

SECTION 009113 - ADDENDA

1.1 ADDENDUM INFORMATION

- A. Addendum #2
- B. Date of Addendum: 2.3.2025

1.2 NOTICE TO BIDDERS

- A. This Addendum is issued to all bidders and pursuant to the Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.
- B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.
Addendum #1 is considered the Pre-Construction Meeting Minutes that were issued on January 8, 2025 with the previous bid date change.
- C. This Addendum incorporates the **Updated Bid Documents (Plans), Revised Bid Opening Date, Revised Scope of Work, Updated Bid Forms with Bid Bond at 10%. This Addendum also references all contractor questions to date.**
- D. Bid Date Revision: **All bids are due in PENNBID by 4 PM February 25, 2025.**

1.3 ATTACHMENTS

- A. This Addendum includes the following attached Documents:
 - 1. **Bidder Q&A as Posted on PENNBID**
 - 2. **Updated Mechanical and Electrical Plans, Dated 1/22/2025.**
 - 3. **Revised Bid Form and Scope of Work**
 - 4. **Site Plan, Dated January 2025**
 - 5. **Tremco Roof Warranty**
- B. This Addendum includes the following attached Revised Sheets:
 - 1. **Updated Mechanical and Electrical Plans, Dated 1/22/2025.**
- C. This Addendum includes a compiled revised Specification.
 - 1. **Updated Sections include:**
 - i. **Section 004116-Bid Form**
 - ii. **Section 00000 – Scope of Work**

1.4 SCOPE OF WORK

A. The scope of work has been modified from the original bid as follows:

1. **The HVAC ductwork is proposed to be installed above the roof.**
2. **The HVAC unit size was revised from a 17.5 Ton Unit to a 15 Ton Unit.**
3. **New ceiling grid is not required. However, the contractor is required to replace existing ceiling tile in kind. As part of the ceiling tile replacement, the light fixtures are proposed to be removed and replaced. All other ceiling components are to remain.**
4. **The panel schedule has been revised for window units. All window units with proposed 30 Amp breakers will require new wiring to the unit.**
5. **The window units in the Annex have been changed to 1-ton units.**

1.5 Contractor Questions

1. Do you have contact information for the fire alarm vendor?

Premium Fire: Jenn.newton@pfands.com

2. Are the Supply Air and Return Air Openings through the wall in the cafeteria new or existing to the reused?

The updated design proposes to run new ductwork above the roof. Therefore, roof penetrations are proposed. The General Contractor will be required to patch the roof openings in accordance with the current roofing system, which is under warranty. The roof warranty is included with this Addendum.

3. Is there a serial number/model air condition window cages?

Window cages are not proposed. The window unit model number is on the schedule.

4. What brand/type of ceiling grid is to be used?

The ceiling grid is to remain, contractor will be required to replace ceiling tile in kind.

5. What is the new ceiling height?

There are no proposed changes to the ceiling height.

6. Who paints the exterior Gas Piping? MC or GC?

The Mechanical Contractor paints the exterior gas piping.

7. Who runs the progress meetings for this project? Engineer, MC, or GC?

The General Contractor runs the progress meetings.

8. Who does the Project Schedule? MC or GC?

The General Contractor does the project schedule.

9. What is the Bollard Size and Quantity around the AHU?

Refer to attached Site Plan.

10. Who is responsible for the Concrete PAD under new AHU?

The General Contractor is responsible for the Concrete Pad.

END OF DOCUMENT 009113

SECTION 00000
SCOPE OF WORK – Revised 2-3-25

PART 1 - GENERAL

1.01 Site Location

- A. The project site is located in the Upland Borough, Delaware County, Pennsylvania. The site location is Main Street Elementary School at 704 Main Street, Upland, PA 19015.

1.02 Project Description

- A. The Chester Upland School District is proposing to install a new HVAC system within the cafeteria, two (2) new window units in the Annex Classroom, and incidental electrical upgrades. Incidental work will include electrical connections, concrete removal and replacement for new HVAC pad, chain-link fence and bollard installation. The contractor will be required to obtain a building permit for the work and the permit cost will be included within the bid allowance item.

MECHANICAL CONSTRUCTION WORK

- A. Provide new 15-ton packaged DX/Gas unit, to be installed on grade. General contractor to provide a new 6" concrete pad outdoors, traffic bollards, and a chain-link fence around the unit.
- B. Provide new natural gas piping. Tap off of the existing gas meter, and provide new shut-off and regulator.
- C. Provide new insulated supply and return ductwork, and air devices as shown on the plans.
- D. Existing ceiling grid in the cafeteria is to remain. However, the Ceiling tile is to be removed and replaced in kind.
- E. Install new programmable thermostat and CO2 sensors. Provide unit with stand-alone DDC controls.
- F. Roof penetrations are required for the new ductwork connections. All roof restoration shall be completed by the General Contractor in accordance with the manufacturers warranty.

ELECTRICAL CONSTRUCTION WORK

- A. Provide new 125 Amp, 3-Pole overcurrent protection device in the space available in existing Panel "HVAC2" to serve new 200 Amp Frame, 110 Amp Trip disconnecting means located adjacent the new, grade-mounted Air Handling Unit via new 4#1+1#6 GND in 1-1/2" C.
- B. Upgrade existing window units and breakers as indicated on the plans.
- C. Luminaires within the cafeteria are to be replaced with new, 2'x2' illuminated panels. New luminaires are to be served via the existing branch circuit wiring and controls.

GENERAL CONSTRUCTION WORK

- a. The General Construction work will include the demolition of existing features to make way for the new improvements. This shall include concrete and asphalt removal for the new HVAC Unit and demolition of ceiling tile to make way for the new mechanical improvements. General Construction work includes patching openings, in kind, for the electrical and HVAC Contractors. Quality tradesmen are required to complete patching and all openings must be sealed and weatherproofed in accordance with roof manufacturers warranty.
- b. The General Contractor is required to install a concrete pad which shall consist of a 4" 2A stone subbase, 6" Reinforced Concrete Pad and sidewalk with a 4" 2A stone subbase, and asphalt pavement incidental improvements. Work also includes the installation of 6" steel bollards and black vinyl coated chain-link fence in accordance with the Site Plan documents.
- c. Asphalt restoration shall include installation of, 2.5" Asphalt Binder Course, and 1.5" Asphalt Wearing Course.
- d. Contractor shall include all mobilization and demobilization costs within their bid.
- e. An allowance has been added to the bid for unforeseen conditions and permit costs.
- f. Contractor shall secure the construction area with temporary fencing.

1.02 General Requirements

- A. The construction layout of all proposed elements of construction shall be to the specified lines and grades. All limits of work shall be marked out and approved by the District Engineer prior to excavation. Grades shall be verified in the field during construction layout.
- B. The removal of existing features as incidental to the contract work items shall be completed, including but not limited to the following: metal plates, pipes, concrete slabs, stone, bricks, and all foreign materials encountered during the excavation for contract items.

1.05 Additional Requirements

- A. All Base Bid work by the Contractor must be 100% complete within the contract time limit of 120 calendar days. The contract time limit shall begin once a written Notice to Proceed order has been issued to the contractor.
- B. The cost of all related incidental work, dust control, cleaning and restorations shall be included in the various unit prices bid. These activities are not separate pay items.

- C. All materials, construction procedures, type and use of equipment, measurement and payment shall be in accordance with the Commonwealth of Pennsylvania Department of Transportation Specifications, Publication 408, unless otherwise noted and/or modified by these specifications.
- D. The contractor is responsible for the construction layout of this project. The contractor shall forward all construction layout survey information to the District Engineer for reference including: benchmarks, stationing, and elevations.
- E. All contractors and other persons utilizing this specification and the information contained herein are cautioned to comply with the requirements of Pennsylvania Act 172, entitled "Excavation and Demolition Work Protection of Underground Utilities." Each individual contractor using the project plans must verify the location and depth of all underground utilities and facilities before starting work. The contractor shall notify "PA One Call" (1-800-242-1776) at least 72 hours prior to the start of any excavation.
- F. The contractor shall establish contact with an individual from each local utility prior to commencement of excavation. The contractor shall notify the Engineer and the utility owner immediately should a conflict occur in the limits of construction. The contractor shall be responsible for coordination of all work to be performed by the utility owner with regards to the work included in this contract. Additional payment will not be made for any delays incurred or any additional work performed due to conflicts with existing utility mains or service lines.
- G. All paved asphalt or concrete areas disturbed during construction shall be restored to a condition at least equal to that which existed prior to the start of construction.
- H. All fill shall be placed in twelve inch (12") thick lifts and thoroughly compacted to the satisfaction of the Engineer. If borrow fill is required, it shall be subject to the approval of the District Engineer.
- I. The contractor shall be responsible for the location and preservation of underground and surface utilities and structures at, or adjacent to, the site of construction. It shall be at the contractor's own expense to repair or replace anything that is damaged by the contractor.
- J. All construction details not shown shall be in accordance with PennDOT standards as detailed in:
 - 1. PennDOT Specifications, Pub. 408, latest revision
 - 2. PennDOT Standards for Roadway Construction, Pub. 72, latest revisionThese standards can be purchased at: PA Department of Transportation, Sales Store, P.O. Box 2028, Harrisburg, PA 17105-2028, (717-787-6746).
- K. Work shall be in accordance with all Federal, State and Local Regulations. Contractor must abide by all local building codes.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

PART 4 – QUANTITY AND PAYMENT

Not Used

END OF SECTION

004116 - BID FORM - STIPULATED SUM – GENERAL CONTRACT

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: **CUSD Main Street School Cafeteria HVAC Improvements**
- C. Project Location:
1. Main Street Elementary School – 704 Main Street, Chester, PA 19015
- D. Owner: Chester Upland School District

1.2 CERTIFICATIONS AND GENERAL BASE BID

- A. Base Bid, Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by MG Engineering Associates, LLC, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:
1. _____ Dollars (\$_____).
- B. Bid Allowance: The Bid Allowance has been added to the bid to cover any unforeseen conditions and permit fees associated with the project.
1. Ten-Thousand Dollars (\$ 10,000.00).

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within **10** days after a written Notice of Award, if offered within **60** days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting ten percent (10%) of the Base Bid amount above:
1. _____ Dollars (\$_____).
- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 TIME OF COMPLETION

- A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Engineer, and shall fully complete the Work within 120 calendar days.

1.5 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum No. 1, dated _____.
2. Addendum No. 2, dated _____.
3. Addendum No. 3, dated _____.
4. Addendum No. 4, dated _____.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are attached hereto.
- B.
1. Bid Form Supplement - Bid Bond Form (AIA Document A310-2010).

