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## Addendum

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Wallkill Central School District  
Wallkill, New York

SED NO. 62-18-01-06-0-005-017  
62-18-01-06-0-002-015  
62-18-01-06-0-007-019

Reconstruction to  
Plattekill Elementary School  
John G. Borden Middle School  
Wallkill Senior High School

Tt Project No. 17597-22002 – Phase 2

BID Addendum No. 3  
to  
Drawings and Project Manual

March 4, 2024

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To: ALL BIDDERS

This ADDENDUM forms a part of the BIDDING AND CONTRACT DOCUMENTS and modifies the following documents:  
Original DRAWINGS dated June 30, 2023.  
PROJECT MANUAL dated June 30, 2023, BID ADDENDUM NO. 1, dated February 21, 2024 and BID ADDENDUM NO. 2, dated February 27, 2024.

Acknowledge receipt of the ADDENDUM in the space provided on the FORM OF PROPOSAL

This ADDENDUM consists of (3) pages and the following:

### ATTACHMENTS

PRE-BID REQUEST FOR INFORMATION QUESTIONS/ANSWERS  
PHOTOS

### REISSUED PROJECT MANUAL SECTIONS

SECTION 01 10 00 – SUMMARY OF WORK (WITH ATTACHMENTS)  
SECTION 23 62 13 – UNITARY HEAT PUMP EQUIPMENT

### REISSUED DRAWINGS (30 x 42)

ACM100 First Floor Ceiling Phasing Plan  
ACM101 Second Floor Ceiling Phasing Plan

## **PROJECT MANUAL MODIFICATIONS**

**ITEM 3-C-1:** Refer to SECTION 01 10 00 – SUMMARY OF WORK (WITH ATTACHMENTS)

1. DELETE section in its entirety, and ADD new section attached to this addendum. This new section includes all previous attachments and Reissued Drawings ACM100 and ACM101 attached to this addendum.

## **PROJECT MANUAL MODIFICATIONS - MECHANICAL**

**ITEM 3-C-2:** Refer to SECTION 23 62 13 – UNITARY HEAT PUMP EQUIPMENT

1. DELETE section in its entirety and, ADD new section attached to this addendum.

## **DRAWING MODIFICATIONS - ARCHITECTURAL**

**ITEM 3-C-3:** Refer to DRAWINGS BA050 AND BA051

1. ADD the following note to the drawing title block below the last General Notes:

“NOTE: REFER TO SHEET BA052 FOR KEYED ROOF RESTORATION NOTE 5T PERTAINING TO PRECAST CONCRETE COPING WORK.”

**ITEM 3-C-4:** Refer to DRAWING BA052

1. Keyed Roof Restoration Note 5R, AMEND to read as follows:

“5R. EXISTING CURB/PARAPET WITH PRECAST CONCRETE COPING. PROVIDE POINTING MORTAR AND SEALANT AT ALL JOINTS. COORDINATE WITH OTHER PRIME CONTRACTORS. PREPARE ALL SURFACES, PROVIDE BUTYL FLEECE TAPE REINFORCING AT ALL SURFACES AND EXTEND COATED FOAMED ROOFING RESTORATION SYSTEM OVER TOP OF COPING. AT ROOF EDGE CONDITIONS, NEATLY MASK AND TERMINATE COATING SYSTEM AT EXTERIOR EDGE.”

2. Keyed Roof Restoration Notes, ADD the following note:

“5T. EXISTING CURB/PARAPET WITH DETERIORATED PRECAST CONCRETE COPING. PREPARE AND PATCH SELECT EXISTING PRECAST CONCRETE UNITS, APPROXIMATELY (12) 4’-0” LONG PIECES. REMOVE EXISTING COPING AND PROVIDE NEW PRECAST CONCRETE COPING UNITS TO MATCH EXISTING ADJACENT UNITS. NEW UNITS TO BE MECHANICALLY ANCHORED TO WALL WITH STAINLESS STEEL PINS, TYP, APPROXIMATELY (16) 4’-0” LONG PIECES. VERIFY EXACT PIECE LENGTH AND SHAPE IN FIELD”. LOCATIONS OF PATCHING VERSUS REPLACEMENT TO BE VERIFIED IN FIELD. QUANTITIES ARE FOR ENTIRE ROOF SCOPE.”

3. Keyed Roof Restoration Tag “5T”, ADD to the roof plan to the same four locations Keyed Roof Note 5R occurs.

## **DRAWING MODIFICATIONS - MECHANICAL**

**ITEM 3-C-5:** Refer to DRAWING AM101

1. Plan 5, Drawing Grid H-8, AMEND to read as follows:

“REUSE EXISTING CEILING OPENING. TYP ALL DIFFUSER AND GRILLES IN GYMNASIUM 150. PROVIDE SHEET METAL BACKPANELS TO INFILL UNUSED PORTIONS OF CEILING OPENINGS.”

2. Plan 5, GYMNASIUM 150, ADD photos attached to addendum for reference of existing conditions above gym ceiling.

ITEM 3-C-6: Refer to DRAWING AM105

1. Key Note 1, AMEND to read as follows:

“1. INSTALL CONDENSING UNIT ON EXISTING SUPPORTS SYSTEM. REUSE EXISTING PIPE PATH FOR RS/RL/CD AND FILL VOIDS WITH LOW EXPANSION SPRAY FOAM INSULATION.”

