after each shift change and meal break.

7. If excess water accumulates in the Work Zone, stop Work until the water is collected and disposed of properly.

8. If Asbestos Waste is spilled in an elevator shaft:
 - a. Immediately evacuate, shut down and isolate all of the elevators in the affected elevator bank.
 - b. Place all spilled visible accumulations of Asbestos Waste in clean and unused containers.
 - c. Vacuum and wet clean all of the contaminated surfaces in the elevator car and shaft in repetitive cycles until clearance air levels are achieved in the car and at each terminus of the shaft.

- B. Final Clearance, The Work Zone will be considered acceptable when it has passed both visual inspections and air testing performed by the Engineer according to the criteria and sequence below:
1. In order to pass each of the visual inspections, the Work Zone and adjacent areas shall be free of all visually apparent asbestos. Any disputes over the results of any visual inspection shall be resolved by the Contractor submitting the results of bulk sample analysis demonstrating the contents of the material in question. Remove all Asbestos materials and all asbestos contaminated materials; non-asbestos materials may remain. The laboratory performing such analyses shall be a regular participant in the ELAP Quality Assurance Program for bulk sample analyses with performance results satisfactory to the Engineer. The Engineer reserves the right to independently verify the bulk results.
 2. If the Work Zone is not suitable for acceptance for any reason, promptly perform the Work requested by the Engineer.
 3. Keep each Work Zone isolated and posted with ASBESTOS CAUTION and CAUTION KEEP OUT signs until after acceptance.
 4. Typical acceptance sequence shall be as follows:
 - a. After removal of visible accumulations of Asbestos Waste, vacuum all surfaces;
 - b. Remove all bagged materials from the Work Site;
 - c. Wet clean and vacuum all objects and surfaces in the Work Zone;
 - d. Visual inspection by the Engineer;
 - e. Encapsulate all plastic within the Work Zone limits, do not encapsulate surfaces from which asbestos was removed;
 - f. Remove, bag, and remove from the Work Site the first layer of plastic;
 - g. Vacate the Work Zone for four (4) hours;
 - h. Wet clean and vacuum all objects and surfaces in the Work Zone for a second time;
 - i. Visual inspection by the Engineer;
 - j. Vacate the Work Zone for four (4) hours;
 - k. Remove, bag and remove from the Work Site the second layer of plastic;
 - l. Wet clean and vacuum all surfaces in the Work Zone for a third time;
 - m. Vacate the Work Zone for four (4) hours;
 - n. Visual inspection by Engineer to verify the absence of Asbestos Waste, dust and or debris;

- o. Clearance Air Monitoring.
Clearance air monitoring shall consist of five air samples taken inside of the work area and five air samples taken outside of the work area.
- p. Upon successful clearance air testing, encapsulate surfaces from which Asbestos was removed.
- q. Wait for encapsulant to dry;
- r. Final Acceptance will be granted provided that items a thru n have been met to the satisfaction of the Engineer;
- s. Shut down air filtration units (demobilization);
- t. Remove the isolation barriers in conjunction with the use of HEPA vacuums;
- u. After all Work and decontamination is complete, relocate and secure objects moved to temporary locations in the course of the Work to their former positions and assure that they are in working order.

3.09 Restoration of utilities, firestopping, and finishes

- A. After final clearance, remove locks and restore electrical and HVAC systems. All temporary power shall be disconnected, power lockouts removed, and power restored. All temporary plumbing shall be removed.
- B. Finishes damaged by asbestos abatement activities including, but not limited to, plaster/paint damage due to duct tape, staples, and spray adhesives, and floor tile lifted due to wet or humid conditions, shall be restored prior to final payment.
 - 1. Finishes unable to be restored shall be replaced under this Contract at the Contractor's expense.
 - 2. All foam and expandable foam products and materials used to seal Work Area openings shall be completely removed upon completion of abatement activities.
- C. All penetrations (including, but not limited to, pipes, ducts, etc.) through fire rated construction shall be fire stopped using materials and systems tested in accordance with ASTM E814 on Projects where reinsulating is part of the required work.

END OF PART 3 -

PART 4 – DISPOSAL OF ASBESTOS WASTE

4.01 Transportation and disposal site

- A. The Contractor's Hauler and Disposal Site shall be approved by the Owner.
- B. The Contractor shall give twenty-four (24) hour notification prior to removing any waste from the site. Waste shall be removed from the site only during normal working hours unless otherwise specified. No waste may be taken from the site unless the Contractor and Environmental Consultant are present, and the Environmental Consultant authorizes the release of the waste as described herein.
- C. All waste generated as part of the asbestos project shall be removed from the site within ten (10) calendar days after successful completion of all asbestos abatement work.
- D. Upon arrival at the Project Site, the Hauler must possess and present to the Environmental Consultant a valid New York State Department of Environmental Conservation Part 364 Asbestos Haulers Permit. The Environmental Consultant may verify the authenticity of the haulers permit with the proper authority.
- F. The Hauler, with the Contractor and the Environmental Consultant, shall inspect all material in the transport container prior to taking possession and signing the Asbestos Waste Manifests.

4.02 Waste Storage Container

- A. All waste containers shall be fully enclosed and lockable (i.e. enclosed dumpster, trailer, etc.). No open containers will be permitted on-site (i.e., open dumpster with canvas cover, etc.) unless specifically permitted by applicable regulation or applicable regulation. When asbestos contaminated waste must be kept on the work site overnight or longer, it shall be double bagged and stored in accordance with Federal, State, and local laws.
- B. The Environmental Consultant shall verify that the waste storage container and/or truck tags (license plates) match that listed on the New York State Department of Environmental Conservation Part 364 permit. Any container not listed on the permit shall be removed from the site immediately.
- C. The container shall be plasticized and sealed with two (2) layers of 6 mil polyethylene. Once on site, it shall be kept locked at all times, except during load out. The waste container shall not be used for storage of equipment or contractor supplies.
- D. While on-site, the container shall be labeled with EPA Danger signage:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
- E. The New York State Department of Environmental Conservation Asbestos Haulers Permit number shall be stenciled on both sides and back of the container.

- F. The container is not permitted to be loaded unless it is properly plasticized, has the appropriate danger signage affixed, and has the permit number appropriately stenciled on the container.
- G. Waste generated off-site is not permitted to be brought onto the Project site and loaded into the waste container.

4.03 Hauler's Asbestos waste Manifests

- A. An Asbestos Waste Manifest shall be provided by the Waste Hauler and shall be utilized in conjunction with the Asbestos Abatement Project.
- B. The Waste Haulers Manifest shall be completed by the Contractor and verified by the Environmental Consultant that all the information and amounts are accurate, and the proper signatures are in place.
- C. The Manifest shall have the appropriate signatures of the Environmental Consultant, the Contractor, and the Hauler representatives prior to any waste being removed from the site.
- D. Copies of the completed Waste Haulers Manifest shall be retained by the Environmental Consultant and the Contractor and shall remain on site for inspection.
- E. Upon arrival at the Disposal Site, the Waste Haulers Manifest shall be signed by the Disposal Facility operator to certify receipt of ACM covered by the manifest.
- F. The Disposal Facility operator shall return the original Waste Haulers Manifest to the Contractor.
- G. The Contractor shall forward copies of the Waste Haulers Manifest to the Environmental Consultant within 14 days of the waste container being removed from the site. Failure to do so may result in payment being withheld from the Contractor.
- H. All waste disposal manifests shall be submitted by the Contractor to the Owner with the final close-out documentation.

END OF PART 4 -

**SECTION 03 5400
CAST UNDERLAYMENT**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Liquid-applied self-leveling floor underlayment.
 - 1. Use cementitious type at all locations.

1.3 RELATED REQUIREMENTS

- A. Section 09 6500 - Resilient Flooring for flashing patching and moisture mitigation.

1.4 REFERENCE STANDARDS

- A. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens); 2013.
- B. ASTM C348 - Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars; 2014.
- C. ASTM F-2170 Relative Humidity in Concrete.
- D. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's data sheets documenting physical characteristics and product limitations of underlayment materials. Include information on surface preparation, environmental limitations, and installation instructions.
- C. Certificate: Certify that products meet or exceed specified requirements.
- D. Manufacturer's Instructions.
- E. Material Test Reports: From a qualified testing agency indicating and interpreting test results of underlayments for compliance with requirements indicated.
- F. Submit certification, in writing by the finish floor manufacturer that the cast underlayment is compatible and acceptable for their product,

1.6 QUALITY ASSURANCE

- A. Manufacturer: Provide underlayment manufactured by a firm with a minimum of ten (10) years experience with types equivalent to those specified.
- B. Applicator Qualifications: Company specializing in performing the work of this section with minimum three years of experience who has completed work similar in material, design, and extent to that indicated for this Project .
- C. Product must have a hydraulic cement-based inorganic binder content as the primary binder which includes portland cement per ASTM C150: Standard Specification for Portland Cement and other specialty hydraulic cements. Gypsum-based products are not acceptable.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store products in a dry area with temperature maintained between 50° and 85°F (10° and 29°C) and protect from direct sunlight
- C. Handle products in accordance with manufacturer's printed recommendations

1.8 FIELD CONDITIONS

- A. Do not install underlayment until floor penetrations and peripheral work are complete.

- B. Comply with manufacturer's written instructions for substrate temperature and moisture content, ambient temperature and humidity, ventilation, and other conditions affecting underlayments performance.
- C. Maintain minimum ambient temperatures of 50 degrees F 24 hours before, during and 72 hours after installation of underlayment.
- D. During the curing process, ventilate spaces to remove excess moisture.
- E. Close areas to traffic during underlayments application and, after application, for time period recommended in writing by manufacturer

1.9 WARRANTY

- A. Provide manufacturer's standard warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Cementitious Underlayment: Basis of Design:
 - 1. ARDEX Engineered Cements; ARDEX K 15 with ARDEX P51 Primer: www.ardexamericas.com.
 - 2. Substitutions: Section 01 2500 Substitution Procedures.

2.2 MATERIALS

- A. Cast Underlayments, General:
 - 1. Comply with applicable code for combustibility or flame spread requirements.
 - a. Refer to Section 01 4100 - Regulatory Requirements.
- B. Cementitious Underlayment: Blended cement mix, that when mixed with water in accordance with manufacturer's directions will produce self-leveling underlayment with the following properties:
 - 1. Compressive Strength: Minimum 5,5000 pounds per square inch after 28 days, tested per ASTM C109/C109M.
 - 2. Flexural Strength: Minimum 1200 psi after 28 days, tested per ASTM C348.
 - 3. Shrinkage: 0.025 - 0.045% @ 28 days when tested in conformance with ASTM C 531 (modified).
 - 4. Ideal Slump range 11.5" - 12.5" (2" diameter pipe, 4" high).
 - 5. Bond Strength: 350-400 psi when tested in conformance with ASTM D 3931
 - 6. "0" VOC content
 - 7. Final Set Time: 2 to 3hour.
 - 8. Thickness: Capable of thicknesses from feather edge to maximum 3-1/2 inch.
 - 9. Surface Burning Characteristics: Flame spread/Smoke developed index of 0/0 in accordance with ASTM E84.
- C. Aggregate: Dry, well graded, washed silica aggregate, approximately 1/8 inch in size and acceptable to underlayment manufacturer.
- D. Reinforcement: Galvanized metal lath complying with recommendations of underlayment manufacturer for specific project circumstances.
- E. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to underlayment mix materials.
- F. Primer: Ardex P 51
- G. Joint and Crack Filler: Latex based filler, as recommended by manufacturer.
- H. Refer to Section 09 6466 - Wood Athletic Flooring for moisture control system.

2.3 MIXING

- A. Site mix materials in accordance with manufacturer's instructions.
- B. Add 7 quarts (6.6 L) of clean potable water per 55 lb. (25 kg) bag when recommended by manufacturer for applications over 3-1/2 inches.
- C. Mix using a 1/2" (12 mm) heavy-duty drill (min. 650 rpm) with an mixing paddle. Do not over water. When mixing sanded materials, follow manufacturer's recommendations, or use a standard "gutter hook"

vacuum attachment in combination with a wet/dry (Shop-Vac® style) vacuum and HEPA dust extraction vacuum system. Additionally, each bag should be handled with care and emptied slowly to avoid creating a plume of dust. Contact the manufacturer's Technical Service Department for more details on products and air quality management.

- D. Aggregate mix: For areas to be installed over 1 ½" (4 cm) thick, aggregate may be added to reduce material costs. Mix Underlayment with water first, then add 1 part aggregate by volume of washed, well-graded 1/8" to 3/8" (3 to 9.5 mm) pea gravel. The aggregate size must not exceed 1/3 the depth of the pour. Do not use sand. Note: The addition of aggregate will diminish the workability of the product and may make it necessary to install a finish coat to obtain a smooth surface. Allow the initial application to dry for 12 to 16 hours, and then prime this layer with primer mixed 1: 1 with water. Allow the primer to dry (min. 30 minutes, max. 24 hours) before installing the neat coat of underlayment
- E. For pump installations, underlayment shall be mixed using the Automatic Mixing Pumps. recommended by the manufacturer Contact the manufacturer's Technical Service Department for complete pump operation instructions.
- F. Mix to self-leveling consistency without over-watering and in accordance with manufacturer's instructions.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Test moisture content of substrates:
 - 1. Per ASTM F2170, do not install if relative humidity is > 95% (15 pounds per 1000 sq. ft. per 24 hours ASTM F1869) up to and including 98% Relative Humidity (20 pounds per 1000 sq. ft. per 24 hours ASTM F 1869) without first applying TEC® The LiquiDAM® moisture mitigation membrane.
 - a. Cost of mitigation testinf shall be included in the Contracto's proposal.
 - 2. For moisture sensitive floor finishes refer to the finish floor manufacturers specifications for moisture limitations. Remediation of excessive moisture conditions **must be done prior to** installation of Self Leveling Underlayment. To reduce moisture vapor emissions to an acceptable level, use material recommended by the manufacturer.
 - 3. Refer to finish flooring systems for additional requirements.
- B. Notify the Owner's Representative and Architect in writing of any unsatisfactory conditions.
- C. Verify that substrate surfaces are clean, dry, unfrozen, do not contain petroleum byproducts, or other compounds detrimental to underlayment material bond to substrate.

3.2 PREPARATION

- A. Existing Concrete: Remove existing surface treatments and deteriorated and unsound concrete. Mechanically abrade base slabs to produce a heavily scarified surface profile with an amplitude of 1/4 inch
 - 1. After profiling test substrate by place drop of water, or other means to insure all coatings, sealers etc have been removed. Repeat profiling if necessary.
 - 2. Prepare and clean existing base slabs according to topping manufacturer's written instructions. Fill voids, cracks, and cavities in base slabs.
 - 3. Mechanically remove contaminants from existing concrete that might impair bond of topping.
 - 4. Saw cut existing contraction and construction joints to a depth of 1/2 inch and fill with epoxy joint filler.
- B. Install joint-filler strips where topping abuts vertical surfaces.
- C. Remove substrate surface irregularities. Fill voids and deck joints with filler. Finish smooth.
- D. Vacuum clean surfaces.
- E. Prime substrate in accordance with manufacturer's instructions. Allow to dry.
- F. Close floor openings.

3.3 APPLICATION OF PRIMER

- A. Prime standard subfloors with manufacturer's recommended solvent-free primer.
 - 1. Mix Primer 1:1 with water and apply evenly with stiff bristled push broom.
 - 2. Apply an even continuous coat.
 - 3. Allow to dry to a clear film (typically 30 minutes; maximum 24 hours).
 - 4. Do not apply underlayment until the primer is dry.
 - a. To determine if the primer is dry after a minimum of 30 minutes (max. 24 hours), pour water onto the surface of the primer in several areas and rub it with your finger. If the water remains clear, the primer is dry. If the water turns cloudy or milky, additional drying time is needed.
 - 5. Primer coverage is approximately 400 to 450 sq. ft. per gallon depending on surface texture.
 - 6. Prime extremely absorbent subfloors twice.

3.4 APPLICATION OF UNDERLAYMENT

- A. Existing Concrete: Apply epoxy-bonding adhesive, mixed according to manufacturer's written instructions, and scrub into dry base slabs to a thickness of 1/16 to 1/8 inch, without puddling. Place topping while adhesive is still tacky
- B. Install underlayment in accordance with manufacturer's instructions.
- C. Pump or pour material onto substrate. Do not retemper or add water.
 - 1. Be careful not to create cold joints.
- D. Place to required thickness, with top surface level to 1/16 inch in 10 ft.
- E. For final thickness over 1-1/2 inches, place underlayment in layers. Allow initial layer to harden to the point where the material has lost its evaporative moisture. Immediately prime and begin application of the subsequent layer within 24 hours.
- F. Place before partition installation.
- G. Where additional aggregate has been used in the mix, add a top layer of neat mix (without aggregate), if needed to level and smooth the surface.
- H. If a fine, feathered edge is desired, steel trowel the edge after initial set, but before it is completely hard.

3.5 CURING

- A. Once underlayment starts to set, prohibit foot traffic until final set has been reached.
- B. Air cure in accordance with manufacturer's instructions.

Underlayment can be walked on in 2-3 hours. Moisture-insensitive tiles such as ceramic, quarry and porcelain can be installed after 6 hours. All other finish floor coverings can be installed after 16 hours at 70°F (21°C). For resinous systems such as epoxy and polyurethane floors please contact the manufacturer's Technical Services Department.

3.6 JOINT FILLING

- A. Prepare and clean contraction joints and install epoxy joint filler, according to manufacturer's written instructions, once topping has fully cured.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.
- C. Install epoxy joint filler full depth of contraction joints. Overfill joint and trim joint filler flush with top of joint after hardening

3.7 FIELD QUALITY CONTROL

3.8 REPAIRS

- A. Defective Topping: Repair and patch defective topping areas, including areas that have not bonded to concrete substrate

3.9 PROTECTION

- A. Do not permit traffic over unprotected floor underlayment surfaces.

END OF SECTION

**SECTION 06 1000
ROUGH CARPENTRY**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Rough opening framing for door frames.
- B. Fire retardant treated wood materials.
- C. Miscellaneous wood nailers, furring, and grounds.

1.3 RELATED REQUIREMENTS

- A. Section 03 5400 - Cast Underlayment.
- B. Section 08 7100 - Door Hardware.

1.4 REFERENCE STANDARDS

- A. ASTM D2898 - Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing; 2010.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.
- C. PS 1 - Structural Plywood; 2009.
- D. PS 20 - American Softwood Lumber Standard; 2010.
- E. WWPA G-5 - Western Lumber Grading Rules; 2011.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.

1.6 QUALITY ASSURANCE

- A. Lumber: Comply with PS 20 and approved grading rules and inspection agencies.
 - 1. Acceptable Lumber Inspection Agencies: Any agency with rules approved by American Lumber Standards Committee.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, and installation.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
 - 2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.2 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Grading Agency: Western Wood Products Association; WWPA G-5.
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: Kiln-dry or MC15.
- D. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:

1. Lumber: S4S, No. 2 or Standard Grade.

2.3 CONSTRUCTION PANELS

- A. Communications and Electrical Room Mounting Boards: PS 1 A-D plywood, or medium density fiberboard; 3/4 inch thick; flame spread index of 25 or less, smoke developed index of 450 or less, when tested in accordance with ASTM E84.

2.4 ACCESSORIES

- A. Die-Stamped Connectors: Hot dipped galvanized steel, sized to suit framing conditions.

2.5 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWWA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
 1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
- B. Fire Retardant Treatment:
 1. Interior Type A: AWWA U1, Use Category UCFA, Commodity Specification H, low temperature (low hygroscopic) type, chemically treated and pressure impregnated; capable of providing a maximum flame spread index of 25 when tested in accordance with ASTM E84, with no evidence of significant combustion when test is extended for an additional 20 minutes.
 - a. Kiln dry wood after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood.
 - b. Interior rough carpentry items are to be fire retardant treated.
 - c. Do not use treated wood in applications exposed to weather or where the wood may become wet.
- C. Preservative Treatment:
 1. Manufacturers:
 - a. Koppers Performance Chemicals, Inc: www.koppersperformancechemicals.com/#sle.
 - b. Substitutions: Section 01 2500 Substitution Procedures.

PART 3 EXECUTION

3.1 PREPARATION

3.2 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.3 FRAMING INSTALLATION

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength.

3.4 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- C. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.

3.5 INSTALLATION OF CONSTRUCTION PANELS

- A. Communications and Electrical Room Mounting Boards: Secure with screws to studs with edges over firm bearing; space fasteners at maximum 24 inches on center on all edges and into studs in field of board.
 - 1. At fire-rated walls, install board over wall board indicated as part of the fire-rated assembly.
 - 2. Where boards are indicated as full floor-to-ceiling height, install with long edge of board parallel to studs.
 - 3. Install adjacent boards without gaps.

3.6 CLEANING

- A. Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.

END OF SECTION

**SECTION 07 8400
FIRESTOPPING**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 RELATED REQUIREMENTS

- A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 01 7000 - Execution: Cutting and patching.
- C. Section 08 1213 - Hollow Metal Frames.
- D. Section 09 2116 - Gypsum Board Assemblies.

1.3 REFERENCE STANDARDS

- A. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2015.
- B. ASTM E814 - Standard Test Method for Fire Tests of Through-Penetration Fire Stops; 2013a.
- C. ASTM E1966 - Standard Test Method for Fire Resistive Joint Systems; 2007 (Reapproved 2011).
- D. ASTM E2837 - Standard Test Method for Determining the Fire Resistance of Continuity Head-of-Wall Joint Systems Installed Between Rated Wall Assemblies and Nonrated Horizontal Assemblies; 2013.
- E. FM (AG) - FM Approval Guide; current edition.
- F. UL 2079 - Standard for Tests for Fire Resistance of Building Joint Systems; Current Edition, Including All Revisions.
- G. UL (FRD) - Fire Resistance Directory; current edition.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance ratings, and limitations.

1.5 QUALITY ASSURANCE

- A. Fire Testing: Provide firestopping assemblies of designs that provide the scheduled fire ratings when tested in accordance with methods indicated.
 - 1. Listing in UL (FRD), FM (AG), or ITS (DIR) will be considered as constituting an acceptable test report.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years experience.
- C. Installer Qualifications: Company specializing in performing the work of this section and:
 - 1. Verification of minimum three years experience installing work of this type.

1.6 MOCK-UP

- A. Install one firestopping assembly representative of each fire rating design required on project.
 - 1. Where one design may be used for different penetrating items or in different wall constructions, install one assembly for each different combination.
- B. If accepted, mock-up may remain as part of this work. Remove and replace mock-ups not accepted.

1.7 FIELD CONDITIONS

- A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation; maintain minimum temperature before, during, and for three days after installation of materials.
- B. Provide ventilation in areas where solvent-cured materials are being installed.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Firestopping Materials: Any materials meeting requirements.
- B. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Provide type of materials as required for tested firestopping assembly.

2.2 FIRESTOPPING ASSEMBLY REQUIREMENTS

- A. Perimeter Fire Containment Firestopping: Use system that has been tested according to ASTM E2307 to have fire resistance F Rating equal to required fire rating of floor assembly.
- B. Head-of-Wall (HW) Joint System Firestopping at Joints Between Fire-Rated Wall Assemblies and Non-Rated Horizontal Assemblies: Use system that has been tested according to ASTM E2837 to have fire resistance F Rating equal to required fire rating of wall assembly.
- C. Floor-to-Floor (FF), Floor-to-Wall (FW), Head-of-Wall (HW), and Wall-to-Wall (WW) Joints, Except Perimeter, Where Both Are Fire-Rated: Use system that has been tested according to ASTM E1966 or UL 2079 to have fire resistance F Rating equal to required fire rating of the assembly in which the joint occurs.
- D. Through Penetration Firestopping: Use system that has been tested according to ASTM E814 to have fire resistance F Rating equal to required fire rating of penetrated assembly.

2.3 FIRESTOPPING FOR FLOOR-TO-FLOOR, FLOOR-TO-WALL, HEAD-OF-WALL, AND WALL-TO-WALL JOINTS

- A. Concrete and Concrete Masonry Walls and Floors:
 - 1. Floor-to-Floor Joints:
 - a. 2 Hour Construction: UL System FF-D-1013; Hilti CFS-SP WB Firestop Joint Spray and CP 672.
- B. Gypsum Board Walls:
 - 1. Wall-to-Wall Joints That Have Movement Capabilities (Dynamic-D):
 - a. 1 Hour Construction: UL System WW-D-0067; Hilti CP 606 Flexible Firestop Sealant.
 - 2. Head-of-Wall Joints at Concrete Over Metal Deck, Wall Parallel to Ribs:
 - a. 1 Hour Construction: UL System HW-D-0049; Hilti CFS-SP WB Firestop Joint Spray and CP 672.

2.4 FIRESTOPPING PENETRATIONS THROUGH GYPSUM BOARD WALLS

- A. Blank Openings:
 - 1. 1 Hour Construction: UL System W-L-3334; Hilti CP 653 Speed Sleeve.
- B. Penetrations By:
 - 1. Multiple Penetrations in Large Openings:
 - 2. Uninsulated Metallic Pipe, Conduit, and Tubing:
 - a. 1 Hour Construction: UL System W-L-1164; Hilti FS-ONE MAX Intumescent Firestop Sealant.
 - 3. Uninsulated Non-Metallic Pipe, Conduit, and Tubing:
 - a. 1 Hour Construction: UL System W-L-2128; Hilti FS-ONE MAX Intumescent Firestop Sealant.
 - 4. Electrical Cables Not In Conduit:
 - 5. Cable Trays with Electrical Cables:
 - a. 1 Hour Construction: UL System W-L-4011; Hilti CFS-BL Firestop Block.
 - b. 1 Hour Construction: UL System W-L-4060; Hilti FS-ONE MAX Intumescent Firestop Sealant.
 - 6. Insulated Pipes:

- a. 1 Hour Construction: UL System W-L-5028; Hilti FS-ONE MAX Intumescent Firestop Sealant.
- 7. HVAC Ducts, Insulated:
 - a. 1 Hour Construction: UL System W-L-7156; Hilti FS-ONE MAX Intumescent Firestop Sealant.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify openings are ready to receive the work of this section.

3.2 PREPARATION

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other materials that could adversely affect bond of firestopping material.
- B. Remove incompatible materials that could adversely affect bond.

3.3 INSTALLATION

- A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.
- B. Do not cover installed firestopping until inspected by authorities having jurisdiction.
- C. Install labeling required by code.

3.4 CLEANING

- A. Clean adjacent surfaces of firestopping materials.

3.5 PROTECTION

- A. Protect adjacent surfaces from damage by material installation.

END OF SECTION

**SECTION 07 9200
JOINT SEALANTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Joint backings and accessories.

1.3 RELATED REQUIREMENTS

- A. Section 07 8400 - Firestopping.
- B. Section 08 1213 - Hollow Metal Frames.
- C. Section 09 2116 - Gypsum Board Assemblies.

1.4 REFERENCE STANDARDS

- A. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications; 2012.
- B. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2013.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.

2.2 JOINT SEALANT APPLICATIONS

- A. Scope:
 - 1. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
 - a. Joints between door, window, and other frames and adjacent construction.
 - b. Other joints indicated below.
- B. Interior Vertical Joints: Use non-sag acrylic latex sealant, unless otherwise indicated.

2.3 JOINT SEALANTS - GENERAL

- A. Sealants and Primers: Provide products with levels of volatile organic compound (VOC) content as indicated in Section 01 6116.

2.4 NONSAG JOINT SEALANTS

- A. Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-hardening, non-sagging; not intended for exterior use.
 - 1. Color: To be selected by Architect from manufacturer's standard range.
 - 2. Grade: ASTM C834; Grade Minus 18 Degrees C (0 Degrees F).

3. Manufacturers:
 - a. Pecora Corporation; AC-20 FTR Acoustical and Insulation Sealant: www.pecora.com.
 - b. Sherwin-Williams Company; 850A Acrylic Latex Caulk: www.sherwin-williams.com.
4. Applications: Use for:
 - a. Use for all interior joints..
5. Substitutions: 01 2500 - Substitution Procedures

2.5 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- B. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- C. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

3.2 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

3.3 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- C. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

END OF SECTION

**SECTION 08 1213
HOLLOW METAL FRAMES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Non-fire-rated hollow metal frames for flush wood doors.

1.3 RELATED REQUIREMENTS

- A. Section 08 1416 - Flush Wood Doors: Non-hollow metal door for hollow metal frames.
- B. Section 08 7100 - Door Hardware: Hardware.

1.4 REFERENCE STANDARDS

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2011.
- C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2014.
- D. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable; 2015.
- E. BHMA A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2014.
- F. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2009.
- G. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames; 2002.
- H. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2011.
- I. NAAMM HMMA 840 - Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames; 2007.
- J. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames; 2006.
- K. SDI 117 - Manufacturing Tolerances for Standard Steel Doors and Frames; 2013.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes.
- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and identifying location of different finishes, if any.
- D. Manufacturer's Qualification Statement.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Provide hollow metal frames from SDI Certified manufacturer: <https://steeldoor.org/sdi-certified/#sle>.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store in accordance with applicable requirements and in compliance with standards and/or custom guidelines as indicated.

- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Hollow Metal Frames with Integral Casings:
 - 1. Curries, an Assa Abloy Group company: www.assaabloydss.com/#sle.
 - 2. Steelcraft, an Allegion brand: www.allegion.com/#sle.

2.2 PERFORMANCE REQUIREMENTS

- A. Door Frame Type: Provide hollow metal door frames with integral casings.
 - 1. Interior Doors: Use frames with integral casings.
- B. Steel Sheet: Comply with one or more of the following requirements; galvanized steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
- C. Accessibility: Comply with ICC A117.1 and ADA Standards.
- D. Hardware Preparations, Selections and Locations: Comply with BHMA A156.115, NAAMM HMMA 830, NAAMM HMMA 831 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

2.3 HOLLOW METAL DOOR FRAMES WITH INTEGRAL CASINGS

- A. Frame Finish: Factory primed and field finished.
- B. Interior Door Frames, Non-Fire Rated: Knock-down type.
 - 1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
 - a. Level 2 - Heavy-duty.
 - b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
 - c. Frame Metal Thickness: 16 gauge, 0.053 inch, minimum.

2.4 FINISHES

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

2.5 ACCESSORIES

- A. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that opening sizes and tolerances are acceptable.
- B. Verify that finished walls are in plane to ensure proper door alignment.

3.2 INSTALLATION

- A. Install frames in accordance with manufacturer's instructions and related requirements of specified frame standards or custom guidelines indicated.
- B. Coordinate frame anchor placement with wall construction.
- C. Install door hardware as specified in Section 08 7100.

3.3 TOLERANCES

- A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.
- B. Maximum Diagonal Distortion: 1/16 inch measured with straight edges, crossed corner to corner.

3.4 SCHEDULE - See Drawings

END OF SECTION

**SECTION 08 1416
FLUSH WOOD DOORS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Flush wood doors; flush configuration; non-rated.

1.3 RELATED REQUIREMENTS

- A. Section 08 1213 - Hollow Metal Frames.
- B. Section 08 7100 - Door Hardware.

1.4 REFERENCE STANDARDS

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; current edition.
- B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
- C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards, U.S. Version 3.0; 2016.
- D. BHMA A156.2 - American National Standard for Bored and Preassembled Locks & Latches; 2011.
- E. UL 1784 - Standard for Air Leakage Tests of Door Assemblies; Current Edition, Including All Revisions.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
 - 1. Provide information as required by AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS).
- C. Manufacturer's Installation Instructions: Indicate special installation instructions.
- D. Warranty, executed in Port Chester-Rye UFSD's name.

1.6 QUALITY ASSURANCE

- A. Maintain one copy of the specified door quality standard on site for review during installation and finishing.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than ten (10) years of experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of experience.
- D. Quality Certification:
 - 1. Provide labels or certificates indicating that the installed work complies with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade or grades specified.
 - 2. Provide designated labels on installed products as required by certification program.
 - 3. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging, and inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic; do not store in damp or wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted sealer if stored more than one week, and break seal on site to permit ventilation.

1.8 PROJECT CONDITIONS

- A. Coordinate the work with door opening construction, door frame and door hardware installation.
- B. **Temporary Doors:** In the event that doors will not be delivered by the completion date, the Contractor shall provide temporary doors and lockable hardware.
 - 1. Type of door shall be Contractor's option.
 - 2. Schedule installation with Owner's Representative

1.9 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Interior Doors: Provide manufacturer's warranty for the life of the installation.
 - 1. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Wood Veneer Faced Doors:
 - 1. Algoma Hardwoods Inc.
 - 2. Graham Wood Doors: www.grahamdoors.com.
 - 3. VT Industries, Inc., 1000 Industrial Park, PO Box 490, Holstein, Iowa 51025. Toll Free (800) 827-1615. Phone (712) 368-4381. Fax (712) 368-4111. www.vtindustries.com.
door_info@vtindustries.com.
 - 4. Substitutions: Section 01 2500 Substitution Procedures.