1.7 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in the Commonwealth of Pennsylvania, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

- A. Respectfully submitted this ____ day of _____, 2025
- B. Submitted By: _____ (Name of bidding firm or corporation).
- C. Authorized Signature: _____ (Handwritten signature).
- D. Signed By: _____ (Type or print name).
- E. Title: _____ (Owner/Partner/President/Vice President).
- F. Witness By: _____ (Handwritten signature).
- G. Attest: _____ (Handwritten signature).
- H. By: _____ (Type or print name).
- I. Title: _____ (Corporate Secretary or Assistant Secretary).
- J. Street Address: _____.
- K. City, State, Zip: _____.
- L. Phone: _____.
- M. License No.: _____.
- N. Federal ID No.: _____ (Affix Corporate Seal Here).

END OF DOCUMENT 004116

004116 - BID FORM - STIPULATED SUM – ELECTRICAL CONTRACT

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: **CUSD Main Street School Cafeteria HVAC Improvements**
- C. Project Location:
1. Main Street Elementary School – 704 Main Street, Chester, PA 19015
- D. Owner: Chester Upland School District

1.2 CERTIFICATIONS AND ELECTRICAL BASE BID

- A. Base Bid, Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by MG Engineering Associates, LLC, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:
1. _____ Dollars (\$_____).
- B. Bid Allowance: The Bid Allowance has been added to the bid to cover any unforeseen conditions and permit fees associated with the project.
1. Ten-Thousand Dollars (\$ 10,000.00).

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within **10** days after a written Notice of Award, if offered within **60** days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting ten percent (10%) of the Base Bid amount above:
1. _____ Dollars (\$_____).
- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 TIME OF COMPLETION

- A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Engineer, and shall fully complete the Work within 120 calendar days.

1.5 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum No. 1, dated _____.
2. Addendum No. 2, dated _____.
3. Addendum No. 3, dated _____.
4. Addendum No. 4, dated _____.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are attached hereto.
- B.
1. Bid Form Supplement - Bid Bond Form (AIA Document A310-2010).

1.7 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in the Commonwealth of Pennsylvania, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

- A. Respectfully submitted this ____ day of _____, 2025
- B. Submitted By: _____ (Name of bidding firm or corporation).
- C. Authorized Signature: _____ (Handwritten signature).
- D. Signed By: _____ (Type or print name).
- E. Title: _____ (Owner/Partner/President/Vice President).
- F. Witness By: _____ (Handwritten signature).
- G. Attest: _____ (Handwritten signature).
- H. By: _____ (Type or print name).
- I. Title: _____ (Corporate Secretary or Assistant Secretary).
- J. Street Address: _____.
- K. City, State, Zip: _____.
- L. Phone: _____.
- M. License No.: _____.
- N. Federal ID No.: _____ (Affix Corporate Seal Here).

END OF DOCUMENT 004116

004116 - BID FORM - STIPULATED SUM – MECHANICAL CONTRACT

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: **CUSD Main Street School Cafeteria HVAC Improvements**
- C. Project Location:
1. Main Street Elementary School – 704 Main Street, Chester, PA 19015
- D. Owner: Chester Upland School District

1.2 CERTIFICATIONS AND MECHANICAL BASE BID

- A. Base Bid, Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by MG Engineering Associates, LLC, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:
1. _____ Dollars (\$_____).
- B. Bid Allowance: The Bid Allowance has been added to the bid to cover any unforeseen conditions and permit fees associated with the project.
1. Ten-Thousand Dollars (\$ 10,000.00).

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within **10** days after a written Notice of Award, if offered within **60** days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting ten percent (10%) of the Base Bid amount above:
1. _____ Dollars (\$_____).
- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 TIME OF COMPLETION

- A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Engineer, and shall fully complete the Work within 120 calendar days.

1.5 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum No. 1, dated _____.
2. Addendum No. 2, dated _____.
3. Addendum No. 3, dated _____.
4. Addendum No. 4, dated _____.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are attached hereto.
- B.
1. Bid Form Supplement - Bid Bond Form (AIA Document A310-2010).

1.7 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in the Commonwealth of Pennsylvania, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

- A. Respectfully submitted this ____ day of _____, 2025
- B. Submitted By: _____ (Name of bidding firm or corporation).
- C. Authorized Signature: _____ (Handwritten signature).
- D. Signed By: _____ (Type or print name).
- E. Title: _____ (Owner/Partner/President/Vice President).
- F. Witness By: _____ (Handwritten signature).
- G. Attest: _____ (Handwritten signature).
- H. By: _____ (Type or print name).
- I. Title: _____ (Corporate Secretary or Assistant Secretary).
- J. Street Address: _____.
- K. City, State, Zip: _____.
- L. Phone: _____.
- M. License No.: _____.
- N. Federal ID No.: _____ (Affix Corporate Seal Here).

END OF DOCUMENT 004116

**20 YEAR QA PLUS
WARRANTY**

WARRANTY NUMBER: 173775

OWNER: Chester Upland School District

ADDRESS: 704 Main Street, Upland, PA 19015

BUILDING DESCRIPTION: Main Street Elementary School - Roof: 2, 3, 4, Connector, 1-East & 1-West

ADDRESS: 704 Main Street, Upland, PA 19015

ROOF AREA: 31,900 sq. ft.

DATE OF JOB COMPLETION: December 19, 2017

INSTALLATION PRICE: \$992,834.61

ROOFING SYSTEM: Replacement: TPA Fleece Back

INSTALLATION CONTRACTOR: United States Roofing Corp. (WTI)

ADDRESS: 910 E Main St, Norristown, PA 19401

Tremco Incorporated (hereinafter "Tremco") hereby warrants to the above-named Owner that, subject to the terms, conditions, and limitations stated herein, it will repair leaks in the Tremco Roofing System identified above (hereinafter "TRS") for a period of twenty (20) years from the date of job completion. The term "TRS" shall be defined as the weatherproofing assembly and its components, which includes the following: membrane, insulation, flashings, all sheet metal-related details, and termination details as specified by Tremco.

Tremco will also provide the following maintenance-related services (Services, as defined below) to the Owner during the Warranty term to assist the Owner in properly maintaining the TRS and in maximizing its useful life and performance. All Services will be performed in a good and workmanlike manner in accordance with good roofing practices. Any Services that do not meet these standards will be corrected at no charge to the Owner.

A. SERVICES: INSPECTIONS, HOUSEKEEPING AND PREVENTIVE MAINTENANCE

In year two (2), year five (5), year ten (10), and year fifteen (15) of this warranty, Tremco shall provide the following roof inspections, preventive maintenance, and limited housekeeping Services on the TRS. (If the Owner has purchased a TremCare Service Agreement in addition to this Warranty, the Services, including inspections and related-reporting, will be carried out in accordance with the TremCare Service Agreement.)

1. Roof Inspections**A. Roof Inspections consist of the following:**

- Visual inspection of the roof membrane and roof surface conditions.
- Visual inspection of the flashing systems including the metal edge system, base flashings on equipment and adjoining walls, counter flashing and termination details, soil stacks and vents, roofing details, and rooftop projections such as pitch pans, HVAC equipment, skylights and access hatches.

B. Roof Inspections do not include:

- Inspection for internal or latent water damage or mold growth.
 - Detection or identification of mold or other latent conditions.
- Any core cuts or other testing or analysis beyond visual inspection.



2. Preventive Maintenance

A. Preventive Maintenance consists of the following minor repairs and maintenance to:

- Flashing components and details – Such as patching of minor flashing details and penetrations; reinforcement of open flashing laps; and sealing of open metal edge laps, coping joints, expansion joint laps, fasteners, pitch pans, storm collars and similar areas.
- Roof membrane – Such as repair of incidental splits, tears, open laps, or breaks in the membrane.
- Drains, Gutters & Scuppers – Such as tightening of accessible drain bolts and clamping rings; advising Owner of missing drain strainers; and drain details, unsecured gutters and open gutter joints.

B. Preventive Maintenance does not include:

- Repairs or maintenance of any building component other than the TRS, except as expressly stated above.
- Remediation, detection or abatement of mold.
- Recoating or other significant repair to, or replacement of, the roof membrane.

3. General Rooftop Housekeeping

A. General Rooftop Housekeeping consists of the following:

- Removal of debris (such as leaves, branches, paper and similar items) from the roof membrane and drainage areas.
- Disposal of debris will be at the Owner's approved on-site location and is the sole responsibility of the Owner.

B. General rooftop housekeeping does not include removal of items such as obsolete HVAC components, any construction materials left by other trades, or other equipment or tools left on the roof by the Owner or third parties.

The Services do not include extensive roof repairs, recoating, restoration or roof replacement unless those steps are determined by Tremco to be necessary in order to maintain compliance with the terms of the TRS Warranty. Removal of chemical or other manufacturing or industrial pollution and discharge is the sole responsibility of the Owner and is expressly excluded from coverage under the Warranty and is not within the scope of the Services. The Owner will be advised of any extensive repairs required and whether such repairs are covered under this Warranty prior to those repairs being undertaken.

B. ROOF INSPECTION REPORTS

Tremco will provide roof inspection reports to the Owner based upon the inspections as defined in Section A above. The reports shall become part of the OLI® database maintained on the TRS. Roof inspection reports will not address the presence of mold or water damage to any building components other than the TRS.

C. OWNER'S RESPONSIBILITIES

Tremco does not assume possession or control of any part of the Owner's facility (including the installed TRS) through this Warranty or otherwise. Once payment for the TRS and its installation is made in full, then such control and ownership are solely with the Owner, which is responsible for compliance with all applicable federal, state or local law, ordinances and regulations. The Owner is responsible for all repair, maintenance, and other work with respect to the TRS and the building, except as expressly stated otherwise in this Warranty. Neither this Warranty nor the Services described above eliminate or replace the building Owner's responsibility for following good roofing practices during the term of the Warranty, including keeping effluent and debris from the roof surface. The Owner shall, at all times, exercise reasonable care in the use and maintenance of the TRS including adherence to the care and maintenance responsibilities contained in the attached Owner's Manual.

Care and maintenance guidelines include, but are not limited to:

- * Regular ongoing inspection by the Owner between inspections by Tremco - This will allow for implementation of good housekeeping practices and early detection of problems such as any physical damage.
- * Verification that no alterations or unauthorized repairs have been made to the TRS.