ITEM 3-C-7: Refer to DRAWING AM600

1. Remote Condensing Unit (RCU) Schedule, Note 4, DELETE in its entirety.

ITEM 3-C-8: Refer to DRAWING BM600

1. Remote Condensing Unit (RCU) Schedule, Note 10, DELETE in its entirety.

**END OF ADDENDUM**



**INSTRUCTIONS TO BIDDERS**  
**ATTACHMENT #1:**  
**PRE-BID REQUEST FOR INTERPRETATION FORM**

**SUBMIT FORM BY EMAIL TO [INE.Wallkill@tetrattech.com](mailto:INE.Wallkill@tetrattech.com)**

**Project No.:** 17597-22002

**Date:** 2/23/2024

**Project Name:** Reconstruction to Wallkill Senior High School, John G. Borden Middle School, and Plattekill Elementary School

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**Bidder Contact Person:** Travis Klemm  
**Bidder Company Name:** Armistead Mechanical  
**Bidder Phone:** (201) 345-2406  
**Bidder Email Address:** TMKlemm@Armistead-ny.com  
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**Question Pertains to:**

**Drawing Number:** AP401  
**Plan Area:** Plumbing Notes-3  
**Room Number:**  
**Drawing Detail Number:**  
**Specification Section:** 01 10 00 Summary of Work  
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**Question: (Please be specific)**

- 1.) Drawing AP401, AP402, AP403, BP050, Plumbing Notes-1&3 to reinsulate existing domestic water piping after asbestos abatement for field verification. Please clarify quantities/sizes as these areas have asbestos and are not accessible during bid time. Please clarify exact scope to be included.
- 2.) Specification 01 10 00 Summary of Work / 1.13 Contract PC-1 / 4. Temporary Facilities / C. Calls to provide and maintain fire & security systems during replacement of entrance doors & frames. Is this scope supposed to be under the EC? If not, who are the onsite fire & security systems companies? Please clarify scope.
- 3.) Specification 01 10 00 Summary of Work / 1.13 Contract PC-1 / 3. Demolition / e. Calls for plumbing contractor to: "drywall work, plaster work, grouting, painting, ceiling removal and replacement, etc.". Is this scope to only remove these items? Also please clarify if any scope needs to be included for "etc".

-----  
**Review by Architect/Engineers:**

**Responded By:** T Farlow, PE **Date:** 03/04/2024

- 1. Available information has been provided on the above noted drawings.
- 2. Contract PC-1 Plumbing Work Contract Delete 1.13.A.4.c Provide and maintain Fire Alarm and Security System during replacement of entrance doors and frames.
- 3. Contract PC-1 Plumbing Work Contract Delect 1.13.A.3.e All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, saw cuts, lintels (furnish and install), drywall work, plaster work, grouting, painting, ceiling removal and replacement, etc.

-----  
Submit requests not less than 5 working days prior to the specified Bid Opening date and time. In the event that this question requires clarification or modification of the Bidding Documents, such written information can only be provided by formal Addendum, distributed to all plan holders.



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**Project No.:** 17597-22002

**Date:**

**Project Name:** Reconstruction to Wallkill Senior High School, John G. Borden Middle School, and Plattekill Elementary School

-----  
**Bidder Contact Person:** Nicholas Lopilato  
**Bidder Company Name:** Clean Air Quality Service, Inc.  
**Bidder Phone:** 914-769-7700  
**Bidder Email Address:** nlopilato@caqs.com  
-----

**Question Pertains to:**

**Drawing Number:** N/A  
**Plan Area:** N/A  
**Room Number:** N/A  
**Drawing Detail Number:** N/A  
**Specification Section:** SECTION 23 09 00 - INSTRUMENTATION AND CONTROL FOR HVAC  
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**Question: (Please be specific)**

**CONTRACT HVAC-1 Mechanical Work Contractor**  
Who is the existing controls contractor for the district?

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**Review by Architect/Engineers:** \_\_\_\_\_ **Responded By:** T Farlow, PE **Date:** 03/04/2024

**The District controls contractor is Honeywell.**

-----  
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**Project No.:** 17597-22002

**Date:**

**Project Name:** Reconstruction to Wallkill Senior High School, John G. Borden Middle School, and Plattekill Elementary School

-----  
**Bidder Contact Person:** Jim Sass III  
**Bidder Company Name:** J&J Sass Electric Inc.  
**Bidder Phone:** 845-331-8666  
**Bidder Email Address:** jimsass3@jjsass.com  
-----

**Question Pertains to:**

**Drawing Number:**  
**Plan Area:**  
**Room Number:**  
**Drawing Detail Number:**  
**Specification Section:**  
-----

**Question: (Please be specific)** Please advise who the existing fire alarm manufacturer/vendor for the District.

**Review by Architect/Engineers:**-----**Thomas Farlow, PE**  
**Responded By:**-----**Date:** 02/29/2024

**Vendor:** AFA Protective Systems, Inc.  
**High School Fire Alarm Manufacturer:** Notifier Fire Systems  
**Borden Middle School Fire Alarm Manufacturer:** Notifier Fire Systems

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**INSTRUCTIONS TO BIDDERS**  
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**PRE-BID REQUEST FOR INTERPRETATION FORM**

**SUBMIT FORM BY EMAIL TO [INE.Wallkill@tetratech.com](mailto:INE.Wallkill@tetratech.com)**

**Project No.:** 17597-22002

**Date:** 2-28-24

**Project Name:** Reconstruction to Wallkill Senior High School, John G. Borden Middle School, and Plattekill Elementary School

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**Bidder Contact Person:** MICHAEL THOMAS  
**Bidder Company Name:** OCS INDUSTRIES, INC.  
**Bidder Phone:** 845-692-8450  
**Bidder Email Address:** estimating@ocsindustries.com  
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**Question Pertains to:**

**Drawing Number:**

**Plan Area:**

**Room Number:**

**Drawing Detail Number:**

**Specification Section:** Pg 252, Pg 253, APPEND 2 Pg 3

**Question: (Please be specific)**

PLEASE ADVISE ON GC-2 ALLOWANCES AND VALUES. SPEC PGS 252, 253, AND APPENDUM # 2 PG 3 ALL DIFFER ON NUMBER OF ALLOWANCES AND TOTALS.