2.2 DOORS

- A. Doors: See drawings for locations and additional requirements.
 - 1. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.
- B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
 - 1. Provide solid core doors at each location.
 - 2. Wood veneer facing for field transparent finish.

2.3 DOOR AND PANEL CORES

- A. Non-Rated Solid Core and 20 Minute Rated Doors: Type structural composite lumber core (SCLC), plies and faces as indicated.

2.4 DOOR FACINGS

- A. Veneer Facing for Transparent Finish: Red oak, veneer grade in accordance with quality standard indicated, plain sliced (flat cut), with book match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.
 - 1. Vertical Edges: Same species as face veneer.

2.5 DOOR CONSTRUCTION

- A. Fabricate doors in accordance with door quality standard specified.
- B. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
- C. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
- D. Provide edge clearances in accordance with the quality standard specified.

2.6 FINISHES - WOOD VENEER DOORS

- A. Finish work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 5 - Finishing for grade specified and as follows:
 - 1. Transparent:

- a. System - 4, Latex Acrylic, Water-based.
 - b. Color: As selected by Fuller and D'Angelo, P.C. to match existing.
 - c. Sheen: Flat.
- B. Seal door top edge with readiness for field primed and painted finish to match door facing.

2.7 ACCESSORIES

- A. Hollow Metal Door Frames: See Section 08 1113.
- B. Glazed Openings:
 - 1. Laminated Safety Glass: Comply with 16 CFR 1201 test requirements for Category II.
- C. Glazing Stops: Wood, of same species as door facing, butted corners; prepared for countersink style tamper proof screws.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that opening sizes and tolerances are acceptable.
- B. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.2 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.
- B. Field-Finished Doors: Trimming to fit is acceptable.
 - 1. Adjust width of non-rated doors by cutting equally on both jamb edges.
 - 2. Trim maximum of 1/2 inch off bottom edges.
- C. Use machine tools to cut or drill for hardware.
- D. Coordinate installation of doors with installation of frames and hardware.
- E. Coordinate installation of glazing.

3.3 TOLERANCES

- A. Comply with specified quality standard for fit and clearance tolerances.
- B. Comply with specified quality standard for telegraphing, warp, and squareness.

3.4 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

3.5 SCHEDULE

- A. See Door and Frame Schedule.

END OF SECTION

**SECTION 08 7100
FINISH HARDWARE**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes:
 - 1. Mechanical door hardware for:
 - a. Swinging doors.
 - 2. Exclusions: Unless specifically listed in hardware sets, hardware is not specified in this section for:
 - a. Signage

1.3 RELATED SECTIONS:

- A. Sections 09 9123 - Interior Painting for touchup finishing or refinishing of existing openings modified by this section.

1.4 SUBMITTALS

- A. General:
 - 1. Submit in accordance with 01 3000 - Administrative Requirements.
 - 2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
 - 3. Prior to forwarding submittal, comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, "EXAMINATION" article, herein.
 - 4. Action Submittals:
 - a. Product Data: Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
 - b. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a) Wiring Diagrams: For power, signal, and control wiring and including:
 - (a) Details of interface of electrified door hardware and building safety and security systems.
 - (b) Schematic diagram of systems that interface with electrified door hardware.
 - (c) Point-to-point wiring.
 - (d) Risers.
 - c. Samples for Verification: If requested by Architect, submit production sample or sample installations of each type of exposed hardware unit in finish indicated, and tagged with full description for coordination with schedule.
 - a) Samples will be returned to supplier in like-new condition. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
 - d. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:
 - a) Door Index; include door number, heading number, and Architects hardware set number.

- b) Opening Lock Function Spreadsheet: List locking device and function for each opening.
 - c) Type, style, function, size, and finish of each hardware item.
 - d) Name and manufacturer of each item.
 - e) Fastenings and other pertinent information.
 - f) Location of each hardware set cross-referenced to indications on Drawings.
 - g) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - h) Mounting locations for hardware.
 - i) Door and frame sizes and materials.
 - j) Name and phone number for local manufacturer's representative for each product.
 - k) Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components).
Operational description should include how door will operate on egress, ingress, and fire and smoke alarm connection.
 - (a) Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work that is critical in Project construction schedule.
- e. Key Schedule:
- a) After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.
 - b) Use ANSI A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - c) Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
 - d) Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 - e) Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.
 - (a) Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
 - f) Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.
 - g) Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory prepared for door hardware installation.
5. Informational Submittals:
- a. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
 - b. Product Certificates for electrified door hardware, signed by manufacturer:
 - a) Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - c. Certificates of Compliance:
 - a) Certificates of compliance for fire-rated hardware and installation instructions if requested by Architect or Authority Having Jurisdiction.
 - b) Electrified Hardware Coordination Conference Certification: Letter of compliance, signed by Contractor, attesting to completion of electrified hardware coordination conference, specified in "QUALITY ASSURANCE" article, herein.

- d. Product Test Reports: For compliance with accessibility requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by qualified testing agency, for door hardware on doors located in accessible routes.
- e. Warranty: Special warranty specified in this Section.
- 6. Closeout Submittals:
 - a. Operations and Maintenance Data : Provide in accordance with Section 01 7800 - Closeout Submittals and include:
 - a) Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b) Catalog pages for each product.
 - c) Name, address, and phone number of local representative for each manufacturer.
 - d) Parts list for each product.
 - e) Final approved hardware schedule, edited to reflect conditions as-installed.
 - f) Final keying schedule
 - g) Copies of floor plans with keying nomenclature
 - h) As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
 - i) Copy of warranties including appropriate reference numbers for manufacturers to identify project.

1.5 QUALITY ASSURANCE

- A. Product Substitutions: Comply with product requirements stated in Division 01 and as specified herein.
 - 1. Where specific manufacturer's product is named and accompanied by make or model number or other designation, provide product specified. (Note: Certain products have been selected for their unique characteristics and particular project suitability.) Locksets will be purchase under State contract and provided to Contractor for installation. Refer to Section 00 4440 Owner Supplied Contractor Installed.
 - a. Where no additional products or manufacturers are listed in product category, requirements for Section 01 2500 shall govern product selection.
 - b. Where products indicate "acceptable substitute" or "acceptable manufacturer", provide product from specified manufacturers, subject to compliance with specified requirements and "Single Source Responsibility" requirements stated herein.
 - 2. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
 - a. Warehousing Facilities: In Project's vicinity.
 - b. Scheduling Responsibility: Preparation of door hardware and keying schedules.
 - c. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
 - d. Coordination Responsibility: Coordinate installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.
 - a) Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.
 - 3. Installer Qualifications: Qualified tradesmen, skilled in application of commercial grade hardware with record of successful in-service performance for installing door hardware similar in quantity, type, and quality to that indicated for this Project.

4. Architectural Hardware Consultant Qualifications: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC).
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagrams.
 - e. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.
5. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
 - a. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.
 - b. Manufacturers that perform electrical modifications and that are listed by testing and inspecting agency acceptable to authorities having jurisdiction are acceptable.
6. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
7. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 - a. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
8. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
9. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release latch. Locks do not require use of key, tool, or special knowledge for operation.
10. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in "REFERENCES" article, herein.
 - a. Provide operating devices that do not require tight grasping, pinching, or twisting of wrist and that operate with force of not more than 5 lbf (22.2 N).
 - b. Maximum opening-force requirements:
 - a) Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.
 - b) Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
 - c. Bevel raised thresholds with slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.
 - d. Adjust door closer sweep periods so that, from open position of 70 degrees, door will take at least 3 seconds to move to 3 inches (75 mm) from latch, measured to leading edge of door.
11. Keying Conference: Conduct conference at Project site to comply with requirements in Division 01.
 - a. Attendees: Owner, Contractor, Architect, Installer, and Supplier's Architectural Hardware Consultant.
 - b. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - a) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.

- b) Preliminary key system schematic diagram.
 - c) Requirements for key control system.
 - d) Requirements for access control.
 - e) Address for delivery of keys.
12. Pre-installation Conference: Conduct conference at Project site.
- a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
13. Coordination Conferences:
- a. Installation Coordination Conference: Prior to hardware release schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
 - a) Attendees: Door hardware Supplier/Installer, Contractor.
 - b) After meeting, provide letter of compliance to Architect, indicating when meeting was held and who was in attendance.
 - b. Electronic Hardware Coordination Conference: Schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.
 - a) Attendees: Electronic door hardware doors and frames supplier/installer, electrical contractor, security contractor, Owner, Architect and Contractor.
 - b) After meeting, provide letter of compliance to Architect, indicating when coordination conference was held and who was in attendance.
 - c. Electronic Door Hardware Coordination Matrix:
 - a) Doors requiring electronic (wireless and wired) hardware and integration with the security system shall be identified by door number. The basis of information for the matrix shall be derived from the architectural door schedule. Input shall be from the Construction Contractor, Systems Integrator, Security Sub-Contractor and Electrical Contractor.
 - b) The bid documents and field verifications of components shall be used to ensure that efficient and orderly installation of each part of the work and its convergence with existing systems. Each contractor shall coordinate its operations with operations of those specified in other Sections. No work shall begin until such coordination matrix has been reviewed and signed off by each contractor. Any conflicts or adjustments that are unresolvable shall be brought to the attention of the Architect. After final coordination has been agreed upon and signed by all contractors the Construction Contractor shall distribute. The device matrix shall be integrated into as-builts.
 - c) In addition to door specific hardware the following tasks must also be identified and implemented:
 - (a) Conduit Inspection (security and electrical)
 - (b) Panel Inspection (security and electrical)
 - (c) Third Party Door Hardware Inspection
 - (d) Wiring/cable inspection (low voltage and line voltage)
 - (e) Owner Programming
 - (f) Pre-testing
 - (g) Walkthrough
 - (h) Acceptance Testing
 - (i) Training
 - (j) Sign off

- d. After meeting, provide letter of compliance to Architect, indicating when coordination conference was held and who was in attendance.
14. Existing Conditions: Verify all existing conditions in the field to ensure compatibility with hardware specified in the Hardware Sets herein. Any discrepancies between the existing field conditions and hardware specified shall be brought to the attention of the Architect immediately. Hardware Supplier shall not order any hardware until all discrepancies are rectified and the Architect grants written approval.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.
 1. Deliver each article of hardware in manufacturer's original packaging.
 2. Project Conditions:
 - a. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
 - b. Provide secure lock-up for door hardware delivered to Project, but not yet installed. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
 3. Protection and Damage:
 - a. Promptly replace products damaged during shipping.
 - b. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
 - c. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
 4. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.
 5. Deliver keys to Owner by registered mail or overnight package service.

1.7 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 03.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Section 28 1000 and Contractor's hardware consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.
- E. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.
- F. Direct shipments not permitted, unless approved by Contractor.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 1. Warranty Period: Years from date of Substantial Completion, for durations indicated.
 - a. Closers:
 - a) Mechanical: 30 years.
 - b) Electrified: 2 years.
 - c) Exit Devices:

- (a) Mechanical: 3 years.
- (b) Electrified: 1 year.
- d) Locksets:
 - (a) Mechanical: 10 years.
- e) Continuous Hinges: Lifetime warranty.
- f) Key Blanks: Lifetime
- b. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

1.9 MAINTENANCE

- A. Maintenance Tools:
 - 1. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Approval of products from manufacturers indicated as “Acceptable Manufacturer” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.
- B. Scheduled Manufacturer
 - 1. Continuous Hinges Ives (IVE)
 - 2. Locksets & Deadlocks Schlage (SCH); Best (BES)
 - 3. Cylinders & Keying Best (BES)
 - 4. Overhead Stops Glynn-Johnson (GLY)
 - 5. Stops & Holders Ives (IVE)
 - 6. Protection Plates Ives (IVE)
 - 7. Silencers Ives (IVE)
 - 8. Hand of Door: Drawings show direction of slide, swing, or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.
 - 9. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.2 MATERIALS

- A. Fasteners
 - 1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
 - 2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
 - 3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru-bolts are required.
 - 4. Install hardware with fasteners provided by hardware manufacturer.
 - 5. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled:
 - a. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing

- door and frame preparations. Use materials which match materials of adjacent modified areas.
- b. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.
- 6. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
 - a. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.3 CONTINUOUS HINGES

- A. Aluminum Geared
 - 1. Manufacturers:
 - a. Scheduled Manufacturer: Ives.
 - b. Requirements:
 - a) Provide aluminum geared continuous hinges conforming to ANSI A156.25, Grade 2.
 - b) Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum, with 0.25-inch (6 mm) diameter Teflon coated stainless steel hinge pin.
 - c) Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
 - d) Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
 - e) On fire-rated doors, provide aluminum geared continuous hinges that are classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
 - f) Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware.
 - g) Install hinges with fasteners supplied by manufacturer.
 - h) Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern

2.4 CYLINDRICAL LOCKS - GRADE 1

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product: Schlage ND Series
 - 2. Acceptable Manufacturers and Products: Best 9k Series
 - 3. Requirements:
 - a. Provide cylindrical locks conforming to the following standards and requirements:
 - a) ANSI/BHMA A156.2 Series 4000, Grade 1.
 - b) UL 10C for 4'-0" x 10'-0" 3-hour fire door.
 - c) Florida Building Code (ASTM E330, E1886, E1996) and Miami Dade (TAS 201, 202, 203) requirements for hurricanes.
 - b. Cylinders: Refer to "KEYING" article, herein.
 - c. Provide cylindrical locksets exceeding the ANSI/BHMA A156.2 Grade 1 performance standards for strength, security, and durability in the categories below:
 - a) Abusive Locked Lever Torque Test - minimum 3,100 inch-pounds without gaining access.
 - b) Offset lever pull - minimum 1,600 foot pounds without gaining access
 - c) Vertical lever impact - minimum 100 impacts without gaining access

- d) Cycle life - tested to minimum 10 million cycles per ANSI/BHMA A156.2 Cycle Test with no visible lever sag or use of performance aids such as set screws or spacers.
- d. Provide solid steel anti-rotation through bolts and posts to control excessive rotation of lever.
- e. Provide lockset that allows lock function to be changed to over twenty other common functions by swapping easily accessible parts.
- f. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw capable of UL listing of 3 hours on a 4' x 10' opening. Provide proper latch throw for UL listing at pairs.
- g. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
- h. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
- i. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
- j. Lever Trim: Solid cast levers without plastic inserts, and wrought roses on both sides.
 - a) Lever Design: Schlage Rhodes.
 - b) Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.

2.5 FINAL CYLINDERS and KEYING

- A. Final key system shall be small format interchangeable cores by Best.
- B. Coordinate a meeting with the owner to determine the key requirements for the building.
- C. Final Cylinders to have the following;
 - 1. Core to have concealed key control stampings
 - 2. Final core to be installed by the owner's represented.
 - 3. Return all construction cores to the hardware supplier.
 - 4. Final biting list to be delivered to the owner no additional cost to the owner.
 - 5. Keys shall have the following;
 - a. Material: Nickel silver; minimum thickness of .092-inch (2.3mm)
 - b. Keys to be stamped with visual key control.
 - c. Key bow to have stamped "DO NOT DUPLICATE".
 - d. Quantity: Furnish in the following quantities.
 - a) Change (Day) Keys: 3 per cylinder/core.
 - b) Final Control Keys: 3.
 - c) Master Keys: 6.

2.6 PROTECTION PLATES

- A. Manufacturers:
 - 1. Scheduled Manufacturer: Ives.
 - 2. Requirements:
 - a. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
 - b. Sizes of plates:
 - a) Kick Plates: 10 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

2.7 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

- A. Manufacturers:
 - 1. Scheduled Manufacturers: Glynn-Johnson
 - 2. Requirements:

- a. Provide heavy duty concealed mounted overhead stop or holder as specified for exterior and interior vestibule single acting doors.
- b. Provide heavy duty concealed mounted overhead stop or holder as specified for double acting doors.
- c. Provide heavy or medium duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide medium duty surface mounted overhead stop for interior doors and at any door that swings more than 140 degrees before striking wall, open against equipment, casework, sidelights, and where conditions do not allow wall stop or floor stop presents tripping hazard.
- d. Where overhead holders are specified provide friction type at doors without closer and positive type at doors with closer.

2.8 DOOR STOPS AND HOLDERS

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives
 2. Provide door stops at each door leaf:
 - a. Provide wall stops wherever possible. Provide convex type where mortise type locks are used and concave type where cylindrical type locks are used.
 - b. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.
 3. Where wall or floor stop cannot be used, provide medium duty surface mounted overhead stop

2.9 SILENCERS

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives.
 2. Requirements:
 - a. Provide "push-in" type silencers for hollow metal frames.
 - b. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
 - c. Omit where gasketing is specified.

2.10 FINISHES

- A. Finish: BHMA 626/652 (US26D); except:
 1. Continuous Hinges: BHMA 628 (US28)
 2. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
 3. Protection Plates: BHMA 630 (US32D)
 4. Overhead Stops and Holders: BHMA 630 (US32D)
 5. Wall Stops: BHMA 630 (US32D)

PART 3 EXECUTION

3.1 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Where on-site modification of doors and frames is required prepare hardware locations in accordance with the following:
 1. When modifications are exposed to view, use concealed fasteners, when possible.
 2. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:

- a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
 - b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
3. Ensure that walls and frames are square and plumb before hardware installation.
 4. The installer shall notify the Architect, in writing, of all unacceptable condition that could affect the proper operation of the finish hardware.
 5. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.

3.3 INSTALLATION

- A. Mounting Heights: Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 2. Custom Steel Doors and Frames: HMMA 831.
 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
 4. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
 5. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
 6. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
 7. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
 8. Frame set into new or existing masonry wall and filled with mortar, drill and tap fasteners.
 9. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
 10. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
 11. Lock Cylinders: Install construction cores to secure building and areas during construction period.
 - a. Replace construction cores with permanent cores as indicated in keying section.
 - b. Coordinate with owner for direction of the installation of permanent.
 12. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
 13. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

3.4 FIELD QUALITY CONTROL

- A. After installation has been completed, the hardware supplier and manufacturers representative for locksets, door closers, exit devices, and overhead stops shall check the project and verify compliance with installation instructions, adjustment of all hardware items, and proper application according to the approved hardware schedule. Provide a written report, with itemized confirmation, by hardware supplier listing all hardware that has not been installed correctly.
- B. After installation has been completed, the hardware supplier and manufacturers representative shall meet with the Owner to explain the functions, uses, adjustment, and maintenance of each item of hardware.
- C. The Contractor shall retain, at their cost, a qualified independent Architectural Hardware Consultant, duly certified by the Hardware Industry and approved by the Architect, prior to Substantial Completion, to inspect the installation and certify that the and installation has been furnished and installed in accordance

with manufacturer's instructions and specified and is in proper working order. Consultant shall submit a written report.

1. Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.7 DOOR HARDWARE SCHEDULE

- A. Provide hardware for each door to comply with requirements of this section and the below-listed scheduled sets.
- B. It is intended that the following schedule includes complete items of door hardware necessary to complete the work. If a discrepancy is found in the scheduled hardware sets, such as a missing item, improper hardware for a frame, door or fire codes, provisions of the above-specifications shall govern.
- C. Locksets, exit devices, and other hardware items are referenced in the following hardware sets for series, type and function. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.
- D. ALL LOCK SETS: SHALL BE OPENABLE AT ALL TIMES FROM THE INSIDE (OCCUPIED SIDE) WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.

3.8 HARDWARE SETS

Hardware Group No. 01

Provide each SGL door(s) with the following:

Qty	Description	Catalog Number	Finish	Mfr
1 EA	CONT. HINGE	224HD	628	IVE
1 EA	VANDL ENTRANCE LOCK	ND92HD RHO	626	SCH
1 EA	PERMANENT CORE	BY OWNER	626	
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
3 EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 02

Provide each SGL door(s) with the following:

Qty	Description	Catalog Number	Finish	Mfr
1 EA	CONT. HINGE	224HD	628	IVE
1 EA	VANDL ENTRANCE LOCK	ND92HD RHO	626	SCH
1 EA	PERMANENT CORE	BY OWNER	626	
1 EA	OH STOP	100S	630	GLY
1 EA	MOUNTING PLATE	4020-18	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES
FINISH HARDWARE

3 EA SILENCER SR64 GRY IVE

Hardware Group No. 03

Provide each SGL door(s) with the following:

Qty	Description	Catalog Number	Finish	Mfr
1 EA	CONT. HINGE	224HD	628	IVE
1 EA	VANDL CLASSROOM SEC	ND95HD RHO	626	SCH
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	OH STOP	100S	630	GLY
3 EA	SILENCER	SR64	GRY	IVE

END OF SECTION

**SECTION 09 2116
GYPSUM BOARD ASSEMBLIES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Performance criteria for gypsum board assemblies.
- B. Metal stud wall framing.
- C. Acoustic insulation.
- D. Gypsum wallboard.
- E. Joint treatment and accessories.
- F. Plaster repair. (Park School only)

1.3 RELATED REQUIREMENTS

- A. Section 07 8400 - Firestopping: Top-of-wall assemblies at fire-resistance-rated walls.
- B. Section 07 9200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.

1.4 REFERENCE STANDARDS

- A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
- B. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2015.
- C. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; 2014.
- D. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2012.
- E. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2015.
- F. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2013.
- G. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2015.
- H. ASTM C1047 - Standard Specification for Accessories For Gypsum Wallboard and Gypsum Veneer Base; 2014a.
- I. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2014.
- J. ASTM C1629/C1629M - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels; 2015.
- K. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2012.
- L. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.
- M. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2009.
- N. ASTM E413 - Classification for Rating Sound Insulation; 2010.
- O. GA-600 - Fire Resistance Design Manual; 2015.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate special details associated with acoustic seals.
- C. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
- D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
- E. Test Reports: For stud framing products that do not comply with ASTM C645 or ASTM C754, provide independent laboratory reports showing maximum stud heights at required spacings and deflections.
- F. Samples: Submit two samples of gypsum board finished with proposed texture application, 12 by 12 inches in size, illustrating finish color and texture.

1.6 QUALITY ASSURANCE

- A. Perform in accordance with ASTM C 840. Comply with requirements of GA-600 for fire-rated assemblies.
- B. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum three years of experience.
- C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum Ten (10) years of experience.
- D. Manufacturer Qualifications: Member of Steel Stud Manufacturers Association (SSMA): www.ssma.com/#sle.

1.7 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire rated assemblies as indicated on drawings.

PART 2 PRODUCTS

2.1 GYPSUM BOARD ASSEMBLIES

- A. Provide completed assemblies complying with ASTM C840 and GA-216.
- B. Interior Partitions: Provide completed assemblies with the following characteristics:
 - 1. Acoustic Attenuation: STC as indicated calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

2.2 METAL FRAMING MATERIALS

- A. Manufacturers - Metal Framing, Connectors, and Accessories:
 - 1. Marino: www.marinoware.com/#sle.
 - 2. Substitutions: See Section 01 2500 Substitution Procedures.
- B. Non-structural Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf.
 - 1. Studs: C-shaped.
 - a. Minimum Base Metal Thickness: 0.0312 (20 gauge).
 - b. Depth: As indicated.
 - 2. Runners: U shaped, sized to match studs.
 - 3. Furring Members: Hat-shaped sections, minimum depth of 7/8 inch.

2.3 BOARD MATERIALS

- A. Manufacturers - Gypsum-Based Board:
 - 1. Georgia-Pacific Gypsum: www.gpgypsum.com/#sle.
 - 2. National Gypsum Company: www.nationalgypsum.com/#sle.
 - 3. USG Corporation: www.usg.com/#sle.

- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
 - 1. Application: Use for vertical surfaces, unless otherwise indicated.
 - 2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
 - a. Mold resistant board is required at all locations.
 - 3. Thickness:
 - a. Vertical Surfaces: 5/8 inch.
 - b. Multi-Layer Assemblies: Thicknesses as indicated on drawings.
- C. Abuse Resistant Wallboard:
 - 1. Application: All locations.
 - 2. Surface Abrasion: Level 2, minimum, when tested in accordance with ASTM C1629/C1629M.
 - 3. Indentation: Level 1, minimum, when tested in accordance with ASTM C1629/C1629M.
 - 4. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
 - 5. Thickness: 5/8 inch.
 - 6. Edges: Tapered.

2.4 GYPSUM WALLBOARD ACCESSORIES

- A. Mineral Fiber Batt Insulation: Flexible or semi-rigid preformed batt or blanket, complying with ASTM C665; friction fit; unfaced flame spread index of 0 (zero) when tested in accordance with ASTM E84.
- B. Smoke Developed Index: 0 (zero), when tested in accordance with ASTM E84.
- C. Thickness: 4 or 6 inches as required to fill stud cavity.
 - 1. Products:
 - 2. "Thermafiber SAFB" Thermafiber, Inc: www.thermafiber.com.
 - 3. Locations: All interior partitions.
- D. Substitutions: See Section 01 2500 Substitution Procedures.
- E. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel, unless noted otherwise.
 - 1. L-Trim with Tear-Away Strip: Sized to fit 5/8 inch thick gypsum wallboard.
- F. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
 - 1. Fiberglass Tape: 2 inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
 - 2. Joint Compound: Drying type, vinyl-based, ready-mixed.
- G. Utility Angle: 2" x 2" 20 gauge for attachments of intersection framing and right angle corner enclosures.
- H. Flat Straps: 6", 16 gauge Use for stud bridging.
- I. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

2.5 REPAIR

- A. Patching: Remove loose, damaged or defective plaster and replace with plaster of same composition; finish to match surrounding area.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that project conditions are appropriate for work of this section to commence.

3.2 FRAMING INSTALLATION

- A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.
- B. Studs: Space studs at 16 inches on center unless shown otherwise.
 - 1. Extend partition framing to structure in all locations.

2. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
- C. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs minimum 16 gauge.

3.3 ACOUSTIC ACCESSORIES INSTALLATION

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
 1. Place one bead continuously on substrate before installation of perimeter framing members.
 2. Seal around all penetrations by conduit, pipe, and rough-in boxes, except where firestopping is provided.

3.4 BOARD INSTALLATION

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Nonrated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
- C. Double-Layer, Nonrated: Use gypsum board for first layer, placed parallel to framing or furring members, with ends and edges occurring over firm bearing. Place second layer perpendicular to framing or furring members. Offset joints of second layer from joints of first layer.

3.5 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control Joints: Place control joints consistent with lines of building spaces and as follows:
 1. Not more than 30 feet apart on walls over 50 feet long.
- B. Corner Beads: Install at external corners, using longest practical lengths.

3.6 JOINT TREATMENT

- A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
 1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
 2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
 3. Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.
- B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 1. Feather coats of joint compound so that camber is maximum 1/32 inch.
 2. Taping, filling, and sanding are not required at base layer of double-layer applications.

3.7 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

3.8 FINISH LEVEL SCHEDULE

- A. Level 2: Utility areas and areas behind cabinetry.
- B. Level 4: Walls and ceilings scheduled to receive flat or eggshell paint finish.
- C. Level 5: Walls and ceilings scheduled to receive semi-gloss or gloss paint finish.

END OF SECTION

**SECTION 09 5100
ACOUSTICAL CEILINGS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Suspended metal grid ceiling system.
- B. Modifications to existing grid system,
- C. Acoustical units.
- D. Acoustical insulation above ceiling.

1.3 RELATED REQUIREMENTS

- A. Divisions 22 and 26 for fire alarm, air outlets and inlets, and light fixtures

1.4 REFERENCE STANDARDS

- A. ASCE 7 - Minimum Design Loads for Buildings and Other Structures; 2010, with 2013 Supplements and Errata.
- B. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2014.
- C. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; 2013a.
- D. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels; 2013.
- E. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions; 2014.
- F. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- G. Ceilings and Interior Systems Construction Association (CISCA): Code of Practices.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on suspension system components and acoustical units.
- C. Samples: Submit two samples 12 by 12 inch in size illustrating material and finish of acoustical units.
- D. Samples: Submit two samples each, 12 inches long, of suspension system main runner, cross runner, and perimeter molding.
- E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.6 QUALITY ASSURANCE

- A. Fire Performance: ASTM E84 surface burning characteristics. Flame Spread index 25 or less. Smoke development index 50 or less. (UL Labeled) Class A in accordance to ASTM E1264
- B. Suspension System Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years experience.
- C. Acoustical Unit Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years experience.
- D. Installers Qualifications: Company specializing in the installation of acoustical ceilings specified in this section with minimum 5 years experience.

1.7 FIELD CONDITIONS

- A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acoustic Tiles/Panels:
 - 1. Armstrong World Industries, Inc: www.armstrongceilings.com/#sle.

2.2 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Ceiling systems designed to withstand the effects of earthquake motions determined according to ASCE 7 for Seismic Design Category D, E, or F and complying with the following:
 - 1. Refer to Section 01 4100 - Regulatory Requirements.

2.3 ACOUSTICAL UNITS

- A. Acoustical Panels Type ACT-1: School Zone Fine Fissured.
 - 1. Size: 24 x 24 inches.
 - 2. Thickness: 3/4".
 - 3. Light Reflectance: 0.85 percent, determined as specified in ASTM E 1264.
 - 4. NRC Range: 0.70 to 0.70, determined as specified in ASTM E 1264.
 - 5. Ceiling Attenuation Class (CAC): 35, determined as specified in ASTM E 1264.
 - 6. Panel Edge: Square.
 - 7. Surface Pattern: fine fissured.
 - 8. Surface Color: White.
 - 9. Humidity/Sag Resistance: HumiGuard® Max.
 - 10. Mold/Mildew Protection: BioBlock paint on face and back.
 - 11. Product: School Zone Fine Fissured # 1714 by Armstrong World Industries, Inc www.armstrong.com.
 - 12. Suspension System: Exposed grid Type Prelude XL.
- B. Type: ACT-2 and ACT-3
 - 1. Match Existing tile and grid.

2.4 SUSPENSION SYSTEM(S)

- A. Manufacturers:
 - 1. Armstrong World Industries, Inc; Product Prelude XL 15/16": www.armstrong.com.
 - 2. Structural Classification: Intermediate duty, ASTM C 635.
- B. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with perimeter moldings and splices as required.
 - 1. Materials:
 - a. Aluminum Grid: Aluminum sheet, ASTM B209 (ASTM B209M).
- C. Exposed Suspension System: Hot-dipped galvanized steel grid with aluminum cap.
 - 1. Application(s): Seismic.
 - 2. Structural Classification: Intermediate-duty, when tested in accordance with ASTM C635/C635M.
 - 3. Profile: Tee; 15/16 inch face width.
 - 4. Finish: Baked enamel.
 - 5. Color: White.

2.5 ACOUSTICAL INSULATION

- A. Where designated on drawings and/or specifications the following acoustical insulations shall apply:

1. Acoustical Insulation Type 4: Unfaced batts, 0.7 lb/cf. density.
 - a. Owens Corning "Sound Attenuation Batt insulation".
 - b. Certain Teed "Noise Reducer Batts".
 - c. Johns Manville "Thermal Shield".

2.6

2.7 ACCESSORIES

- A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- B. Hanger Wire: 12-gage 0.08 inch galvanized steel wire or reuse existing
- C. Seismic Clips: Manufacturer's standard clips for seismic conditions and to suit application.
- D. Perimeter Moldings: Same metal and finish as grid.
 1. Angle Molding: L-shaped, for mounting at same elevation as face of grid.
 2. Minimum 7/8" horizontal flange
- E. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.2 PREPARATION

- A. Install after major above-ceiling work is complete.
- B. Coordinate the location of hangers with other work.

3.3 INSTALLATION - SUSPENSION SYSTEM

- A. Install suspension system in accordance with ASTM C636/C636M, ASTM E580/E580M, and manufacturer's instructions and as supplemented in this section.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- C. Locate system on room axis according to reflected ceiling plan.
- D. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
 1. Install in bed of acoustical sealant.
 2. Use longest practical lengths.
- E. Suspension System, Non-Seismic: Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- F. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- G. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- H. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- I. Do not eccentrically load system or induce rotation of runners.

3.4 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Match existing ceilings where indicated.

- C. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- D. Fit border trim neatly against abutting surfaces.
- E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- F. Cutting Acoustical Units:
 - 1. Make field cut edges of same profile as factory edges.
- G. Install seismic clips or stabilizer bars as per code requirements.

3.5 TOLERANCES

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

3.6 ADJUSTING AND CLEANING

- A. Replace damaged or broken material, Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with mfg., touch up procedures using Armstrong Item #5760 8 oz, touch up paint as required for small nicks and minor scratches in the surface, Remove and replace any work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.
 - 1. Provide touch up kit for Owner's use.

END OF SECTION

**SECTION 09 6500
RESILIENT FLOORING**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Removals.
- B. Crack repair.
- C. Moisture mitigation (JFK School).
- D. Resilient tile flooring.
- E. Resilient base.
- F. Installation accessories.
- G. Asbestos removal. (Middle School only)

1.3 RELATED REQUIREMENTS

- A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 03 5400 - Cast Underlayment.

1.4 REFERENCE STANDARDS

- A. ASTM D2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine
- B. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source; 2014c.
- C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- D. ASTM E662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials
- E. NFPA 253 - Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source; 2015.
- F. RFCI (RWP) - Recommended Work Practices for Removal of Resilient Floor Coverings; Resilient Floor Covering Institute; October 2011.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Selection Samples: Submit manufacturer's complete set of color samples for Fuller and D'Angelo, P.C. 's initial selection.
- D. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.
- E. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing specified flooring with minimum ten years experience.
- B. Installer Qualifications: Company specializing in installing specified flooring with minimum three years documented experience.