The Owner shall report all leaks which occur in the TRS within the warranty period by immediately (within 24 hours) contacting Tremco at 1-800-422-1195, followed by written notice to Tremco Incorporated at 3735 Green Road, Beachwood, Ohio 44122, as soon as possible (however, in no event more than thirty (30) days) after leakage is or should have been discovered. In no event is Tremco responsible for any repairs to any part of the building other than the TRS. The liability and expense for such repair is with the Owner. If a leak is not within the coverage of this Warranty, Tremco shall advise the Owner, and the Owner shall have repairs performed within thirty (30) days according to Tremco specifications by a Tremco certified or approved applicator. Tremco reserves the right to charge the Owner in connection with responding to and inspecting building leaks that are not covered by the Warranty, including without limitation building leaks through windows, HVAC units, walls or other building components that are not part of the TRS. Such charges will be at Tremco's standard rates then in effect and Owner agrees to pay such charges on a net 30-day basis from the date of invoice. The Owner agrees to provide Tremco with unrestricted ready access to the TRS and all areas of the building on which the TRS is located.

D. EXTENDED OR RENEWED WARRANTY OPTION

The TRS you have purchased may be eligible for Warranty extension, or renewal after expiration, beyond the Term identified on page one above. Often, extension of the existing Warranty can be a very cost effective option and may be preferable to allowing the Warranty to expire, particularly for Owners with multiple facilities who may not want those buildings coming out of warranty coverage at or about the same time. It is Tremco's practice to contact Owners regarding our Warranty and renewal options at or about sixty (60) days prior to Warranty expiration. We also invite Owners to contact their Tremco Sales Representative at any time to discuss the applicable terms, conditions and eligibility for such an extension or renewal.

E. WARRANTY EXCLUSIONS

This Warranty does not cover any leaks, damage or failure of the TRS or any part thereof caused in whole or in part by any of the following:

1. Natural or accidental disasters including, but not limited to, damage caused by lightning, hailstorms, floods, winds in excess of 74 mph, tornadoes, earthquakes, fire, vandalism, animals, penetration of the membrane, or chemical attack by outside agents.
2. Use of materials not specified by Tremco, or repairs to the TRS that are not approved in advance in writing by Tremco.
3. Any intentional or negligent act on the part of the Owner or any third party including, but not limited to, abuse, misuse, traffic, or storage of or discharge of materials or effluent on the roof.
4. Failure of building components such as parapet walls, copings, chimneys, skylights, vents or roof deck or other faulty building construction or design.
5. Lack of positive, proper, or adequate roof drainage or ponding conditions.
6. Change in building usage without prior written approval from Tremco.

F. WARRANTY LIMITATIONS

Tremco shall have no responsibility and/or liability under this Warranty until all bills for installation, supplies, and services sold in connection with the TRS have been paid in full.

The Owner's rights under this Warranty are specific to the Owner and are not assignable or transferable.

Tremco may void its obligations under this Warranty based on the occurrence of the events described in Section E or failure of the Owner to comply with its obligations described in this Warranty, including with respect to payment of all bills related to the TRS or its installation, proper TRS care and maintenance and leak reporting. Tremco makes no warranty as to appearance of the TRS or any aesthetic condition.

THIS WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, OBLIGATIONS OR AGREEMENTS, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ALL OF WHICH ARE EXPRESSLY EXCLUDED. THE REMEDIES AND OBLIGATIONS STATED IN THIS WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES OF, AND OBLIGATIONS TO, THE OWNER FOR ANY AND ALL MATTERS ARISING WITH RESPECT TO OR IN ANY WAY CONNECTED WITH THE TRS, ITS COMPONENTS OR ANY GOODS OR SERVICES RELATED THERETO, REGARDLESS OF THE SOURCE OR PROVIDER OF SUCH GOODS OR SERVICES. NO REPRESENTATIVE OF TREMCO, OR ANY EMPLOYEE, AGENT OR AFFILIATED COMPANY (COLLECTIVELY "TREMCO") HAS AUTHORITY TO VARY OR ALTER THESE TERMS, WITHOUT EXPRESS WRITTEN PERMISSION OF A TREMCO OFFICER. IN NO EVENT SHALL TREMCO BE LIABLE FOR ANY DAMAGE TO THE BUILDING ITSELF (OTHER THAN THE TRS), THE CONTENTS OF THE BUILDING, OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. TREMCO'S TOTAL LIABILITY OVER THE LIFE OF THE WARRANTY, SHALL NOT IN ANY EVENT EXCEED IN DOLLAR VALUE THE INSTALLED CONTRACT PRICE OF THE TRS AS IT APPEARS ABOVE. THIS TOTAL LIABILITY SHALL BE PRO-RATED ON A STRAIGHT LINE BASIS OVER THE LIFE OF THE WARRANTY, AND TREMCO'S LIABILITY SHALL NOT EXCEED SUCH PRO-RATED AMOUNT. TREMCO SHALL NOT BE LIABLE FOR ANY DAMAGES WHICH ARE BASED UPON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY OTHER THAN THE EXCLUSIVE LIABILITY SET FORTH IN THIS WARRANTY.

The Owner agrees that this Warranty, and the Services and remedies set forth herein, are sole and exclusive, and there are no other warranties between the Owner and Tremco. Any unresolved issues under this Warranty shall be submitted to the exclusive jurisdiction of the state or federal courts of Cuyahoga County, Ohio, and governed by Ohio law without regard to choice of law principles.

It is expressly understood and agreed by the parties of this warranty that the Surety's liability, if any, under its performance bond with respect to warranty liabilities shall be limited to a one-year period, which shall begin when the customer accepts delivery or makes final payment in accordance with the terms of the contract. Tremco Incorporated, its successors, and/or assigns, shall be solely responsible for the balance of the term of its warranty in accordance with the terms found therein.

TREMCO INCORPORATED
ROOFING & BUILDING MAINTENANCE DIVISION

By: 

Title: Warranty Administrator

Date: January 24, 2018

DRAWING LIST

Drawing List- Mechanical					
NUMBER	NAME	Issue 1	Issue 2	Current Revision	Current Revision Date
M0.1	COVER SHEET- MECHANICAL	ISSUE FOR BID, OCTOBER 11 2024		1	01/23/2025
M1.1	FLOOR PLANS- MECHANICAL & PLUMBING	ISSUE FOR BID, OCTOBER 11 2024		1	01/23/2025
M2.1	SCHEDULES AND DETAILS- MECHANICAL	ISSUE FOR BID, OCTOBER 11 2024		1	01/23/2025
					Revision 1
					Revision 1

NOTES

THE SCHEDULES AND DRAWINGS REPRESENT ONLY CERTAIN REQUIREMENTS OF THE PROJECT. THERE ARE OTHER REQUIREMENTS OF THE PROJECT WHICH THE CONTRACTOR IS BOUND TO PROVIDE. A CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ONLY ON DRAWINGS OR SCHEDULES MAY LEAVE UNCLARIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE.

THE DELIVERY OF THIS DRAWING SHOULD NOT BE GUARANTEED TO ANYONE THAT ALL THE DIMENSIONS AND REQUIREMENTS OF THE PROJECT HAVE BEEN MET. THIS DRAWING MAY BE THE REVIEW AND APPROVAL BY THE DESIGN PROFESSIONAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ONLY ON DRAWINGS OR SCHEDULES MAY LEAVE UNCLARIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE.

Project:

CHESTER UPLAND
SCHOOL DISTRICT

MAIN STREET ELEMENTARY SCHOOL
CAFETERIA HVAC REPLACEMENT
704 MAIN ST.
UPLAND PA 19015

Client/Owner:

CHESTER UPLAND SCHOOL
DISTRICT

Date:	01/22/2025
Drawn By:	RC
Checked By:	-
Project Number:	2022-367

Issue/Revisions		
Rev. No.	Date	Description
1	01/23/2025	Revision 1

Drawing Name:
**COVER SHEET-
MECHANICAL**

VERIFY SCALE BAR IS
ONE INCH ON ORIGINAL
DRAWING

0 1

Drawing Number:

MO.1

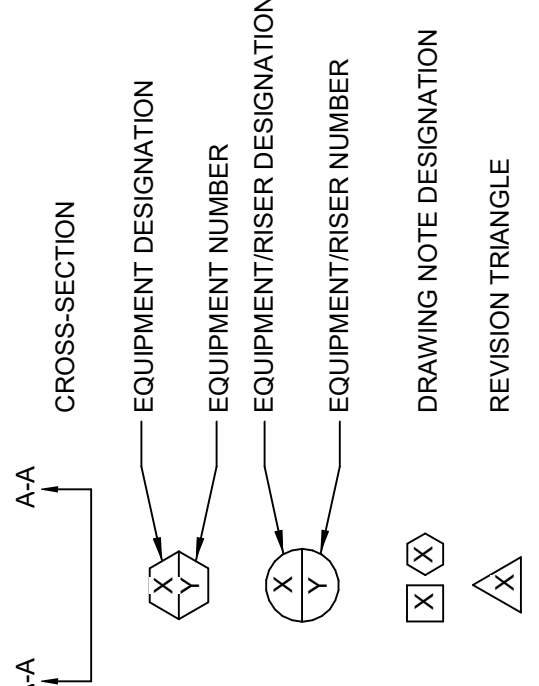
MECHANICAL GENERAL NOTES

- ALL WORK IS TO BE IN COMPLIANCE WITH THE 2018 INTERNATIONAL MECHANICAL CODE. NOT ALL CODE REQUIREMENTS HAVE BEEN DESCRIBED IN THIS SPECIFICATION OR INDICATED ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE CODES AND INSTALL THE WORK IN ACCORDANCE WITH CODES.
- OBTAIN AND PAY FOR BUILDING PERMITS, INSPECTIONS, CONNECTION CHARGES, AND FEES.
- THE CONTRACTOR IS TO SURVEY AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BID SUBMISSION AND BECOME AWARE OF ALL CONDITIONS WHICH MAY IMPACT THE REQUIRED WORK. CONTRACTOR IS TO INCLUDE ALL ASSOCIATED COSTS (MATERIALS/LABOR) DETERMINED TO BE REQUIRED DURING SITE INSPECTIONS. CONTRACTOR'S BID SUBMISSION IS TO BE CONSIDERED PROOF THAT THIS REQUIREMENT HAS BEEN MET.
- DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE TAKEN AS A WHOLE. IF A CONFLICT OR CONTRADICTION EXISTS BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT WILL APPLY. THE ARCHITECT'S AND ENGINEER'S INTERPRETATION OF THE DOCUMENTS ARE TO BE BINDING UPON THE CONTRACTOR.
- ALL WORK IS TO BE COORDINATED WITH AND APPROVED BY THE OWNER PRIOR TO ANY SHUT-DOWNS. ALL REQUESTS ARE TO BE SUBMITTED, IN WRITING, TO THE OWNER 24 TO 48 HOURS PRIOR TO REQUESTED DELETIONS.
- COORDINATE ALL ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO PURCHASING EQUIPMENT. VERIFY ALL VOLTAGE AND AMPERE REQUIREMENTS FOR FEEDERS AND MSCP DEVICES.
- ALL EXTERIOR WALL PENETRATIONS ARE TO BE SEALED, AIR- AND WATER-TIGHT. ALL PIPING PASSING THROUGH WALL OR FLOOR PENETRATIONS IS TO HAVE SLEEVES. ALL WALL OR FLOOR-RATED PENETRATIONS ARE TO BE SEALED WITH PREPARED SEALANT FORMED IN PLACE (BY 3M OR HILTI).
- SUBMIT SHOP DRAWINGS FOR ALL EQUIPMENT TO BE REVIEWED BY THE ENGINEER PRIOR TO ORDERING. COORDINATE ALL ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR AND PHYSICAL DIMENSIONS PRIOR TO SHOP DRAWING SUBMISSION.
- SUBMIT SHOP DRAWINGS OF ALL SHEET METAL FOR NEW DRAWINGS ARE TO BE NOT LESS THAN 1/8" THICK SCALE, AND ARE TO INDICATE ALL STEEL DOUBLE-LINE. INDICATE DETAIL OF FIRE DAMPER, SHEET METAL SHOP DRAWING WILL BE UTILIZED FOR CONTRACTOR'S COORDINATION DRAWINGS AND IS TO BE SUBMITTED WITH THE BID. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ONLY ON DRAWINGS OR SCHEDULES MAY LEAVE UNCLARIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE.
- INSTALL THE DUCTWORK WITHOUT PRIOR APPROVALS. THE CONTRACTOR IS TO ASSUME ALL RESPONSIBILITIES AND FIELD COORDINATION, AND PAY ALL ASSOCIATED COSTS ASSOCIATED WITH DUCTWORK INSTALLATION DEFICIENCIES, AND FIELD COORDINATION ISSUES.
- PROVIDE CONDENSATE DRAIN TO ACCEPTABLE CODE APPROVED DISCHARGE POINT. 1-1/2" PVC. ALL CONDENSATE PIPING IS TO HAVE 1/2" FIBERGLASS INSULATION WITH VAPOR BARRIER. PROVIDE CONDENSATE PUMPS WITH DISCHARGE CHECK VALVES IF GRAVITY FLOW IS NOT OBTAINABLE. SUBMIT SHOP DRAWING FOR REVIEW AND APPROVAL AND COORDINATE ELECTRICAL WORK WITH THE ELECTRICAL CONTRACTOR.
- ALL FINISHES RELATED TO MECHANICAL EQUIPMENT, TERMINAL EQUIPMENT, AIR DEVICES, PERMETER HEATERS, LOUVERS, ACCESS PANELS, EXPOSED DUCTWORK, AND ACCESS PANELS ARE TO BE COORDINATED AND SELECTED BY THE ARCHITECT/OWNER/ENGINEER PRIOR TO SHOP DRAWING SUBMISSION, ORDERING, AND INSTALLATION.
- FINAL LOCATIONS OF ALL THERMOSTATS, ACCESS PANELS, SENSE SENSORS, DETECTION DEVICES, ETC. IN FINISHED SPACES ARE TO BE COORDINATED AND APPROVED BY THE ARCHITECT/OWNER PRIOR TO ROUGH-IN AND INSTALLATION.
- PROVIDE NEW MERV 11 FILTERS FOR ALL NEW AND EXISTING HVAC EQUIPMENT. CONTRACTOR IS TO PROVIDE ONE SPARE SET OF MERV 11 FILTERS FOR EACH HVAC SYSTEM AND TURN OVER TO THE OWNER.
- THE CONTRACTOR IS TO PROVIDE MANUFACTURER'S START-UP OF ALL EQUIPMENT, AND SYSTEMS.
- PROPERLY INSTRUCT OWNER'S PERSONNEL IN THE OPERATION AND MAINTENANCE OF ALL SYSTEMS AND EQUIPMENT. PROVIDE THREE INSTRUCTION AND MAINTENANCE MANUALS. SUBMIT MANUALS FOR REVIEW PRIOR TO OPERATING INSTRUCTION.
- COORDINATE LOCATIONS AND ROUGH-IN REQUIREMENTS WITH ALL TRADES PRIOR TO INSTALLATION.
- IF THE CONTRACTOR ELECTS TO SUBMIT ALTERNATE EQUIPMENT, MANUFACTURERS, SYSTEMS, METHODS, OR MATERIALS NOT SPECIALLY IDENTIFIED IN THE DRAWINGS AND SPECIFICATIONS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE WORK WITH OTHER TRADES AND PAY FOR ANY ADDITIONAL COSTS ASSOCIATED WITH THE SUBSTITUTION OR CHANGE.
- PROVIDE ONE SET OF ELECTRONIC AS-BUILT DRAWINGS AT COMPLETION OF WORK. SUBMIT TO OWNER AND ENGINEER FOR REVIEW AND APPROVAL.

PROJECT DEDUCT/ADD ALTERNATES

REFER TO FLOOR PLANS

DRAWING SYMBOLS LIST

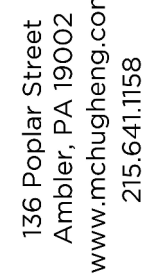


DESIGN NOTES

- DESIGN CONDITIONS
- SIZING, DESIGN AND PERFORMANCE OF THE HEATING AND COOLING SYSTEMS ARE BASED ON THE DESIGN CONDITIONS LISTED BELOW. THE CONTRACTOR SHALL VERIFY THESE CHARACTERISTICS MAY ADVERSELY AFFECT THE HEATING AND COOLING PERFORMANCE AND LEVEL OF COMFORT TO THE BUILDING OCCUPANTS.
- WEATHER STATION LOCATIONS - PHILADELPHIA, PA
- HEATING DEGREE DAYS = 4589
- OUTDOOR:
 - WINTER DRY BULB - 14°F
 - WINTER WET BULB - 10°F
 - SUMMER WET BULB - 74°F
- INDOOR:
 - WINTER DRY BULB - 70°F
 - SUMMER DRY BULB - 75°F

ABBREVIATIONS

ABS	ABSOLUTE	BWH	ELECTRIC WATER HEATER	N.O.	NORMALLY OPEN
AC	ALTERNATING CURRENT	EWT	ENTERING WATER TEMPERATURE	NTS	NUMBER
AD	AREA DRAIN	EXP	EXPANSION	NTS	NOT TO SCALE
AF	ABOVE FINISHED FLOOR	EXP JT		OA	OUTSIDE AIR
AG	AIR GAP FITTING	EXT	EXTERIOR	OD	OUTSIDE DIAMETER
AHU	AIR HANDLING UNIT	F	DEGREE FAHRENHEIT	OD	OVERFLOW DRAIN
AMP	AMPERE	F	FIRE PROTECTION WATER SUPPLY	QED	OPEN END DUCT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	FCO	FLOOR CLEANOUT	%	PERCENT
APP	APPROVED	FD	FLOOR DRAIN	PG	PRESSURE GAUGE
APPROX	APPROXIMATE	FDC	FIRE DEPARTMENT CONNECTION	PH	PHASE ELECTRICAL
AV	ACID VENT	PRC	PRESSURE REDUCING VALVE	PLBS	PLUMBING
AVG	AVERAGE	PRV	PRESSURE REDUCING VALVE	PMV	PRESSURE PER SQUARE FOOT
B.O.P	BOTTOM OF PIPE	PRV	PRESSURE REDUCING VALVE	PSF	POUNDS PER SQUARE INCH
BFP	BACKFLOW PREVENTION DEVICE	PSI	POUNDS PER SQUARE INCH	PVC	POLYVINYL CHLORIDE PIPE
BFV	BUTTERFLY VALVE	RFD	RUSH VALVE	RH	RELATIVE HUMIDITY
BHP	BRAKE HORSEPOWER	FLR	FLOOR	(R)	RELOCATE EXISTING
BLOS	BUILDING	FLO	FLOOR	(RE)	RELOCATE EXISTING
BV	BALANCING VALVE	FLM	FEET PER MINUTE	RA	RETURN AIR
BTU	BRITISH THERMAL UNIT	FRS	FEET PER SECOND	RD	ROSE DRAIN
BV	BALL VALVE	FS	FLOW SWITCH	RSD	RESEARCH DEVELOPMENT
BW	BACKWATER VALVE	FT	FEET	REQ	REQUIRED
CA	COMPRESSED AIR	FU	FUTURE UNIT	RG	RETURN AIR GRILLE
C.T.O.C	CENTER TO CENTER	FV	FUTURE VALVE	RH	RELATIVE HUMIDITY
CD	CONDENSATE DRAIN	G	NATURAL GAS	RM	ROOM
CFM	CUBIC FEET PER HOUR	GA	GAUGE	RPM	REVOLUTIONS PER MINUTE
CFM	CUBIC FEET PER MINUTE	GAL	GALLONS	RR	RETURN AIR REGISTER
CRT	CIRCUIT	GALV	GALVANIZED	RVC	RAINWATER CONDUCTOR
CLG	CEILING	GPH	GALLONS PER HOUR	RZPS	REDUCED PRESSURE ZONE SPP
CLG	CLEANOUT	GPH	GALLONS PER HOUR	SA	SHOCK ABSORBER
COL	CARBON DIOXIDE	GPM	GALLONS PER MINUTE	SCN	SCHEDULE
COL	COLUMN	GR	GRAINS OF MOISTURE	SDH	SUPPLY AIR DIFFUSER
COND	CONDENSATE	GND	GROUND	F	SQUARE FEET
CONA	CONNECTION	H	GAS WATER HEATER	SH	SHOWER
CONT	CONTINUED	H	ENTHALPY	SP	STAIRWELL
CONTR	CONTRACTOR	HB	HOSE BIB	SP	STAIRWELL
CP	CONTROL PANEL	HC	HANDICAP	SPO	SOUND PROTECTION DEVICE
CR	CONDENSER RETURN	HD	HEAD	SPEC	SPECIFICATION
CS	CONDENSER SUPPLY	HP	HORSEPOWER	SPR	SPRINKLER
CU/FT	CUBIC FEET	HR	HOUR	SQ	SQUARE
CU/IN	CUBIC INCH	HT	HEIGHT	SR	SUPPLY AIR REGISTER
CV	CHECK VALVE	HTR	HEATER	SS	STAINLESS STEEL
CW	COLD WATER (DOMESTIC)	HVAC	HEATING VENTILATION AIR CONDITIONING	STD	STANDARD
DB	DECEIL	HW	HOT WATER (DOMESTIC)	STL	STEEL
DB	DRY BULB	HWR	HOT WATER RETURN (DOMESTIC)	STR	STRIPPER
DCBP	DOUBLE CHECK BACKFLOW PREVENTER	HWR	HOT WATER RETURN (DOMESTIC)	STRUC	STRUCTURAL
DD	DECK DRAIN	HWS	HOT WATER SUPPLY	SUCT	SUCTION
DEG	DEGREE	FZ	FREQUENCY/ELECTRICAL	SV	SANITARY VENT
DFU	DRAINAGE FUTURE UNIT	D	INSIDE DIAMETER	SWW	SANITARY WASTE VENT
DI	DEIONIZED WATER	E	INVERT ELEVATION	TBP	TEMPERATURE & PRESSURE RELIEF VALVE
DIA	DIAMETER	E	INVERT ELEVATION	TEMP	TEMPERATURE
DIS	DISTILLED WATER	EW	INDIRECT WASTE	TP	TRAP PRIMER
DISCH	DISCHARGE	W	KILOWATT	TYP	TYPICAL
DN	DOWN	KWH	KILOWATT HOUR	UL	UNDERWATER'S LABORATORY
DP	DEEP	LAT	LEAKING AIR TEMPERATURE	UTL	UTILITY
DS	DOWNSPOUT	LAV	LAVATORY	VAC	VACUUM
DTV	DOUBLE THICK TURNING VANES	LES	POUNDS	VAV	VARIABLE AIR VOLUME
DVC	DRY VACUUM CLEANING	LF	LINEAR FEET	VAB	VACUUM BREAKER
DVG	DRAWING	LL	LOW LEVEL	VOL	VOLUME DAMPER
DWR	DOMESTIC WATER RISER	MAU	MAKE-UP AIR UNIT	VEL	VELOCITY
(E)	EXISTING	MAX	MAXIMUM	VERT	VERTICAL
(ETR)	EXISTING TO BE DEMOLISHED	MECH	MECHANICAL	VFD	VARIABLE FREQUENCY DRIVE
(ETR)	EXISTING TO BE RELOCATED	MFR	MANUFACTURER	VIF	VERIFY IN FIELD
EA	EXHAUST AIR	MAN	MANHOLE	VOL	VOLUME
EAT	ENTERING AIR TEMPERATURE	MAN	MANHOLE	VTR	VENT THROUGH ROOF
EFF	EFFICIENCY	MISC	MISCELLANEOUS	W	WITH
EFF	EFFICIENT	MOT	MOTOR OPERATED DAMPER	WB	WET BULB TEMPERATURE
EL	ELEVATION	(N)	NEW	WCD	WALL CLEANOUT
ELC	ELECTRICAL	NA	NOT APPLICABLE	WH	WALL HOOKOUT
EQ	EQUAL	NC	NOISE CRITERIA	WMS	WIRE MESH SCREEN
EQUIP	EQUIPMENT	N.C.	NORMALLY CLOSED	WP	WEATHERPROOF
ESP	EXTERNAL STATIC PRESSURE	NC	NOT IN CONTRACT	WFO	WITHOUT
EWAP	EVAPORATOR	NL	NIGHT LIGHT	WSPU	WATER SUPPLY FUTURE UNITS
ENC	ELECTRIC WATER COOLER			YR	YEAR