-----  
**Review by Architect/Engineers:** \_\_\_\_\_ **Responded By:** Thomas Farlow, PE **Date:** 02/29/2024

Please see Bid Addendum No. 1 for the GC-2 General Work Contract (MS) Contingency Allowance for the correct Allowance No. 2. The Pre-Bid Meeting Agenda for (02/22/2024) is not a contract document and does not supersede information provided the bid within the documents.

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**SUBMIT FORM BY EMAIL TO [INE.Wallkill@tetrattech.com](mailto:INE.Wallkill@tetrattech.com)**

**Project No.:** 17597-22002

**Date:**

**Project Name:** Reconstruction to Wallkill Senior High School, John G. Borden Middle School, and Plattekill Elementary School

-----  
**Bidder Contact Person:** JOSHUA SMITH  
**Bidder Company Name:** OCS INDUSTRIES, INC.  
**Bidder Phone:** 845-692-8150  
**Bidder Email Address:** jsmith@ocsindustries.com

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**Question Pertains to:** ATHLETIC EQUIPMENT

**Drawing Number:** N/A  
**Plan Area:** B/C - GYMNASIUM  
**Room Number:** GYM  
**Drawing Detail Number:** N/A  
**Specification Section:** 116623- GYM EQUIPMENT

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**Question: (Please be specific)**

PLEASE VERIFY, ARE THE BRASS PLATES/STEEL SLEEVES PART OF THE FLOORING CONTRACT BY OTHERS OR IS IT PART OF THE GC-1 CONTRACT? ADDENDUM #1, SECTION 1.7.B ONLY REFLECTS DIVISIONS 1-10, HOWEVER, WE SAW THE ITEM INCLUDED IN THE PROJECT MANUAL AND WANTED TO CLARIFY.

-----  
**Review by Architect/Engineers:**

**Responded By:** T Farlow, PE **Date:** 03/04/2024

Labor and materials noted in Specification Section 11 66 23 Gymnasium Equipment to be provided by others. It is not part of GC-1.

-----  
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**INSTRUCTIONS TO BIDDERS**  
**ATTACHMENT #1:**  
**PRE-BID REQUEST FOR INTERPRETATION FORM**

**SUBMIT FORM BY EMAIL TO [INE.Wallkill@tetratech.com](mailto:INE.Wallkill@tetratech.com)**

**Project No.:** 17597-22002

**Date:** 02/28/24

**Project Name:** Reconstruction to Wallkill Senior High School, John G. Borden Middle School, and Plattekill Elementary School

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**Bidder Contact Person:** [Marija Trajkovska](#)  
**Bidder Company Name:** [UniMak LLC](#)  
**Bidder Phone:** [\(973\) 233-4647](#)  
**Bidder Email Address:** [marija.trajkovska@unimakllc.com](mailto:marija.trajkovska@unimakllc.com)

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**Question Pertains to:** [Asbestos Abatement](#)

**Drawing Number:**  
**Plan Area:**  
**Room Number:**  
**Drawing Detail Number:**  
**Specification Section:** [02 82 00](#)

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**Question: (Please be specific)**

[Please provide a quantity specification for pipe insulation and ACM Ceiling tile.](#)

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**Review by Architect/Engineers:** \_\_\_\_\_ **Responded By:** [JB](#) **Date:** [3/4/24](#)

Please reference plumbing drawings for pipe insulation. The AHAZ drawings show the ceiling area to be abated.

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Submit requests not less than 5 working days prior to the specified Bid Opening date and time. In the event that this question requires clarification or modification of the Bidding Documents, such written information can only be provided by formal Addendum, distributed to all plan holders.





TOP  
HT 10'

18" DIA  
APP  
10/16

10/16





## **SECTION 01 10 00 - SUMMARY OF WORK**

### A. GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Project Identification: Project consists of renovations to the Wallkill Senior High School, John G. Borden Middle School, and Plattekill Elementary Schools, as shown on the contract drawings and described in the project manual.

#### B.

1. Project Locations:

- a. Project sites located at various locations at the Wallkill Central School District

- 1) Wallkill Senior High School (High School)  
90 Robinson Drive  
Wallkill, NY 12589
- 2) John G. Borden Middle School (Middle School)  
109 Bona Ventura Avenue  
Wallkill, NY 12589
- 4) Plattekill Elementary School  
1270 Rt. 32  
Plattekill, NY 12568

2. Owner:

Wallkill Central School District  
1500 Rt 208  
PO Box 310  
Wallkill, NY 12589

3. Architect:

Tetra Tech Architects & Engineers  
Cornell Business and Technology Park  
10 Brown Rd.  
Ithaca, NY 14850

4. CM: Barone Construction Group, Inc.

23 New Paltz Rd.  
Highland, NY 12528

- C. The work includes alterations for various locations at the Wallkill Central School District.