- C. Testing Agency Qualifications: Independent firm specializing in performing concrete slab moisture testing and inspections of the type specified in this section.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to Project site in manufacturer's original, unopened cartons and containers, each bearing names of product and manufacturer, Project identification, and shipping and handling instructions
- B. Deliver materials sufficiently in advance of installation to condition materials to the required temperature prior to installation

1.8 FIELD CONDITIONS

- A. Store materials for not less than 48 hours before, during, and 72 hours after installation, in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

1.9 WARRANTY

- A. Provide manufacturer's non-prorated ten (10) year limited warranty to be free from defects in material and workmanship, under normal use and service, to repair or replace all defective tiles including reasonable labor.

PART 2 PRODUCTS

2.1 TILE FLOORING

- A. Vinyl Composition Tile - Type VCT-1: Vinyl Enhanced tile .
 - 1. Manufacturers:
 - a. Tarkett North America, 30000 Aurora Rd., Solon, OH 44139, (800) 899-8916.
 - b. Substitutions: See Section 01 2500 - Substitution Procedures..
 - 2. Minimum Requirements: Comply with ASTM F1066, of Class Type II.
 - 3. Heat Stability (ASTM F1514): $\Delta E < 8$
 - 4. Size/Squareness (ASTM F2055): Passes
 - 5. Deflection (ASTM F1304): Passes
 - 6. Chemical Resistance (ASTM F925): Passes
 - 7. Static Load Limit (ASTM F970): 400 psi, ? 0.005 inches (Modified load)
 - 8. Residual Indentation (ASTM F1914): Passes
 - 9. Slip Resistance (ASTM D2047): ≥ 0.5 SCOF
 - 10. Dimensional Stability (ASTM F2199): Passes
 - 11. Impact Resistance (ASTM F1265): Passes
 - 12. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E 648 Class 1.
 - 13. Smoke Density: ASTM E662 ≤ 450 .
 - 14. Size: 12 by 12 inch.
 - 15. VOC Content Limits: As specified in Section 01 6116.
 - 16. Thickness: 0.125 inch.
 - 17. Pattern: Match Existing.
 - 18. Color: To be selected by Fuller and D'Angelo, P.C. from manufacturer's standard range.

2.2 RESILIENT BASE

- A. Resilient Base: ASTM F1861, Type TS rubber, vulcanized thermoset Style B, Cove; style as scheduled.
 - 1. Manufacturers:
 - a. Johnsonite, a Tarkett Company: www.johnsonite.com/#sle.
 - b. Substitutions: See Section 01 2500 Substitution Procedures.
 - 2. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E 648 or NFPA 253.

3. Height: Match Existing
4. Thickness: 0.125 inch.
5. Finish: Matte.
6. Length: 4 foot sections.
7. Color: To be selected by Fuller and D'Angelo, P.C. from manufacturer's full range to match existing.

2.3 ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland-cement-based formulation provided or approved by flooring manufacturer for applications indicated.
- B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.
- C. Adhesive for Vinyl Flooring:
 1. Manufacturers:
 - a. Two-Part Urethane Adhesive.
- D. Moisture Control System: Two-coat moisture control system that suppresses excessive moisture vapor emissions in existing concrete prior to the installation of finished flooring.
 1. Product: Ardex MC, Moisture Control System, Ardex Engineered Cements, 400 Ardex Park Drive, Aliquippa, PA 1500, 888-512-7339, www.ardex.com.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.
- C. Verify that existing concrete sub floor do not contain curing compound by placing 1/4 cup of water on surface. If water beads up scarify surface.

3.2 PREPARATION

- A. Remove existing resilient flooring and flooring adhesives; follow the recommendations of RFCI (RWP).
- B. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
 1. Concrete substrate that fully conforms to the requirements of ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring is required, or as detailed in the manufacturer's Installation Guide.
- C. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface up to 1/2".
- D. Remove deleterious coatings from subfloor substrates that would prevent a positive adhesive bond, such as curing compounds incompatible with adhesive, paints, oils, adhesives, wax and sealers.
- E. Mechanically profile 100% of all existing substrates receiving resilient flooring. Provide dust control as required..
 1. After profiling test substrate by place drop of water, or other means to insure all coatings, sealers etc have been removed. Repeat profiling if necessary.
- F. Provide moisture mitigation.
- G. Provide leveling compound over 100% of all existing substrates receiving resilient flooring
- H. Prohibit traffic until filler is fully cured.
- I. Sweep and vacuum clean substrates

3.3 INSTALLATION GENERAL

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Adhesive-Applied Installation:
 - 1. Fit joints and butt seams tightly.
 - 2. Set flooring in place, press with heavy roller to attain full adhesion.
- D. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
- E. Do not install resilient flooring over building expansion joints.
- F. Do not install defective or damaged resilient flooring.
- G. Layout resilient flooring to provide equal size at perimeter. Adjust layout as necessary to reduce the amount of resilient flooring which is cut to less than half full width.
- H. Install resilient flooring without voids at seams. Lay seams together without stress.

3.4 INSTALLATION TILE FLOORING

- A. Install square tile to match existing pattern. Allow minimum 1/2 full size tile width at room or area perimeter.

3.5 INSTALLATION RESILIENT BASE

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.
- B. Install base on solid backing. Bond tightly to wall and floor surfaces.

3.6 CLEANING

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean in accordance with manufacturer's written instructions.
 - 1. Cleaning of Vinyl Composition Tile
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.

3.7 PROTECTION

- A. Prohibit traffic on resilient flooring for 48 hours after installation and 72 hours heavy rolling loads.

END OF SECTION

**SECTION 09 9123
INTERIOR PAINTING**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
 - 1. Steel frames.
 - 2. Gypsum Board/Plaster walls.
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to remain unfinished.
 - 3. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
 - 4. Stainless steel, anodized aluminum, bronze, terne-coated stainless steel, and lead items.
 - 5. Marble, granite, slate, and other natural stones.
 - 6. Floors, unless specifically indicated.
 - 7. Glass.
 - 8. Concealed pipes, ducts, and conduits.

1.3 RELATED REQUIREMENTS

- A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 08 1213 - Hollow Metal Frames.
- C. Section 09 2116 - Gypsum Board Assemblies.

1.4 DEFINITIONS

- A. Comply with ASTM D16 for interpretation of terms used in this section.

1.5 REFERENCE STANDARDS

- A. ASTM D16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications; 2014.
- B. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association; current edition, www.paintinfo.com.
- C. SSPC V1 (PM1) - Good Painting Practice: Painting Manual, Volume 1; Fourth Edition.
- D. SSPC-SP 1 - Solvent Cleaning; 2015.
- E. SSPC-SP 2 - Hand Tool Cleaning; 1982 (Ed. 2004).

SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g., "alkyd enamel").
 - 2. Manufacturer's installation instructions.

- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
 - 1. Where sheen is specified, submit samples in only that sheen.
- D. Manufacturer's Instructions: Indicate special surface preparation procedures.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum 10 years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 3 years experience.

1.7 MOCK-UP

- A. See Section 01 4000 - Quality Requirements, for general requirements for mock-up.
- B. Provide panel, 4 feet long by 4 feet wide, illustrating paint color, texture, and finish.
- C. Provide frame assembly illustrating paint color, texture, and finish.
- D. Locate Where directed by Owner's Representative.
- E. Mock-up may remain as part of the work.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.9 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Minimum Application Temperatures for Paints: 50 degrees F for interiors unless required otherwise by manufacturer's instructions.
- D. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Provide paints and finishes from the same manufacturer.
- B. Paints:
 - 1. Base Manufacturer: Benjamin Moore & Co: www.benjaminmoore.com.

2.2 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready-mixed, unless intended to be a field-catalyzed paint.
 - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
 - 3. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.

4. Supply each paint material in quantity required to complete entire project's work from a single production run.
 5. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
- B. Volatile Organic Compound (VOC) Content: Comply with Section 01 6116.
- C. Flammability: Comply with applicable code for surface burning characteristics.
- D. Sheens: As indicated on drawings.
- E. Colors: As indicated on drawings.

2.3 PAINT SYSTEMS - INTERIOR

- A. Ferrous metals, primed, Acrylic Latex, 2 coat:
1. Touch up with latex primer.
 2. Semi-gloss: 2 coats of Super Spec HP DTM Acrylic (P29),
 3. or 2 coats of Super Spec Interior Latex (276)
- B. Gypsum Board/Plaster, Latex, 3 coat: (New Surfaces)
1. One coat of Moore Super Spec Latex Enamel Undercoater & Primer Sealer.(253)
 2. Semi-Gloss: 2 coats of Latex Enamel; Moore Super Spec Interior Latex (276)
- C. Gypsum Board/Plaster, Latex, 2 coat: (Existing Surfaces)
1. One coat of Alkyd Primer sealer, Moore Super Spec Latex Enamel Undercoater & Primer Sealer.(253)
 2. Semi-Gloss: 1 coats of Latex Enamel; Moore Super Spec Interior Latex (276)
 3. Eggshell: 1 coats of Latex Enamel; Moore Super Spec Interior Latex # C274

2.4 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin application of paints and finishes until substrates have been adequately prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- D. Test shop-applied primer for compatibility with subsequent cover materials.
- E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximums:
1. Gypsum Wallboard: 12 percent.

3.2 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

- F. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
- G. Ferrous Metal:
 - 1. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.
 - 2. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and SSPC-SP 3. Protect from corrosion until coated.
- H. Cleaning Existing Walls: Remove all loose paint, plaster and other coatings.
 - 1. Pressure rinse from the bottom of the treated area to the top.

3.3 APPLICATION

- A. Apply products in accordance with manufacturer's written instructions.
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- D. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply as many coats as necessary for complete hide.
- E. Sand metal surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.4 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for general requirements for field inspection.

3.5 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.6 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

**SECTION 10 1400
SIGNAGE**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Cost for signage is part of Cash allowance, Section 01 2100 - Allowances.
- B. Room and door signs.
- C. Emergency evacuation maps.
- D. Temporary Signage.

1.3 RELATED REQUIREMENTS

- A. Section 08 1416 - Flush Wood Doors.
- B. Section 09 2116 - Gypsum Board Assemblies.

1.4 PRICE AND PAYMENT PROCEDURES

- A. See Section 01 2100 - Allowances, for cash allowances affecting this section.
- B. Allowance amount covers purchase, delivery, and installation.

1.5 REFERENCE STANDARDS

- A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.
- B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- C. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2009.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.
 - 1. Signage shall match the existing signage in each building.
- C. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.
 - 1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
 - 2. Submit for approval by Port Chester-Rye UFSD through Fuller and D'Angelo, P.C. prior to fabrication.
- D. Samples: Submit one sample of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.
- E. Manufacturer's Installation Instructions: Include installation templates and attachment devices.
- F. Manufacturer's Qualification Statement.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Regulatory Requirements: Comply with applicable provisions in ADA-ABA Accessibility Guidelines.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Package signs as required to prevent damage before installation.

- B. Store tape adhesive at normal room temperature.

1.9 FIELD CONDITIONS

- A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metal or polymer finishes beyond normal weathering.
 - b. Deterioration of embedded graphic image colors and sign lamination.
 - 2. Warranty Period: two years from date of Substantial Completion

PART 2 PRODUCTS

2.1 PANEL SIGN

- A. Manufacturers
- B. Flat Signs:
 - 1. Best Sign Systems, Inc: www.bestsigns.com/#sle.
- C. Interior: Provide smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus 1/16 inch (1.5 mm) measured diagonally from corner to corner, complying with the following requirements:
 - 1. All signage shall match the existing signage in each building including:
 - a. Graphics content and style.
 - b. Material.
 - c. Color.
 - 2. Fasteners: Use fasteners fabricated from metals that are not corrosive to the sign material and mounting surface.
 - a. All fastener shall security torx type.
 - 3. Anchors and Inserts: Use nonferrous metal or hot-dipped galvanized anchors and inserts for installations as required for corrosion resistance. Use toothed steel or lead expansion bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work

2.2 MATERIALS

- A. Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).
 - 1. Plastic (self-extinguishing material) engraving stock with face and core piles in contrasting colors, in finishes and color combinations indicated or, if not indicated, as selected from the manufacturer's standard.

2.3 SIGNAGE APPLICATIONS

- A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.
 - 1. Flame Spread: Less than 25.
 - 2. Smoke Development: Less than 450
- B. Refer to plans for location and description of each sign.
- C. Room and Door Signs: Refer to location and description on drawings.
- D. Emergency Evacuation Maps:
 - 1. One (1) screen printed fire evacuation sign map per each classroom and entry door of occupied space opening into a corridor.
 - 2. Contractor to provide (1) screen printed fire evacuation sign for each new classroom., office.

2.4 SIGN TYPES

- A. Flat Signs: Signage media match existing frame.
 - 1. Wall Mounting of One-Sided Signs: Security type Concealed screws.
- B. Color and Font: Unless otherwise indicated the following shall match existing::
 - 1. Character Font
 - 2. Character Case.
 - 3. Background Color.
 - 4. Character Color.

2.5 TACTILE SIGNAGE MEDIA

- A. Engraved Panels: Laminated colored plastic; engraved through face to expose core as background color:
 - 1. Total Thickness: 1/8 inch exclusive of raised copy.

2.6 NON-TACTILE SIGNAGE MEDIA

- A. Silk Screened Plastic Panels: Letters and graphics silk screened onto reverse side of plastic surface:

2.7 ACCESSORIES

- A. Exposed Screws: Chrome plated.
- B. Tape Adhesive: Double sided tape, permanent adhesive.
- C. Temporary Sign: Laminate copy of each approved sign for use by the Owner.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate surfaces are ready to receive work.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. All signs to be mechanically fastened.
- C. Install neatly, with horizontal edges level.
- D. Protect from damage until Date of Substantial Completion; repair or replace damaged items.

END OF SECTION

**SECTION 23 0100
GENERAL CONDITIONS**

PART 1 - GENERAL

Applicable Provisions of the Conditions of the Contract and Division 1 General Requirements govern work in this section.

1.1 GENERAL CONDITIONS

- A. Before submitting a proposal, Bidders shall examine all related to this work and shall become fully informed as to the extent and character of the work required and its relation to the other work in the building.
- B. Before commencing work, the Contractor will examine all conditions of the project upon which his work is in any way dependent for perfect workmanship according to the intent of this Specification. No "waiver of responsibility" for incomplete, inadequate or defective adjoining work will be considered unless notice has been filed by this Contractor and acceded to by the Owner's representative in writing before the Contractor begins any part of the work.
- C. The Contractor will pay for all licenses, permits and inspection fees required by civil authorities having jurisdiction. Comply with all laws, ordinances, regulations, and fire underwriter's requirements applicable to work herein specified without additional expense to the Owner.
- D. Small scale drilling through walls and floors or cutting of piping insulation which may contain asbestos shall be performed by a person with a "restricted asbestos handler allied trades certificate" and shall have a copy of it in his possession at all times while working of the project. This shall also apply to removal of piping, ductwork or equipment insulation.
- E. It is specifically intended that anything (whether material or labor), which is usually furnished as a part of such equipment, as is hereinafter called for (and which is necessary for the completion and proper operation) shall be furnished as part of this Contract without additional cost the Owner, whether or not shown in detail or described in the Specifications.
- F. When Drawings and Specifications conflict or there is a question as to the proper intent of this Contract, the Contractor shall assume the greater quantity, the higher quality and/or the more expensive method in his pricing. All questions shall be directed to the Architect/Engineer in writing only and only up to ten (10) days prior to bidding.
- G. The Drawings indicate the general runs of the piping, ductwork, etc. systems and the location of equipment and apparatus, however it shall be understood that the right is reserved by the Architect/Engineer to change the location of piping work, ductwork, equipment and apparatus to a reasonable extent as building conditions may dictate, prior to their installation without extra cost to the Owner.
- H. All components supplied by this Contractor shall be UL listed and/or ETL labeled and shall conform to ASHRAE Standard 15.
- I. Any changes from the Drawings and Specifications and any interpretation thereof shall have the prior approval of the Architect/Engineer. The Contractor shall submit in writing, at the time of signing the Contract, any items of necessary labor and materials, which, in his opinion, are lacking in requirements of the Drawings and Specifications to insure a complete job in all respects. No consideration will be granted to alleged misunderstanding of materials to be furnished, work to be done, or conditions to be complied with, it being understood that the tender of a proposal carries with it the agreement to all items and conditions referred to herein or indicated on the accompanying Drawings.

END OF SECTION

SECTION 23 0110
SCOPE OF WORK

PART 1 – GENERAL

- A. Applicable Provisions of the Conditions of the Contract and Division 1 General Requirements govern work in this section.

1.1 SCOPE OF WORK

- A. The work under this section includes all labor, materials, equipment, tools, transportation, and the performance of all work necessary and required for the furnishing and installation complete of all work as shown on the Contract Documents, including but not necessarily limited to the following:

1. Exhaust, supply fans and related appurtenances.
2. All required piping, valves and related specialties.
3. Sheetmetal ductwork and related accessories.
4. Duct insulation.
5. Furnish all combination motor starter/disconnects for equipment (with the exception of starters and electric items already mounted on equipment or equipment not requiring same). Fan motor starter/disconnects shall have contacts for ATC connection and a terminal block connection for Fire Alarm fan shutdown. Starters per manufacturers recommendations. Underwriters inspection and certificate required. Coordinate with Electrical Contractor.
6. Air and Water Balancing.
7. Automatic temperature controls with complete wiring (regardless of voltage).
8. Testing, adjusting and start-up of equipment.
9. Painting and identification of all equipment and piping.
10. Firestopping per NFPA requirements (UL approved systems).
11. Operating and maintenance instructions.
12. As-Built Drawings - Refer to Division 1.
13. Cutting and Patching - Refer to Division 1.

- B. The work under this section includes all labor, materials, equipment, tools, transportation, and the performance of all work necessary and required for the furnishing and installation complete of all work as shown on the Contract Documents, including but not necessarily limited to the following:

1. Exhaust, supply fans and related appurtenances.
2. Rooftop HVAC units and related appurtenances.

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3. All required piping, valves and related specialties.
4. Sheetmetal ductwork and related accessories.
5. Duct insulation.
6. Registers, diffusers, and dampers.
7. Rigging of equipment.
8. Furnish all combination motor starter/disconnects for equipment (with the exception of starters and electric items already mounted on equipment or equipment not requiring same). Fan motor starter/disconnects shall have contacts for ATC connection and a terminal block connection for Fire Alarm fan shutdown. Starters per manufacturers recommendations. Underwriters inspection and certificate required. Coordinate with Electrical Contractor.
9. Air and Water Balancing.
10. Automatic temperature controls with complete wiring (regardless of voltage).
11. Testing, adjusting and start-up of equipment.
12. Painting and identification of all equipment and piping.
13. Firestopping per NFPA requirements (UL approved systems).
14. Operating and maintenance instructions.
15. As-Built Drawings - Refer to Division 1.
16. Cutting and Patching - Refer to Division 1.

- C. Coordination Drawings (if applicable): Attention is directed to Division 1 for coordination drawing requirements for this project. These drawings are critical to the proper execution of the work and failure to honor these requirements may become the basis for denial of any and all claims for either or both "time" and "money".

1.2 REMOVALS

- A. Removals should be coordinated with other trades affected.
- B. Piping which penetrates the construction may be cut and capped provided capping is done beneath the finished surfaces so that construction over it can be achieved.
- C. All removals shall be removed from the site.

1.3 ALTERATION WORK

- A. All equipment, piping, control components, etc. to be removed, shall be disposed of or salvaged as directed by the Owner. They shall not be removed from the premises without the Owner's approval.
- B. All piping to be removed shall be properly plugged or capped so that upon completion of all new work, all abandoned piping shall be concealed in finished areas.

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- C. No dead ends shall be left on any piping upon completion of job. The existing system shall be left in perfect working order upon completion of new work.
- D. Location and sizes of existing piping, ductwork, equipment, etc. are approximate. Exact sizes and locations of all existing work shall be verified on the job.

END OF SECTION

**SECTION 23 0260
DUCTLESS SPLIT SYSTEMS**

PART 1 - GENERAL

- A. Applicable provisions of the conditions of the Contract and Division 1 General Requirements govern the work in this section. Submit shop drawings for checking and approval.

1.2 SYSTEM DESCRIPTION

- A. Outdoor-mounted, air-cooled split system outdoor section suitable for rooftop installation. Unit shall consist of a hermetic reciprocating, scroll, or rotary compressor, an air-cooled coil, propeller-type blow-thru out-door fans, reversing valve, accumulator, holding refrigerant charge heating mode metering device, and control box. Unit shall discharge air horizontally as shown on the contract drawings. Units shall function as the outdoor component of an air-to-air cooling and heating system.
- B. Indoor, in-the-ceiling-mounted or wall mounted direct-expansion fan coil to be matched with the commercial heat pump unit.

1.3 QUALITY ASSURANCE

- A. Unit construction shall comply with ANSI/ASHRAE 15, latest revision, and with the NEC.
- B. Unit shall be rated (when matched with appropriate outdoor unit) per ARI Standard 210/240. Units shall be certified by UL and CSA.
- C. Units shall be constructed in accordance with UL standards.
- D. Units shall be listed in the CEC directory.
- E. Unit cabinet shall be capable of withstanding Federal Test Standard No. 141 (method 6061) 500-hour salt spray test.
- F. Air-cooled condenser coils shall be leak tested at 350 psig air pressure with the coil submerged in water.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Units shall be shipped in one piece and shall be stored and handled per unit manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 OUTDOOR HEAT PUMP CONDENSING UNIT

- A. Factory assembled, single piece, air-cooled outdoor unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, compressor, charge of R-410A refrigerant and special features required prior to field start-up.
- B. Unit Cabinet
 - 1. Unit cabinet shall be constructed of galvanized-steel, bonderized and coated with a baked-enamel finish.
 - 2. Unit access panels shall be removable with minimal screws and shall provide full access to the compressor, fan, and control components.
 - 3. Outdoor compartment shall be isolated and have an acoustic lining to assure quiet operation.

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C. Fans

1. Outdoor fans shall be direct-drive propeller type, and shall discharge air horizontally. Fans shall blow air through the outdoor coil.
2. Outdoor fan motors shall be totally enclosed, single-phase motors with class B insulation and permanently lubricated sleeve bearings. Motor shall be protected by internal thermal overload protection.
3. Shaft shall have inherent corrosion resistance.
4. Fan blades shall be corrosion resistant and shall be statically and dynamically balanced.
5. Outdoor fan openings shall be equipped with PVC coated protection grille over fan and coil.

D. Compressor

1. Compressor shall be fully hermetic reciprocating or scroll type.
2. Compressor shall be equipped with oil system, operating oil charge, and motor. Internal overloads shall protect the compressor from over temperature and over current. Scroll compressors shall also have high discharge gas temperature protection if required.
3. Motor shall be NEMA rated class F, suitable for operation in a refrigerant atmosphere.
4. Reciprocating compressors shall be equipped with crankcase heaters to minimize liquid refrigerant accumulation in compressor during shutdown and to prevent refrigerant dilution of oil.
5. Compressor assembly shall be installed on rubber vibration isolators and shall have internal spring isolation.
6. Compressors shall be single phase or 3-phase as specified on the Contract Drawings.

E. Outdoor Coil: Coil shall be constructed of aluminum fins mechanically bonded to internally enhanced, seamless copper tubes that are cleaned, dehydrated, and sealed.

F. Refrigeration Components: Refrigerant circuit components shall include brass external liquid line service valve with service gage port connections, suction line service valve with service gage connection port, service gage port connections on compressor suction and discharge lines with Schrader-type fittings with brass caps, accumulator, bi-flow filter drier, pressure relief, reversing valve, and heating mode metering device.

G. Controls and Safeties - Operating controls and safeties shall be factory selected, assembled, and tested. The minimum control functions shall include the following:

1. Controls
 - a. Time delay restart to prevent compressor reverse rotation on single-phase scroll compressors.
 - b. Automatic restart on power failure.
 - c. Safety lockout if any outdoor unit safety is open.
 - d. A time delay control sequence is also provided standard through the fan coil board, thermostat, or controller.
 - e. High-pressure and liquid line low-pressure switches.
 - f. Automatic outdoor-fan motor protection.
 - g. Start capacitor and relay (single-phase units without scroll compressors).

2. Safeties
 - a. System diagnostics.
 - b. Compressor motor current and temperature overload protection.
 - c. High pressure relief.
 - d. Outdoor fan failure protection.

H. Electrical Requirements

1. Unit shall operate on a 208-v or 230-v, 60 Hz power supply as specified on the equipment schedule.
2. Unit shall operate on three-phase, 60 Hz power at 208/230 v or 460 v, as specified.
3. Unit electrical power shall be a single point connection.
4. Unit control voltage to the indoor-fan coil shall be 24 v.
5. All power and control wiring must be installed per NEC and all building codes.
6. Unit shall have high- and low-voltage terminal block connections.

I. Special Features (Field Installed)

1. Low-Ambient Kit: Control shall regulate fan-motor cycles in response to saturated condensing pressure of the unit. The control shall be capable of maintaining a condensing temperature of 100 F \pm 10 F with outdoor temperatures to -20 F. Installation of kit shall not require changing the outdoor-fan motor.
2. Liquid Solenoid Valve: This electronically operated shutoff valve shall close and open in response to compressor operation. The valve should be used with all long-lines applications (over 100 ft).
3. Crankcase Heater (units with scroll compressors only): Unit shall be shipped with a clamp-on compressor oil sump heater.

2.2 4 WAY CEILING CASSETTE INDOOR UNIT

- A. Indoor, direct-expansion, low-profile (10 in. high) in-ceiling fan coil. Unit shall come complete with cooling/heating coil, electric heater, fan, fan motor, piping connectors, electrical controls, condensate pump, and hanging brackets.
- B. Unit cabinet shall be constructed of zinc-coated steel. Fully insulated discharge and inlet grilles shall be attractively styled, high-impact polystyrene. Cabinet shall have filter tracks and cleanable filters which shall be accessible from below with a 1/4 -turn fastener. Adjacent room cooling to be provided by a simple knock-out in the cabinet side panel, and cabinet shall have provisions to accommodate a limited amount of ductwork, if desired.
- C. Fan shall be a centrifugal, direct-drive blower type with air intake in center of the unit and discharge on the perimeter. Air louvers shall be adjustable for 2, 3, or 4-way discharge.
- D. Coil:
Coil shall be copper tube with aluminum fins and galvanized steel tube sheets. Fins will be bonded to the tubes by mechanical expansion. A drip pan under the coil shall have a factory-installed condensate pump and drain connection for hose attachment to remove condensate.

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- E. Motors:
Motor shall be totally enclosed and permanently lubricated with inherent protection. Fan motor shall be 3-speed.
- F. Controls:
Controls shall be 24V and shall be easily operated by the user from a wall-mounted control unit. Float control shall be in the condensate sump to shut unit down in case of pump malfunction. A wall-mounted electromechanical thermostat with 3 fan-speed selections and an auto/manual switch shall be supplied for field installation. Automatic changeover from cooling to heating modes and selectable 2 or 4 minute start-up delay shall be included. The R-22 refrigerant shall be controlled with a piston-type refrigerant metering device, and evaporator coil freeze protection shall be provided.
- G. Filters:
Unit shall have filter track with factory-supplied cleanable filters.
- H. Electrical Requirements:
Unit shall operate on a 208-v or 230-v, 60 Hz power supply as specified on the equipment schedule.
- I. Operating Characteristics: (See Drawing Schedule)
- J. Special Features (Field Installed)
1. Power Ventilation Kit: Kit shall allow ventilation of the conditioned space with outdoor air. The kit shall include filter, booster fan, and controls.
 2. Electronic Programmable Thermostat: Thermostat shall be commercial grade and shall provide 7-day, 4-event scheduling. Integral sub base shall be included. Thermostat shall also provide 3-speed fan switchover capability, air sweep auto changeover, and shall not require a battery to retain memory.
 3. Fresh Air Intake Kit: Kit shall include filter and duct connections to provide for outdoor ventilation air.
 4. Wired remote control (7) day programmable.
 5. Ceiling panel (grille).
- K. Building Management Systems – the system shall be able to be controlled by BACnet* or LonWorks protocols either directly or through an external gateway.
1. BACnet and LonWorks shall be able to control:
 - a. ON / OFF
 - b. Operation mode
 - c. Fan speed
 - d. Louver
 - e. Set temperature
 - f. Permit / prohibit local operation
 2. BACnet and LonWorks shall be able to monitor:
 - a. ON / OFF
 - b. Operation mode
 - c. Fan speed
 - d. Louver
 - e. Set temperature
 - f. Permit / prohibit local operation
 - g. Room temperature
 - h. Error status

- i. Error code

2.3 AIR CONDITIONING CONDENSATE PUMP

(PROVIDE IN ALL CASES WHERE CONDENSATE CANNOT DRAIN BY GRAVITY)

- A. Pump shall be equal to “Little Giant” model no. VCMA-15ULS-554401. Automatic, 15 ft. shut-off, 1/2 gallon tank, safety switch check valve, 6 ft. power cord power cord with plug.
- B. Provide 3/8” copper tubing discharge piping installed per manufacturer’s recommendations.
- C. For roof discharge applications provide pitch pocket, rigid 3/8” copper discharge piping and gooseneck turned down 12 inches above roof. Provide splash block and remove pump check valve before installation.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect equipment space locations before beginning installation. Verify that the space is correct for entry and access. Do not proceed with installation of the equipment until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's instructions and recommendations for installation of equipment, accessories and components.
- B. All heating, ventilating and air conditioning equipment shall be carefully designed, constructed and installed so as to prevent any objectionable noise or vibration reaching any part of the building outside of the mechanical equipment room. Care shall also be taken to prevent transmission of noise or odor through ductwork into other spaces. The Contractor shall be required to rectify or replace at his own expense, any equipment not complying with the foregoing requirements.

3.3 CLEANING

- A. Clean interior and exterior surfaces promptly after installation of equipment and components. Take care to avoid damage to protective coatings and finishes. Remove excess sealants, lubrication, dirt and other foreign substances.

END OF SECTION

SECTION 23 0460

AUTOMATIC TEMPERATURE CONTROLS

PART 1 - GENERAL

Applicable provisions of the conditions of the Contract and Division 1 General Requirements govern the work in this section. Submit shop drawings for checking and approval.

1.1 QUALIFICATIONS OF BIDDER

- A. All bidders must be building automation contractors in the business of installing direct digital control building automation systems for a minimum of 10 years.
- B. All bidders must have an office in the within 50 miles of jobsite.
- C. All bidders must be authorized distributors or branch offices of the manufacturers specified.
- D. All bidders must have a trained staff of application Engineers, who have been certified by the manufacturer in the configuration, programming and service of the automation system.

1.2 SCOPE OF WORK

- A. This Contractor shall furnish an electronic system of temperature controls as manufactured by Andover or approved equal. The District has standardized on this manufacturer. All submitted controls shall be directly compatible with existing hardware and software without patch panels or translators or any kind. The ATC Sub-Contractor shall be subject to the District's approval.
- B. This Contractor shall review and study all HVAC Drawings and the entire Specification to familiarize himself with the equipment and system operation and to verify the quantities and types of dampers, operators, alarms, etc. to be provided.
- C. This Contractor shall be responsible for the integration of all new equipment (including, boilers, pumps, packaged equipment, condensing units, VRF systems, etc.) into the ATC system for seamless operation. HVAC Contractor shall include factory controls with appropriate protocol (BACnet, LonMark, etc.) to allow integration with the ATC system.
- D. Prior to commencement of schedule programming meet with Owner to discuss block/individual scheduling of system/equipment and alarm protocols. Review equipment designations and graphics screens to be provided. Take minutes of this meeting and issue them to the Construction Manager/Owner's representative.
- E. RS-232 Drivers or Hardware Translators: All DDC components shall communicate on existing Level 1 or Level 2 networks in native mode.
- F. The new installed system shall communicate to the existing graphic Workstation in the Buildings and Grounds office at the Middle School. All new graphics shall match established standards of the existing District system.
- G. All temperature control wiring regardless of voltage shall be done by this Contractor. This shall include power wiring of control panels/components from available spare circuits in electrical panels. The automatic temperature control manufacturer shall provide wiring diagrams, field supervision and one (1) year guarantee on the installed DDC system and three (3) year factory warrantee on all control equipment manufactured by the DDC manufacturer.