1. MECHANICAL CONTRACTOR TO PROVIDE ALL WINDOW AND THRU-THE-WALL UNITS WITH SECURITY METAL CAGES

1. MECHANICAL CONTRACTOR TO PROVIDE ALL WINDOW AND THRU-THE-WALL UNITS WITH SECURITY METAL CAGES

MECHANICAL KEY NOTES

- NOTED THUS

- M2 EXISTING WINDOW UNIT TO REMAIN
- M3 DUCTWORK TO BE INSTALLED ABOVE THE ROOF. INSTALL WITH 3 INCHES OF INSULATION AND PROVIDE WITH METAL WEATHER PROOF JACKET. PROVIDE DUCT SUPPORTS EVERY 8 FEET. ALTERNATE: PROVIDE A PRE-INSULATED OUTDOOR DUCTWORK SYSTEM SIMILAR TO "TUFF DUCT" OR "THERMADUCT".
- M4 DUCT PENETRATION THROUGH THE ROOF. REFER TO DETAIL. GENERAL CONTRACTOR TO PATCH AND SEAL PENETRATION AND REPAIR EXISTING ROOF MEMBRANE AS REQUIRED.

PLUMBING NOTE:

1. THE GAS PIPING WAS SIZED USING THE INTERNATIONAL FUEL GAS CODE 2021, TABLE 402.4(1). LONGEST PIPING DISTANCE 121'.
2. TOTAL GAS LOAD 200 MBH.
3. PROVIDE A GAS SHUT OFF VALVE AT EACH PIECE OF EQUIPMENT.
4. EQUIPMENT PIPING SHALL BE PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF ENAMEL PAINT.
5. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON FITTINGS.

PARTIAL FIRST FLOOR PLAN - MECHANICAL

MECHANICAL DUCTWORK NOTE:
DUCTWORK DRAWINGS/LAYOUT IS
DIAGRAMMATIC. ALL DUCTWORK
INSTALLATIONS AND SHEETMETAL SHOP
DRAWINGS SHALL BE IN ACCORDANCE
WITH MCHUGH ENGINEERING
ASSOCIATES DUCTWORK DETAILS AND
PER SMACNA STANDARDS.

VERIFY SCALE BAR IS
ONE INCH ON ORIGINAL
DRAWING

Drawing Number: **M1.1**

NOTES:
THE SCHEDULES AND DRAWINGS REPRESENT ONLY CERTAIN REQUIREMENTS OF THE PROJECT. THERE ARE OTHER REQUIREMENTS THAT MAY BE REQUIRED, WHICH THE CONTRACTOR IS BOUND TO PROVIDE. AS SUCH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. ONLY ON-DRAWINGS OR SCHEDULES MAY LEAVE ULTIMATELY BE THE CONTRACTOR'S SUPPLIER'S RESPONSIBILITY TO PROVIDE.

THE DELIVERY OF THIS DRAWING SHOULD NOT BE GUARANTEED TO ANYONE THAT ALL THE DIMENSIONS AND REQUIREMENTS OF THE PROJECT HAVE BEEN MET. THIS DRAWING APPLIES THE REVIEW AND APPROVAL BY THE CONTRACTOR'S PROFESSIONAL SEAL. THE CONTRACTOR'S PROFESSIONAL SEAL IS A REQUIREMENT FOR THE USE OF THIS INFORMATION WITHOUT THE WRITTEN APPROVAL OF THE DESIGN PROFESSIONAL. AS THE CONTRACTOR'S PROFESSIONAL SEAL IS A REQUIREMENT, THE CONTRACTOR'S PROFESSIONAL SEAL IS THE ONLY PROFESSIONAL SEAL AND NOT THE CONTRACTOR'S PROFESSIONAL SEAL AND NOT THE CONTRACTOR'S PROFESSIONAL SEAL.

Project:
CHESTER UPLAND SCHOOL DISTRICT
MAIN STREET ELEMENTARY SCHOOL
CAFETERIA HVAC REPLACEMENT
704 MAIN ST.
UPLAND PA 19015

Client/Owner:

CHESTER UPLAND SCHOOL DISTRICT

Date:	01/22/2025
Drawn By:	RC
Checked By:	Checker
Project Number:	2022-367

Issued/Revisions		
Rev. No.	Date	Description
1	01/23/2025	Revision 1

Drawing Name:
SCHEDULES AND DETAILS- MECHANICAL

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

Drawing Number:
M2.1

PACKAGED DX/GAS UNIT SCHEDULE

TAG	SERVICES	SUPPLY FAN AIR-FLOW (CFM) / ESP (IN. W.C.)	OUTSIDE AIR TONNAGE (CFM)	NOMINAL TONNAGE	REFRIGERANT	GAS CONN. (IN.)	COND. CONN. (IN.)	COOLING (DX)		DESIGN EER	INPUT / OUTPUT CAPACITY (MBH)	AFUE (%)	HEATING (NAT. GAS)		NO. OF STAGES	DEHUMIDIFICATION		ELECTRICAL		WEIGHT (LBS)	BASIS OF DESIGN	MODEL	COMMENTS		
								TOTAL SENSIBLE CAPACITY (MBH)	EAT (BTU) DBWB (°F)				MIN-MAX GAS PRESSURE (IN. W.C.)	EAT / LAT (°F)		TYPE	CAPACITY (MBH)	DB (°F) RH	LAT (°F) RH					FLA / MCA / MOCP	V / Ø
AHU-1	CAFETERIA	MAX 1,600 MIN 2,000 / 0.6	15	R-454B	1	1-1/2	1-1/2	1917/128	83.3 / 69.3	557/54	11.5	2007/60	80	7 - 14	MODULATING	45/83	HOT GAS REHEAT	-	72 / 40%	208 / 3	146 X 89 X 68	3,321	FRAME	HORIZON D015	1" THROUGH 20"
				</																					