1. All materials, equipment and methods of construction shall comply with all the requirements of the latest edition of The New York State Building Code, and the regulations of NY State Education Department.
2. The Specific work scheduled to be performed must be completed such that it will not impact/impede school egress when school is in session.

### 1.3 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and Division 0 & 1 Specification Sections, apply to this Section.

### 1.4 THE CONTRACT

- A. The Project will be constructed under a multiple prime contracting arrangement with the Owner awarding and holding separate Contracts. Each contractor shall furnish all labor, material, tools, equipment, supervision, layout, delivery, trucking, shop drawings, submittals, storage etc. necessary to complete the work described in the Division of Work of their respective Contracts and based upon a complete set of Contract Documents.
- B. Each Contractor has been given the opportunity prior to bid to inspect the entire Project sites for interferences to their Contract work and agrees to accept the sites as they exist on the date of the bid opening.
- C.
  - 1. It is the Owner's intention to continue to occupy the existing buildings and sites for normal School operations during the Construction process. The Contractors all agree to:
    - a. Cooperate with the Owner's personnel in maintaining and facilitating access to the school buildings and its facilities by the school staff, Students, Owner's agents, service consultants and the public, throughout the construction process.
    - b. Keep driveways and entrances serving the occupied School buildings clear and available to the Owner, the Owner's employees, the public and to emergency vehicles at all times. Do not obstruct access to or use these areas for parking or staging of equipment or materials. All access through these existing areas must be coordinated in advance and in accordance with the Owner's usage and occupancy schedule.
    - c. Schedule construction operations to minimize any conflicts or interruptions to the daily school functions. Coordinate any necessary interruptions with the designated project representative.
    - d. All existing Owner-occupied buildings (not turned over to the Project Contractors) need to remain operational at all times. The contractors are responsible to maintain all systems, such as but not limited to fire alarm, clocks, electric, public address system, gas service, heat, plumbing etc.
- D. Each Prime Contractor shall:
  - 1. Prohibit tobacco, alcohol, illegal drug and firearm possession and use by their employees while on site.
  - 2. Prohibit conduct which materially and substantially interferes with the educational process, including the use of obscene and profane language and gestures.
  - 3. Coordinate construction schedule information to formulate one master schedule for the entire Project.
  - 4. Provide adequate temporary restroom facilities for its own employees.
  - 5. Provide potable drinking water for its own employees.
  - 6. Provide access to all concealed systems as required for system maintenance and repair for items installed in their Prime Contract.
  - 7. Provide and maintain material lifting equipment required for the completion of their Contract requirements, and complying with NYS Labor Laws, OSHA Regulations, and other Federal, State, and local laws.
  - 8. Provide and maintain additional temporary stairs, ladders, ramps, scaffolding, and platforms required specifically for completion of work of their own Contract, and as further detailed in this section. All work needs to comply with the NYS Labor Laws, OSHA regulation, and other Federal, State, and local laws.

9. Provide Fire Prevention materials and equipment for fire protection related to the work of their own Prime Contract. Provide fire extinguishers, fire blankets, and fire watch during all cutting and welding operations.
10. Provide any supplemental lighting required to install the work of its own Contract, beyond the minimum OSHA levels provided under the Electrical Work Prime Contract.
11. Provide traffic control for deliveries, and equipment needed to perform the work of their own Prime Contract.
12. Provide protection of its own finished Work, after installation, until accepted by the Owner.
13. Provide fire caulking for any penetration related to the work for its own Prime Contract.
14. Provide final cleaning per Spec Section 01 77 00.
15. Provide any office and storage trailers required to complete the work of their own Prime Contract. The location of the office and storage trailers will be determined by the Owner and the Construction Manager.
16. Provide for a thorough final cleaning of the site, building, and equipment provided under their Prime Contract immediately before the final inspection. Each Prime Contractor is responsible for cleaning and dust and debris generated from the work of their own Contract.
  - a. Maintain areas in a cleaned condition until the Owner occupies the space.
  - b. Personnel: Experienced workmen or professional cleaners.
17. All personnel shall have company issued ID badges (with picture and name) visible while working on site.
18. Provide OSHA 10 cards to Construction Manager for each employee working on site prior to starting work.
19. All personnel working on site shall be provided and wear correctly fitted, proper PPE (personal protective equipment) suitable for their tasks as necessary and per OSHA requirements.
20. All personnel working on site shall wear proper working attire.
21. Failure to provide requirements listed above could lead to personnel being removed from site.

## 1.5 SUMMARY OF WORK

- A. The work will be constructed under multiple prime contracts. One set of contract documents is issued covering the multiple contracts. Each Prime Contract is defined as:
  1. CONTRACT GC-1 General Work Contractor – High School
  2. CONTRACT GC-2 General Work Contractor – Middle School
  3. CONTRACT GC-3 General Work Contractor – Plattekill Elementary School
  4. CONTRACT HVAC-1 Mechanical Work Contractor – Middle School and High Schools
  5. CONTRACT EC-1 Electrical Work Contractor –High Schools
  6. CONTRACT EC-2 Electrical Work Contractor – Middle School
  7. CONTRACT PC-1 Plumbing Work Contractor- Middle School and High Schools
- B. The owner will construct other projects generally concurrent with these contracts as follows. Cooperate fully with the separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this contract or other contracts. Coordinate the work of this contract with the work performed under the separate contracts.
- C. The following are furnished and installed contracts:
  1. Senior High School Gymnasium Floor Reconstruction
  2. Roofing Contractor 1- RC-4 Wallkill Senior High School, Including Asbestos abatement on Roof.
  3. Roofing Contractor 2- RC-5 John G. Borden Middle School, Including Asbestos abatement on Roof.
- D. The following are furnish only contracts (installation is by the specific primes called for in the contract documents)
  1. HVAC Equipment - installed by the Mechanical Work Contractor HVAC-1

- E. Currently the District has ongoing working at all schools, specifically Main Entrance Vestibule work. Each contractor is responsible for coordinating work with these contractors.