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- H. Thermostats, temperature sensors, heating control devices, etc. are indicated on the Drawings in general. Provide any additional devices required to carry out project intent as herein described.
- I. Thermostats/Temperature sensors in areas subject to vandalism shall have in addition separately mounted extra heavy guards. Submit sample.
- J. Contractor shall include all new heating control devices, thermostats, etc. indicated on Drawings or that is part of a new system.
- K. Contractor shall furnish all necessary electrical controls, motor starters, switches, etc. for proper operation of equipment furnished by him under this Contract, and as herein noted.
- L. Point and component lists are to be used as a guide. If the sequence of operation requires additional points/control devices, this Contractor shall be responsible for providing same.
- M. All control system components installed shall be manufactured by the DDC system manufacturer.
- N. Communications cabling shall be run in hallways above hung ceiling with plenum cable and wire mold where exposed.
- O. Removals shall include switches, relays, electric components not required for the new intent. Do not leave behind items with no function. Provide appropriate blanking plates/patching where removals occur in finished spaces.
- P. Provide services and manpower necessary for commissioning of system in coordination with the HVAC Contractor, Balancing Contractor and Owner's representative.

1.2 SOFTWARE CODE

- A. Owner shall be furnished with a complete, hard-bound copy of all installed software code. Final payment shall be contingent upon this requirement being met.

PART 2 - PRODUCTS

2.1 CONTROL VALVES (With Electric Actuator)

- A. Provide automatic control valves suitable for the specified controlled media (water or glycol). Provide valves, which mate and match the material of the connected piping. Equip control valves with the actuators of required input power type and control signal type to accurately position the flow control element and provide sufficient force to achieve required leakage specification.
- B. Control valves shall meet the heating and cooling loads specified and closes off against the differential pressure conditions within the application. Valves should be sized to operate accurately and with stability from 10% to 100% of the maximum design flow.
- C. Trim material shall be stainless steel for hot water and high differential pressure applications.
- D. Electric actuation should be provided on all terminal unit reheat applications.

2.2 DAMPERS (With Electric Actuators)

- A. Automatic dampers, furnished by the Building Automation Contractor shall be single or multiple blade as required. Dampers are to be installed by the HVAC Contractor under the supervision of the BAS Contractor. All blank-off plates and conversions necessary to install smaller than duct size dampers are the responsibility of the Sheetmetal Contractor.
- B. Damper frames are to be constructed of 13-gauge galvanized sheet steel mechanically joined with linkage concealed in the side channel to eliminate noise as friction. Compressible spring stainless steel side seals and acetyl or bronze bearings shall also be provided.
- C. Damper blade width shall not exceed eight inches. Seals and 3/8-inch square steel zinc plated pins are required. Blade rotation is to be parallel or opposed as shown on the schedules.
- D. For high performance applications, control dampers will meet or exceed the UL Class I leakage rating.

2.3 DAMPER ACTUATORS

- A. Electronic Actuators: The actuator shall be direct coupled over the shaft, enabling it to be mounted directly to the damper shaft without the need for connecting linkage. The actuator shall have electronic overload circuitry to prevent damage. For power-failure/safety applications, an internal mechanical, spring return mechanism shall be built into the actuator housing. Non-spring return actuators shall have an external manual gear release to allow positioning of the damper when the actuator is not powered.
- B. All valves shall be fully proportioning, unless otherwise specified, quiet in operation, and shall be arranged to fail safe, in either a normally open or normally closed position, in the event of power failure. The open or closed position shall be as specified or as required to suit job conditions. All valves shall be capable of operating at varying rates of speed to correspond to the exact dictates of the controller and variable load requirements.
- C. Where valves operate in sequence with other valves or damper operators, provide on each valve a pilot positioner to provide adjustable operating ranges and starting points and positive close off at the required control signal pressure. Positioners must be directly connected to the valve stem. Ratio relays are not acceptable.
- D. Valves shall be sized by the Temperature Control Manufacturer and guaranteed to meet the heating or requirements as specified and indicated on the Drawings. Unless otherwise specified, all shall conform to the requirements herein specified for the piping system in which they are installed.

2.4 CENTRAL CONTROL PANEL

- A. Integrate new controls into existing central control touch screen panel. This central panel will allow for time clock scheduling, setpoints, monitoring of points and alarm. All freeze stats will be reset manually at the central panel. All alarms will be displayed and reset manually at central panel.
- B. All exhaust fans shall be controlled by the central control panel.
- C. Central control panel shall be connected to existing District IT Network. District shall provide data drop.

2.5 LOCAL STAND-ALONE CONTROLLERS

- A. Provide local stand-alone controllers as required. These controllers will, through DDC programs control local units. They shall be networked together to central touch screen panel.

2.6 ENCLOSURES

- A. All control components shall be mounted in NEMA-1, lockable, hinged enclosures.

PART 3 - EXECUTION

3.1 GENERAL

- A. All DDC Controllers shall be networked to Central Communications controller.
- B. Existing Front End Workstation in B & G office at the Middle School shall be configured for Elementary School Addition access. Text/Graphic screens for each system shall match existing.
- C. Communications cabling shall be run in hallways above hung ceiling with plenum cable and wire mold where exposed.

3.2 CONTRACTOR RESPONSIBILITIES

- A. General: The Contractor or a Sub-Contractor shall perform installation of the building automation system. However, all installation shall be under the personal supervision of the Contractor. The Contractor shall certify all work as proper and complete.
- B. Demolition: Remove controls, which do not remain as part of the building automation system, all associated abandoned wiring and conduit and all associated pneumatic tubing. The Owner will inform the Contractor of any equipment, which is to be removed, that will remain the property of the Owner. The Contractor will dispose of all other equipment that is removed.
- C. Access to Site: Unless notified otherwise, entrance to building is restricted. No one will be permitted to enter the building unless their names have been cleared with the Owner or the Owner's representative.
- D. Code Compliance: All wiring shall be installed in accordance with all applicable electrical codes and will comply with equipment manufacturer's recommendations. Should any discrepancy be found between wiring Specifications in Division 26 and Division 22, wiring requirements of Division 26 will prevail for work specified in Division 26.
- E. Cleanup: At the completion of the work, all equipment pertinent to this Contract shall be checked and thoroughly cleaned, and all other areas shall be cleaned around equipment provided under this Contract. Clean the exposed surfaces of tubing, hangers, and other exposed metal of grease, plaster, or other foreign materials.

3.3 WIRING, CONDUIT, TUBING AND CABLE

- A. All wire will be copper and meet the minimum wire size and insulation class listed below:

Wire Class	Wire Size	Isolation Class
Power	12 Gauge	600 Volt
Class One	14 Gauge Std.	600 Volt
Class Two	18 Gauge Std.	300 Volt
Class Three	18 Gauge Std.	300 volt
Communications	Per Mfr.	Per Mfr.

- B. Power and Class One wiring may be run in the same conduit. Class Two and Three wiring and communications wiring may be run in the same conduit.
- C. Where different wiring classes terminate within the same enclosure, maintain clearances and install barriers per the National Electric Code.

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- D. Where wiring is required to be installed in conduit, EMT shall be used. Conduit shall be minimum 1/2-inch galvanized EMT. Setscrew fittings are acceptable for dry interior locations. Watertight compression fittings shall be used for exterior locations and interior locations subject to moisture. Provide conduit seal off fitting where exterior conduits enter the building or between areas of high temperature/moisture differential.
- E. Flexible metallic conduit (max. 3 feet) shall be used for connections to motors, actuators, controllers, and sensors mounted on vibration producing equipment. Liquid-tight flexible conduit shall be use in exterior locations and interior locations subject to moisture.
- F. Junction boxes shall be provided at all cable splices, equipment termination, and transitions from EMT to flexible conduit. Interior dry location J-boxes shall be galvanized pressed steel, nominal four-inch square with blank cover. Exterior and damp location JH-boxes shall be cast alloy FS boxes with threaded hubs and gasket covers.
- G. Where the space above the ceiling is a supply or return air plenum, the wiring shall be plenum rated. Teflon wiring can be run without conduit above suspended ceilings. EXCEPTION: Any wire run in suspended ceilings that is used to control outside air dampers or to connect the system to the fire management system shall be in conduit.
- H. Coaxial cable shall conform to RG62 or RG59 rating. Provide plenum rated coaxial cable when running in return air plenums.

3.4 HARDWARE INSTALLATION

- A. Installation Practices for Wiring and Tubing
 1. All controllers are to be mounted vertically and per the manufacturer's installation documentation.
 2. The 120 VAC power wiring to each Ethernet or Remote Site controller shall be a dedicated run, with a separate breaker. Each run will include a separate hot, neutral and ground wire. The ground wire will terminate at the breaker panel ground. This circuit will not feed any other circuit or device.
 3. A true earth ground must be available in the building. Do not use a corroded or galvanized pipe, or structural steel.
 4. Wires are to be attached to the building proper at regular intervals such that wiring does not drop. Wires are not to be affixed to or supported by pipes, conduit, etc.
 5. Wiring in finished areas will be concealed in ceiling cavity spaces, plenums, and furred spaces and wall construction. Exception: metallic surface raceway may be used in finished areas on masonry walls. All surface raceway in finished areas must be color matched to the existing finish within the limitations of standard manufactured colors.
 6. Wiring, in non-finished areas where possible, will be concealed in ceiling cavity spaces, plenums, furred spaces, and wall construction. Exposed conduit will run parallel to or at right angles to the building structure.
 7. Wires are to be kept a minimum of three (3) inches from hot water or condense piping.
 8. Where sensor wires leave the conduit system, they are to be protected by a plastic insert.

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B. Installation Practices for Field Devices

1. Well-mounted sensors will include thermal conducting compound within the well to insure good heat transfer to the sensor.
2. Actuators will be firmly mounted to give positive movement and linkage will be adjusted to give smooth continuous movement throughout 100 percent of the stroke.
3. Relay outputs will include transient suppression across all coils. Suppression devices shall limit transients to 150% of the rated coil voltage.
4. Water line mounted sensors shall be removable without shutting down the system in which they are installed.
5. For duct static pressure sensors, the high-pressure port shall be connected to a metal static pressure probe inserted into the duct pointing upstream. The low-pressure port shall be left open to the plenum area at the point that the high-pressure port is tapped into the ductwork.
6. For building static pressure sensors, the high-pressure port shall be inserted into the space via a metal tube. Pipe the low-pressure port to the outside of the building.

C. Enclosures

1. For all I/O requiring field interface devices, these devices, where practical, will be mounted in a field interface panel (FIP). The Contractor shall provide an enclosure, which protects the device(s) from dust, moisture, conceals integral wiring and moving parts.
2. FIP's shall contain power supplies for sensors, interface relays and Contractors, safety circuits, and I/P transducers.
3. The FIP enclosure shall be of steel construction with baked enamel finish; NEMA 1 rated with a hinged door and keyed lock. The enclosure will be sized for 20% spare mounting space. All locks will be keyed identically.
4. All wiring to and from the FIP will be to screw type terminals. Analog or communications wiring may use the FIP as a raceway without terminating. The use of wire nuts within the FIP is prohibited.
5. All outside mounted enclosures shall meet the NEMA-4 rating.
6. The wiring within all enclosures shall be run in plastic track. Wiring within controllers shall be wrapped and secured.

D. Identification

1. Identify all control wires with labeling tape or sleeves using either words, letters, or numbers that can be exactly cross-referenced with As-Built Drawings.
2. All field enclosures, other than controllers, shall be identified with a Bakelite nameplate. The lettering shall be in white against a black or blue background.
3. Junction box covers will be marked to indicate that they are a part of the BAS system.
4. All I/O field devices (except space sensors) that are not mounted within FIP's shall be identified with nameplates.
5. All I/O field devices inside FIP's shall be labeled.

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E. Control System Switch-Over

1. Demolition of the existing control system will occur after the new temperature control system is in place including new sensors and new field interface devices.
2. Switch over from the existing control system to the new system will be fully coordinated with the Owner. A representative of the Owner will be on site during switch over.
3. The Contractor shall minimize control system downtime during switch over. Sufficient installation mechanics will be on site so that the entire switch over can be accomplished in a reasonable time frame.

F. Location

1. The location of sensors is per Mechanical and Architectural Drawings.
2. Outdoor air sensors will be mounted on the north building face directly in the outside air. Install these sensors such that the effects of heat radiated from the building or sunlight is minimized.
3. Field enclosures shall be located immediately adjacent to the controller panel(s) to which it is being interfaced.

3.5 SOFTWARE INSTALLATION

- A. General: The Contractor shall provide all labor necessary to install, initialize, start-up and debug all system software as described in this section. This includes any operating system software or other third-party software necessary for successful operation of the system.
- B. Database Configuration: The Contractor will provide all labor to configure those portions of the database that are required by the points list and sequence of operation.
- C. Color Graphic Slides: Unless otherwise directed by the Owner, the Contractor will provide color graphic displays as depicted in the Mechanical Drawings for each system and floor plan. For each system or floor plan, the display shall contain the associated points identified in the point list and allow for set point changes as required by the Owner.
- D. Reports - The Contractor will configure a minimum of 6 reports for the Owner as listed below:
1. Central Plant Status Report
 2. Air Handler Status Report
 3. Energy Consumption Report
 4. Space Temperature Report
 5. Specialty Equipment Status Report
- E. Documentation - As-built software documentation will include the following:
1. Descriptive point lists
 2. Application program listing
 3. Application programs with comments
 4. Printouts of all reports
 5. Alarm list
 6. Printouts of all graphics

3.6 COMMISSIONING AND SYSTEM STARTUP

- A. Point-to-Point Checkout:
Each I/O device (both fields mounted as well as those located in FIP's) shall be inspected and verified for proper installation and functionality. A checkout sheet itemizing each device shall be filled out, dated and approved by the Project Manager for submission to the Owner or Owner's representative.
- B. Controller and Workstation Checkout:
A field checkout of all controllers and front-end equipment (computers, printers, modems, etc.) shall be conducted to verify proper operation of both hardware and software. A checkout sheet itemizing each device and a description of the associated tests shall be prepared and submitted to the Owner or Owner's representative by the completion of the project.
- C. System Acceptance Testing
1. All application software will be verified and compared against the sequences of operation. Control loops will be exercised by inducing a setpoint shift of at least 10% and observing whether the system successfully returns the process variable to setpoint. Record all test results and attach to the Test Results Sheet.
 2. Test each alarm in the system and validate that the system generates the appropriate alarm message, that the message appears at all prescribed destinations (workstations or printers), and that any other related actions occur as defined (i.e., graphic panels are invoked, reports are generated, etc.). Submit a Test Results Sheet to the Owner.
 3. Perform an operational test of each unique graphic display and report to verify that the item exists, that the appearance and content are correct, and that any special features work as intended. Submit a Test Results Sheet to the Owner.
 4. Perform an operational test of each third-party interface that has been included as part of the automation system. Verify that all points are properly polled, that alarms have been configured, and that any associated graphics and reports have been completed. If the interface involves a file transfer over Ethernet, test any logic that controls the transmission of the file, and verify the content of the specified information.

3.7 SEQUENCES OF OPERATION

- A. Packaged Electric AC Rooftop Units (JFK ES)
1. Point List
 - a. Space Temperature
 - b. Discharge Air Temperature
 - c. Freeze stat Status
 - d. Fan Start/Stop
 - e. Occupied/Unoccupied
 - f. Central System Perimeter Air Dampers
 2. All roof units will be supplied with factory supplied controls and economizer, interfaced with a stand-alone DDC controller supplied by the Contractor. This stand-alone controller will actuate fan, cooling, economizer and perimeter dampers.

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3. All adjustment and alarm will be at touch screen display controller. The room sensor will reset discharge air sensor to maintain room temperature. On a call for heating, a signal will be sent to factory supplied controls on roof top unit sequencing unit off and then sequencing on the perimeter dampers. It is this Contractor's responsibility to coordinate all packaged unit controls with field installed controls and provide a point-to-point wiring diagram.

3.8 TRAINING

- A. The Contractor shall supply personnel to train key customer personnel in the operation and maintenance of the installed system. The training program shall be designed to provide a comprehensive understanding and basic level of competence with the system. It shall be sufficiently detailed to allow customer personnel to operate the system independent of any outside assistance. On-line context sensitive HELP screens shall be incorporated into the system to further facilitate training and operation.
- B. The training plan shall include detailed session outlines and related reference materials. The customer personnel shall be able to utilize these materials in the subsequent training of their co-workers.
 1. Training time shall not be less than a total of 40 hours, and shall consist of:
 - a. 16 hours during normal day shift periods for system operators. Specific schedules shall be established at the convenience of the customer.
 - b. 24 hours of system training shall be provided to customer supervisory personnel so that they are familiar with system operation.
 - c. The specified training schedule shall be coordinated with the customer and will follow the training outline submitted by the Contractor as part of the submittal process.
 - d. Provide an as built Video training tape, showing & explaining all animated graphics in detail, all controllers and equipment the FMS operates. (Four (4) Copies shall be supplied).
 - e. If further training is needed, the Contractor shall provide another 40 hours at no extra cost.
 2. All training sessions shall be scheduled by the Construction Manager. The Contractor shall provide sign-in sheets and distribute minutes of each session prior to the subsequent session. This documentation shall be included in the Operation and Maintenance manuals.

END OF SECTION

SECTION 23 0470

TESTING, START-UP AND ADJUSTMENTS

PART 1 - GENERAL

Applicable Provisions of the Conditions of the Contract and Division 1 General Requirements govern work in this section.

1.1 TESTING, START-UP AND ADJUSTMENTS

- A. Furnish all materials, supplies, labor and power required for testing. Make preliminary tests and prove work satisfactory. Notify Architect and all authorities having jurisdiction in ample time to be present for final testing of all piping. Test before insulating or concealing any piping. Repair defects disclosed by tests, or if required by Architect, replace defective work with new work without additional cost to Owner. Make tests in stages if so ordered by Architect to facilitate work of others. Use of wicking in tightening leaking joints not permitted.
- B. HVAC Contractor is responsible for work or other trades disturbed or damaged by tests and/or repair and replacement of his work, and shall cause work so disturbed or damaged to be restored to its original condition at his own expense.
- C. Unless otherwise specified, all piping systems shall be hydrostatically tested to 150 psig. Tests shall be of four (4) hour duration during which time piping shall show no leaks and during time no sealing of leaks will be permitted.
- D. HVAC Contractor shall balance out system and submit test reports showing operating data to include the following:
 - 1. C.F.M. of all air handling equipment.
 - 2. C.F.M. at each air outlet.
 - 3. G.P.M. for equipment.
 - 4. R.P.M. for each fan and fan motor.
 - 5. Motor power consumption.
 - 6. Air temperature readings before and after coils.
 - 7. Water temperature readings in and out of coils and through equipment.
 - 8. Pressure gauge readings before and out of all pertinent equipment.
- E. HVAC Contractor shall furnish services of qualified personnel, thoroughly familiar with job, to operate and make all adjustments so that system and control equipment shall operate as intended. This shall include adjustment / replacement of sheaves/impellers to achieve design performance. Adjustments shall be made including balancing of water and air systems in cooperation with qualified representatives of mechanical equipment manufacturers and temperature control manufacturer. This shall include any required adjustment / replacement of sheaves, belts, impellers, etc. to achieve design performance. Architect / Engineer is to be notified when this balancing is to be performed.

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- F. Functional testing and system commissioning shall focus on key areas. Balancing of air and water flow rates in HVAC systems must meet requirements. Systems must be tested for functionality which includes installation, component operation and system to system interfacing. HVAC controls must be commissioned for proper calibration and operation in accordance with approved plans. Air economizers shall be tested to meet manufacturer's specifications. Comply with all requirements of the Energy Conservation Construction Code of New York State.
- G. When all work is in an acceptable operating condition, furnish operating and maintenance manuals as specified in General Requirements.
- H. All HVAC equipment shall be carefully designed, constructed and installed so as to prevent any objectionable noise or vibration reaching any part of the building outside of the mechanical equipment room. Care shall also be taken to prevent transmission of noise or odor through ductwork into other spaces.
- I. Contractor shall include in his Bid, adjustment of air quantity below scheduled C.F.M. for air systems deemed "noisy" by Owner subsequent to initial balancing.
- J. The Contractor shall be required to rectify or replace at his own expense, any equipment not complying with the foregoing requirements.
- K. Final inspection and approval shall be made only after proper completion of all of above requirements.
- L. If the performance of the systems does not conform to the design parameters the Contractor shall return to the site until the systems perform as designed.

END OF SECTION

**SECTION 23 0490
GUARANTEE**

PART 1 - GENERAL

Applicable Provisions of the Conditions of the Contract and Division 1 General Requirements govern work in this section.

1.1 GUARANTEE

- A. The Contractor shall remove, replace and/or repair at his own expense and at the convenience of the Owner, any defects in workmanship, materials, ratings, capacities and/or characteristics occurring in the work within one (2) years or within such longer period as may be provided in the Drawings and/or Section of the Specifications, which guarantee period shall commence with the final acceptance of the entire Contract in accordance with the guarantee provisions stated in the General Conditions, and the Contractor shall pay for all damage to the system resulting from defects in the work and all expenses necessary to remove, replace, and/or repair any other work which may be damaged in removing, replacing and/or repairing the work.

END OF SECTION

**SECTION 26 0100
GENERAL CONDITIONS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 DESCRIPTION OF WORK

- A. It is the intention of the Specification and Drawings to call for finish work, tested and ready for operation.
- B. Any apparatus, appliance material or work not shown on the Drawings but mentioned in the Specifications, or vice versa, or any incidental accessories or ancillary devices necessary to make ready for operation even if not particularly specified, shall be furnished, delivered and installed under their respective Division without additional expense to the Owner.
- C. Minor details not usually shown or specified, but necessary for proper installation and operation, shall be included in the work as though they were hereinafter specified or shown.
- D. Work under each section shall include giving written notice to the Architect of any materials or apparatus believed inadequate or unsuitable, in violation of laws, ordinances, rules and regulations of authorities having jurisdiction; and any necessary items of work omitted. In the absence of such written notice, it is mutually agreed that work under each section has included the cost of all necessary items for the approved satisfactory functioning of the entire system without extra compensation.
- E. Small scale drilling through walls and floors which may contain asbestos shall be performed by a person with a "restricted asbestos handler allied trades certificate" and shall have a copy of it in his possession at all times while working of the project.

1.3 DRAWINGS

- A. Drawings are diagrammatic and indicate the general arrangement of the system and work included in the Contract. (Do not scale the drawings). Consult the Architectural Drawings and details for exact location of fixtures and equipment; where same are not definitely located, obtain this information from the general construction supervisor.
- B. Work under each section shall closely follow Drawings in layout of work; check Drawings of other Divisions to verify spaces in which work will be installed. Maintain maximum headroom; do not begin work until unsatisfactory conditions are corrected.
- C. Make reasonable modifications in the layout as needed to prevent conflict with work of other Sections of the Specifications or for proper execution of the work.
- D. It shall be understood that the right is reserved by the Architect/Engineer to change the location of equipment and apparatus to a reasonable extent as building conditions may dictate, prior to their installation without extra cost to the Owner.

1.4 SURVEYS AND MEASUREMENTS

- A. Base all measurements, both horizontal and vertical, from established benchmarks. All work shall agree with these established lines and levels. Verify all measurements at site and check the correctness of same as related to the work.

- B. Before proceeding with the work resolve discrepancies between actual measurements and those indicated, which prevent following good practice or intent of the Drawings or Specifications.

1.5 CODES AND STANDARDS

- A. The Codes and Standards listed below apply to all Electrical work codes or standards that are mentioned in these Specifications; the latest edition or revision shall be followed:

1. NEMA - Standards
2. ANSI CI - National Electrical Code (NFPA 70)
3. ANSI C50.13 - Rotating Electrical Machinery
4. NEMA MG2 - Construction and guide for selection, installation and use of electric motors.
5. NEMA MG1 - Motors and Generators

- B. The following State and Local Codes shall apply: New York State Uniform Fire Prevention and Building Code, and Local Building Codes.

- C. The following abbreviations are used within this Division of the Specifications:

1. IES - Illuminating Engineering Society.
2. NEC - National Electrical Code
3. ANSI - American National Standards Institute
4. ASTM - American Society for testing and materials
5. EPA - Environmental Protection Agency
6. IEEE - Institute of Electrical and Electronic Engineers
7. NEMA - National Electrical Manufacturers Association
8. NFPA - National Fire Protection Association.
9. OSHA - Occupational Safety and Health Administration
10. UL - Underwriter's Laboratories

1.6 PERMITS AND FEES

- A. Give all necessary notices, obtain all permits and pay all Government and State sales taxes and fees where applicable, and other costs, including utility connections or extensions in connection with work of this Division. File all necessary plans, prepare all documents and obtain all necessary approvals of all Governmental and State departments having jurisdiction; obtain all necessary certificates of inspections for his work and deliver a copy to the Architect before request for acceptance and final payment for the work. Pay fees for utility construction/connections.

- B. Include in the work, without extra cost to the Owner, any labor, materials, services, and apparatus, Drawings in order to comply with all applicable laws, ordinances, rules and regulations, whether or not shown on the Drawings and/or specified.

- C. All materials furnished and all work installed shall comply with the rules and recommendations of the National Fire Protection Association, with the requirements of the local utility companies, with the recommendations of fire insurance rating organization having jurisdiction and with the requirements of all governmental departments having jurisdiction.

- D. All materials and equipment for the electrical portion of the mechanical systems shall bear the approval label of or shall be listed by the Underwriter's Laboratories, Inc.

1.7 TEMPORARY LIGHT AND POWER

- A. The Contractor shall furnish, install, maintain and, upon direction to do so, remove system of temporary lighting and power for the use of all construction trades.

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- B. The Electrical Contractor shall provide adequate electrical service for the needs of all Contracting Trades.
- C. Wiring shall be provided for temporary use during building construction, including grounding and fused main cut-off switches. Temporary electric lines with branch switches shall be provided for lighting and for taps for electric tools, pumps and other temporary equipment; all connected to a main line looped through floor spaces and up stair wells or shafts. All power outlets shall be grounded to an equipment ground wire in an approved manner. Electric lines shall be extended to power tools, which cannot be located within reach of extension cords.
- D. Light bulbs shall be provided in sufficient quantity to light the building for safety purposes. Extension cords shall be provided as may be essential to the proper execution of the work. Temporary lighting shall be provided for all stairs and other locations where needed for safety or the proper execution of the work.
- E. The Electrical Contractor shall maintain temporary lighting and power systems in good working condition, including the relocation and reinstallation when required to avoid interference with the progress of construction.
- F. Provide ground-fault personnel ampere protection for all single phase, 15 and 20 ampere receptacles. All receptacles and portable cord connectors shall have NEMA standard locking type configurations.
- G. The Electrical Contractor shall turn lights on and off at the beginning and end of each working day of any trade unless otherwise directed. He shall arrange for all temporary light and power for all trades which do not have holidays (days off) similar to the electrical trade. The Electrical Contractor shall patch and repair all openings left damaged by the installation and removal of the temporary light and power.

1.8 MANUFACTURER'S IDENTIFICATION

- A. Manufacturer's nameplate, name or trademark and address shall be attached permanently to all equipment and materials furnished under this Division. The nameplate of a contractor or distributor may not be used.

1.9 SHOP DRAWINGS

- A. Submit for approval detailed shop drawings of all equipment and materials in accordance with working procedures.
- B. Furnish all necessary templates and patterns for installation work and for the purpose of making adjoining work conform; furnish setting plans and shop details to other trades as necessary.
- C. Submit shop drawings for the following:
 - 1. Light fixtures.
 - 2. Receptacles, switches, occupancy sensors.
 - 3. Overcurrent protective devices.
 - 4. Clocks and P.A. system components.
 - 5. Fire alarm devices.

1.10 MATERIALS AND WORKMANSHIP

- A. All materials and apparatus necessary for the work, except as specifically indicated otherwise, shall be new, of first class quality and shall be furnished, delivered, erected, connected and finished in every detail and shall be so selected and arranged as to fit properly into the building spaces. Where no specific kind or quality of material is given, a first class standard article as accepted by the Architect shall be furnished.
- B. Furnish the services of an experienced Superintendent who shall be constantly in charge of the installation

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of the work, together with all skilled workmen, helpers, and labor to unload, transfer, erect, connect up, adjust, start, operate and test each system.

- C. Unless otherwise specifically indicated on the Drawings or Specifications, all equipment and materials shall be installed in accordance with the recommendations of the manufacturer. This includes the performance of such tests as the manufacturer recommends.

1.11 PROTECTION

- A. Work under each Section shall include protecting the work and materials of all other Sections from damage from work or workmen and shall include making good all damage thus caused. Be responsible for work and equipment until finally inspected, tested, and accepted; protect work against theft, injury or damage; and carefully store material and equipment received on site, which is not immediately installed. Close open ends of work with temporary covers or plugs during construction to prevent entry of obstructing or other foreign material.
- B. Work under each section includes receiving, unloading, uncrating, storing, protecting, setting in place and connecting up completely of any equipment supplied under each section. Work under each section shall also include exercising special care in handling and protecting equipment and fixtures, and shall include the cost of replacing any of the above equipment and fixtures which are missing or damaged by reason of mishandling or failure to protect on the part of the Contractor.

1.12 BASES AND SUPPORTS

- A. Unless specifically noted otherwise, provide all necessary supports, pads, bases, and piers required for all equipment under this Division. Provide all temporary bases and supports as required.
- B. All equipment, unless shown otherwise, shall be securely attached to the building structure. Attachments shall be of a strong and durable nature; any attachments that are, insufficient, shall be replaced as directed by the Architect.

1.13 SLEEVES, INSERTS AND ANCHOR BOLTS

- A. All conduits passing through floors, walls or partitions shall be provided with sleeves having an internal diameter one inch larger than the outside diameter of the conduit, or insulation enclosing the conduit.
- B. Furnish all sleeves, inserts, and anchor bolts necessary to be installed under other sections of the Specifications to accommodate work of this section.
- C. Sleeves through outside walls shall be cast iron sleeves with intermediate integral flange. Sleeves shall be set with ends flush with each face of wall. The remaining space shall be packed with oakum to within 2 inches of each face of the wall. The remaining shall be packed and made watertight with a waterproof compound.
- D. Sleeves through concrete floors or interior masonry walls shall be schedule 40 black steel pipe, set flush with finished walls or ceiling surfaces but extending 2 inches above finished floors.
- E. Sleeves through interior partitions shall be 22 gauge galvanized sheet steel, set flush with finished surfaces or partitions.
- F. Inserts shall be individual or strip type of pressed steel construction with accommodation for removable nuts and threaded rods up to 3/4" inch diameter, permitting lateral adjustment. Individual inserts shall have an opening at the top to allow reinforcing rods up to 1/2" diameter to be passed through the insert body. Strip inserts shall have attached rods having hooked ends to allow fastening to reinforcing rods. Inserts shall be as manufactured by Carpenter and Patterson, Inc. or Grinnell Co., Inc.

- G. Penetrations through fire-rated walls, ceilings and floors in which cables, conduits pass, shall be sealed by a
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UL approved fire stop fitting classified for an hourly rating equal to the fire rating of the floor, wall or ceiling shall be Gedney Fire Seal Type CFSF of CAPS.

1.14 PAINTING

- A. All finish painting in finished areas shall be performed by others.
- B. All materials shipped to the job site under the Division, such as panels and plates, shall have a prime coat and standard manufacturer's finish unless otherwise specified.
- C. Inaccessible conduits, hangers, supports and anchors and ducts shall be coated prior to installing.
- D. All components of the fire alarm system raceway shall be painted red. This includes but is not limited to conduit, junction boxes, pull boxes.

1.15 CUTTING AND PATCHING

- A. All cutting and patching required for the work of this Division shall be done by this Division.
- B. Work under this Division shall include furnishing, locating and setting inserts and/or sleeves. Do all drilling and cutting necessary for the installation.
- C. All holes cut through concrete slabs and structural steel shall be punched or drilled from the underside. No structural member shall be cut without the written acceptance of the Architect and all such cutting shall be done in a manner directed by him.
- D. Refer to Division 1 for additional requirements.

1.16 SCAFFOLDING, RIGGING, HOISTING

- A. Furnish all scaffolding, rigging, hoisting, and services necessary for erection and delivery into the premises of any equipment and apparatus furnished under this Division. Remove same from premises when no longer needed.

1.17 EXCAVATING AND BACKFILLING

- A. All excavation and backfilling for the work of this Division shall be performed by Division 2.

1.18 WATERPROOFING

- A. Where any work penetrates waterproofing, including waterproof concrete and floors in wet areas. Submit proposed method of installation for review by the Architect before beginning work. Furnish all necessary sleeves, caulking and flashing necessary to make opening absolutely watertight.

1.19 ACCESSIBILITY AND ACCESS PANELS

- A. Be responsible for the sufficiency of the size of shafts and chases, the adequate thickness of partitions, and the adequate clearance in double partitions and hung ceilings for the proper installation of the work of this Division.
- B. Locate all equipment, which must be serviced, operated or maintained in fully accessible positions. Minor deviations from Drawings may be allowed for better accessibility with approval of the Architect.

1.20 SHUTDOWNS

- A. When installation of a new system necessitates the temporary shutdown of an existing utility operating system

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the connection of the new system shall be performed at such time as designated by and in consultation with the Utility Company. Work required after normal business hours shall be done so at no additional cost to the Owner.