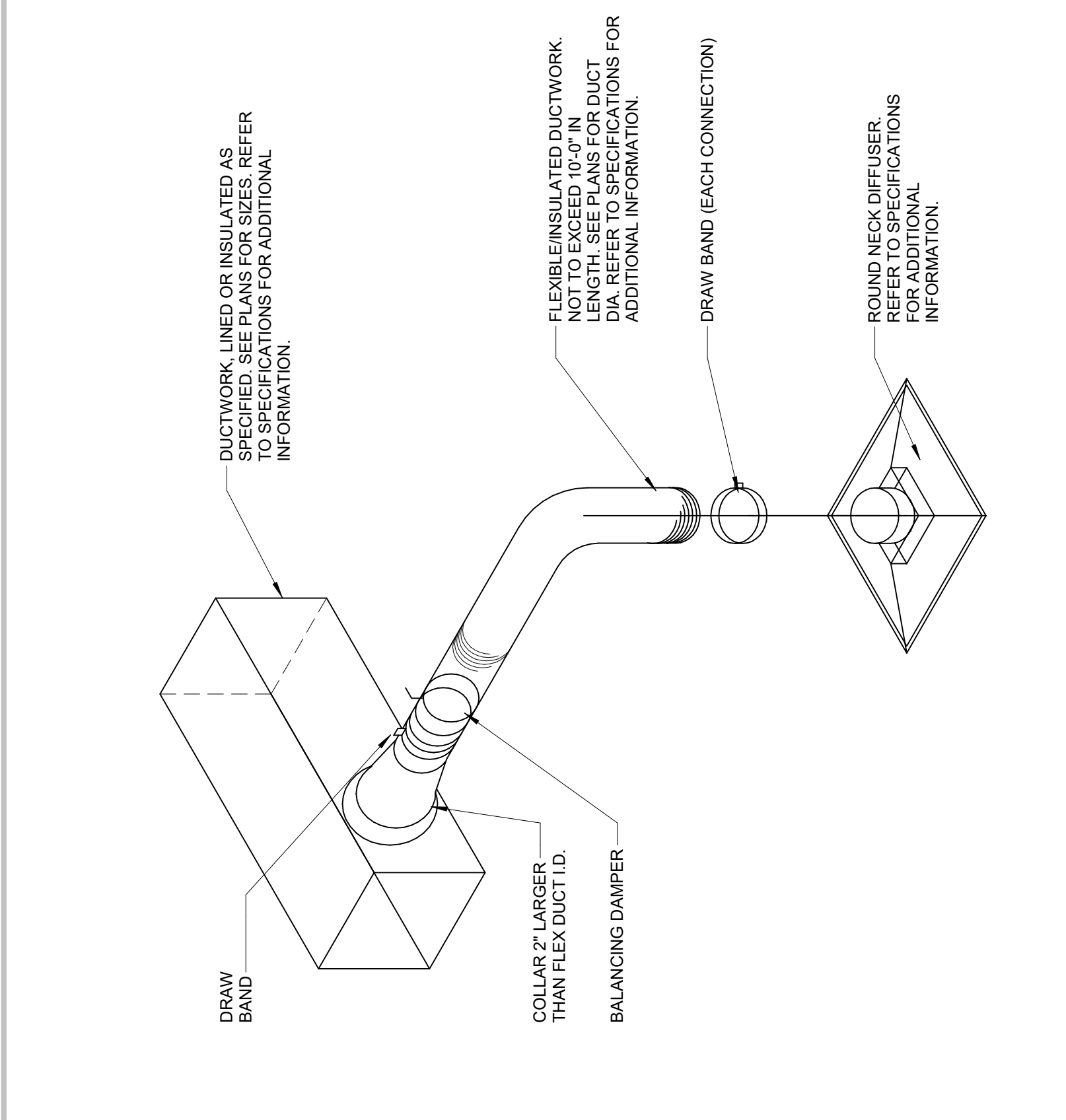
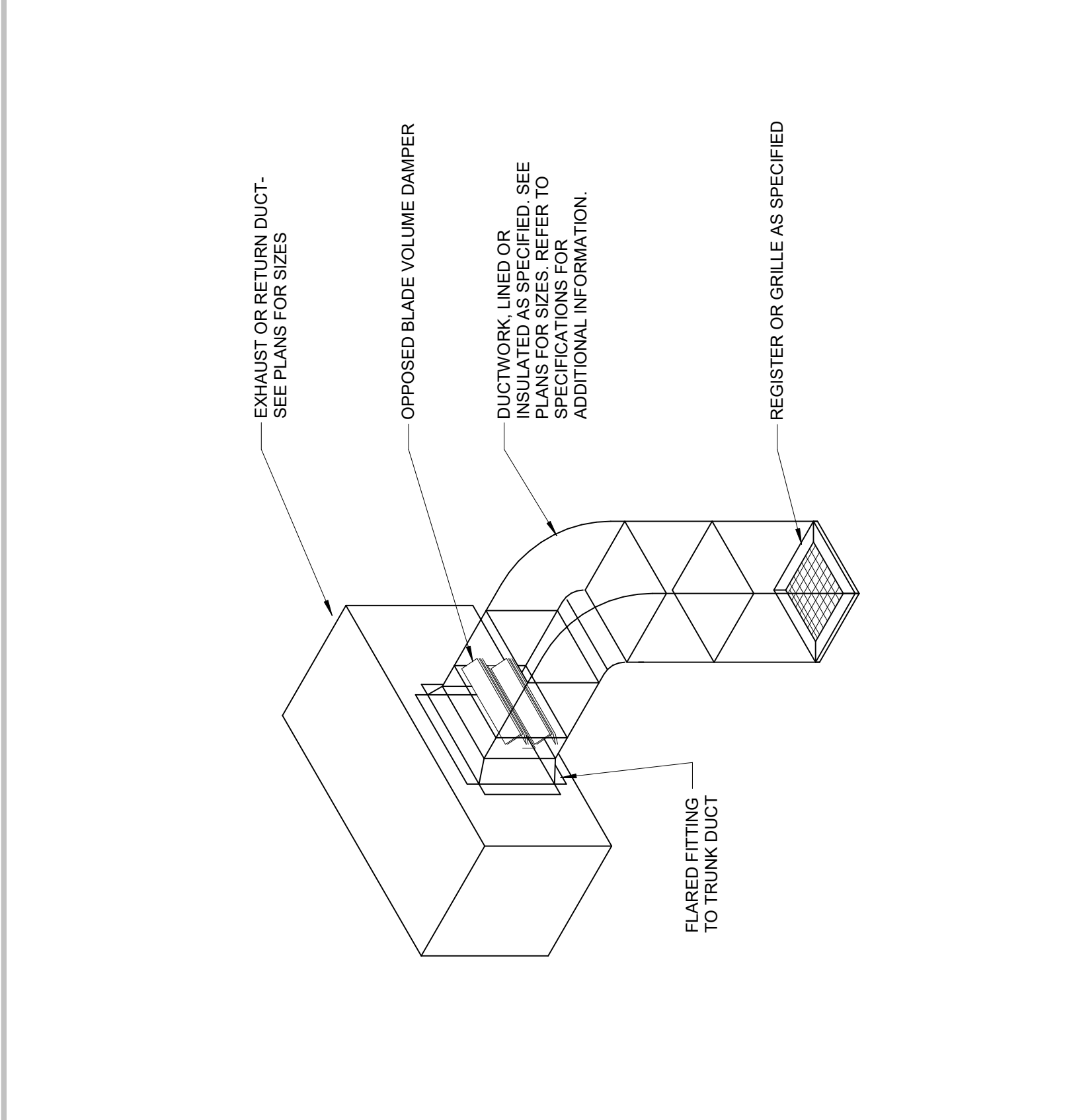
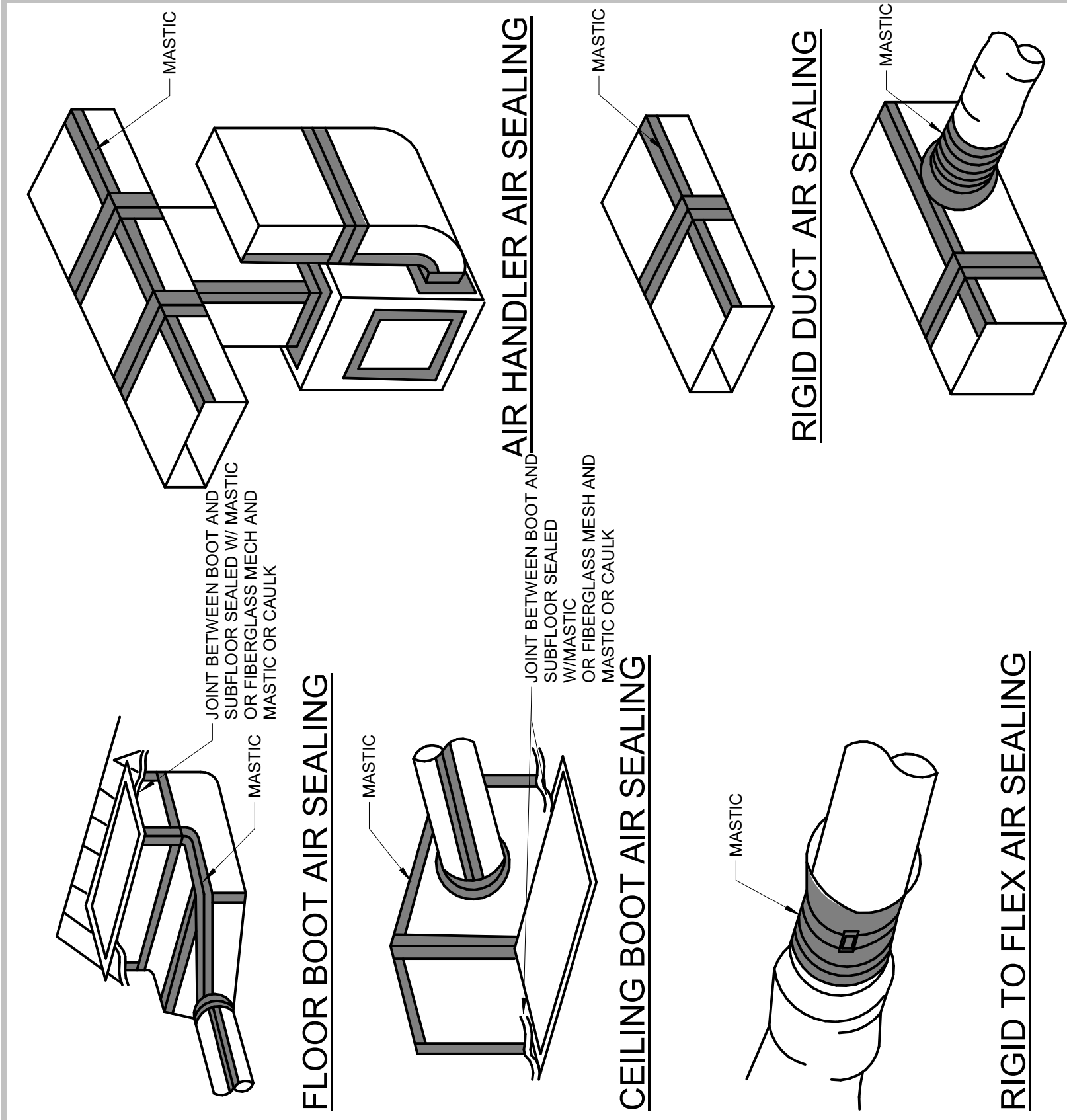
COMMENTS:
1. 1 YEAR MANUFACTURER'S WARRANTY AND START-UP, 5 YEAR COMPRESSOR WARRANTY.
2. 5 YEAR COMPRESSOR WARRANTY
3. 1500 CONVENIENCE REPAIRABLE
4. MOUNTED ON CONCRETE PAD WITH VIBRATION ISOLATORS.
5. 1500 CONVENIENCE REPAIRABLE
6. 1500 CONVENIENCE REPAIRABLE
7. MODULATING ENTHALPY ECONOMIZER AND POWER EXHAUST.
8. PROVIDE SUPPLY AIR DUCT TEMPERATURE AND HUMIDITY SENSORS.
9. PROVIDE SUPPLY AIR DUCT TEMPERATURE AND HUMIDITY SENSORS.
10. MODULATING HOT GAS REHEAT
11. 1500 CONVENIENCE REPAIRABLE
12. STAINLESS STEEL DRAIN PANS.