## 1.6 WORK UNDER SEPARATE CONTRACTS

- A. The project will be constructed under a multiple-prime contracting arrangement.
- B. One set of documents is issued covering all multiple prime contracts. Each prime contractor is to review ALL drawings and specifications for complete understanding and knowledge of the work.
- C. The following Contract Documents are specifically included and defined as integral to each Prime Contract.
  - 1. Bidding Requirements
  - 2. Performance and Payment Bonds
  - 3. Conditions of the Contract, including
    - a. General Conditions & Supplementary Conditions
    - b. Insurance Requirements
    - c. NYS Prevailing Wage Rates.
- D. Extent of Contract: Unless the Contract Documents contain a more specific description of the Work, names and terminology on Drawings and in Specification Sections determine which contract includes a specific element of Project.
  - 1. Unless otherwise indicated, the Work described in this Section for each contract shall be complete systems and assemblies, including products, components, accessories, and installation required by the Contract Documents.
  - 2. Concrete for the Work of each contract shall be provided by each contract for its own Work, unless specifically assigned to another Contract.
  - 3. Provide all cutting & patching associated with the Work of its Prime Contract. All patching is to be performed by mechanics qualified and experienced with the materials and finishes being patched and hired by the responsible Prime Contractor.
  - 4. Firestopping for the Work of each contract shall be provided by each contract for its own Work. Firestopping shall comply with Division 7 Section "Penetration Firestopping"
  - 5. Access doors not shown on Architectural drawings and required for access to junction boxes, valves and similar equipment for the Work of each contract shall be furnished and installed by each contract for its own Work. All access doors shall comply with Division 8 Section "Access Doors and Frames."
  - 6. Lead Based Paint precautions for the Work of each contract shall be provided by each contract for its own Work. Each Prime Contractor shall provide procedures for OSHA Lead precautions.
  - 7. Each Prime Contractor shall designate a full-time superintendent to supervise the work of the Prime Contractor, who shall always be present on the job site when work is being performed; this person shall be familiar with the Project and authorized to conclude matters relating to progress. This person shall also represent their company at weekly contractor meetings. The Owner, Construction Manager and Architect should be informed of the contractor's designated personnel and approve of the person.
  - 8. Termination and removal of its temporary facilities shall be provided by each contract for its own Work.
- E. Temporary Facilities and Controls: In addition to specific responsibilities for temporary facilities and controls indicated in this Section and in Division 1 Section 01 50 00 "Temporary Facilities and Controls," each Contract is responsible for the following:
  - 1. Installation, operation, maintenance, and removal of each temporary facility usually considered as its own normal construction activity, and costs and use charges associated with each facility
  - 2. Generators, plug-in electric power cords and extension cords, supplementary plug-in task lighting, and special lighting necessary exclusively for its own activities.

3. Temporary heat for construction at isolated work areas.
4. Temporary enclosures for its own construction activities.
5. Hoisting requirements for its own construction activities.
6. Each Prime Contractor is to stockpile their debris on a daily basis and place it in their dumpster. Dumpsters will be provided by each Prime Contractor at each site as necessary. All Prime Contractors are responsible to remove their waste offsite. Waste disposal of asbestos containing materials will be by the General Work Contractor.
7. Secure lockup of its own tools, materials, and equipment.
8. Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.
9. Safety procedures as dictated by the district, OSHA, and the NYS Department of Labor.
10. Safety and wayfinding signage.
11. Labor for daily clean-up.

## 1.7 GENERAL WORK CONTRACT - GC-1

- A. The Work of the General Work Construction Contract includes but is not limited to, the following descriptions:

1. Renovations to Locker Rooms, Bathrooms, Structural Steel Reinforcement for HVAC Work, CMU, Acoustical Ceilings, Ceramic Tile, Painting, and Associated Demolition Work & Asbestos Abatement, Etc..
  - a. Drawings
    - 1) General
    - 2) Code Compliance (AG Drawings)
    - 3) Architectural (AA Drawings)
    - 4) Structural (AS Drawings)
    - 5) Hazardous Materials (HAZ Drawings)
2. Coordination:
  - a. Coordination with the work of all the other contractors.
    - 1) Drawings
      - a) All
3. NOT in Scope but coordination by this contract
  - a. Roofing
  - b. *Gym Floor*
4. Demolition:
  - a. Asbestos Containing material removal as shown in the contract documents and disposal per Code Rule 56. Follow all spec section as listed. Only Interior Asbestos Abatement. Roofing abatement is by a separate contract.
  - b. Construction of hard barriers separating abatement areas from all other areas.
  - c. Properly dispose of Hazardous & Special Waste as per spec section 020080 Asbestos Abatement Procedures
  - d. Demolition including but not limited to interior doors/frames/hardware, ceilings, interior walls and interior finishes.
  - e. Removal and disposal of miscellaneous equipment including all existing wall mounted specialty items and/or equipment not shown if impacting work to be demolished.
  - f. All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, saw cuts, providing lintels, drywall work, grouting, painting, ceiling removal and replacement, etc.
  - g. Prep opening to receive new work as described in the contract documents.
  - h. Protect all smartboards in classrooms. Construct a plywood or other means structure to contain smartboards from damage during construction.
  - i. Hard barrier as required by SED to separate workspaces from occupied space.
5. Temporary Facilities
  - a. Provide and maintain dust protection.