1.21 CLEANING

- A. Thoroughly clean all equipment of all foreign substances inside and out before being placed in operation.
- B. If any foreign matter should stop any part of a system after being placed in operation, the system shall be disconnected, cleaned and reconnected whenever necessary to locate and remove obstructions. Any work damaged in the course of removing obstructions shall be repaired or replaced when the system is reconnected at no additional cost to the Owner.
- C. Upon completion of work remove from the premises all rubbish, debris, and excess materials. Any oil or grease stains on floor areas caused by work of this Division shall be removed and floor areas left clean.

1.22 RECORD DRAWINGS

- A. Maintain at the job site a record set of Electrical Drawings on which any changes in location of equipment, panels, devices, and major conduits shall be recorded. Indicate dimensions of all items installed underground or in concrete.

1.23 OPERATING INSTRUCTIONS

- A. Upon completion of all work and all tests, the Contractor shall furnish the necessary skilled labor and helpers for operating his system and equipment for a period specified under each applicable Section of this Division. During this period, he shall instruct the Owner or his representative fully in the operation, adjustment and maintenance of all equipment furnished. Give at least 7 days' notice to the Owner in advance of this period.
- B. Furnish four complete bound sets for delivery to the Architect of typewritten or blueprinted instructions for operating and maintaining all systems and equipment included in this Division. All instruction shall be submitted in draft for review prior to final issue. Manufacturer's advertising literature or catalogs may not be used for operating and maintenance instruction.
- C. In the above-mentioned instructions, include the maintenance schedule for the principal items of equipment furnished under this Division.
- D. The manufacturer shall attest in writing that his equipment has been properly installed prior to start. The following is some of the equipment necessary for this inspection: fire alarm system. These letters will be bound into the operating and maintenance books.

1.24 ADJUSTING AND TESTING

- A. After all equipment and accessories to be furnished are in place, they shall be put in final adjustment and subjected to such operating tests as will assure the Architect that they are in proper adjustment and in satisfactory permanent operating condition.
- B. This particular work shall include the services of a factory engineer to inspect the installation and assist in the initial startup and adjustment to the equipment. The period of these services shall be for such time as necessary to secure proper installation and adjustments. After the equipment is placed in permanent operation, there shall be furnished the service of said engineer for the purpose of supervising the initial operation of the equipment and to instruct the personnel responsible for operation and maintenance of the equipment.
- C. At the completion of the job when all panels, devices, etc. are at full working load the Contractor shall provide infrared scan thermographic inspection test of all connection points, terminals, etc. of wires #8 AWG and

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larger to detect "hot-spots" in the electrical current flow. Correct all hot-spots.

1.25 UNDERWRITER'S LABEL

- A. All electrical equipment and materials shall be new and shall comply with the standards of and shall bear the label of the Underwriter's Laboratories.

1.26 ELECTRICAL SAFETY INSPECTION

- A. Electrical Contractor shall arrange for an Electrical Safety Inspection to be performed by the Local Inspection Agency (i.e.: New York Electrical Inspection Services, Atlantic Inland, Middle Department Inspection Agency). A Certificate of Compliance "Underwriter's Certificate" shall be issued to the Owner. All costs and coordination required shall be included in this Contractors Base Bid.

1.27 REMOVALS

- A. The scope of removals shown on the Drawings are diagrammatic only and indicate the intent of the work to be performed and not the complete scope of demolition and/or removal work. It shall be the responsibility of this Contractor to remove any electrical devices even if not specifically indicated to be removed on these Drawings in order to accommodate new work.
- B. All power conductors, control wiring and conduit associated with mechanical equipment such as fans, pumps, etc. designated for removal on the HVAC Drawings shall be removed clear back to the source of power and disconnected. All motor starters, disconnect switches, control devices, etc. shall be removed. Refer to HVAC Drawings for extent of HVAC removals.
- C. Any device removed shall include (but shall not be limited to) the removal of all associated wiring, conduit, boxes, and auxiliary devices back to the previous device on the circuit, or back to the panelboard or origin of the circuit or any other items that are not incorporated in new layout, until such removal is complete. If the removal of any device interrupts service of any other device that is to remain, the Contractor shall provide all materials and labor to ensure continuity of service to those devices to remain.
- D. Junction boxes, pull boxes, wireways, conduits, or any other devices required to reconnect circuitry shall be installed concealed within the ceilings, partitions and/or walls, floors, no surface or exposed circuiting shall be permitted, unless specifically indicated.
- E. The Electrical Contractor shall patch all openings in walls, ceilings or roof that are left open as a result of removals. Refer to cutting and patching section. Any electrical device removed including but not limited to disconnect switches, panelboards, etc. shall be cleaned, protected and turned over to the Owner or disposed of as directed by Owner.

END OF SECTION

SECTION 26 0125

SCOPE OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SCOPE OF WORK

- A. The work under this section includes all labor, materials, equipment, tools, transportation and the performance of all work necessary and required for furnishing and installing all Electrical work shown on the Contract Documents, as specified herein and as otherwise required by job conditions or reasonably implied, including, but not necessarily limited to the following:
1. The addition of new fire alarm devices and the replacement of the existing ones as shown on Drawings.
 2. The contractor shall dispose of all debris, including but not limited to fixtures, equipment, lamps, ballast, wiring devices and the like in accordance with, as defined by governing law and regulations of the jurisdiction where the work is being performed.
 3. Provisions for temporary fire prevention actions to be taken during the period of construction until the new fire alarm system is operational.
 4. Modifications to existing electrical distribution system as indicated on the Drawings.
 5. Service switchboards, distribution panelboard, circuit breaker panelboards, feeder, conduit, cables and branch circuit wiring with all connections complete.
 6. Conduit, conduit fittings, junction and pull boxes and all appurtenances necessary for the raceway systems including necessary supports and fasteners.
 7. Electrical conductors, connectors, fittings and connection lugs.
 8. Branch circuit devices, outlet boxes, pull boxes, motor disconnect switches, etc.
 9. Power wiring to HVAC and Plumbing equipment including disconnect switches as shown and/or required by NEC.
 10. Conduits and data/low voltage wiring for computer, telephone, and smart boards.
 11. Lighting fixtures and lamps including occupancy sensor and controls.
 12. Public address speakers, call in button, including wiring, and wireless clocks.
 13. Temporary electric power while existing electrical service is being removed until the new electrical service is being installed.
 14. Core drilled holes for conduit passing through walls, ceilings and floors.
 15. All necessary cutting, patching and core drilling incidental to the electrical work.

16. Temporary light and power.
17. Licenses, permits, inspection and approvals.
18. Grounding as required as per NEC.
19. Sleeves for conduit and watertight caulking between conduit and sleeve.
20. Testing.
21. Cutting, patching and drilling.

B. Coordination Drawings (if applicable): Attention is directed to Division 1 for coordination drawing requirements for this project. These drawings are critical to the proper execution of the work and failure to honor these requirements may become the basis for denial of any and all claims for either or both “time” and “money”.

1.3 WORK NOT INCLUDED

- A. The following related items will be done by others:
1. Furnishing motors and controllers.
 2. Concrete work.
 3. Excavation and backfill.

END OF SECTION

**SECTION 26 0300
WIRE AND CABLE**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 WORK INCLUDED

- A. The work under this section shall include the furnishing of all material, labor, tools and services necessary to wire and cable in raceway specified in other sections to complete all work shown on the Drawings or specified herein.

PART 2 - PRODUCTS

2.1 BUILDING WIRE

- A. Thermoplastic-insulated building wire: Type THHN.
- B. Rubber insulated building wire: NEMA WC 3.
- C. Feeders and branch circuits larger than number 6 AWG: Copper, stranded conductor, 600 volt insulation, type THHN.
- D. Feeder and branch circuits 6 AWG and smaller: Copper conductor, 600 volt insulation, THWN/THHN, 6 and 8 AWG, stranded conductor; Smaller than 8 AWG, solid conductor.
- E. Service feeders and branch circuits in conduit in contact with earth shall be type XHHW.
- F. Control circuits: Copper, stranded conductor 600 volt insulation, THHN.

2.2 ARMORED CABLE

- A. BX or pre-manufactured cables are not acceptable except for Type MC for branch wiring after the first junction box (for receptacle and lighting branch circuits) and final connections to motors in interior dry accessible locations, minimum length shall be 18" with a maximum length of 6' for motors.
- B. Type MC fire alarm cable with red stripe for concealed fire alarm wiring as manufactured by AFC series 1800.
- C. Armored cable, Type MC size 14 through 6 AWG: Copper conductor, 600 volt thermoplastic insulation, rated 90 degrees C., with separate green ground conductor.

2.3 REMOTE CONTROL AND SIGNAL CABLE

- A. Control cable for Class 2 or Class 3 remote control and signal circuits:
- B. Copper conductor, 300 volt insulation, rated 60 degree C, individual conductors twisted together shielded and covered with a nonmetallic jacket; UL listed for use in air handling ducts, hollow spaces used as ducts and plenums. Verify wiring type with manufacturer.

2.4 COLOR CODING

A. All wiring shall be color-coded. Neutral wire shall be white throughout and each phase wire shall be identified any place in the system by its color code. All conductors in panel boxes and junction boxes shall be properly tagged with red non-flammable tags properly attached.

B. Wire shall be color coded as follows:

<u>120/208 volt system</u>	<u>Fire Alarm</u>	
A Phase	Black	Red
B Phase	Red	
C Phase	Blue	

C. Equipment ground wires or ground jumpers shall be Green.

D. In addition to the basic color-coding described the following additional identification and tagging shall apply.

1. The switch legs for the local wall switches and in switch panel shall have distinctive stripes. In instances where color-coding is not practicable, such as short runs of heavy feeder cables, taping the ends of the cable with coded colors as indicated above or tagging will be permitted.
2. Cables shall be tagged in all pull boxes, wireways and wiring gutters of panels.
3. Where two (2) or more circuits run to or through a control device, outlet box or junction box, each circuit shall be tagged as a guide in making connections.
4. Tags shall identify wire or cable by number and/or piece of equipment served as shown on the Drawings.

PART 3 - EXECUTION

3.1 GENERAL WIRING METHODS

- A. Use no wire smaller than 12 AWG for power and lighting circuits, and no smaller than 14 AWG for control wiring.
- B. Use 10 AWG conductor for 20 ampere, 120 volt branch circuit home runs longer than 75 feet and for 20 ampere.
- C. Use 10 AWG conductor for 20 ampere, 277 volt branch circuit home runs longer than 200 feet for 20 ampere.
- D. Place an equal number of conductors for each phase of a circuit in same raceway or cable. No more than one of each phase shall be supported by a single neutral.
- E. Splice only in junction or outlet boxes.
- F. Neatly tag, identify, train and lace wiring inside boxes, equipment and panelboards.
- G. Make conductor lengths for parallel circuits equal.

3.2 WIRING INSTALLATION IN RACEWAYS

- A. Pull all conductors into a raceway at the same time. Use UL listed wire pulling lubricate for pulling 4 AWG and larger wires.
- B. Completely and thoroughly swab raceway system before installing conductors.
- C. Install wire in raceway after interior of building has been physically protected from the weather and all mechanical work likely to injure conductors has been completed.

3.3 CABLE INSTALLATION

- A. Support cables above accessible ceilings; do not rest on ceiling tiles. Use spring metal clips or metal cable ties to support cables from structure (not ceiling suspension system). Include bridle rings or drive rings.
- B. Use suitable cable fitting and connectors.

3.4 WIRING CONNECTIONS AND TERMINATIONS

- A. Splice only in accessible junction boxes.
- B. Use solderless pressure connections with insulating covers for copper wire splices and tape, 8 AWG and smaller. For 10 AWG and smaller, use insulated spring wire connectors with plastic caps.
- C. Provide extended gutters and tap blocks or pull boxes with tap rail systems similar to Burndy MT Series or Burndy Electrorail system for wire splices 6 AWG and larger.
- D. Tape uninsulated conductors with electrical tape to 150 percent of the insulation value of conductor.
- E. Thoroughly clean wires before installing lugs and connectors.
- F. Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.
- G. Terminate spare conductors with electrical tape.

3.5 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of the Specifications.
- B. Inspect wire and cable for physical damage and proper connection.
- C. Torque test conductor connections and terminations to manufacturer's recommended values.
- D. Perform continuity test on all power and equipment branch circuit conductors. Verify proper phasing connections.

3.6 WIRE AND CABLE INSTALLATION SCHEDULE

- A. All wiring and cable shall be installed in conduit unless otherwise noted. Refer to Conduit Section 26 0533.13.

END OF SECTION

SECTION 26 0519
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Single conductor building wire.
- B. Metal-clad cable.
- C. Wiring connectors.
- D. Electrical tape.
- E. Wire pulling lubricant.
- F. Cable ties.

1.3 RELATED REQUIREMENTS

- A. Section 07 8400 - Firestopping.
- B. Section 26 0526 - Grounding and Bonding for Electrical Systems: Additional requirements for grounding conductors and grounding connectors.

1.4 REFERENCE STANDARDS

- A. ASTM B3 - Standard Specification for Soft or Annealed Copper Wire; 2013 (Reapproved 2018).
- B. ASTM B33 - Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes; 2010 (Reapproved 2014).
- C. ASTM D3005 - Standard Specification for Low-Temperature Resistant Vinyl Chloride Plastic Pressure-Sensitive Electrical Insulating Tape; 2017.
- D. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- E. NECA 120 - Standard for Installing Armored Cable (AC) and Metal-Clad Cable (MC); 2012.
- F. NEMA WC 70 - Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy; 2009.
- G. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- H. UL 44 - Thermoset-Insulated Wires and Cables; Current Edition, Including All Revisions.
- I. UL 83 - Thermoplastic-Insulated Wires and Cables; Current Edition, Including All Revisions.
- J. UL 486A-486B - Wire Connectors; Current Edition, Including All Revisions.
- K. UL 510 - Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape; Current Edition, Including All Revisions.
- L. UL 1569 - Metal-Clad Cables; Current Edition, Including All Revisions.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate sizes of raceways, boxes, and equipment enclosures installed under other sections with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
 - 2. Coordinate with electrical equipment installed under other sections to provide terminations suitable for use with the conductors to be installed.
 - 3. Notify Fuller and D'Angelo, P.C. of any conflicts with or deviations from Contract

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Documents. Obtain direction before proceeding with work.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for conductors and cables, including detailed information on materials, construction, ratings, listings, and available sizes, configurations, and stranding.

1.7 QUALITY ASSURANCE

- A. Comply with requirements of NFPA 70.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store conductors and cables in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 CONDUCTOR AND CABLE APPLICATIONS

- A. Do not use conductors and cables for applications other than as permitted by NFPA 70 and product listing.
- B. Provide single conductor building wire installed in suitable raceway unless otherwise indicated, permitted, or required.
- C. Nonmetallic-sheathed cable is not permitted.
- D. Metal-clad cable is permitted only as follows:
 - 1. Where not otherwise restricted, may be used:
 - a. Where concealed above accessible ceilings for final connections from junction boxes to luminaires.
 - a) Maximum Length: 6 feet.
 - b. Where concealed in hollow stud walls and above accessible ceilings for branch circuits.
 - a) Exception: Provide single conductor building wire in raceway for circuit homerun from first outlet to panelboard.
 - 2. In addition to other applicable restrictions, may not be used:
 - a. Where exposed to view, except in dedicated electrical, communications, and mechanical rooms where not subject to damage.
 - b. Where exposed to damage.

2.2 CONDUCTOR AND CABLE GENERAL REQUIREMENTS

- A. Provide products that comply with requirements of NFPA 70.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, etc. as required for a complete operating system.
- D. Comply with NEMA WC 70.
- E. Thermoplastic-Insulated Conductors and Cables: Listed and labeled as complying with UL 83.
- F. Thermoset-Insulated Conductors and Cables: Listed and labeled as complying with UL 44.
- G. Conductor Material:
 - 1. Provide copper conductors only. Aluminum conductors are not acceptable for this project. Conductor sizes indicated are based on copper.
 - 2. Copper Conductors: Soft drawn annealed, 98 percent conductivity, uncoated copper conductors complying with ASTM B3, ASTM B8, or ASTM B787/B787M unless otherwise indicated.
- H. Conductor Color Coding:
 - 1. Color code conductors as indicated unless otherwise required by the authority having

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jurisdiction. Maintain consistent color coding throughout project.

2. Color Coding Method: Integrally colored insulation.
3. Color Code:
 - a. 208Y/120 V, 3 Phase, 4 Wire System:
 - a) Phase A: Black.
 - b) Phase B: Red.
 - c) Phase C: Blue.
 - d) Neutral/Grounded: White.
 - b. Equipment Ground, All Systems: Green.

2.3 SINGLE CONDUCTOR BUILDING WIRE

- A. Description: Single conductor insulated wire.
- B. Conductor Stranding:
 1. Feeders and Branch Circuits:
 - a. Size 10 AWG and Smaller: Solid.
 - b. Size 8 AWG and Larger: Stranded.
- C. Insulation Voltage Rating: 600 V.
- D. Insulation:
 1. Copper Building Wire: Type THHN/THWN or THHN/THWN-2, except as indicated below.

2.4 METAL-CLAD CABLE

- A. Description: NFPA 70, Type MC cable listed and labeled as complying with UL 1569, and listed for use in classified firestop systems to be used.
- B. Conductor Stranding:
 1. Size 10 AWG and Smaller: Solid.
 2. Size 8 AWG and Larger: Stranded.
- C. Insulation Voltage Rating: 600 V.
- D. Insulation: Type THHN, THHN/THWN, or THHN/THWN-2.
- E. Grounding: Full-size integral equipment grounding conductor.
- F. Armor: Steel, interlocked tape.

2.5 WIRING CONNECTORS

- A. Description: Wiring connectors appropriate for the application, suitable for use with the conductors to be connected, and listed as complying with UL 486A-486B or UL 486C as applicable.

2.6 ACCESSORIES

- A. Electrical Tape:
 1. Vinyl Color Coding Electrical Tape: Integrally colored to match color code indicated; listed as complying with UL 510; minimum thickness of 7 mil; resistant to abrasion, corrosion, and sunlight; suitable for continuous temperature environment up to 221 degrees F.
 2. Vinyl Insulating Electrical Tape: Complying with ASTM D3005 and listed as complying with UL 510; minimum thickness of 7 mil; resistant to abrasion, corrosion, and sunlight; conformable for application down to 0 degrees F and suitable for continuous temperature environment up to 221 degrees F.
- B. Wire Pulling Lubricant: Listed; suitable for use with the conductors or cables to be installed and suitable for use at the installation temperature.
- C. Cable Ties: Material and tensile strength rating suitable for application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that work likely to damage wire and cable has been completed.
- B. Verify that raceways, boxes, and equipment enclosures are installed and are properly sized to accommodate conductors and cables in accordance with NFPA 70.
- C. Verify that conditions are satisfactory for installation prior to starting work.

3.2 PREPARATION

- A. Clean raceways thoroughly to remove foreign materials before installing conductors and cables.

3.3 INSTALLATION

- A. Circuiting Requirements:
 - 1. Unless dimensioned, circuit routing indicated is diagrammatic.
 - 2. When circuit destination is indicated without specific routing, determine exact routing required.
 - 3. Arrange circuiting to minimize splices.
 - 4. Circuiting Adjustments: Unless otherwise indicated, when branch circuits are indicated as separate, combining them together in a single raceway is not permitted.
 - 5. Common Neutrals: Unless otherwise indicated, sharing of neutral/grounded conductors among up to three single phase branch circuits of different phases installed in the same raceway is not permitted. Provide dedicated neutral/grounded conductor for each individual branch circuit.
- B. Install products in accordance with manufacturer's instructions.
- C. Perform work in accordance with NECA 1 (general workmanship).
- D. Install metal-clad cable (Type MC) in accordance with NECA 120.
- E. Installation in Raceway:
 - 1. Tape ends of conductors and cables to prevent infiltration of moisture and other contaminants.
 - 2. Pull all conductors and cables together into raceway at same time.
 - 3. Do not damage conductors and cables or exceed manufacturer's recommended maximum pulling tension and sidewall pressure.
 - 4. Use suitable wire pulling lubricant where necessary, except when lubricant is not recommended by the manufacturer.
- F. Paralleled Conductors: Install conductors of the same length and terminate in the same manner.
- G. Secure and support conductors and cables in accordance with NFPA 70 using suitable supports and methods approved by the authority having jurisdiction. Provide independent support from building structure. Do not provide support from raceways, piping, ductwork, or other systems.
- H. Terminate cables using suitable fittings.
 - 1. Metal-Clad Cable (Type MC):
 - a. Use listed fittings.
 - b. Cut cable armor only using specialized tools to prevent damaging conductors or insulation. Do not use hacksaw or wire cutters to cut armor.
- I. Install conductors with a minimum of 12 inches of slack at each outlet.
- J. Neatly train and bundle conductors inside boxes, wireways, panelboards and other equipment enclosures.
- K. Group or otherwise identify neutral/grounded conductors with associated ungrounded conductors inside enclosures in accordance with NFPA 70.
- L. Make wiring connections using specified wiring connectors.
 - 1. Make splices and taps only in accessible boxes. Do not pull splices into raceways or make splices in conduit bodies or wiring gutters.
 - 2. Remove appropriate amount of conductor insulation for making connections without cutting, nicking or damaging conductors.

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- 3. Do not remove conductor strands to facilitate insertion into connector.
- 4. Clean contact surfaces on conductors and connectors to suitable remove corrosion, oxides, and other contaminates. Do not use wire brush on plated connector surfaces.
- M. Insulate splices and taps that are made with uninsulated connectors using methods suitable for the application, with insulation and mechanical strength at least equivalent to unspliced conductors.
- N. Insulate ends of spare conductors using vinyl insulating electrical tape.
- O. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.
- P. Unless specifically indicated to be excluded, provide final connections to all equipment and devices, including those furnished by others, as required for a complete operating system.
- Q. Provide covers for and close all boxes above suspended ceilings.

END OF SECTION

SECTION 26 0526
GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Grounding and bonding requirements.
- B. Conductors for grounding and bonding.
- C. Connectors for grounding and bonding.

1.3 RELATED REQUIREMENTS

- A. Section 26 0519 - Low-Voltage Electrical Power Conductors and Cables: Additional requirements for conductors for grounding and bonding, including conductor color coding.

1.4 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- B. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- C. UL 467 - Grounding and Bonding Equipment; Current Edition, Including All Revisions.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Notify Fuller and D'Angelo, P.C. of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittals procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for grounding and bonding system components.

1.7 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.

PART 2 PRODUCTS

2.1 GROUNDING AND BONDING REQUIREMENTS

- A. Do not use products for applications other than as permitted by NFPA 70 and product listing.
- B. Unless specifically indicated to be excluded, provide all required components, conductors, connectors, conduit, boxes, fittings, supports, accessories, etc. as necessary for a complete grounding and bonding system.
- C. Where conductor size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

2.2 GROUNDING AND BONDING COMPONENTS

- A. General Requirements:
 - 1. Provide products listed, classified, and labeled as suitable for the purpose intended.
 - 2. Provide products listed and labeled as complying with UL 467 where applicable.
- B. Conductors for Grounding and Bonding, in Addition to Requirements of Section 26 0526:
 - 1. Use insulated copper conductors unless otherwise indicated.

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- C. Connectors for Grounding and Bonding:
1. Description: Connectors appropriate for the application and suitable for the conductors and items to be connected; listed and labeled as complying with UL 467.
 2. Unless otherwise indicated, use exothermic welded connections for underground, concealed and other inaccessible connections.
 3. Unless otherwise indicated, use mechanical connectors, compression connectors, or exothermic welded connections for accessible connections.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that work likely to damage grounding and bonding system components has been completed.
- B. Verify that field measurements are as indicated.
- C. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Make grounding and bonding connections using specified connectors.
 - 1. Remove appropriate amount of conductor insulation for making connections without cutting, nicking or damaging conductors. Do not remove conductor strands to facilitate insertion into connector.
 - 2. Mechanical Connectors: Secure connections according to manufacturer's recommended torque settings.

END OF SECTION

**SECTION 26 0529
HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS**

I. PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Support and attachment requirements and components for equipment, conduit, cable, boxes, and other electrical work.

1.3 RELATED REQUIREMENTS

- A. Section 26 0533.13 - Conduit for Electrical Systems: Additional support and attachment requirements for conduits.
- B. Section 26 0533.16 - Boxes for Electrical Systems: Additional support and attachment requirements for boxes.

1.4 REFERENCE STANDARDS

- A. ASTM B633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel; 2015.
- B. MFMA-4 - Metal Framing Standards Publication; 2004.
- C. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- D. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate sizes and arrangement of supports and bases with the actual equipment and components to be installed.
 - 2. Coordinate the work with other trades to provide additional framing and materials required for installation.
 - 3. Coordinate compatibility of support and attachment components with mounting surfaces at the installed locations.
 - 4. Coordinate the arrangement of supports with ductwork, piping, equipment and other potential conflicts installed under other sections or by others.
 - 5. Notify Fuller and D'Angelo, P.C. of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.
- B. Sequencing:
 - 1. Do not install products on or provide attachment to concrete surfaces until concrete has fully cured in accordance with Section 03 3000.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for channel (strut) framing systems.

1.7 QUALITY ASSURANCE

- A. Comply with NFPA 70.
- B. Comply with applicable building code.

I. PART 2 PRODUCTS

2.1 SUPPORT AND ATTACHMENT COMPONENTS

- A. General Requirements:
 - 1. Provide all required hangers, supports, anchors, fasteners, fittings, accessories, and hardware as necessary for the complete installation of electrical work.
 - 2. Provide products listed, classified, and labeled as suitable for the purpose intended, where applicable.
 - 3. Do not use products for applications other than as permitted by NFPA 70 and product listing.
 - 4. Steel Components: Use corrosion resistant materials suitable for the environment where installed.
 - a. Zinc-Plated Steel: Electroplated in accordance with ASTM B633.
 - b. Galvanized Steel: Hot-dip galvanized after fabrication in accordance with ASTM A123/A123M or ASTM A153/A153M.
- B. Conduit and Cable Supports: Straps, clamps, etc. suitable for the conduit or cable to be supported.
 - 1. Conduit Straps: One-hole or two-hole type; steel or malleable iron.
 - 2. Conduit Clamps: Bolted type unless otherwise indicated.
- C. Outlet Box Supports: Hangers, brackets, etc. suitable for the boxes to be supported.
- D. Metal Channel (Strut) Framing Systems: Factory-fabricated continuous-slot metal channel (strut) and associated fittings, accessories, and hardware required for field-assembly of supports.
 - 1. Comply with MFMA-4.
- E. Hanger Rods: Threaded zinc-plated steel unless otherwise indicated.
- F. Anchors and Fasteners:
 - 1. Unless otherwise indicated and where not otherwise restricted, use the anchor and fastener types indicated for the specified applications.
 - 2. Masonry: Use expansion anchors or screw anchors.
 - 3. Steel: Use beam clamps, machine bolts, or welded threaded studs.
 - 4. Powder-actuated fasteners are not permitted.

II. PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that mounting surfaces are ready to receive support and attachment components.
- C. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
- D. Unless specifically indicated or approved by Fuller and D'Angelo, P.C. , do not provide support from suspended ceiling support system or ceiling grid.
- E. Do not penetrate or otherwise notch or cut structural members without approval of Structural Engineer.
- F. Secure fasteners according to manufacturer's recommended torque settings.
- G. Remove temporary supports.

END OF SECTION

SECTION 26 0533.13
CONDUIT FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Electrical metallic tubing (EMT).
- B. Conduit fittings.
- C. Accessories.

1.2 RELATED REQUIREMENTS

- A. Section 07 8400 - Firestopping.
- B. Section 26 0519 - Low-Voltage Electrical Power Conductors and Cables: Metal clad cable (Type MC), armored cable (Type AC), and manufactured wiring systems, including uses permitted.
- C. Section 26 0526 - Grounding and Bonding for Electrical Systems.
- D. Section 26 0529 - Hangers and Supports for Electrical Systems.
- E. Section 26 0533.16 - Boxes for Electrical Systems.

1.3 REFERENCE STANDARDS

- A. ANSI C80.3 - American National Standard for Electrical Metallic Tubing -- Steel (EMT-S); 2015.
- B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- C. NECA 101 - Standard for Installing Steel Conduits (Rigid, IMC, EMT); 2013.
- D. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable; 2014.
- E. NEMA TC 13 - Electrical Nonmetallic Tubing (ENT); 2014.
- F. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- G. UL 514B - Conduit, Tubing, and Cable Fittings; Current Edition, Including All Revisions.
- H. UL 797 - Electrical Metallic Tubing-Steel; Current Edition, Including All Revisions.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate minimum sizes of conduits with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
 - 2. Coordinate the arrangement of conduits with structural members, ductwork, piping, equipment and other potential conflicts installed under other sections or by others.
 - 3. Verify exact conduit termination locations required for boxes, enclosures, and equipment installed under other sections or by others.
 - 4. Coordinate the work with other trades to provide roof penetrations that preserve the integrity of the roofing system and do not void the roof warranty.
 - 5. Notify Fuller and D'Angelo, P.C. of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.
- B. Sequencing:
 - 1. Do not begin installation of conductors and cables until installation of conduit is complete between outlet, junction and splicing points.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittals procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for conduits and fittings.

1.6 QUALITY ASSURANCE

- A. Comply with requirements of NFPA 70.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store conduit and fittings in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 CONDUIT APPLICATIONS

- A. Do not use conduit and associated fittings for applications other than as permitted by NFPA 70 and product listing.
- B. Unless otherwise indicated and where not otherwise restricted, use the conduit types indicated for the specified applications. Where more than one listed application applies, comply with the most restrictive requirements. Where conduit type for a particular application is not specified, use galvanized steel rigid metal conduit.
- C. Concealed Within Masonry Walls: Use electrical metallic tubing (EMT).
- D. Concealed Above Accessible Ceilings: Use galvanized steel rigid metal conduit, intermediate metal conduit (IMC), or electrical metallic tubing (EMT).

2.2 CONDUIT REQUIREMENTS

- A. Existing Work: Where existing conduits are indicated to be reused, they may be reused only where they comply with specified requirements, are free from corrosion, and integrity is verified by pulling a mandrel through them.
- B. Provide all conduit, fittings, supports, and accessories required for a complete raceway system.
- C. Provide products listed, classified, and labeled as suitable for the purpose intended.
- D. Minimum Conduit Size, Unless Otherwise Indicated:
 - 1. Branch Circuits: 1/2 inch (16 mm) trade size.
 - 2. Branch Circuit Homeruns: 3/4 inch (21 mm) trade size.
- E. Where conduit size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

2.3 ELECTRICAL METALLIC TUBING (EMT)

- A. Description: NFPA 70, Type EMT steel electrical metallic tubing complying with ANSI C80.3 and listed and labeled as complying with UL 797.
- B. Fittings:
 - 1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
 - 2. Material: Use steel or malleable iron.
 - 3. Connectors and Couplings: Use compression (gland) or set-screw type.
 - a. Do not use indenter type connectors and couplings.

2.4 ACCESSORIES

- A. Pull Strings: Use nylon cord with average breaking strength of not less than 200 pound-force.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that mounting surfaces are ready to receive conduits.
- C. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.

- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Conduit Routing:
 - 1. Unless dimensioned, conduit routing indicated is diagrammatic.
 - 2. Conceal all conduits unless specifically indicated to be exposed.
 - 3. Arrange conduit to provide no more than the equivalent of four 90 degree bends between pull points.
 - 4. Maintain minimum clearance of 6 inches between conduits and piping for other systems.
- D. Conduit Support:
 - 1. Secure and support conduits in accordance with NFPA 70 and Section 26 0529 using suitable supports and methods approved by the authority having jurisdiction.
 - 2. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
 - 3. Installation Above Suspended Ceilings: Do not provide support from ceiling support system. Do not provide support from ceiling grid or allow conduits to lay on ceiling tiles.
 - 4. Use conduit strap to support single surface-mounted conduit.
 - a. Use clamp back spacer with conduit strap for damp and wet locations to provide space between conduit and mounting surface.
 - 5. Use of wire for support of conduits is not permitted.
- E. Connections and Terminations:
 - 1. Use suitable adapters where required to transition from one type of conduit to another.
 - 2. Provide insulating bushings or insulated throats at all conduit terminations to protect conductors.
 - 3. Secure joints and connections to provide maximum mechanical strength and electrical continuity.
- F. Penetrations:
 - 1. Do not penetrate or otherwise notch or cut structural members, including footings and grade beams, without approval of Structural Engineer.
 - 2. Make penetrations perpendicular to surfaces unless otherwise indicated.
 - 3. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.
- G. Provide grounding and bonding in accordance with Section 26 0526.

3.3 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Correct deficiencies and replace damaged or defective conduits.

3.4 CLEANING

- A. Clean interior of conduits to remove moisture and foreign matter.

3.5 PROTECTION

- A. Immediately after installation of conduit, use suitable manufactured plugs to provide protection from entry of moisture and foreign material and do not remove until ready for installation of conductors.

END OF SECTION

SECTION 26 0533.16
BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Outlet and device boxes up to 100 cubic inches, including those used as junction and pull boxes.
- B. Cabinets and enclosures, including junction and pull boxes larger than 100 cubic inches.
- C. Accessories.