13. STAINLESS STEEL GAS HEAT EXCHANGER WITH FORCED DRAFT IGNITION.
14. 1500 CONVENIENCE REPAIRABLE
15. CONDENSER COIL GUARDS.
16. EXTEND CONDENSATE PIPING TO NEAREST STORM DRAIN
17. 1500 CONVENIENCE REPAIRABLE
18. FACTORY MOUNTED CONTROLLER
19. 1500 CONVENIENCE REPAIRABLE
20. EQUIVALENTS ONLY ALLOWED IF PRE-APPROVED BY THE ENGINEER PRIOR TO BIDS DUE DATE, AND MEETS ALL PERFORMANCE, DIMENSIONAL, AND EFFICIENCY REQUIREMENTS.

PACKAGED WINDOW UNIT SCHEDULE

TAG	NOMINAL TONS	AREAS SERVED	REFRIGERANT	AIRFLOW (CFM)	COOLING TOTAL / SENSIBLE CAPACITY (MBH)	WATER REMOVAL (PINTS/HR)	HEATING (HEAT PUMP) CAPACITY (MBH)	ELECTRICAL FLA / MCA / MOCP	UNIT V / PH / HZ	DIMENSIONS W X D X H (IN.)	WEIGHT (LBS)	BASE OF DESIGN	MODEL	COMMENTS
AC-1 BT	0.75	SEE PLANS	R-410A	500	10.8	10.9	2.0	2.0	230 / 1 / 60	25 X 25 X 16	105	FRIEDRICH	KWS18A11A	1" THROUGH 10
AC-1 T	1.5	SEE PLANS	R-410A	375	12.7	10.9	9.8	2.8	230 / 1 / 60	47 1/2 X 25 X 16	115	FRIEDRICH	KWS18A33A	1" THROUGH 10
AC-1 ST	1.5	SEE PLANS	R-410A	450	17.5 / -	10.9	14.9	2.8	230 / 1 / 60	74 1/2 X 25 X 18	141	FRIEDRICH	KIM18A35A	1" THROUGH 10
AC-2 T	2	SEE PLANS	R-410A	600	24.1	10.3	21.0	2.8	230 / 1 / 60	28 X 28 X 20	197	FRIEDRICH	KUL24A35A	1" THROUGH 10

COMMENTS:
1. 1 YEAR MANUFACTURER'S WARRANTY AND START-UP
2. 5 YEAR COMPRESSOR WARRANTY
3. 1500 CONVENIENCE REPAIRABLE
4. REMOTE CONTROL ONE REMOTE CONTROLLER PER CLASSROOM / ROOM SHALL CONTRX. ALL THE UNITS IN THE SAME ROOM PROVIDE A WALL MOUNTED REMOTE CONTROLLER HOLDER.
5. 1500 CONVENIENCE REPAIRABLE
6. 1500 CONVENIENCE REPAIRABLE
7. 4 COOLING / HEATING AND FAN ONLY SPEEDS.
8. WASHABLE AIR FILTER, ALTERNATE: PREMIUM CARBON FILTER.
9. 1500 CONVENIENCE REPAIRABLE
10. DRAIN KIT



RETURN OR EXHAUST REGISTER/GRILLE DETAIL
NOT TO SCALE

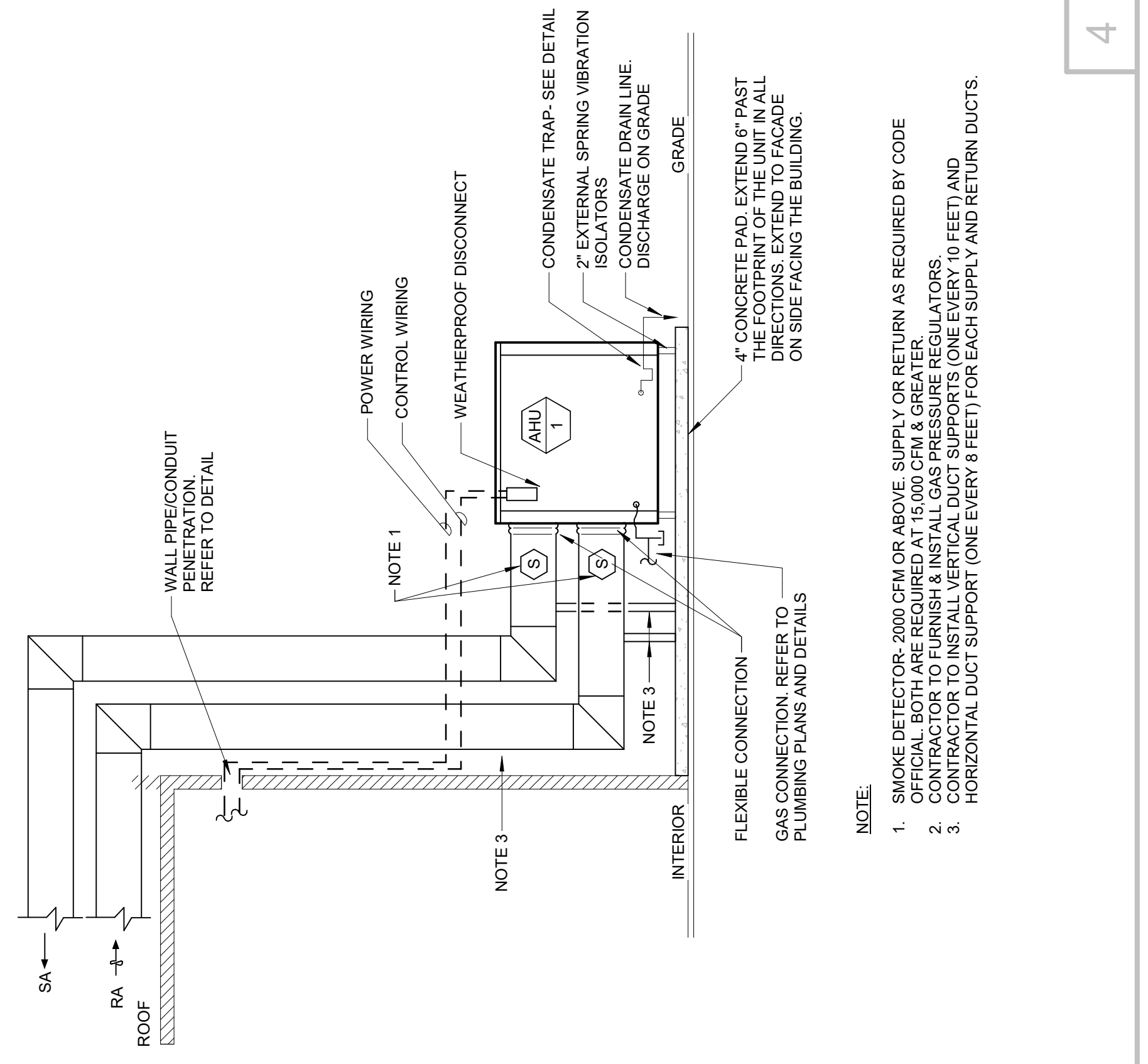
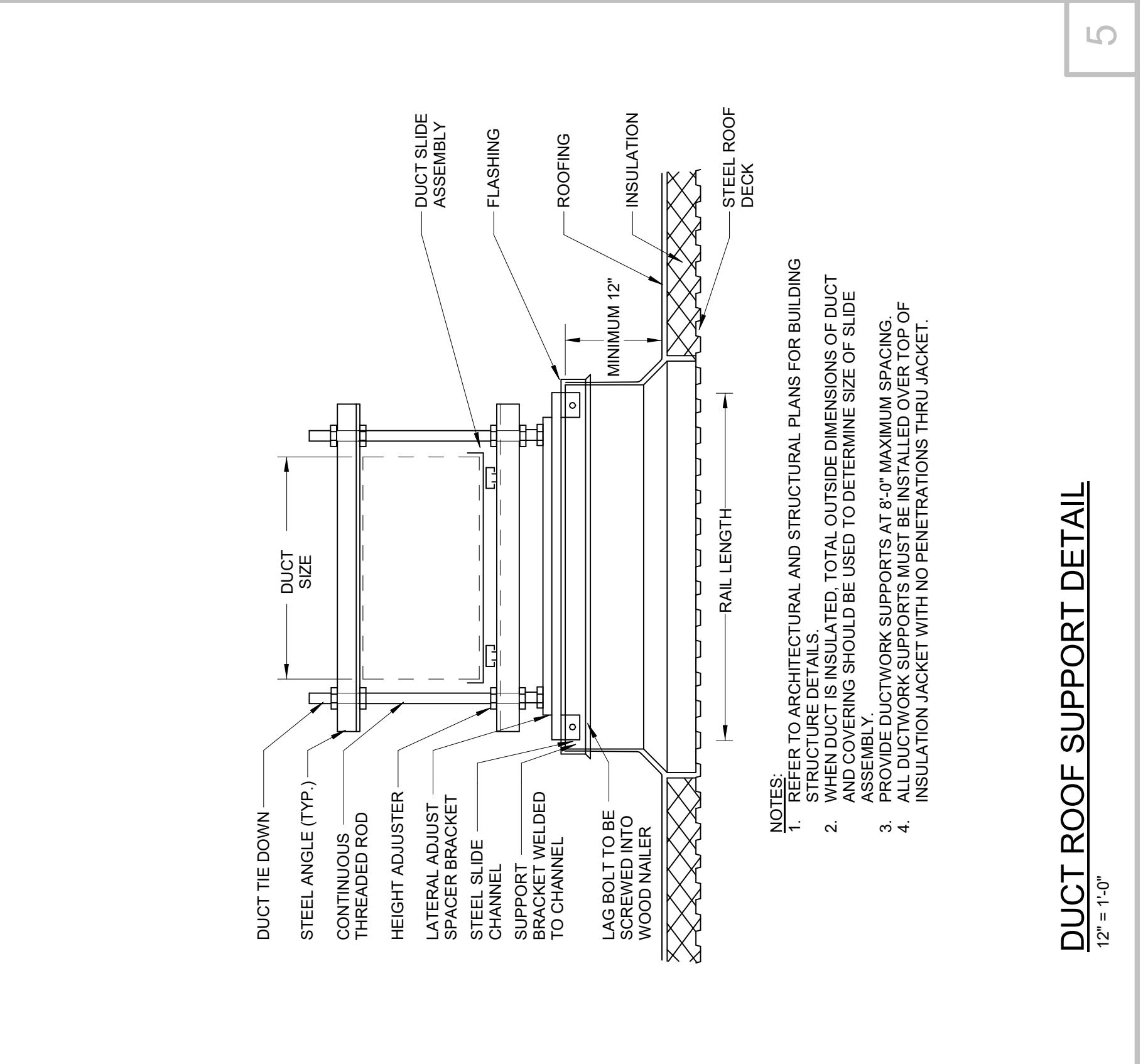
SUPPLY DIFFUSER DETAIL
NOT TO SCALE