- b. Provide and maintain continuous exits.
- c. Provide and maintain temporary heat and ventilation.
- d. Provide and maintain building safety and wayfinding signage.
- e. Provide and maintain enclosures and partitions.
- f. Provide and maintain secure building entrances during replacement of exterior doors and frames.
- g. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls"

6. New Construction:

- a. Shall Provide a construction schedule (per spec section 01 32 00 Construction Progress Documentation). All other prime contractors will be responsible for provide tasks and durations to the GC.
- b. Provide labor, material, and equipment to install cold formed metal framing
- c. Provide labor, material and equipment to install structural steel. Any removal of existing structural steel to perform work shall be removed in a safe manner and re-installed after completion of work. Coordination of work shall be performed with HVAC and Electrical Contractors.
- d. Provide labor, material and equipment to install new ceilings.
- e. Provide rough and finish carpentry.
- f. Provide thermal and moisture protection, other than roofing.
- g. Provide all finishes including: resilient vinyl tile, carpet, painting, suspended acoustical ceilings, LVT and ceramic tile.
- h. Contractor shall include painting for full wall of disturbed areas.
- i. Any areas disturbed during demo shall be repaired to like new.
- j. Contractor to build protection at each room that has a smart TV and projector.
- k. Work shown on drawing AA052 detail 2 & 3.*
- l. Lockers and all coordination.*
- m. Painting of the gym walls, ceiling, and movable partitions. The contractor shall coordinate all work with gym floor installation.*
- n. The contractor shall provide a list of long lead time items and shall be responsible for submitting these items within the one (1) week of receiving a notice of award.*

7. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.

8. Provide multiple shift work as needed to complete work as shown on milestone schedule. Work during the month of July and August can be performed during first shift and if required to complete work during second shift. All work outside of that shall be performed during second shift. It is the contractor's responsibility to include such shift work in their contract. The Owner will not be responsible for paying any cost associated with shift work. Contractors will be required to provide a detail schedule which will be approved by the Construction Manager for all shift work required prior to work commencing.

9. Provide for a thorough cleaning of the site and building (interior and exterior) immediately before final inspection.

- a. Maintain areas in a cleaned condition until the Owner occupies the space.
- b. Personnel: Experienced workman or professional cleaners.

B. The Work of the General Construction Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her particular work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:

- 1. Division 0- Bidding Requirements and Conditions of the Contract
- 2. Division 1 –General Requirements, all Sections, including Temporary Facilities indicated.
- 3. Division 3- Concrete all Sections
- 4. Division 2 – Existing Conditions all Sections
- 5. Division 4- Masonry all sections
- 6. Division 5 – Metals all Sections

7. Division 6 – Woods, Plastics, and Composites, all Sections except for 061026 Roofing Rough Carpentry
8. Division 7 – Thermal and Moisture Protection, all Section, except 070150.19 Preparation for Re-roofing, 075750 Coated Foamed Roofing Restoration, and 077200 Roof Accessories
9. Division 8 – Openings, all Sections except 085113 Aluminum Windows
10. Division 9 – Finishes, all Sections except 096466 Wood Athletic Flooring
11. Division 10- Specialties, all sections

1.8 GENERAL WORK CONTRACT - GC-2

- A. The Work of the General Work Construction Contract includes but is not limited to, the following descriptions:

1. Renovations to Locker Rooms, Ceiling, Structural Steel Reinforcement for HVAC work, CMU, Acoustical Ceilings, Ceramic Tile, Painting, and Associated Demolition Work & Asbestos Abatement, Etc.
  - a. Drawings
    - 1) General
    - 2) Code Compliance (BG Drawings)
    - 3) Architectural (BA Drawings)
    - 4) Structural (AB Drawings)
    - 5) Hazardous Materials (BHAZ Drawings)
  2. Coordination:
    - a. Coordination with the work of all the other contractors.
      - 1) Drawings
        - a) All
  3. NOT in Scope but coordination by this contract
    - a. Roofing
  4. Demolition:
    - a. Asbestos containing material removal as shown in the contract documents and disposal per Code Rule 56. Follow all spec section as listed. Only Interior Asbestos Abatement. Roofing abatement is by a separate contract.
    - b. Construction of hard barriers separating abatement areas from all other areas.
    - c. Properly dispose of Hazardous & Special Waste as per spec section 020080 Asbestos Abatement Procedures
    - d. Demolition including but not limited to interior doors/frames/hardware, ceilings, interior walls and interior finishes.
    - e. Removal and disposal of miscellaneous equipment including all existing wall mounted specialty items and/or equipment not shown if impacting work to be demolished.
    - f. All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, saw cuts, providing lintels, drywall work, grouting, painting, ceiling removal and replacement, etc.
    - g. Prep opening to receive new work as described in the contract documents.
    - h. Protect all smartboards in classrooms. Construct a plywood or other means structure to contain smartboards from damage during construction.
    - i. Hard barrier as required by SED to separate workspaces from occupied space.
  5. Temporary Facilities
    - a. Provide and maintain dust protection.
    - b. Provide and maintain continuous exits.
    - c. Provide and maintain temporary heat and ventilation.
    - d. Provide and maintain building safety and wayfinding signage.
    - e. Provide and maintain enclosures and partitions.
    - f. Provide and maintain secure building entrances during replacement of exterior doors and frames.