1.2 RELATED REQUIREMENTS

- A. Section 07 8400 - Firestopping.
- B. Section 08 3100 - Access Doors and Panels: Panels for maintaining access to concealed boxes.
- C. Section 26 0529 - Hangers and Supports for Electrical Systems.
- D. Section 26 0533.13 - Conduit for Electrical Systems:
 - 1. Conduit bodies and other fittings.
- E. Section 26 0926 - Wiring Devices:
 - 1. Wall plates.

1.3 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- B. NECA 130 - Standard for Installing and Maintaining Wiring Devices; 2010.
- C. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable; 2014.
- D. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports; 2013.
- E. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- F. UL 514A - Metallic Outlet Boxes; Current Edition, Including All Revisions.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances for electrical equipment required by NFPA 70.
 - 2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
 - 3. Coordinate minimum sizes of boxes with the actual installed arrangement of conductors, clamps, support fittings, and devices, calculated according to NFPA 70.
 - 4. Coordinate the work with other trades to provide walls suitable for installation of flush-mounted boxes where indicated.
 - 5. Notify Fuller and D'Angelo, P.C. of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for outlet and device boxes and junction and pull boxes.

1.6 QUALITY ASSURANCE

- A. Comply with requirements of NFPA 70.

PART 2 PRODUCTS

2.1 BOXES

- A. General Requirements:
 - 1. Do not use boxes and associated accessories for applications other than as permitted by NFPA 70 and product listing.
 - 2. Provide all boxes, fittings, supports, and accessories required for a complete raceway system and to accommodate devices and equipment to be installed.
 - 3. Provide products listed, classified, and labeled as suitable for the purpose intended.
 - 4. Where box size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.
 - 5. Provide grounding terminals within boxes where equipment grounding conductors terminate.
- B. Outlet and Device Boxes Up to 100 cubic inches, Including Those Used as Junction and Pull Boxes:
 - 1. Use sheet-steel boxes for dry locations unless otherwise indicated or required.
 - 2. Use suitable masonry type boxes where flush-mounted in masonry walls.
 - 3. Use raised covers suitable for the type of wall construction and device configuration where required.
 - 4. Use shallow boxes where required by the type of wall construction.
 - 5. Do not use "through-wall" boxes designed for access from both sides of wall.
 - 6. Sheet-Steel Boxes: Comply with NEMA OS 1, and list and label as complying with UL 514A.
 - 7. Boxes for Ganged Devices: Use multigang boxes of single-piece construction. Do not use field-connected gangable boxes unless specifically indicated or permitted.
 - 8. Wall Plates: Comply with Section 26 2726.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that mounting surfaces are ready to receive boxes.
- C. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Install boxes in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards where mounting heights are not indicated.
- C. Flush-mount boxes in finished areas unless specifically indicated to be surface-mounted.
- D. Box Locations:
 - 1. Locate boxes to be accessible. Provide access panels in accordance with Section 08 3100 as required where approved by the Architect.
 - 2. Unless dimensioned, box locations indicated are approximate.
 - 3. Locate boxes so that wall plates do not span different building finishes.
 - 4. Fire Resistance Rated Walls: Install flush-mounted boxes such that the required fire resistance will not be reduced.
 - 5. Locate junction and pull boxes in the following areas, unless otherwise indicated or approved by the Architect:
 - a. Concealed above accessible suspended ceilings.
- E. Box Supports:
 - 1. Secure and support boxes in accordance with NFPA 70 and Section 26 0529 using suitable supports and methods approved by the authority having jurisdiction.

2. Provide independent support from building structure except for cast metal boxes (other than boxes used for fixture support) supported by threaded conduit connections in accordance with NFPA 70. Do not provide support from piping, ductwork, or other systems.
- F. Install boxes plumb and level.
- G. Flush-Mounted Boxes:
1. Install boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that front edge of box or associated raised cover is not set back from finished surface more than 1/4 inch or does not project beyond finished surface.
 2. Repair rough openings around boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that there are no gaps or open spaces greater than 1/8 inch at the edge of the box.
- H. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.
- I. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.
- J. Close unused box openings.
- K. Install blank wall plates on junction boxes and on outlet boxes with no devices or equipment installed or designated for future use.
- L. Provide grounding and bonding in accordance with Section 26 0526.

3.3 CLEANING

- A. Clean interior of boxes to remove dirt, debris, plaster and other foreign material.

3.4 PROTECTION

- A. Immediately after installation, protect boxes from entry of moisture and foreign material until ready for installation of conductors.

END OF SECTION

**SECTION 26 0535
SURFACE RACEWAYS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Surface raceway systems.
- B. Install in all finished areas where concealed conduit or wiring could not be installed.

1.2 RELATED REQUIREMENTS

- A. Section 26 0526 - Grounding and Bonding for Electrical Systems.
- B. Section 26 0529 - Hangers and Supports for Electrical Systems.
- C. Section 26 0926 - Wiring Devices: Receptacles.

1.3 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- B. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- C. UL 5 - Surface Metal Raceways and Fittings; Current Edition, Including All Revisions.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets including dimensions, knockout sizes and locations, materials, fabrication details, finishes, service condition requirements, and accessories.
 - 1. Surface Raceway Systems: Include information on fill capacities for conductors and cables.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 RACEWAY REQUIREMENTS

- A. Provide all components, fittings, supports, and accessories required for a complete raceway system.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. Do not use raceways for applications other than as permitted by NFPA 70 and product listing.

2.2 SURFACE RACEWAY SYSTEMS

- A. Manufacturers:
 - 1. Wiremold, a brand of Legrand North America, Inc: www.legrand.us/#sle.
- B. Surface Metal Raceways: Listed and labeled as complying with UL 5.
- C. Surface Raceway System:
 - 1. Raceway Type: Single channel, painted steel.
 - 2. Size: As required for wiring sizes and quantities. Minimum 1/2"x 1/2"..
 - 3. Color: To be selected by Architect.
 - 4. Accessory Device Boxes: Suitable for the devices to be installed; color to match raceway.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as shown on the drawings.
- B. Verify that outlet boxes and conduit terminations are installed in proper locations and are properly sized in accordance with NFPA 70 to accommodate raceways.

- C. Verify that mounting surfaces are ready to receive raceways and that final surface finishes are complete, including painting.
- D. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Install raceways in a neat and workmanlike manner in accordance with NECA 1.
- C. Install raceways plumb and level.
- D. Bend raceway or provide fittings as required to fit around existing obstructions or building trim.
- E. If possible and as approved by the Owner or Architect, cut and remove any trim to allow straight installation of raceway.
- F. Secure and support raceways in accordance with Section 26 0529 at intervals complying with NFPA 70 and manufacturer's requirements.
- G. Close unused raceway openings.
- H. Provide grounding and bonding in accordance with Section 26 0526.

3.3 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Inspect raceways for damage and defects.
- C. Correct wiring deficiencies and replace damaged or defective raceways.

3.4 CLEANING

- A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

3.5 PROTECTION

- A. Protect installed raceways from subsequent construction operations.

END OF SECTION

SECTION 26 0550

GENERAL LABELING AND IDENTIFICATION

PART 1 - GENERAL

Applicable Provisions of the conditions of the Contract and Division 1 General Requirements govern the work in this section. Submit shop drawings for checking and approval.

1.1 WORK INCLUDED

- A. The work under this section shall include the furnishing of all material, labor, tools and services necessary to install nameplates, tape labels, wire markers, conduit color coding to complete all work shown on the Drawings or specified herein.

1.2 RELATED WORK

- A. Painting.

1.3 SUBMITTALS

- A. Submit shop drawings under provisions of Division 1.
- B. Include schedule for nameplates and tape labels.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Nameplates: Engraved three-layer laminated plastic, white letters on a black background.
- B. Tape labels: Embossed adhesive tape with 3/16 inch black letters on a white background.
- C. Wire and cable markers: Cloth markers, split sleeve or tubing type.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. De-grease and clean surfaces to receive nameplates and tape labels.
- B. Install nameplates and tape labels parallel to equipment lines.
- C. Secure nameplates to equipment fronts using screws, rivets, or adhesive. Secure nameplate to inside face of recessed panelboard doors in finished locations.
- D. Embossed tape will not be permitted for any application. Use embossed tape only for identification of individual wall switches and receptacles and control device stations.

3.2 WIRE IDENTIFICATION

- A. Provide wire markers on each conductor in panelboard gutters, pull boxes, outlet and junction boxes and at load connection. Identify each branch circuit or feeder number for power and lighting circuits and each control wire number as indicated on equipment manufacturer's shop drawings for control wiring.

3.3 NAMEPLATE ENGRAVING SCHEDULE

- A. Provide nameplates to identify all electrical distribution, control equipment and loads served including year of installation. Letter height: 1/2 inch for individual switches, loads served, distributions and control equipment identification. For example:



- B. Panelboards: 3/4 inch, identify equipment designation. 1/2 inch, identify voltage rating and source of power.
- C. Individual circuit breakers, switches and motor starters in panelboards, switchboards and motor control centers: 1/4 inch, identify circuit and load served, including location.
- D. Individual circuit breakers, enclosed switches and motor starters: 1/2 inch, identify load served.

3.4 FIRE ALARM

- A. All fire alarm raceway components shall be painted red and identified.

END OF SECTION

**SECTION 26 0900
GUARANTEE**

PART 1 - GENERAL

Applicable Provisions of the Conditions of the Contract and Division 1 General Requirements govern work in this section.

1.1 GUARANTEE

- A. The Contractor shall remove, replace and/or repair at his own expense and at the convenience of the Owner, any defects in workmanship, materials, ratings, capacities and/or characteristics occurring in the work within one (2) years or within such longer period as may be provided in the Drawings and/or Section of the Specifications, which guarantee period shall commence with the final acceptance of the entire Contract in accordance with the guarantee provisions stated in the General Conditions, and the Contractor shall pay for all damage to the system resulting from defects in the work and all expenses necessary to remove, replace, and/or repair any other work which may be damaged in removing, replacing and/or repairing the work.

END OF SECTION

**SECTION 26 0923
LIGHTING CONTROL DEVICES**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Occupancy sensors.

1.2 RELATED REQUIREMENTS

- A. Section 26 0529 - Hangers and Supports for Electrical Systems.
- B. Section 26 0533.16 - Boxes for Electrical Systems.
- C. Section 26 0926 - Wiring Devices: Devices for manual control of lighting, including wall switches.

1.3 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- B. NECA 130 - Standard for Installing and Maintaining Wiring Devices; 2010.
- C. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2018.
- D. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Sequencing:
 - 1. Do not install lighting control devices until final surface finishes and painting are complete.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Include ratings, configurations, standard wiring diagrams, dimensions, colors, service condition requirements, and installed features.
- C. Manufacturer's Installation Instructions: Include application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- D. Operation and Maintenance Data: Include detailed information on device programming and setup.

1.6 QUALITY ASSURANCE

- A. Comply with requirements of NFPA 70.

1.7 DELIVERY, STORAGE, AND PROTECTION

- A. Store products in a clean, dry space in original manufacturer's packaging in accordance with manufacturer's written instructions until ready for installation.

1.8 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide five year manufacturer warranty for all occupancy sensors.

PART 2 PRODUCTS

2.1 LIGHTING CONTROL DEVICES - GENERAL REQUIREMENTS

- A. Provide products listed, classified, and labeled as suitable for the purpose intended.
- B. Unless specifically indicated to be excluded, provide all required conduit, wiring, connectors, hardware, components, accessories, etc. as required for a complete operating system.

2.2 OCCUPANCY SENSORS

- A. Manufacturers:
 - 1. WattStopper; Dt-355: www.wattstopper.com/#sle.

2. Substitutions: See Section 01 6000 - Product Requirements.
- B. All Occupancy Sensors:
1. Description: Factory-assembled commercial specification grade devices for indoor use capable of sensing both major motion, such as walking, and minor motion, such as small desktop level movements, according to published coverage areas, for automatic control of load indicated.
 2. Sensor Technology:
 - a. Passive Infrared/Ultrasonic Dual Technology Occupancy Sensors: Designed to detect occupancy using a combination of both passive infrared and ultrasonic technologies.
 3. Provide LED to visually indicate motion detection with separate color LEDs for each sensor type in dual technology units.
 4. Operation: Unless otherwise indicated, occupancy sensor to turn load on when occupant presence is detected and to turn load off when no occupant presence is detected during an adjustable turn-off delay time interval.
 5. Dual Technology Occupancy Sensors: Field configurable turn-on and hold-on activation with settings for activation by either or both sensing technologies.
 6. Turn-Off Delay: Field adjustable, with time delay settings up to 30 minutes.
 7. Compatibility (Non-Dimming Sensors): Suitable for controlling incandescent lighting, low-voltage lighting with electronic and magnetic transformers, fluorescent lighting with electronic and magnetic ballasts, and fractional motor loads, with no minimum load requirements.
- C. Ceiling Mounted Occupancy Sensors:
1. All Ceiling Mounted Occupancy Sensors:
 - a. Description: Low profile occupancy sensors designed for ceiling installation.
 2. Passive Infrared/Ultrasonic Dual Technology Ceiling Mounted Occupancy Sensors:
 - a. Standard Range Sensors: Capable of detecting motion within an area of 450 square feet at a mounting height of 9 feet, with a field of view of 360 degrees.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate devices and conductors in accordance with NFPA 70.
- C. Verify that openings for outlet boxes are neatly cut and will be completely covered by devices or wall plates.
- D. Verify that final surface finishes are complete, including painting.
- E. Verify that branch circuit wiring installation is completed, tested, and ready for connection to lighting control devices.
- F. Verify that the service voltage and ratings of lighting control devices are appropriate for the service voltage and load requirements at the location to be installed.
- G. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

- A. Install lighting control devices in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards unless otherwise indicated.
- B. Install lighting control devices in accordance with manufacturer's instructions.
- C. Unless otherwise indicated, connect lighting control device grounding terminal or conductor to branch circuit equipment grounding conductor and to outlet box with bonding jumper.
- D. Install lighting control devices plumb and level, and held securely in place.
- E. Provide required supports in accordance with Section 26 0529.

F. Occupancy Sensor Locations:

1. Locate ultrasonic and dual technology passive infrared/ultrasonic occupancy sensors a minimum of 4 feet from air supply ducts or other sources of heavy air flow and as per manufacturer's recommendations, in order to minimize false triggers.

3.3 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Inspect each lighting control device for damage and defects.
- C. Test occupancy sensors to verify proper operation, including time delays and ambient light thresholds where applicable. Verify optimal coverage for entire room or area.
- D. Correct wiring deficiencies and replace damaged or defective lighting control devices.

3.4 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.
- B. Adjust occupancy sensor settings to minimize undesired activations while optimizing energy savings, and to achieve desired function as indicated or as directed by Fuller and D'Angelo, P.C. .

3.5 CLEANING

- A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

3.6 CLOSEOUT ACTIVITIES

- A. Demonstration: Demonstrate proper operation of lighting control devices to Fuller and D'Angelo, P.C. , and correct deficiencies or make adjustments as directed.
- B. Training: Train Open Door Family Medical Center's personnel on operation, adjustment, programming, and maintenance of lighting control devices.
 1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.

END OF SECTION

SECTION 26 0926
WIRING DEVICES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Wall switches.
- B. Receptacles.
- C. Wall plates.

1.2 RELATED REQUIREMENTS

- A. Section 26 0519 - Low-Voltage Electrical Power Conductors and Cables: Manufactured wiring systems for use with access floor boxes with compatible pre-wired connectors.
- B. Section 26 0533.16 - Boxes for Electrical Systems.
- C. Section 26 0923 - Lighting Control Devices: Devices for automatic control of lighting, including occupancy sensors, in-wall time switches, and in-wall interval timers.

1.3 REFERENCE STANDARDS

- A. FS W-C-596 - Connector, Electrical, Power, General Specification for; 2017h.
- B. FS W-S-896 - Switches, Toggle (Toggle and Lock), Flush-mounted (General Specification); 2017g.
- C. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- D. NECA 130 - Standard for Installing and Maintaining Wiring Devices; 2010.
- E. NEMA WD 1 - General Color Requirements for Wiring Devices; 1999 (Reaffirmed 2015).
- F. NEMA WD 6 - Wiring Devices - Dimensional Specifications; 2016.
- G. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- H. UL 20 - General-Use Snap Switches; Current Edition, Including All Revisions.
- I. UL 498 - Attachment Plugs and Receptacles; Current Edition, Including All Revisions.
- J. UL 514D - Cover Plates for Flush-Mounted Wiring Devices; Current Edition, Including All Revisions.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate wiring device ratings and configurations with the electrical requirements of actual equipment to be installed.
 - 2. Coordinate the installation and preparation of uneven surfaces, such as split face block, to provide suitable surface for installation of wiring devices.
 - 3. Notify Fuller and D'Angelo, P.C. of any conflicts or deviations from the contract documents to obtain direction prior to proceeding with work.
- B. Sequencing:
 - 1. Do not install wiring devices until final surface finishes and painting are complete.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.

1.6 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Products: Listed, classified, and labeled as suitable for the purpose intended.

PART 2 PRODUCTS

2.1 WIRING DEVICE APPLICATIONS

- A. Provide wiring devices suitable for intended use and with ratings adequate for load served.
- B. For single receptacles installed on an individual branch circuit, provide receptacle with ampere rating not less than that of the branch circuit.

2.2 WIRING DEVICE FINISHES

- A. Provide wiring device finishes as described below unless otherwise indicated.
- B. Wiring Devices, Unless Otherwise Indicated: Ivory with stainless steel wall plate.

2.3 WALL SWITCHES

- A. Wall Switches - General Requirements: AC only, quiet operating, general-use snap switches with silver alloy contacts, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 20 and where applicable, FS W-S-896; types as indicated on the drawings.
 - 1. Wiring Provisions: Terminal screws for side wiring and screw actuated binding clamp for back wiring with separate ground terminal screw.
- B. Standard Wall Switches: Industrial specification grade, 20 A, 120/277 V with standard toggle type switch actuator and maintained contacts; single pole single throw as indicated on the drawings.

2.4 RECEPTACLES

- A. Receptacles - General Requirements: Self-grounding, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 498, and where applicable, FS W-C-596; types as indicated on the drawings.
 - 1. Wiring Provisions: Terminal screws for side wiring or screw actuated binding clamp for back wiring with separate ground terminal screw.
 - 2. NEMA configurations specified are according to NEMA WD 6.

2.5 WALL PLATES

- A. Wall Plates: Comply with UL 514D.
 - 1. Configuration: One piece cover as required for quantity and types of corresponding wiring devices.
 - 2. Size: Standard.
 - 3. Screws: Metal with slotted heads finished to match wall plate finish.
- B. Stainless Steel Wall Plates: Brushed satin finish, Type 302 stainless steel.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as shown on the drawings.
- B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate devices and conductors in accordance with NFPA 70.
- C. Verify that wall openings are neatly cut and will be completely covered by wall plates.
- D. Verify that final surface finishes are complete, including painting.
- E. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.
- F. Verify that conditions are satisfactory for installation prior to starting work.

3.2 PREPARATION

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

3.3 INSTALLATION

- A. Perform work in a neat and workmanlike manner in accordance with NECA 1 and, where applicable, NECA 130, including mounting heights specified in those standards unless otherwise indicated.
- B. Coordinate locations of outlet boxes provided under Section 26 0533.16 as required for installation of wiring devices provided under this section.
 - 1. Mounting Heights: Unless otherwise indicated, as follows:
 - a. Wall Switches: 48 inches above finished floor.
 - b. Receptacles: 18 inches above finished floor or 6 inches above counter.
 - 2. Orient outlet boxes for vertical installation of wiring devices unless otherwise indicated.
- C. Install wiring devices in accordance with manufacturer's instructions.
- D. Where required, connect wiring devices using pigtails not less than 6 inches long. Do not connect more than one conductor to wiring device terminals.
- E. Connect wiring devices by wrapping conductor clockwise 3/4 turn around screw terminal and tightening to proper torque specified by the manufacturer. Where present, do not use push-in pressure terminals that do not rely on screw-actuated binding.
- F. Unless otherwise indicated, connect wiring device grounding terminal to branch circuit equipment grounding conductor and to outlet box with bonding jumper.
- G. Install wiring devices plumb and level with mounting yoke held rigidly in place.
- H. Install wall switches with OFF position down.
- I. Install vertically mounted receptacles with grounding pole on top and horizontally mounted receptacles with grounding pole on left.
- J. Install wall plates to fit completely flush to wall with no gaps and rough opening completely covered without strain on wall plate. Repair or reinstall improperly installed outlet boxes or improperly sized rough openings. Do not use oversized wall plates in lieu of meeting this requirement.
- K. Install blank wall plates on junction boxes and on outlet boxes with no wiring devices installed or designated for future use.

3.4 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Inspect each wiring device for damage and defects.
- C. Operate each wall switch with circuit energized to verify proper operation.
- D. Test each receptacle to verify operation and proper polarity.
- E. Correct wiring deficiencies and replace damaged or defective wiring devices.

3.5 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

3.6 CLEANING

- A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

END OF SECTION

SECTION 26 5100
INTERIOR LIGHTING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Interior luminaires.

1.2 RELATED REQUIREMENTS

- A. Section 26 0529 - Hangers and Supports for Electrical Systems.
- B. Section 26 0533.16 - Boxes for Electrical Systems.
- C. Section 26 0923 - Lighting Control Devices.
 - 1. Includes automatic controls for lighting including occupancy sensors.
- D. Section 26 2726 - Wiring Devices: Manual wall switches and wall dimmers.

1.3 REFERENCE STANDARDS

- A. IES LM-79 - Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products; 2008.
- B. IES LM-80 - Approved Method: Measuring Luminous Flux and Color Maintenance of LED Packages, Arrays, and Modules; 2015, with Errata (2017).
- C. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- D. NECA/IESNA 500 - Standard for Installing Indoor Commercial Lighting Systems; 2006.
- E. NECA/IESNA 502 - Standard for Installing Industrial Lighting Systems; 2006.
- F. NEMA LE 4 - Recessed Luminaires, Ceiling Compatibility; 2012.
- G. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- H. NFPA 101 - Life Safety Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- I. UL 924 - Emergency Lighting and Power Equipment; Current Edition, Including All Revisions.
- J. UL 1598 - Luminaires; Current Edition, Including All Revisions.
- K. UL 8750 - Light Emitting Diode (LED) Equipment for Use in Lighting Products; Current Edition, Including All Revisions.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate the installation of luminaires with mounting surfaces installed under other sections or by others. Coordinate the work with placement of supports, anchors, etc. required for mounting. Coordinate compatibility of luminaires and associated trims with mounting surfaces at installed locations.
 - 2. Notify Fuller and D'Angelo, P.C. of any conflicts or deviations from the contract documents to obtain direction prior to proceeding with work.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets including detailed information on luminaire construction, dimensions, ratings, finishes, mounting requirements, listings, service conditions, photometric performance, installed accessories, and ceiling compatibility; include model number nomenclature clearly marked with all proposed features.
 - 1. LED Luminaires:
 - a. Include estimated useful life, calculated based on IES LM-80 test data.

1.6 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.

1.7 DELIVERY, STORAGE, AND PROTECTION

- A. Receive, handle, and store products according to NECA/IESNA 500 (commercial lighting), NECA/IESNA 502 (industrial lighting), and manufacturer's written instructions.
- B. Keep products in original manufacturer's packaging and protect from damage until ready for installation.

1.8 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide three year manufacturer warranty for LED luminaires, including drivers.

PART 2 PRODUCTS

2.1 LUMINAIRE TYPES

- A. Furnish products as indicated in luminaire schedule included on the drawings.
- B. Substitutions: See Section 01 6000 - Product Requirements, except where individual luminaire types are designated with substitutions not permitted.

2.2 LUMINAIRES

- A. Provide products that comply with requirements of NFPA 70.
- B. Provide products that are listed and labeled as complying with UL 1598, where applicable.
- C. Provide products listed, classified, and labeled as suitable for the purpose intended.
- D. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, ballasts, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.
- E. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, supports, trims, accessories, etc. as necessary for a complete operating system.
- F. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.
- G. Recessed Luminaires:
 - 1. Ceiling Compatibility: Comply with NEMA LE 4.
- H. LED Luminaires:
 - 1. Components: UL 8750 recognized or listed as applicable.
 - 2. Tested in accordance with IES LM-79 and IES LM-80.
 - 3. LED Estimated Useful Life: Minimum of 50,000 hours at 70 percent lumen maintenance, calculated based on IES LM-80 test data.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate conductors in accordance with NFPA 70.
- C. Verify that suitable support frames are installed where required.
- D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to luminaires.
- E. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

- A. Coordinate locations of outlet boxes provided under Section 26 0533.16 as required for installation of luminaires provided under this section.
- B. Perform work in accordance with NECA 1 (general workmanship).

- C. Install products in accordance with manufacturer's instructions.
- D. Install luminaires securely, in a neat and workmanlike manner, as specified in NECA 500 (commercial lighting) and NECA 502 (industrial lighting).
- E. Provide required support and attachment in accordance with Section 26 0529.
- F. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.
- G. Suspended Ceiling Mounted Luminaires:
 - 1. Do not use ceiling tiles to bear weight of luminaires.
 - 2. Do not use ceiling support system to bear weight of luminaires unless ceiling support system is certified as suitable to do so.
 - 3. Secure lay-in luminaires to ceiling support channels using listed safety clips at four corners.
 - 4. In addition to ceiling support wires, provide two galvanized steel safety wire(s), minimum 12 gage, connected from opposing corners of each recessed luminaire to building structure.
 - 5. See appropriate Division 9 section where suspended grid ceiling is specified for additional requirements.
- H. Install accessories furnished with each luminaire.
- I. Bond products and metal accessories to branch circuit equipment grounding conductor.

3.3 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Inspect each product for damage and defects.
- C. Operate each luminaire after installation and connection to verify proper operation.
- D. Test emergency lighting units to verify proper operation upon loss of normal power supply.
- E. Correct wiring deficiencies and repair or replace damaged or defective products. Repair or replace excessively noisy ballasts as determined by Fuller and D'Angelo, P.C. .

3.4 CLEANING

- A. Clean surfaces according to NECA 500 (commercial lighting) and manufacturer's instructions to remove dirt, fingerprints, paint, or other foreign material and restore finishes to match original factory finish.

3.5 PROTECTION

- A. Protect installed luminaires from subsequent construction operations.

END OF SECTION

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES

MODIFICATIONS TO EXISTING FIRE DETECTION AND ALARM SYSTEM

SECTION 28 3100
MODIFICATIONS TO EXISTING FIRE DETECTION AND ALARM SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Modifications to existing fire alarm system components and wiring indicated.

1.2 RELATED REQUIREMENTS

- A. Section 07 8400 - Firestopping: Materials and methods for work to be performed by this installer.

1.3 REFERENCE STANDARDS

- A. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- B. NFPA 72 - National Fire Alarm and Signaling Code; 2016.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Evidence of installer qualifications and manufacturer's certification.
- C. Inspection and Test Reports:
 - 1. Submit documentation of satisfactory inspections and tests.
 - 2. Submit NFPA 72 "Inspection and Test Form," filled out.
- D. Closeout Documents:
 - 1. Certification by manufacturer that the system has been installed in compliance with his installation requirements, is complete, and is in satisfactory operating condition.
 - 2. NFPA 72 "Record of Completion", filled out completely and signed by installer and authorized representative of authority having jurisdiction.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Firm with minimum 3 years documented experience installing fire alarm systems of the specified type and providing contract maintenance service as a regular part of their business.
 - 1. Authorized representative of control unit manufacturer; submit manufacturer's certification that installer is authorized; include name and title of manufacturer's representative making certification.
 - 2. Installer Personnel: At least 2 years of experience installing fire alarm systems.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Fire Alarm Control Units and Accessories - Provide components certified by the existing system manufacturer for use in the installed system.
- B. Initiating Devices, and Notification Appliances:
 - 1. Provide all initiating devices and notification appliances made by the same manufacturer.
 - 2. All devices shall be suitable for operation and compatible with existing system. Provide relays, modules, cards, power supplies, etc. as required.
 - 3. Provide addressable carbon monoxide (CO) detectors as indicated on drawings, program to main control panel as a supervisory indication and connect to the existing system.

2.2 EXISTING COMPONENTS

- A. Existing Fire Alarm System: Remove and relocate existing components indicated and incorporate remaining components into new system, under warranty as if they were new; do not take existing portions of system out of service until new portions are fully operational, tested, and connected to existing system.
- B. Clearly label components that are "Not In Service."

2.3 COMPONENTS

- A. General:

PORT CHESTER-RYE UFSD
CLASSROOM ALTERATIONS
VARIOUS FACILITIES

MODIFICATIONS TO EXISTING FIRE DETECTION AND ALARM SYSTEM

1. Provide flush mounted units where installed in finish areas; in unfinished areas, surface mounted unit are acceptable.
 2. Provide legible, permanent labels for each control device, using identification used in operation and maintenance data.
- B. Master Control Unit: As specified for Basis of Design above, or equivalent.
- C. Initiating Devices:
- D. Notification Appliances:
- E. Circuit Conductors: Copper or optical fiber; provide 200 feet extra; color code and label.
- F. Surge Protection: In accordance with IEEE C62.41.2 category B combination waveform and NFPA 70; except for optical fiber conductors.
- G. Locks and Keys: Deliver keys to Port Chester-Rye UFSD.
- H. Instruction Charts: Printed instruction chart for operators, showing steps to be taken when a signal is received (normal, alarm, supervisory, and trouble); easily readable from normal operator's station.
1. Frame: Stainless steel or aluminum with polycarbonate or glass cover.
 2. Provide one for each control unit where operations are to be performed.
 3. Obtain approval of Port Chester-Rye UFSD prior to mounting; mount in location acceptable to Port Chester-Rye UFSD.
 4. Provide extra copy with operation and maintenance data submittal.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install in accordance with applicable codes, NFPA 72, NFPA 70, and the contract documents.
- B. Conceal all wiring, conduit, boxes, and supports where installed in finished areas.
- C. Install in accordance with manufacturer's requirements to maintain existing system warranties and certifications.

3.2 INSPECTION AND TESTING FOR COMPLETION

- A. Provide the services of the installer's supervisor or person with equivalent qualifications to supervise inspection and testing, correction, and adjustments.
- B. Prepare for testing by ensuring that all work is complete and correct; perform preliminary tests as required.
- C. Provide all tools, software, and supplies required to accomplish inspection and testing.
- D. Perform inspection and testing in accordance with NFPA 72 and requirements of local authorities; document each inspection and test.
- E. Correct defective work, adjust for proper operation, and retest until entire system complies with contract documents.

END OF SECTION

**SECTION 32 3113
CHAIN LINK FENCES AND GATES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Posts, rails, and frames.
- B. Concrete.
- C. Pavers.
- D. Manual gates with related hardware.
- E. Accessories.

1.3 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2009.
- B. ASTM A392 - Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric; 2011a.
- C. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement; 2015.
- D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
- E. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2015.
- F. ASTM F567 - Standard Practice for Installation of Chain-Link Fence; 2011.
- G. FS RR-F-191/1D - Fencing, Wire and Post Metal (Chain-Link Fence Fabric); 1990.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on fabric, posts, accessories, fittings and hardware.
- C. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, and schedule of components. See CLFMI CLF-SFR0111 for planning and design recommendations.
- D. Samples: Submit two samples of fence fabric, slat infill, 12 inch by 12 inch in size illustrating construction and colored finish.
- E. Manufacturer's Installation Instructions: Indicate installation requirements, post foundation anchor bolt templates.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of experience.
- B. Fence Installer: Company with demonstrated successful experience installing similar projects and products, with not less than five years of experience.

1.6 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a two year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.1 COMPONENTS

- A. Line Posts: 1.9 inch diameter.
- B. Corner and Terminal Posts: 2.38 inch diameter.
- C. Top and Brace Rail: 1.66 inch diameter, plain end, sleeve coupled.
- D. Bottom Rail: 1.66 inch diameter, plain end, sleeve coupled.
- E. Gate Frame: 2 inch diameter for welded fabrication.
- F. Fabric with Pre-Inserted Slats: 2 inch diamond mesh interwoven wire, 6 gauge, 0.1920 inch thick, top selvage knuckle end closed, bottom selvage twisted tight.
 - 1. Privacy Slats: Vinyl, woven into fabric.
 - a. Slat Color: Black.

2.2 MATERIALS

- A. Posts, Rails, and Frames: Provide PVC covering to match fabric and slats.:
- B. Formed from hot-dipped galvanized steel sheet, ASTM A653/A653M, HSLAS, Grade 50, with G90 (Z275) zinc coating.
- C. Line Posts: Type I round in accordance with FS RR-F-191/1D.
- D. Terminal, Corner, Rail, Brace, and Gate Posts: Type I round in accordance with FS RR-F-191/1D.
- E. ASTM A392 zinc coated steel chain link fabric.
- F. Ready-mixed, complying with ASTM C94/C94M; normal Portland cement; 3,000 psi strength at 28 days, 3 inch slump; 3/4 inch nominal size aggregate. Bag mix Contractor's option.