DUCTWORK SEALING DETAIL
NOT TO SCALE

FLEX TAKE-OFF FROM RIGID AIR SEALING
NOT TO SCALE

DUCTWORK SEALING DETAIL
NOT TO SCALE

FLEX TAKE-OFF FROM RIGID AIR SEALING
NOT TO SCALE



NOTES:
1. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR BUILDING
2. WHEN DUCT IS INSULATED, TOTAL OUTSIDE DIMENSIONS OF DUCT AND COVERING SHOULD BE USED TO DETERMINE SIZE OF SLIDE
3. PROVIDE DUCTWORK SUPPORTS AT 8'-0" MAXIMUM SPACING.
4. ALL DUCTWORK SUPPORTS MUST BE INSTALLED OVER TOP OF INSULATION JACKET WITH NO PENETRATIONS THRU JACKET.

NOTES:
1. SMOKE DETECTOR, 2000 CFM OR ABOVE, SUPPLY OR RETURN AS REQUIRED BY CODE
2. CONTRACTOR TO FURNISH & INSTALL GAS PRESSURE REGULATORS.
3. CONDENSATE TRAP, 2" EXTERNAL SPRING VIBRATION ISOLATORS, DISCHARGE ON GRADE.
4. CONCRETE PAD, EXTEND 6" PAST DIRECTIONS, EXTEND TO FACED, ON SIDE FACING THE BUILDING.

NOTES:
1. SMOKE DETECTOR, 2000 CFM OR ABOVE, SUPPLY OR RETURN AS REQUIRED BY CODE
2. CONTRACTOR TO FURNISH & INSTALL GAS PRESSURE REGULATORS.
3. CONDENSATE TRAP, 2" EXTERNAL SPRING VIBRATION ISOLATORS, DISCHARGE ON GRADE.
4. CONCRETE PAD, EXTEND 6" PAST DIRECTIONS, EXTEND TO FACED, ON SIDE FACING THE BUILDING.

DUCTWORK DETAIL
NOT TO SCALE

DUCT ROOF SUPPORT DETAIL
12" = 1'-0"

4

2

1

6

THE SCHEDULES AND DRAWINGS REPRESENT ONLY CERTAIN REQUIREMENTS OF THE PROJECT. THERE ARE ADDITIONAL REQUIREMENTS IN THE SPECIFICATIONS WHICH THE CONTRACTOR IS BOUND TO PROVIDE. A SUPPLIER OR CONTRACTOR'S PRICING, WHICH IS BASED ONLY ON DRAWINGS OR SCHEDULES, MAY LEAVE ULTIMATELY BE THE CONTRACTOR OR SUPPLIER'S RESPONSIBILITY TO PROVIDE.

THE DELIVERY OF THIS DRAWING SHOULD NOT BE
CONSTRUED TO PROVIDE AN EXPRESS WARRANTY OR
GUARANTEE TO ANYONE THAT ALL THE DIMENSIONS AND
DETAILS ARE EXACT OR TO INDICATE THAT THE USE OF
THIS DRAWING IMPLIES THE REVIEW AND APPROVAL BY
THE DESIGN PROFESSIONAL OF ANY FUTURE USE. ANY
USE OF THIS INFORMATION WITHOUT THE WRITTEN
APPROVAL BY THE DESIGN PROFESSIONAL IS AT THE
SOLE RISK AND LIABILITY OF THE USER. THE DESIGN
PROFESSIONAL RESERVES THE RIGHT TO REMOVE OUR
PROFESSIONAL SEAL AND/OR TITLE BLOCK.

**CHESTER UPLAND
SCHOOL DISTRICT**

MAIN STREET ELEMENTARY SCHOOL
CAFETERIA HVAC REPLACEMENT
704 MAIN ST.
UPLAND PA 19015

CHESTER UPLAND SCHOOL
DISTRICT

Date:	01/22/2025
Drawn By:	KG
Checked By:	Checker
Project Number:	2022-367

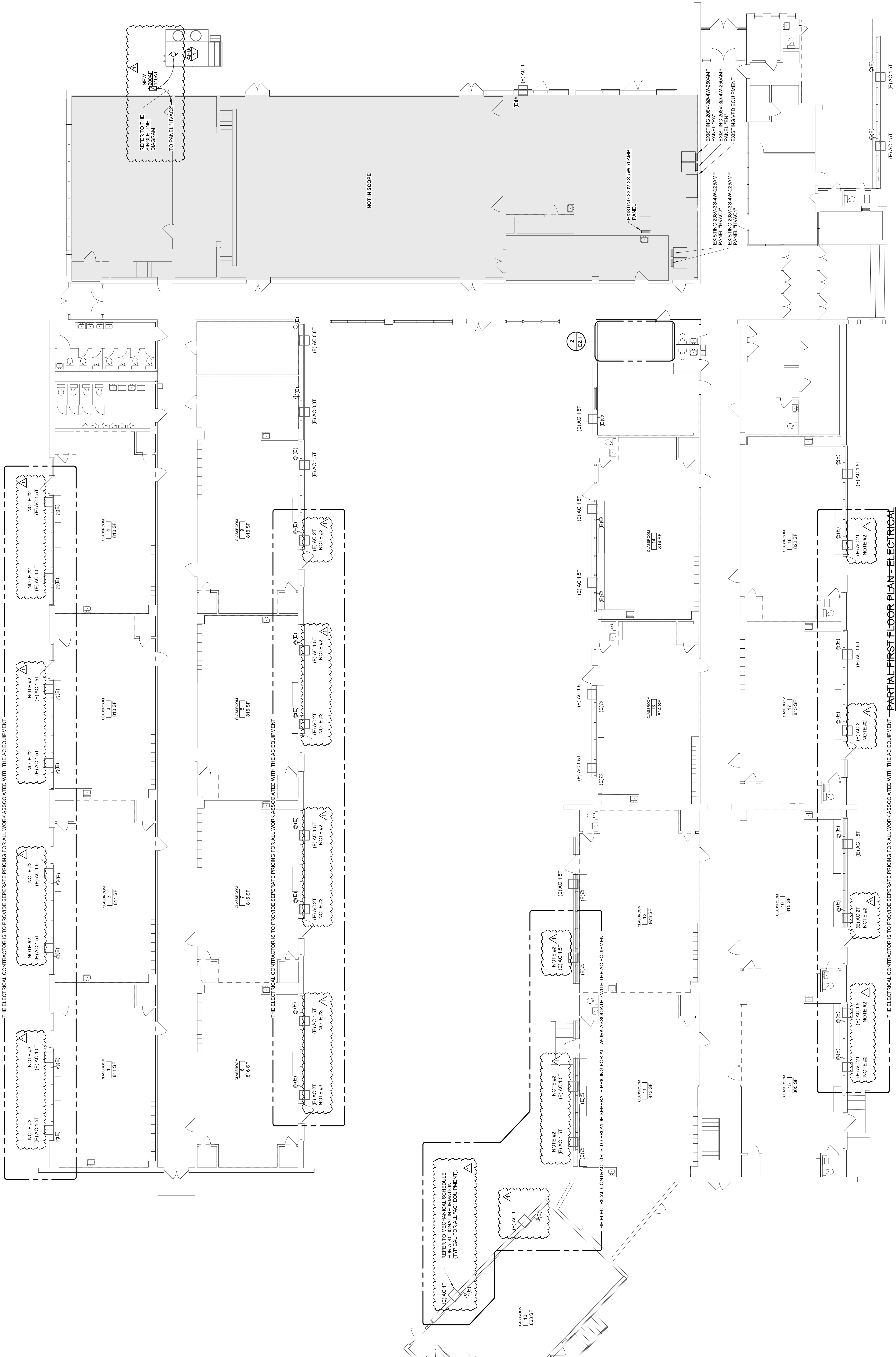
Issued/Revisions		
Rev. No.	Date	Description
1	01/23/2025	Revision 1

Drawing Name:
**FLOOR PLAN-
ELECTRICAL**

VERIFY SCALE BAR IS
ONE INCH ON ORIGINAL
DRAWING

Drawing Number:

0.1



GENERAL POWER NOTES:

- CONTRACTOR IS TO CONCEAL WIRING ABOVE THE EXISTING CEILING WHENEVER POSSIBLE. ALL EXPOSED WIRING IS TO BE INSTALLED IN EMT. CONDUIT PATHS IS TO BE AS DIRECT AND UNCONSPICUOUS AS POSSIBLE. COORDINATE CONDUIT ROUTE WITH OWNER PRIOR TO ROUGH-IN AND INSTALLATION.
- REMOVE EXISTING CONDUCTORS FROM WIRING PATHWAY. PROVIDE NEW 3/4"X1/2" AND IN EXISTING PATHWAY. TERMINATE ALL NEW CONDUCTORS AT EXISTING OVERCURRENT PROTECTION DEVICE AND RECEPTACLE DEVICE.
- REMOVE EXISTING CONDUCTORS FROM WIRING PATHWAY. PROVIDE NEW 2"X4"X1/2" AND IN EXISTING PATHWAY. TERMINATE ALL NEW CONDUCTORS AT EXISTING OVERCURRENT PROTECTION DEVICE AND RECEPTACLE DEVICE.