2.3 MANUAL GATES AND RELATED HARDWARE

- A. Hardware for Single Swinging Gates: 180 degree hinges, 2 for gates up to 60 inches high, 3 for taller gates; fork latch with gravity drop and padlock hasp; keeper to hold gate in fully open position.
- B. Hinges: Finished to match fence components.
 - 1. Brackets: Round.
 - 2. Mounting: Center.
 - 3. Closing: Manual.
- C. Latches: Finished to match fence components.
 - 1. Brackets: Round.

2.4 ACCESSORIES

- A. Caps: Cast steel galvanized; sized to post diameter, set screw retainer.
- B. Fittings: Sleeves, bands, clips, rail ends, tension bars, fasteners and fittings; steel.
- C. Forms: Sono-Tube. Refer to detail on drawings.
- D. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
 - 1. Plain billet-steel bars.
- E. Concrete Pavers:
 - 1. Size: 17-5/8" x 17-5/8" x 2"
 - 2. Compressive Strength: 8,500 psi @ 28 days.
 - 3. Density: 155/cu.ft. absorption: Less the 5%.
 - 4. Finish: Tudor.
 - 5. Manufacturer: "Prest Pavers" by Hanover Architectural Products, Hanover PA.; 717-637-0500.

2.5 FINISHES

- A. Hardware: Hot-dip galvanized to weight required by ASTM A153/A153M.

- B. Accessories: Same finish as framing.
- C. Color(s): Black.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Verify that areas are clear of obstructions or debris.

3.2 PREPARATION

- A. Removal: Obstructions or debris.
- B. Ground Preparation:
 - 1. Grading Match existing.
 - 2. Material: Washed 3/4 gravel.
 - 3. Thickness: 6".
 - 4. Restoration of Turf: Match existing.
 - 5. Refer to detail on drawings.

3.3 INSTALLATION

- A. Install framework, fabric, accessories and gates in accordance with ASTM F567.
- B. Place fabric on inside of posts and rails.
- C. Set intermediate and gate posts plumb, in concrete footings with top of footing 2 inches above finish grade. Slope top of concrete for water runoff.
- D. Brace each gate and corner post to adjacent line post with horizontal center brace rail and diagonal truss rods. Install brace rail one bay from end and gate posts.
- E. Provide top rail through line post tops and splice with 6 inch long rail sleeves.
- F. Do not stretch fabric until concrete foundation has cured 28 days.
- G. Position bottom of fabric 2 inches above finished grade.
- H. Do not attach the hinged side of gate to building wall; provide gate posts.
- I. Provide hardware for padlock and latch.

3.4 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch.
- B. Maximum Offset From True Position: 1 inch.

3.5 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Post Settings: Randomly inspect each locations against design for:
 - 1. Hole diameter.
 - 2. Hole depth.
 - 3. Hole spacing.
- C. Fence Height: Randomly measure fence height at each locations or at areas that appear out of compliance with design.
- D. Gates: Inspect for level, plumb, and alignment.

3.6 CLEANING

- A. Leave immediate work area neat at end of each work day.
- B. Clean jobsite of excess materials; scatter excess material from post hole excavations uniformly away from posts. Remove excess material if required.
- C. Clean fence with mild household detergent and clean water rinse well.

- D. Remove mortar from exposed posts and other fencing material using a 10 percent solution of muriatic acid followed immediately by several rinses with clean water.

3.7 CLOSEOUT ACTIVITIES

- A. See Section 01 7800 - Closeout Submittals, for closeout submittals.

END OF SECTION

APPENDIX

- Asbestos Inspection Report JFK Elementary School
- Asbestos Inspection Report Port Chester Middle School
- 155.5 Uniform Safety Standards For School Construction And Maintenance
- 155.7 Uniform Safety Standards For School Construction And Maintenance



TOTAL QUALITY ENVIRONMENTAL, INC.

Asbestos Inspection Report



John F. Kennedy
Elementary School
(Upper)
40 Olivia Street
Port Chester NY 10573

Prepared for:

John F. Kennedy Elementary School (Upper)
40 Olivia Street
Port Chester NY 10573

Prepared by:

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Total Quality Environmental Inc. project #234.02.01

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Appendix D – Laboratory Accreditations

1. Introduction

At the request of Port Chester-Rye Union Free School District, Total Quality Environmental Inc. performed a survey for asbestos-containing materials (ACM) within the John F. Kennedy Elementary School (Upper) located at 40 Olivia Street, Port Chester NY 10573.

The inspection was conducted to confirm/dismiss the presence, locations and quantities of any asbestos-containing materials (ACM) within the interior of Room 101, Room 103 and Room behind front desk for the upcoming new AC installation.

The survey was performed on May 28, 2021, by Alexander Rukasov, a NYS Department of Labor licensed Asbestos Inspector (NYS DOL License #09-14011).

Our work included the visual assessment of building materials to determine if they were suspect asbestos-containing material (see Section 3 for sampling methodology), sampling, condition assessment of the materials sampled (in case they were determined to be ACM based on the laboratory analysis results), quantification, and location of suspect ACM.

Bulk samples were submitted to and analyzed by ALLAB, Inc. located at 1544 East 13th Street, Unit CA, Brooklyn, NY 11230. ALLAB Inc. is accredited by the New York State Department of Health (ELAP No.12118).

2. Inspection Results

The intent of this survey was to locate and identify asbestos containing materials located throughout the Room 101, 103 and room behind the front desk for the upcoming new AC installation project. There is approximately 50 LF of assumed ACM pipe insulation in good condition that goes across the room 103.

The following table includes full list of the material sampled during our May 28, 2021, visit.

**Asbestos Bulk Sample Summary Table
40 Olivia Street, Port Chester, NY 10573**

Sample #	Type of Material	Sample Location	Results % Asbestos
01-01	Brick mortar	Room 103	NAD
01-02	Brick mortar	Room 103	NAD

Report of Asbestos Survey Services

01-03	Brick mortar	Room 101	NAD
02-04	Tectum panels	Room 103, ceiling deck	NAD
02-05	Tectum panels	Room 103, ceiling deck	NAD
02-06	Tectum panels	Room 101, ceiling deck	NAD
03-07	1x1 ceiling tiles	Room 103, ceiling	NAD
03-08	1x1 ceiling tiles	Room 103, ceiling	NAD
03-09	1x1 ceiling tiles	Room 101, ceiling	NAD
04-10	12x12 beige VFT & glue	Room 103, floor	NAD
04-11	12x12 beige VFT & glue	Room 103, floor	NAD
04-12	12x12 beige VFT & glue	Room 101, floor	NAD
05-13	Duct insulation cover	Room behind front desk	NAD
05-14	Duct insulation cover	Room behind front desk	NAD
05-15	Duct insulation cover	Room behind front desk	NAD
06-16	Black cove base & glue	Room 103	NAD
06-17	Black cove base & glue	Room 103	NAD
06-18	Black cove base & glue	Room 101	NAD
07-19	2x2 ceiling tiles	Room behind front desk	NAD
07-20	2x2 ceiling tiles	Room behind front desk	NAD
07-21	2x2 ceiling tiles	Room behind front desk	NAD
08-22	Dry board ceiling	Room behind front desk	NAD
08-23	Dry board ceiling	Room behind front desk	NAD
08-24	Dry board ceiling	Room behind front desk	NAD

NAD: NO ASBESTOS DETECTED

NA/PS: NOT ANALYZED POSITIVE STOP

BOLD: ASBESTOS-CONTAINING MATERIAL

3. Sampling Methodology

Samples were collected in accordance with AHERA requirements detailed at 40CFR Part 763, Subpart E. All of the suspect materials identified were described and categorized into homogeneous areas (HAs). An HA consists of all identified material found in various locations in a building that are identical in color, appearance, pattern, texture, and date of installation. The asbestos inspection was conducted according to modified Asbestos Hazard Emergency Response Act (AHERA) guidelines using a minimum number of samples collected from each HA, which meets the sampling criteria found in 29 CFR 1926.1101. Samples of suspect miscellaneous materials were collected in a randomly distributed manner sufficient to determine whether the materials were asbestos containing. Samples were obtained with tools designed to penetrate a material without creating excessive dust. A utility knife and chisel were utilized in an effort to obtain a sample that was representative of all layers of the material. Total Quality Environmental Inc. sampling procedures incorporate the use of plastic zip-lock bags labeled in

a unique numbering sequence to store the bulk samples.

Information about bulk samples, including the sample number and material description, were noted on the chain-of-custody sheets as each sample was collected. Bulk samples of suspect ACM were analyzed using polarized light microscopy (PLM) coupled with dispersion staining, as described in 40 CFR Part 763 and the National Emissions Standard for Hazardous Air Pollutants (NESHAP). Asbestos-containing material (ACM) is defined by the Asbestos NESHAP, as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. (Sec. 61.141).

A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The color displays that result are compared to a standardized atlas whereby the specific variety of asbestos is determined. It should also be recognized that PLM is primarily a qualitative identification method whereby asbestos percentage, if any, is estimated. While EPA and New York State regulations governing ACM consider materials containing greater than 1-percent as asbestos, accurately quantifying asbestos content below 5-percent has been shown to be unreliable.

The New York State Department of Health has revised the PLM Stratified Point Counting Method. The new method, "Polarized Light Microscopy Methods for Identifying and Quantifying Asbestos in Bulk Samples" can be found as item 198.1 in the Environmental Laboratory Approval Program (ELAP) Certification manual. The method specifies a procedure of analysis for bulk samples that fall into the category of "Non-friable Organically Bound" (NOB) and for ceiling tile with cellulose. This category includes any sample in a flexible to rigid asphalt or vinyl matrix (floor tiles, mastic, roofing shingles, roofing felt, etc.) and ceiling tile with cellulose. Additional materials that may fall into this category are textured paints and stucco, pipe valve and joint packing, and a variety of other applications. These samples must be "ashed" in a muffle furnace at 480-degrees Celsius (to remove organic matrix), treated with acid (to remove any mineral carbonate), and filtered through a 0.4-micron filter before being analyzed by PLM. The sample must be weighted between each of these steps to track the percent loss of organic matrix.

ELAP has determined that analysis of NOB materials is not reliably performed by PLM. Therefore, if PLM yields results of 1-percent asbestos or less, the result must be confirmed by TEM. Bulk samples that undergo TEM analysis use the sample reduction methodology stated above for NOB analysis by PLM. ELAP certified laboratories must include the following statement with their PLM analysis results for each "negative" (1-percent or less asbestos) NOB sample: "Polarized-light microscopy is

not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-ACM, confirmation must be made by quantitative transmission electron microscopy".

All bulk samples were analyzed by Polarized Light Microscopy (PLM) with dispersion staining as described by the Interim Method of the Determination of Asbestos in Bulk Insulation, Federal Register/Volume 47, No. 103/May 27, 1982. It should be noted that some ACM may not be accurately identified and/or quantified by PLM. As an example, the original fabrication of non-friable organically bound (NOB) materials, such as vinyl floor tile materials, routinely involved milling of asbestos fibers to extremely small sizes. As a result, these fibers may go undetected under the standard PLM method. Under these circumstances, ALLAB laboratory conducted additional bulk sample analysis via Transmission Electron Microscopy (TEM), which is required under applicable State of New York regulations for a more definitive analysis of NOB materials whenever PLM results are inconclusive.

4. Limitations

This survey was planned and implemented on the basis of a mutually agreed scope of work. The survey was conducted in conformance with generally accepted current regulatory guidelines for identifying and evaluating asbestos in construction materials. Total Quality Environmental Inc. uses only qualified professionals to perform building surveys; reasonable effort was made to survey accessible suspect materials.

5. Conclusions

Total Quality Environmental Inc. has performed an inspection for the presence or absence of asbestos-containing materials (ACM) within Room 101, 103 and room behind front desk at 40 Olivia Street, Port Chester NY 10573. A total of twenty-four (24) bulk samples were collected from suspect ACM that may be disturbed during the future new AC installation. Based on the laboratory analysis none of the collected building materials are considered asbestos-containing material (ACM).

There is approximately 50 LF of assumed ACM pipe insulation in good condition that goes across the room 103. Removal of the pipe insulation is not necessary if it is confined in a manner where it will be left undisturbed

The laboratory reports are provided in the attachments which include the samples collected, locations and analytical results.

If additional suspect materials are discovered during future demolition activities, Total Quality Environmental Inc. recommends collecting/analyzing samples of the materials for asbestos content prior to further disturbance.

Acknowledgement:

Total Quality Environmental Inc. appreciates the opportunity to have been of assistance to you on this project. If you have any questions concerning this report, please contact me at (718) 404-6704.

Sincerely,

Alexander Rukasov

Alexander Rukasov
Senior Project Manager
NYS DOL Asbestos Inspector

**APPENDIX A:
SAMPLE LOCATION DRAWINGS**

**APPENDIX B:
LABORATORY REPORTS & CHAIN OF CUSTODIES FORMS**

Total Quality Environmental Inc
Environmental company

116 Bay 19th Street
 Brooklyn, NY 11214

T: 718.873.1411 | F: 347.729.0985
 E: qualityenvironmental@icloud.com

CLIENT NAME:
 PROPERTY ADDRESS:
 SURVEY LOCATION:
 PROJECT #:

Port Chester- Rye Union Free School District
 40 Olivia Street, Port Chester NY 10573
 John F. Kennedy Elementay School (Upper)
 234.02.01

- PLM-EPA 600/M4/82/020
- PLM NOB-NYS 198.1/198.6
- TEM NOB - NYS 198.4

BULK SAMPLE - CHAIN-OF-CUSTODY FORM

COMMENTS:

210531-3

Turnaround Time: RUSH **24 HR** 48 HR

QTY	Condition	Sample #		Location	Material Description	Results (lab use only)			
						PLM Friable	PLM NOB	TEM NOB	AAS
320SF	Fair	01	01	Room 103	Brick mortar				
↓	↓	↓	02	↓	↓				
↓	↓	↓	03	Room 101	↓				
3000SF	↓	02	04	Room 103, ceiling deck	Tectum panels				
↓	↓	↓	05	↓	↓				
↓	↓	↓	06	Room 101	↓				
3000SF	↓	03	07	Room 103, ceiling	1x1 ceiling tiles				
↓	↓	↓	08	↓	↓				
↓	↓	↓	09	Room 101	↓				
3000SF	↓	04	10	Room 103, floor	12x12 beige vft & glue				
↓	↓	↓	11	↓	↓				
↓	↓	↓	12	Room 101	↓				
50SF	↓	05	13	Room behind front desk	Duct insulation cover				
↓	↓	↓	14	↓	↓				
↓	↓	↓	15	↓	↓				

RECEIVED

Sampled by: A. Rykasov
 Signature: [Signature]

Relinquished by: A. Rykasov
 Signature: [Signature]

Date: 05/28/2021
 Time: 14:00

Date: 05/30/2021
 Time:

Received by: [Signature]
 Signature: [Signature]

BY: [Signature]
 Analyzed by: [Signature]
 Signature: [Signature]

Date: 05/31/2021
 Time: 15:00

Date: 6/1/21
 Time: 4pm ET

Total Quality Environmental Inc
Environmental company

116 Bay 19th Street
 Brooklyn, NY 11214

T: 718.873.1411 | F: 347.729.0985

E: qualityenvironmental@icloud.com

CLIENT NAME:
 PROPERTY ADDRESS:
 SURVEY LOCATION:
 PROJECT #:

Port Chester- Rye Union Free School District
 40 Olivia Street, Port Chester NY 10573
 John F. Kennedy Elementay School (Upper)
 234.02.01

- PLM-EPA 600/M4/82/020
- PLM NOB-NYS 198.1/198.6
- TEM NOB - NYS 198.4

BULK SAMPLE - CHAIN-OF-CUSTODY FORM

COMMENTS:

210531-3

Turnaround Time: RUSH 24 HR 48 HR

QTY	Condition	Sample #		Location	Material Description	Results (lab use only)			
						PLM Friable	PLM NOB	TEM NOB	AAS
40SF	Fair	06	16 ✓	Room 103	Black cove base & glue				
↓	↓	↓	17 ✓	↓	↓				
↓	↓	↓	18 ✓	Room 101	↓				
170SF	↓	07	19 ✓	Room behind front desk	2x2 ceiling tiles				
↓	↓	↓	20 ✓	↓	↓				
40SF	↓	08	22	Room behind front desk	Dry board ceiling				
↓	↓	↓	23	↓	↓				
			24						
			25						
			26						
			27						
			28						
			29						
			30						

Sampled by: A. Pufkasov
 Signature: [Signature]

Date: 05/28/2021
 Time: 14:00

Received by: **RECEIVED**
 Signature: [Signature]
 Date: **MAY 31 2021**

Date: 15:00
 Time: 15:00

Relinquished by: A. Pufkasov
 Signature: [Signature]

Date: 05/30/2021
 Time: [Blank]

Analyzed by: BY: [Signature]
 Signature: [Signature]

Date: 6/1/21
 Time: [Blank]
(PLM + TEM)



BULK SAMPLE ANALYSIS REPORT
Laboratory Report

1544 East 13th Street
Brooklyn, NY 11230
Phone: (718) 864-3666

Client Name: Total Quality Environmental Inc	Report ID: 210531-3
Building Address: 40 Olivia St, Port Chester, NY	Report Date: 6/1/2021
Client Project: 234.02.01	NYS-DOH ELAP # 12118

Client ID	LAB ID#	Layer	Sample Description	Sample Location:	HA No.	Analytical Method	Color	PLM Friable Asbestos Percentage and Type	Other Fiber Material Percentage and Type	Non-Fibros Material %	PLM NOB Asbestos Percentage and Type	GRAVIMETRIC			Vermiculite	TEM RESULT Item 198.4
												Organic, %	Non-organic, %	CaCO3 %		
1	210531-3-1	1	Brick Mortar	Room 103	1	198.1	Grey	NAD		100					ND	
2	210531-3-2	1	Brick Mortar	Room 103	1	198.1	Grey	NAD		100					ND	
3	210531-3-3	1	Brick Mortar	Room 101	1	198.1	Grey	NAD		100					ND	
4	210531-3-4	1	Tectum Panels	Room 103, Ceiling Deck	2	198.1	Grey	NAD	75% Cellulose	25					ND	
5	210531-3-5	1	Tectum Panels	Room 103, Ceiling Deck	2	198.1	Grey	NAD	85% Cellulose	15					ND	
6	210531-3-6	1	Tectum Panels	Room 101	2	198.1	Grey	NAD	85% Cellulose	15					ND	
7	210531-3-7	1	1x1 Ceiling Tiles	Room 103, Ceiling	3	198.6	Brown				Inconclusive NAD	97	1.1	2.3	ND	NAD
8	210531-3-8	1	1x1 Ceiling Tiles	Room 103, Ceiling	3	198.6	Brown				Inconclusive NAD	97	1.4	1.9	ND	NAD
9	210531-3-9	1	1x1 Ceiling Tiles	Room 101	3	198.6	Brown				Inconclusive NAD	96	2.5	2	ND	NAD
10.1	210531-3-10	2	12x12 Beige VFT	Room 103, Floor	4.1	198.6	Beige				Inconclusive NAD	14	3.7	83	ND	NAD
10.2	210531-3-11	2	Glue	Room 103, Floor	4.2	198.6	Yellow				Inconclusive NAD	13	5	82	ND	NAD
11.1	210531-3-12	2	12x12 Beige VFT	Room 103, Floor	4.1	198.6	Beige				Inconclusive NAD	13	4	83	ND	NAD
11.2	210531-3-13	2	Glue	Room 103, Floor	4.2	198.6	Yellow				Inconclusive NAD	14	4.1	82	ND	NAD
12.1	210531-3-14	2	12x12 Beige VFT	Room 101	4.1	198.6	Beige				Inconclusive NAD	14	4.2	82	ND	NAD
12.2	210531-3-15	2	Glue	Room 101	4.2	198.6	Yellow				Inconclusive NAD	15	5.6	80	ND	NAD



BULK SAMPLE ANALYSIS REPORT
Laboratory Report

1544 East 13th Street
Brooklyn, NY 11230
Phone: (718) 864-3666

Client Name: Total Quality Environmental Inc	Report ID: 210531-3
Building Address: 40 Olivia St, Port Chester, NY	Report Date: 6/1/2021
Client Project: 234.02.01	NYS-DOH ELAP # 12118

Client ID	LAB ID#	Layer	Sample Description	Sample Location:	HA No.	Analytical Method	Color	PLM Friable Asbestos Percentage and Type	Other Fiber Material Percentage and Type	Non-Fibros Material %	PLM NOB Asbestos Percentage and Type	GRAVIMETRIC			Vermiculite	TEM RESULT Item 198.4
												Organic, %	Non-organic, %	CACO3 %		
13	210531-3-16	1	Duct Insulation Cover	Room Behind Front Desk	5	198.1	Brown Silver	NAD	90% Cellulose	10					ND	
14	210531-3-17	1	Duct Insulation Cover	Room Behind Front Desk	5	198.1	Brown Silver	NAD	95% Cellulose	5					ND	
15	210531-3-18	1	Duct Insulation Cover	Room Behind Front Desk	5	198.1	Brown Silver	NAD	95% Cellulose	5					ND	
16.1	210531-3-19	2	Black Cove Base	Room 103	6.1	198.6	Black				Inconclusive NAD	53	2.9	44	ND	NAD
16.2	210531-3-20	2	Glue	Room 103	6.2	198.6	Yellow				Inconclusive NAD	48	35	17	ND	NAD
17.1	210531-3-21	2	Black Cove Base	Room 103	6.1	198.6	Black				Inconclusive NAD	54	4.3	42	ND	NAD
17.2	210531-3-22	2	Glue	Room 103	6.2	198.6	Yellow				Inconclusive NAD	43	12	46	ND	NAD
18.1	210531-3-23	2	Black Cove Base	Room 101	6.1	198.6	Black				Inconclusive NAD	55	6.3	39	ND	NAD
18.2	210531-3-24	2	Glue	Room 101	6.2	198.6	Yellow				Inconclusive NAD	41	21	39	ND	NAD
19	210531-3-25	1	2x2 Ceiling Tiles	Room Behind Front Desk	7	198.6	Brown				Inconclusive NAD	12	44	44	ND	NAD
20	210531-3-26	1	2x2 Ceiling Tiles	Room Behind Front Desk	7	198.6	Brown				Inconclusive NAD	15	32	53	ND	NAD
21	210531-3-27	1	2x2 Ceiling Tiles	Room Behind Front Desk	7	198.6	Brown				Inconclusive NAD	6.6	33	60	ND	NAD
22	210531-3-28	1	Dry Board Ceiling	Room Behind Front Desk	8	198.1	Brown	NAD	40% Cellulose	60					ND	
23	210531-3-29	1	Dry Board Ceiling	Room Behind Front Desk	8	198.1	Brown	NAD	35% Cellulose	65					ND	
24	210531-3-30	1	Dry Board Ceiling	Room Behind Front Desk	8	198.1	Brown	NAD	30% Cellulose	70					ND	



BULK SAMPLE ANALYSIS REPORT
Laboratory Report

1544 East 13th Street
Brooklyn, NY 11230
Phone: (718) 864-3666

Client Name: Total Quality Environmental Inc	Report ID: 210531-3
Building Address: 40 Olivia St, Port Chester, NY	Report Date: 6/1/2021
Client Project: 234.02.01	NYS-DOH ELAP # 12118

Client ID	LAB ID#	Layer	Sample Description	Sample Location:	HA No.	Analytical Method	Color	PLM Friable Asbestos Percentage and Type	Other Fiber Material Percentage and Type	Non-Fibros Material %	PLM NOB Asbestos Percentage and Type	GRAVIMETRIC			Vermiculite	TEM RESULT Item 198.4
												Organic, %	Non-organic, %	CACO3 %		

Date Collected: 5/28/2021 **Date Received:** 5/31/2021 **Date of Analyses:** 6/1/2021

A. Barengolts
Lab Director: _____
Aleksandr Barengolts

PLM - Polarized-Light Microscopy. NOB - Non-Friable Organically Bound Materials. TEM - Transmission Electron Microscopy.
 198.1 - Method Item 198.1 of ELAP Certification Manual. 198.6 - Method Item 198.6 of ELAP Certification Manual. 198.4 - Method Item 198.4 of ELAP Certification Manual.
 EPA 600 - Method EPA 600/M4/82/020 NJ EPA - Method EPA 600/R-93-116
 ND - Not Detected NAD - No asbestos detected Trace - Inconclusive. Asbestos detected at 1% or less.
 Samples with inconclusive results must not be interpreted as being non-asbestos.
 Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.
 Results NAD or TRACE by PLM are inconclusive.
 The results relate only to the items tested. Samples will be stored for sixty (60) days.
 The report shall not be reproduced without the written approval of the laboratory.
 The currently approved methods for the analysis of SM-V include NYS DOH Item 198.8 and RJ Lee Group's Method 055.

**APPENDIX C:
COMPANY & PERSONNEL LICENSES**

New York State – Department of Labor

Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Total Quality Environmental Inc.

116 Bay 19th Street

Brooklyn, NY 11214

FILE NUMBER: 17-105220

LICENSE NUMBER: 105220

LICENSE CLASS: RESTRICTED

DATE OF ISSUE: 08/27/2020

EXPIRATION DATE: 09/30/2021

Duly Authorized Representative – Mariya Kotys:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

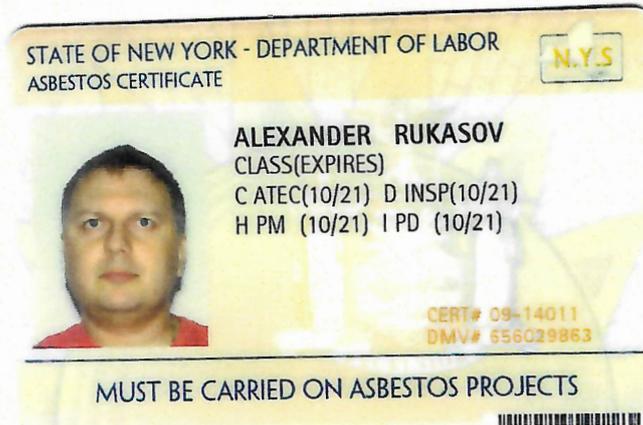
This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.



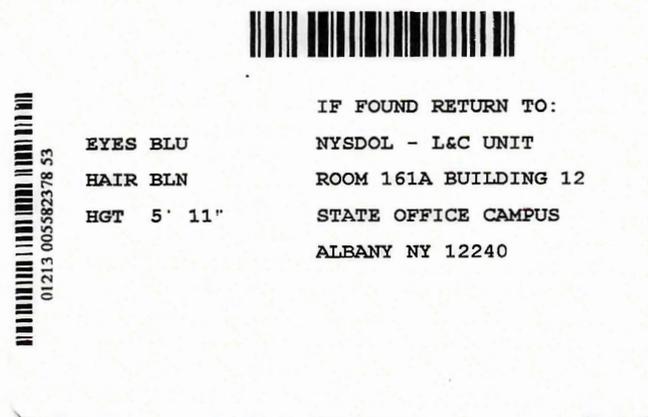
Eileen M. Franko, Director
For the Commissioner of Labor

**Total Quality Environmental Inc. Employee
Alexander Rukasov**

Front of License



Back of License



Codes:

- A - Asbestos Handler
- B - Restricted Handler
- I - Allied Trades
- C - Project Air Sampling Technician
- D - Inspector - R III
- E - Management Planner

- F - Operations and Maintenance
- G - Supervisor
- H -Project Monitor
- I - Project Designer

**APPENDIX D:
LABORATORY ACCREDITATIONS**

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2022
Issued April 01, 2021

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. ALEKSANDR BARENGOLTS
ALLAB INC
1544 EAST 13 STREET UNIT CA, BASEMENT
BROOKLYN, NY 11230-7281

NY Lab Id No: 12118

*is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:*

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual



NEW YORK
STATE OF
OPPORTUNITY

Department
of Health

Serial No.: 63391

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.



TOTAL QUALITY ENVIRONMENTAL, INC.

Asbestos Inspection Report



Port Chester Middle School
113 Bowman Ave
Rye Brook NY 10573

Prepared for:

Port Chester Middle School
113 Bowman Ave
Rye Brook NY 10573

Prepared by:

Total Quality Environmental Inc.
116 Bay 19th Street
Brooklyn NY 11214
T: (718) 873-1411

Total Quality Environmental Inc. project #234.01.01

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2. Inspection Results
3. Sampling Methodology
4. Limitations
5. Conclusions

Appendix A – Sample Location Drawings

Appendix B – Laboratory Reports & Chain of Custody Forms

Appendix C – Company & Personnel Licenses

Appendix D – Laboratory Accreditations

1. Introduction

At the request of Port Chester-Rye Union Free School District, Total Quality Environmental Inc. performed a survey for asbestos-containing materials (ACM) within the Port Chester Middle School located at 113 Bowman Ave, Rye Brook NY 10573.

The inspection was conducted to confirm/dismiss the presence, locations and quantities of any asbestos-containing materials (ACM) in regard to planned closet demolition in Room 110.

The survey was performed on May 28, 2021, by Alexander Rukasov, a NYS Department of Labor licensed Asbestos Inspector (NYS DOL License #09-14011).

Our work included the visual assessment of building materials to determine if they were suspect asbestos-containing material (see Section 3 for sampling methodology), sampling, condition assessment of the materials sampled (in case they were determined to be ACM based on the laboratory analysis results), quantification, and location of suspect ACM.

Bulk samples were submitted to and analyzed by ALLAB, Inc. located at 1544 East 13th Street, Unit CA, Brooklyn, NY 11230. ALLAB Inc. is accredited by the New York State Department of Health (ELAP No.12118).

2. Inspection Results

The intent of this survey was to locate and identify asbestos containing materials located throughout the Room 110 for the upcoming renovation project. There are approximately 50 SF of beige 9x9 vinyl floor tile (VFT) and mastic around the wall perimeter that will be demolished are assumed positive for asbestos and should be removed as ACM.

The following table includes full list of the material sampled during our May 28, 2021, visit.

**Asbestos Bulk Sample Summary Table
113 Bowman Ave, Rye Brook, NY 10573**

Sample #	Type of Material	Sample Location	Results % Asbestos
01-01	Dry wall	Room 110, wall	NAD
01-02	Dry wall	Room 110, wall	NAD
01-03	Dry wall	Room 110, wall	NAD

Report of Asbestos Survey Services

02-04	Joint compound	Room 110, wall	NAD
02-05	Joint compound	Room 110, wall	NAD
02-06	Joint compound	Room 110, wall	NAD
03-07	Wall paper glue	Room 110, west wall	NAD
03-08	Wall paper glue	Room 110, west wall	NAD
03-09	Wall paper glue	Room 110, west wall	NAD
04-10	1x1 ceiling tiles	Room 110, closet	NAD
04-11	1x1 ceiling tiles	Room 110, closet	NAD
04-12	1x1 ceiling tiles	Room 110, closet	NAD
05-13	2x2 ceiling tiles	Room 110	NAD
05-14	2x2 ceiling tiles	Room 110	NAD
05-15	2x2 ceiling tiles	Room 110	NAD
06-16	Black cove base & glue	Room 110, closet outer wall	NAD
06-17	Black cove base & glue	Room 110, closet outer wall	NAD
06-18	Black cove base & glue	Room 110, closet outer wall	NAD
07-19	Brick mortar	Room 110	NAD
07-20	Brick mortar	Room 110	NAD
07-21	Brick mortar	Room 110	NAD

NAD: NO ASBESTOS DETECTED

NA/PS: NOT ANALYZED POSITIVE STOP

BOLD: ASBESTOS-CONTAINING MATERIAL

3. Sampling Methodology

Samples were collected in accordance with AHERA requirements detailed at 40CFR Part 763. All of the suspect materials identified were described and categorized into homogeneous areas (HAs). An HA consists of all identified material found in various locations in a building that are identical in color, appearance, pattern, texture, and date of installation. The asbestos inspection was conducted according to modified Asbestos Hazard Emergency Response Act (AHERA) guidelines using a minimum number of samples collected from each HA, which meets the sampling criteria found in 29 CFR 1926.1101. Samples of suspect miscellaneous materials were collected in a randomly distributed manner sufficient to determine whether the materials were asbestos containing. Samples were obtained with tools designed to penetrate a material without creating excessive dust. A utility knife, chisel, and coring sleeve were utilized in an effort to obtain a sample that was representative of all layers of the material. Total Quality Environmental Inc. sampling procedures incorporate the use of plastic zip-lock bags labeled in a unique numbering sequence to store the bulk samples. Information about bulk samples, including the sample number and material

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Bulk samples of suspect ACM were analyzed using polarized light microscopy (PLM) coupled with dispersion staining, as described in 40 CFR Part 763 and the National Emissions Standard for Hazardous Air Pollutants (NESHAP). Asbestos-containing material (ACM), is defined by the Asbestos NESHAP, as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. (Sec. 61.141).

A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The color displays that result are compared to a standardized atlas whereby the specific variety of asbestos is determined. It should also be recognized that PLM is primarily a qualitative identification method whereby asbestos percentage, if any, is estimated. While EPA and New York State regulations governing ACM consider materials containing greater than 1-percent as asbestos, accurately quantifying asbestos content below 5-percent has been shown to be unreliable.

The New York State Department of Health has revised the PLM Stratified Point Counting Method. The new method, "Polarized Light Microscopy Methods for Identifying and Quantifying Asbestos in Bulk Samples" can be found as item 198.1 in the Environmental Laboratory Approval Program (ELAP) Certification manual. The method specifies a procedure of analysis for bulk samples that fall into the category of "Non-friable Organically Bound" (NOB) and for ceiling tile with cellulose. This category includes any sample in a flexible to rigid asphalt or vinyl matrix (floor tiles, mastic, roofing shingles, roofing felt, etc.) and ceiling tile with cellulose. Additional materials that may fall into this category are textured paints and stucco, pipe valve and joint packing, and a variety of other applications. These samples must be "ashed" in a muffle furnace at 480-degrees Celsius (to remove organic matrix), treated with acid (to remove any mineral carbonate), and filtered through a 0.4-micron filter before being analyzed by PLM. The sample must be weighted between each of these steps to track the percent loss of organic matrix.

ELAP has determined that analysis of NOB materials is not reliably performed by PLM. Therefore, if PLM yields results of 1-percent asbestos or less, the result must be confirmed by TEM. Bulk samples that undergo TEM analysis use the sample reduction methodology stated above for NOB analysis by PLM. ELAP certified laboratories must include the following statement with their PLM analysis results for each "negative" (1-percent or less asbestos) NOB sample: "Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-

friable organically bound materials. Before this material can be considered or treated as non-ACM, confirmation must be made by quantitative transmission electron microscopy".

All samples were initially analyzed by Polarized Light Microscopy. Samples which yielded a negative PLM result, and which are classified as a "non-friable" material, were then re-analyzed utilizing Transmission Electron Microscopy methodology described above. Sample analysis was performed by ALLAB, Inc. Laboratory accreditations is listed in Appendix D.

4. Limitations

This survey was planned and implemented on the basis of a mutually agreed scope of work. The survey was conducted in conformance with generally accepted current regulatory guidelines for identifying and evaluating asbestos in construction materials. Total Quality Environmental Inc. uses only qualified professionals to perform building surveys; reasonable effort was made to survey accessible suspect materials.

5. Conclusions

Total Quality Environmental Inc. has performed an inspection for the presence or absence of asbestos-containing materials (ACM) within Room 110 at 113 Bowman Ave, Rye Brook NY 10573. A total of twenty-one (21) bulk samples were collected from suspect ACM that may be disturbed during the future construction project. Based on the laboratory analysis none of the collected building materials are considered asbestos-containing material (ACM).

There are approximately 50 SF of beige 9x9 vinyl floor tile (VFT) and mastic around the wall perimeter that will be demolished are assumed positive for asbestos and should be removed as ACM.

The laboratory reports are provided in the attachments which include the samples collected, locations and analytical results.

If additional suspect materials are discovered during future demolition activities, Total Quality Environmental Inc. recommends collecting/analyzing samples of the materials for asbestos content prior to further disturbance.

Acknowledgement:

Total Quality Environmental Inc. appreciates the opportunity to have been of assistance to you on this project. If you have any questions concerning this report, please contact me at (718) 404-6704.

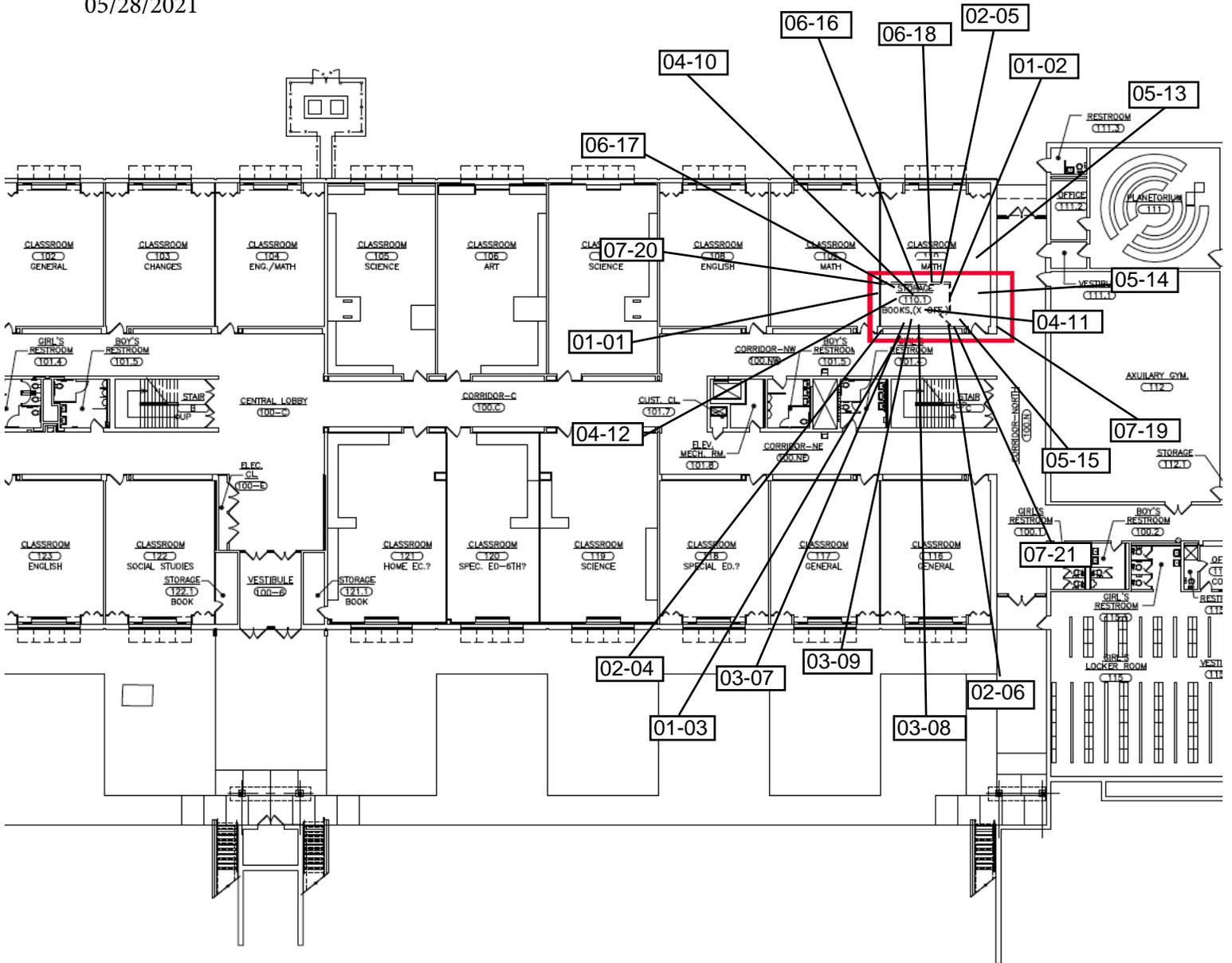
Sincerely,

Alexander Rukasov

Alexander Rukasov
Senior Project Manager
NYS DOL Asbestos Inspector

**APPENDIX A:
SAMPLE LOCATION DRAWINGS**

05/28/2021



PORT CHESTER MIDDLE SCHOOL
1 FIRST FLOOR PLAN 
SCALE: 1/16" = 1'-0"


**APPENDIX B:
LABORATORY REPORTS & CHAIN OF CUSTODIES FORMS**

CLIENT NAME: Port Chester- Rye Union Free School District
 PROPERTY ADDRESS: 113 Bowman Ave, Rye Brook NY 10573
 SURVEY LOCATION: Port Chester Middle School
 PROJECT #: 234.01.01

- PLM-EPA 600/M4/82/020
- PLM NOB-NYS 198.1/198.6
- TEM NOB - NYS 198.4

BULK SAMPLE - CHAIN-OF-CUSTODY FORM

210531-1

Turnaround Time: RUSH 24 HR 48 HR

COMMENTS:

QTY	Condition	Sample #		Location	Material Description	Results (lab use only)			
						PLM Friable	PLM NOB	TEM NOB	AAS
300 SF	Fair	01	01	Room 110, wall	Dry wall				
↓	↓	↓	02	↓	↓				
↓	↓	↓	03	↓	↓				
300 SF	↓	02	04	Room 110	Joint compound				
↓	↓	↓	05	↓	↓				
↓	↓	↓	06	↓	↓				
200 SF	↓	03	07	Room 110, west wall	Wall paper glue				
↓	↓	↓	08	↓	↓				
↓	↓	↓	09	↓	↓				
150 SF	↓	04	10 ✓	Room 110, closet	1x1 ceiling tiles				
↓	↓	↓	11 ✓	↓	↓				
↓	↓	↓	12 ✓	↓	↓				
300 SF	↓	05	13 ✓	Room 110	2x2 ceiling tiles				
↓	↓	↓	14 ✓	↓	↓				
↓	↓	↓	15 ✓	↓	↓				

RECEIVED

Sampled by: A. Bekasov
 Signature: [Signature]

Relinquished by: A. Bekasov
 Signature: [Signature]

Date: 05/28/2021
 Time: 07:30

Date: 05/30/2021
 Time: [Blank]

Received by: [Signature]
 Signature: MAY 31 2021

Analyzed by: BY: [Signature]
 Signature: [Signature]

Date: 6/1/21
 Time: 15:00

(Plume Temp)

116 Bay 19th Street

Brooklyn, NY 11214

T: 718.873.1411 | F: 347.729.0985

E: qualityenvironmental@icloud.com

CLIENT NAME: Port Chester- Rye Union Free School District
 PROPERTY ADDRESS: 113 Bowman Ave, Rye Brook NY 10573
 SURVEY LOCATION: Port Chester Middle School
 PROJECT #: 234.01.01

- PLM-EPA 600/M4/82/020
- PLM NOB-NYS 198.1/198.6
- TEM NOB - NYS 198.4

BULK SAMPLE - CHAIN-OF-CUSTODY FORM

COMMENTS:

210531-1

Turnaround Time: RUSH 24 HR 48 HR

QTY	Condition	Sample #		Location	Material Description	Results (lab use only)			
						PLM Friable	PLM NOB	TEM NOB	AAS
15 SF	Fair	06	16 ✓	Room 110, closet wall outer	Black core base & glue				
↓	↓	↓	17 ✓						
			18 ✓						
100 SF		07	19	Room 110	Brick mortar				
↓	↓	↓	20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						

Sampled by: A. Rufasov
 Signature: 
 Relinquished by: A. Rufasov
 Signature: 

Date: 05/28/2021
 Time: 07:30
 Date: 05/30/2021
 Time:

Received by: **RECEIVED**
 Signature: AS
 Date: **MAY 31 2021**
 Analyzed by: AS
 Signature: AS

Date: 6/1/21
 Time: 15:00
 Signature: AS (Plum e-jen)



BULK SAMPLE ANALYSIS REPORT
Laboratory Report

1544 East 13th Street
Brooklyn, NY 11230
Phone: (718) 864-3666

Client Name: Total Quality Environmental Inc	Report ID: 210531-2
Building Address: 113 Bowman Ave, Rye Brook, NY	Report Date: 6/1/2021
Client Project: 234.01.01	NYS-DOH ELAP # 12118

Client ID	LAB ID#	Layer	Sample Description	Sample Location:	HA No.	Analytical Method	Color	PLM Friable Asbestos Percentage and Type	Other Fiber Material Percentage and Type	Non-Fibros Material %	PLM NOB Asbestos Percentage and Type	GRAVIMETRIC			Vermiculite	TEM RESULT Item 198.4
												Organic, %	Non-organic, %	CACO3 %		
1	210531-1-1	1	Drywall	Room 110, Wall	1	198.1	White Brown	NAD	35% Cellulose	65					ND	
2	210531-1-2	1	Drywall	Room 110, Wall	1	198.1	White Brown	NAD	45% Cellulose	55					ND	
3	210531-1-3	1	Drywall	Room 110, Wall	1	198.1	White Brown	NAD	40% Cellulose	60					ND	
4	210531-1-4	1	Joint Compound	Room 110	2	198.1	White	NAD		100					ND	
5	210531-1-5	1	Joint Compound	Room 110	2	198.1	White	NAD		100					ND	
6	210531-1-6	1	Joint Compound	Room 110	2	198.1	White	NAD		100					ND	
7	210531-1-7	1	Wall Paper Glue	Room 110, West Wall	3	198.6	Beige				Inconclusive NAD	17	81	2.2	ND	NAD
8	210531-1-8	1	Wall Paper Glue	Room 110, West Wall	3	198.6	Beige				Inconclusive NAD	16	18	66	ND	NAD
9	210531-1-9	1	Wall Paper Glue	Room 110, West Wall	3	198.6	Beige				Inconclusive NAD	16	56	28	ND	NAD
10	210531-1-10	1	1x1 Ceiling Tiles	Room 110, Closet	4	198.6	Grey				Inconclusive NAD	11	15	74	ND	NAD
11	210531-1-11	1	1x1 Ceiling Tiles	Room 110, Closet	4	198.6	Grey				Inconclusive NAD	13	20	66	ND	NAD
12	210531-1-12	1	1x1 Ceiling Tiles	Room 110, Closet	4	198.6	Grey				Inconclusive NAD	11	36	53	ND	NAD
13	210531-1-13	1	2x2 Ceiling Tiles	Room 110	5	198.6	White Brown				Inconclusive NAD	31	41	27	ND	NAD
14	210531-1-14	1	2x2 Ceiling Tiles	Room 110	5	198.6	White Brown				Inconclusive NAD	40	28	32	ND	NAD
15	210531-1-15	1	2x2 Ceiling Tiles	Room 110	5	198.6	White Brown				Inconclusive NAD	30	45	25	ND	NAD



BULK SAMPLE ANALYSIS REPORT
Laboratory Report

1544 East 13th Street
Brooklyn, NY 11230
Phone: (718) 864-3666

Client Name: Total Quality Environmental Inc	Report ID: 210531-2
Building Address: 113 Bowman Ave, Rye Brook, NY	Report Date: 6/1/2021
Client Project: 234.01.01	NYS-DOH ELAP # 12118

Client ID	LAB ID#	Layer	Sample Description	Sample Location:	HA No.	Analytical Method	Color	PLM Friable Asbestos Percentage and Type	Other Fiber Material Percentage and Type	Non-Fibros Material %	PLM NOB Asbestos Percentage and Type	GRAVIMETRIC			Vermiculite	TEM RESULT Item 198.4
												Organic, %	Non-organic, %	CACO3 %		
16.1	210531-1-16	2	Black Cove Base	Room 110, Closet Wall Outer	6.1	198.6	Black				Inconclusive NAD	35	30	36	ND	NAD
16.2	210531-1-17	2	Glue	Room 110, Closet Wall Outer	6.2	198.6	Yellow				Inconclusive NAD	31	67	2	ND	NAD
17.1	210531-1-18	2	Black Cove Base	Room 110, Closet Wall Outer	6.1	198.6	Black				Inconclusive NAD	36	38	26	ND	NAD
17.2	210531-1-19	2	Glue	Room 110, Closet Wall Outer	6.2	198.6	Yellow				Inconclusive NAD	17	58	25	ND	NAD
18.1	210531-1-20	2	Black Cove Base	Room 110, Closet Wall Outer	6.1	198.6	Black				Inconclusive NAD	12	40	48	ND	NAD
18.2	210531-1-21	2	Glue	Room 110, Closet Wall Outer	6.2	198.6	Yellow				Inconclusive NAD	28	36	36	ND	NAD
19	210531-1-22	1	Brick Mortar	Room 110	7	198.1	Brown	NAD		100					ND	
20	210531-1-23	1	Brick Mortar	Room 110	7	198.1	Brown	NAD		100					ND	
21	210531-1-24	1	Brick Mortar	Room 110	7	198.1	Brown	NAD		100					ND	

Date Collected: 5/28/2021 **Date Received:** 5/31/2021 **Date of Analyses:** 6/1/2021

Lab Director: Aleksandr Barengolts
Aleksandr Barengolts

PLM - Polarized-Light Microscopy. NOB - Non-Friable Organically Bound Materials. TEM - Transmission Electron Microscopy.
 198.1 - Method Item 198.1 of ELAP Certification Manual. 198.6 - Method Item 198.6 of ELAP Certification Manual. 198.4 - Method Item 198.4 of ELAP Certification Manual.
 EPA 600 - Method EPA 600/M4/82/020 NJ EPA - Method EPA 600/R-93-116
 ND - Not Detected NAD - No asbestos detected Trace - Inconclusive. Asbestos detected at 1% or less.
 Samples with inconclusive results must not be interpreted as being non-asbestos.
 Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.
 Results NAD or TRACE by PLM are inconclusive.
 The results relate only to the items tested. Samples will be stored for sixty (60) days.
 The report shall not be reproduced without the written approval of the laboratory.
 The currently approved methods for the analysis of SM-V include NYS DOH Item 198.8 and RJ Lee Group's Method 055.

**APPENDIX C:
COMPANY & PERSONNEL LICENSES**

New York State – Department of Labor

Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Total Quality Environmental Inc.

116 Bay 19th Street

Brooklyn, NY 11214

FILE NUMBER: 17-105220

LICENSE NUMBER: 105220

LICENSE CLASS: RESTRICTED

DATE OF ISSUE: 08/27/2020

EXPIRATION DATE: 09/30/2021

Duly Authorized Representative – Mariya Kotys:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

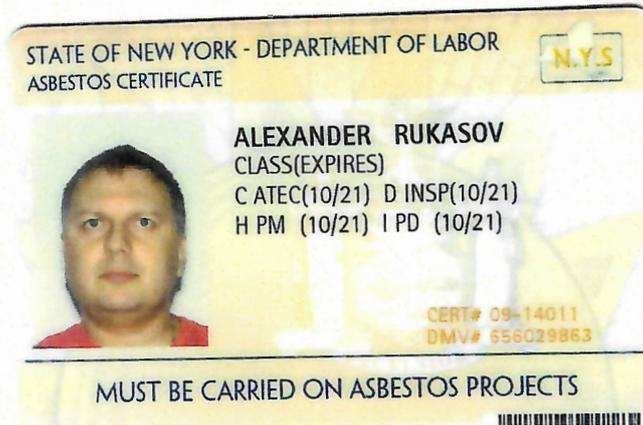
This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.



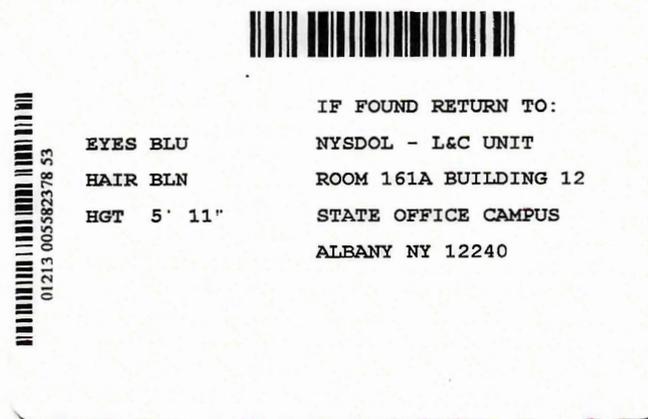
Eileen M. Franko, Director
For the Commissioner of Labor

**Total Quality Environmental Inc. Employee
Alexander Rukasov**

Front of License



Back of License



Codes:

- A - Asbestos Handler
- B - Restricted Handler
- I - Allied Trades
- C - Project Air Sampling Technician
- D - Inspector - R III
- E - Management Planner

- F - Operations and Maintenance
- G - Supervisor
- H -Project Monitor
- I - Project Designer

**APPENDIX D:
LABORATORY ACCREDITATIONS**

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2022
Issued April 01, 2021

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. ALEKSANDR BARENGOLTS
ALLAB INC
1544 EAST 13 STREET UNIT CA, BASEMENT
BROOKLYN, NY 11230-7281

NY Lab Id No: 12118

*is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:*

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual



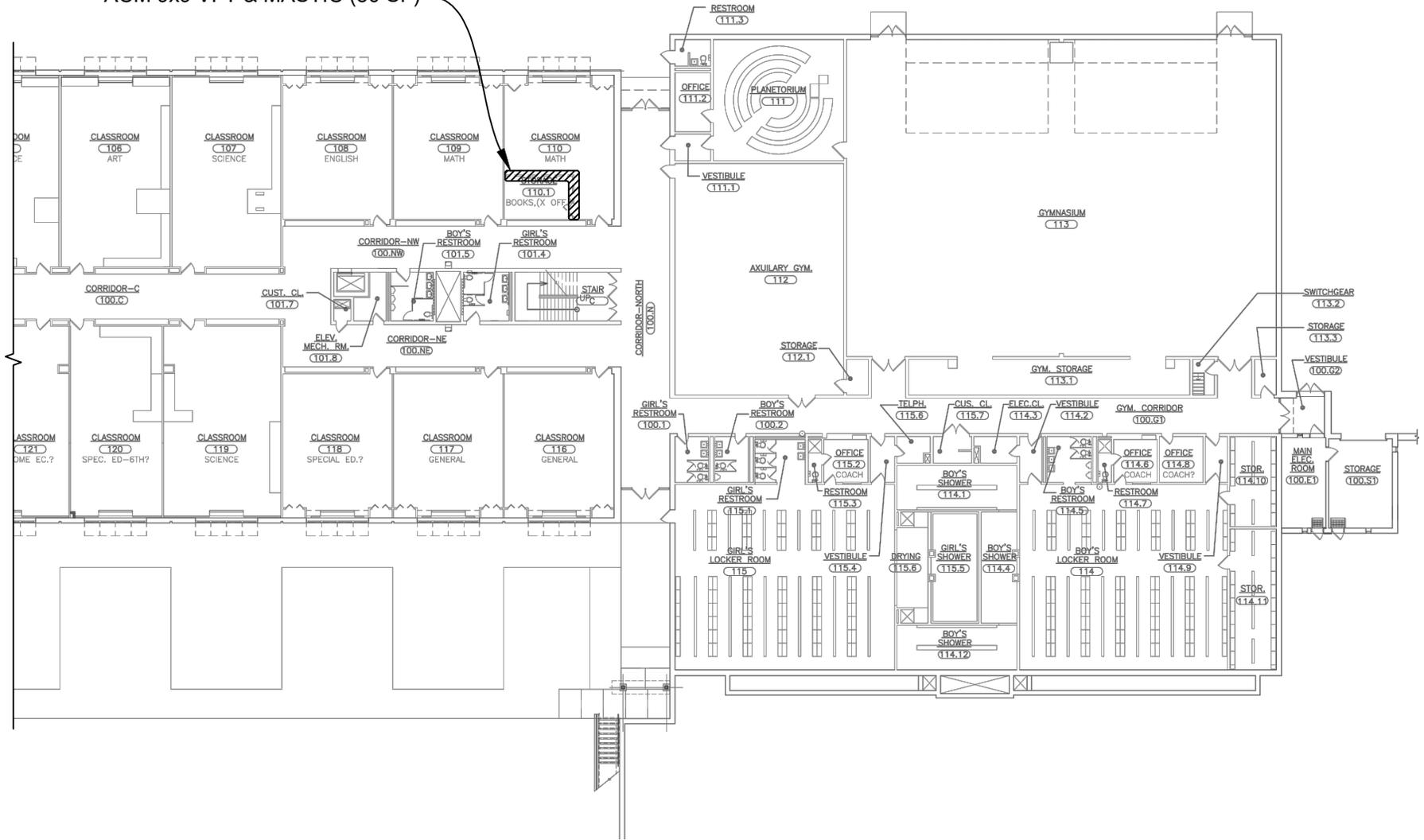
NEW YORK
STATE OF
OPPORTUNITY

Department
of Health

Serial No.: 63391

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

ACM 9x9 VFT & MASTIC (50 SF)



PORT CHESTER MIDDLE SCHOOL

SITE:

TITLE:

ACM LOCATION PLAN

HM-100

DRAWING NO.

SCALE:

N.T.S.

DATE:

06/04/2021

Total Quality Environmental Inc.

116 Bay 19th Street
Brooklyn NY 11214

Office: (718) 873-1411

Fax: (347) 729-0985

Cell: (718) 404-6704

Part 155 Regulations

Section 155.5 Uniform Safety Standards for School Construction and Maintenance

Projects [Disclaimer](#)

(a) Monitoring of construction and maintenance activities.

The occupied portion of any school building shall always comply with the minimum requirements necessary to maintain a certificate of occupancy and shall be monitored during construction or maintenance activities for safety violations by school district personnel. It is the responsibility of the board of education or board of cooperative educational services to assure that these standards are continuously maintained when the building or any portion thereof is occupied.

(b) Investigation and disposition of complaints relating to health and safety received as a result of construction and maintenance activities.

Boards of education and boards of cooperative educational services shall follow procedures established under section 155.4(d)(7) of this Part. (c) Pre-construction testing and planning for construction projects.

(1) Boards of education and boards of cooperative educational services shall assure that proper planning is made for safety of building occupants during construction. For all construction projects for which bids are issued on or after September 30, 1999, such boards shall assure that safety is addressed in the bid specifications and contract documents before contract documents are advertised for bid. All school areas to be disturbed during renovation or demolition shall be tested for lead and asbestos. Appropriate procedures to protect the health of building occupants shall be included in the final construction documents for bidding.

(2) Boards of education and boards of cooperative educational services shall establish procedures for involvement of the health and safety committee to monitor safety during school construction projects. The health and safety committees in school districts other than in cities with one million inhabitants or more shall be expanded during construction projects to include the project architect, construction manager, and the contractors. Such committee shall meet periodically to review issues and address complaints related to health and safety resulting from the construction project. In the case of a city school district in a city of one million inhabitants or more, the board of education shall submit procedures for protecting health and safety during construction to the commissioner for approval. Such procedures shall outline methods for compliance with this section.

(3) The district emergency management plan shall be updated to reflect any changes necessary to accommodate the construction process, including an updated emergency exit plan indicating temporary exits required due to construction. Provisions shall be made for the emergency evacuation and relocation or release of students and staff in the event of a construction incident.

(4) Fire drills shall be held to familiarize students and staff with temporary exits and revised emergency procedures whenever such temporary exits and revised emergency procedures are required.

(d) Pre-construction notification of construction projects.

The board of education or board of cooperative educational services shall establish procedures for notification of parents, staff and the community in advance of a construction project of \$10,000 or more to be conducted in a school building while the building is occupied. Such procedures shall provide notice at least two months prior to the date on which construction is scheduled to begin, provided that in the case of emergency construction projects, such notice shall be provided as far in advance of the start of construction as is practicable. Such notice shall include information on the district's obligations under this section to provide a safe school environment during construction projects. Such notice requirement may be met by publication in district newsletters, direct mailings, or holding a public hearing on the project to inform parents, students, school personnel and community members.

(e) General safety and security standards for construction projects.

(1) All construction materials shall be stored in a safe and secure manner.

(2) Fences around construction supplies or debris shall be maintained.

(3) Gates shall always be locked unless a worker is in attendance to prevent unauthorized entry.

(4) During exterior renovation work, overhead protection shall be provided for any sidewalks or areas immediately beneath the work site or such areas shall be fenced off and provided with warning signs to prevent entry.

(5) Workers shall be required to wear photo identification badges at all times for identification and security purposes while working at occupied sites.

(f) Separation of construction areas from occupied spaces.

Construction areas which are under the control of a contractor and therefore not occupied by district staff or students shall be separated from occupied areas. Provisions shall be made to prevent the passage of dust and contaminants into occupied parts of the building. Periodic inspection and repairs of the containment barriers must be made to prevent exposure to dust or contaminants. Gypsum board must be used in exit ways or other areas that require fire rated separation. Heavy duty plastic

sheeting may be used only for a vapor, fine dust or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas.

(1) A specific stairwell and/or elevator should be assigned for construction worker use during work hours. In general, workers may not use corridors, stairs or elevators designated for students or school staff.

(2) Large amounts of debris must be removed by using enclosed chutes or a similar sealed system. There shall be no movement of debris through halls of occupied spaces of the building. No material shall be dropped or thrown outside the walls of the building.

(3) All occupied parts of the building affected by renovation activity shall be cleaned at the close of each workday. School buildings occupied during a construction project shall maintain required health, safety and educational capabilities at all times that classes are in session.

(g) Maintaining exiting and ventilation during school construction projects.

The following information shall be included in all plans and specifications for school building projects:

(1) A plan detailing how exiting required by the applicable building code will be maintained during construction. The plan shall indicate temporary construction required to isolate construction equipment, materials, people, dust, fumes, odors, and noise during the construction period.

Temporary construction details shall meet code-required fire ratings for separation and corridor enclosure. At a minimum, required exits, temporary stairs, ramps, exit signs, and door hardware shall be provided at all times.

A plan detailing how adequate ventilation will be maintained during construction. The plan shall indicate ductwork which must be rerouted, disconnected, or capped in order to prevent contaminants from the construction area from entering the occupied areas of the building. The plan shall also indicate how required ventilation to occupied spaces affected by construction will be maintained during the project.

(h) Fire and hazard prevention.

Areas of buildings under construction that are to remain occupied shall maintain a certificate of occupancy. In addition, the following shall be strictly enforced:

(1) No smoking is allowed on public school property, including construction areas.

(2) During construction daily inspections of district occupied areas shall be conducted by school district personnel to assure that construction materials, equipment or debris not block fire exits or emergency egress windows.

(3) Proper operation of fire extinguishers, fire alarm, and smoke/fire detection systems shall be maintained throughout the project.

(i) Noise abatement during construction and maintenance activities.

Construction and maintenance operations shall not produce noise in excess of 60 dba in occupied spaces or shall be scheduled for times when the building or affected building spaces are not occupied or acoustical abatement measures shall be taken. Noise level measurements (dba) shall be taken with a type 2 sound level meter in the occupied space in a location closest to the source of the noise.

Complaints regarding excessive noise shall be addressed through the health and safety committee.

The district should anticipate those times when construction noise is unacceptable and incorporate "no work" periods into the bid specifications.

(j) Control of chemical fumes, gases, and other contaminants during construction and maintenance projects.

The bid specifications and construction contracts for each construction project shall indicate how and where welding, gasoline engine, roofing, paving, painting or other fumes will be exhausted. Care must be taken to assure fresh air intakes do not draw in such fumes.

(1) The bid specifications shall require schedules of work on construction and maintenance projects which include time for off-gassing of volatile organic compounds introduced during construction before occupancy is allowed. Specific attention is warranted for activities including glues, paint, furniture, carpeting, wall coverings, and drapery. Manufacturers shall be contacted to obtain information regarding appropriate temperatures and times needed to cure or ventilate the product during use and before safe occupancy of a space can be assured. Building materials or furnishings which off-gas chemical fumes, gases, or other contaminants shall be aired out in a well ventilated heated warehouse before it is brought to the project for installation or the manufacturer's recommended off-gassing periods must be scheduled between installation and use of the space. If the work will generate toxic gases that cannot be contained in an isolated area, the work must be done when school classes and programs are not in session. The building must be properly ventilated and the material must be given proper time to cure or off-gas before re-occupancy.

(2) Manufacturer's material safety data sheets (MSD) shall be maintained at the site for all products used in the project. MSDS must be provided to anyone who requests them. MSDS indicate chemicals used in the product, product toxicity, typical side effects of exposure to the product and safe procedures for use of the product.

(k) Asbestos abatement protocols.

All asbestos abatement projects shall comply with all applicable Federal and State laws including but not limited to the New York State Department of Labor industrial code rule 56 (12 NYCRR 56), and the Federal Asbestos Hazard Emergency Response Act (AHERA), 40 CFR part 763 (Code of Federal

Regulations, 1998 Edition, Superintendent of Public Documents, U.S. Government Printing Office, Washington, DC 20402; 1998; available at the Office of Facilities Planning, Education Building Annex, Room 1060, State Education Department, Albany, NY 12234). Large and small asbestos projects as defined by 12 NYCRR 56 shall not be performed while the building is occupied. Minor asbestos projects defined by 12 NYCRR 56 as an asbestos project involving the removal, disturbance, repair, encapsulation, enclosure or handling of 10 square feet or less of asbestos or asbestos material, or 25 linear feet or less of asbestos or asbestos material may be performed in unoccupied areas of an occupied building in accordance with the above referenced regulations.

(l) Lead paint.

Any construction or maintenance operations which will disturb lead based paint will require abatement of those areas pursuant to protocols detailed in the "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" (June 1995; U.S. Department of Housing and Urban Development, Washington, D.C. 20410; available at the Office of Facilities Planning, Education Building Annex, Room 1060, State Education Department, Albany, NY 12234). All areas scheduled for construction as well as areas of flaking and peeling paint shall be tested for the presence of lead and abated or encapsulated in accordance with the above noted guidelines.

(m) Radon.

Districts shall take responsibility to be aware of the geological potential for high levels of radon and to test and mitigate as appropriate. This information is available from the New York State Department of Health Radon Measurement Database.

(n) Post construction inspection.

The school district or board of cooperative educational services shall provide the opportunity for a walk-through inspection by the health and safety committee members to confirm that the area is ready to be reopened for use.