- g. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls"
6. New Construction:
- a. Shall Provide a construction schedule (per spec section 01 32 00 Construction Progress Documentation). All other prime contractors will be responsible for provide tasks and durations to the GC.
  - b. Provide labor, material, and equipment to install cold formed metal framing
  - c. Provide labor, material and equipment to install structural steel. Any removal of existing structural steel to perform work shall be removed in a safe manner and re-installed after completion of work. Coordination of work shall be performed with HVAC and Electrical Contractors.
  - d. Provide labor, material and equipment to install new ceilings.
  - e. Provide rough and finish carpentry.
  - f. Provide thermal and moisture protection, other than roofing.
  - g. Provide all finishes including: resilient vinyl tile, carpet, painting, suspended acoustical ceilings, LVT and ceramic tile.
  - h. Contractor shall include painting for full wall of disturbed areas.
  - i. Any areas disturbed during demo shall be repaired to like new.
  - j. *Masonry restoration work as shown on drawing BA052 keyed roof restoration Notes 5T. Coordinate all work with roofing contractor.*
  - k. *Provide roof hatch steel and interior ladder. See drawings BA050, BA400 and Details 12 & 13 on Drawing ZA750. Coordinate with other trades for location.*
  - l. *Lockers and all coordination.*
  - m. *The contractor shall provide a list of long lead time items and shall be responsible for submitting these items within the one (1) week of receiving a notice of award.*
7. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.
8. Provide multiple shift work as needed to complete work as shown on milestone schedule. Work during the month of July and August can be performed during first shift and if required to complete work during second shift. All work outside of that shall be performed during second shift. It is the contractor's responsibility to include such shift work in their contract. The Owner will not be responsible for paying any cost associated with shift work. Contractors will be required to provide a detail schedule which will be approved by the Construction Manager for all shift work required prior to work commencing.
9. Provide for a thorough cleaning of the site and building (interior and exterior) immediately before final inspection.
- a. Maintain areas in a cleaned condition until the Owner occupies the space.
  - b. Personnel: Experienced workman or professional cleaners.
- B. The Work of the General Construction Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her particular work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:
- 1. Division 0- Bidding Requirements and Conditions of the Contract
  - 2. Division 1 –General Requirements, all Sections, including Temporary Facilities indicated.
  - 3. Division 2 – Existing Conditions all Sections
  - 4. Division 3- Concrete all sections
  - 5. Division 4- Masonry all sections
  - 6. Division 5 – Metals, all Sections
  - 7. Division 6 – Woods, Plastics and Composites, all Sections except for 061026 Roofing Rough Carpentry
  - 8. Division 7 –Thermal and Moisture Protection, all Section, except 070150.19 Preparation for Re-roofing, 075750 Coated Foamed Roofing Restoration, and 077200 Roof Accessories
  - 9. Division 8 – Openings, all Sections except 085113 Aluminum Windows

- 10. Division 9 – Finishes, all Sections except 096466 Wood Athletic Flooring
- 11. Division 10- Specialties, all sections

1.9 GENERAL WORK CONTRACT - GC-3

- A. The Work of the General Work Construction Contract includes but is not limited to, the following descriptions:

1. Removal and Replacement of Windows, Masonry, Acoustical Ceilings, Flooring, Painting Drywall, Window Shades and Associated Demolition Work.

- a. Drawings
  - 1) General
  - 2) Code Compliance (DG Drawings)
  - 3) Architectural (DA Drawings)

2. Demolition:

- a. Removal of Windows and prepare opening for new. Protection of opening is required if windows cannot be installed the same day as removals.
- b. Minor Demolition including but not limited to interior ceilings, interior walls and interior finishes.
- c. Removal and disposal of miscellaneous equipment including all existing wall mounted specialty items and/or equipment not shown if impacting work to be demolished.
- d. All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, saw cuts, providing lintels, drywall work, grouting, painting, ceiling removal and replacement, etc.
- e. Prep opening to receive new work as described in the contract documents.
- f. Hard barrier as required by SED to separate workspaces from occupied space.

3. Temporary Facilities

- a. Provide and maintain dust protection.
- b. Provide and maintain continuous exits.
- c. Provide and maintain temporary heat and ventilation.
- d. Provide and maintain building safety and wayfinding signage.
- e. Provide and maintain enclosures and partitions.
- f. Provide and maintain secure building entrances during replacement of exterior doors and frames.
- g. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls"

4. New Construction:

- a. Provide labor, material, and equipment to install cold formed metal framing and gypsum board.
- b. Provide labor, material and equipment to repair/repoint masonry.
- c. Provide labor, material and equipment for rough and finish carpentry for installation of windows.
- d. Provide labor, material, and equipment Roller Shades.
- e. Provide labor, material and equipment for ceiling work.
- f. Provide labor, material and equipment for painting. Painting shall be a complete wall.
- g. Repair any masonry due to damage during demolition.
- h. Contractor shall include painting for full wall of disturbed areas.
- i. Any areas disturbed during demo shall be repaired to like new.
- j. *The contractor shall provide a list of long lead time items and shall be responsible for submitting these items within the one (1) week of receiving a notice of award.*

5. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.
  6. Provide multiple shift work as needed to complete work as shown on milestone schedule. Work during the month of July and August can be performed during first shift and if required to complete work during second shift. All work outside of that shall be performed during second shift. It is the contractor's responsibility to include such shift work in their contract. The Owner will not be responsible for paying any cost associated with shift work. Contractors will be required to provide a detail schedule which will be approved by the Construction Manager for all shift work required prior to work commencing.
  7. Provide for a thorough cleaning of the site and building (interior and exterior) immediately before final inspection.
    - a. Maintain areas in a cleaned condition until the Owner occupies the space.
    - b. Personnel: Experienced workman or professional cleaners.
- B. The Work of the General Construction Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her particular work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:
1. Division 0- Bidding Requirements and Conditions of the Contract
  2. Division 1 –General Requirements, all Sections, including Temporary Facilities indicated.
  3. Division 2 – Existing Conditions all Sections
  4. Division 4- Masonry- Section 04 01 20.19- Unit Masonry Restoration
  5. Division 6 – Woods, Plastics, and Composites, all Sections except for 061026 Roofing Rough Carpentry
  6. Division 7 –Thermal and Moisture Protection, all Section, except 070150.19 Preparation for Re-roofing, 075750 Coated Foamed Roofing Restoration, and 077200 Roof Accessories
  7. Division 8 – Openings, Sections 084113 Aluminum-Frames Entrances and Storefronts and 085113 Aluminum Windows
  8. Division 9 – Finishes, except for Sections 093013 Ceramic Tiling, 096466 Wood Athletic Flooring, 096566 Resilient Athletic Flooring, 096623 Resinous Matrix Terrazzo Flooring, 098433 Sound-Absorbing Wall Units and 096000 High Performance Coating
  9. Division 12- Furnishings, all sections

#### 1.10 MECHANICAL WORK CONTRACTS - HVAC-1

- A. Work of this Contract includes, but is not limited to, the following descriptions:
1. Includes HVAC Equipment, Piping, ductwork, control systems, plus other construction operations traditionally recognized as heating, ventilating and cooling work. This includes, but is not limited to, all work shown on the drawings, unless noted otherwise. It also includes Administrative and coordination responsibilities.
    - a. Drawings
      - 1) Mechanical
  2. Coordination:
    - a. Coordination with the work of all the other contractors.
      - 1) Drawings
        - a) All
  3. Demolition
    - a. Provide demolition of all HVAC equipment, controls, and piping as shown and as required per the Contract Documents.

- b. Removals and storage in a manner to re-install after work by others has been performed as per the Contract Documents.
  - c. Provide Coordination with other trades. Specific coordination with the General Work Contractor, Roofing Contractor & Electrical Contractor.
  - d. Removals shall be performed per the Milestone schedule
  - e. Provide layout for Roofing Contractor to perform required removals.
  - f. Roof penetrations. HVAC Contractor to locate all locations and sizes of equipment curbs. Provide mechanical equipment curbs to the Roofing Contractor. Roofing Contractor to provide all necessary penetrations, flashing and roofing.
4. Temporary Facilities
- a. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls"
5. Construction:
- a. *Note that* HVAC equipment will be provided under a separate contract as noted on the drawings. *HVAC not noted on the drawings as equipment furnished by owner will be the responsibility of this contract.* Delivery, storage, and Installation is by this contractor. Scheduling of delivery will be the responsibility of this contract and coordinated with the Construction Manager and the Commissioning company.
  - b. Provide all work indicated on the contract drawings
  - c. Provide and install all new hot water supply and return piping.
  - d. Provide and install ductwork and associated components per the drawings and specs
  - e. Install Air Handling Unit and Roof top units with heat recovery, unless otherwise noted.
  - f. Provide and install all refrigerant piping and hydronic piping to all units
  - g. Install unit heaters.
  - h. Install remote condensing units.
  - i. Where called on drawings provide re-installation of unit ventilators and finned tube. Any damage during removals will be the responsibility of this contractor to repair/replace at their own cost.
  - j. Provide and install all insulation, painting and labeling of new and modified piping, ductwork and equipment.
  - k. Provide all controls and energy management systems. Coordinate with owners to provided required system.
  - l. Provide proper roofing supports and accessories for equipment on roof.
  - m. Provide all testing, adjusting and balancing of all new and existing modified HVAC systems.
  - n. *Provide OSHA approved means and methods for safely working above the ceiling at the gym. The existing ceiling panels are not known to be structural. The contractor will be required to provide a temporary structurally approved system to work in this space. Any damage caused by the work of this contractor to the ceiling will be the responsibility of this contractor to repair at no additional cost to the owner. If the contractor is using the roof as a means of removing existing equipment and bringing new equipment into this space, they must protect the roof before any work. A protection plan must be provided and approved before work can take place. Any damage to the roof will be repaired by this contractor at no additional cost to the owner.*
  - o. All fees required for inspections and permits.
  - p. Provide support framing for HVAC equipment, e.g., mechanical equipment curbs.
  - q. Furnish access doors for HVAC access as indicated above (to be installed by GC)
  - r. Provide firestopping and sealing all HVAC penetrations
  - s. Furnish motor controllers/disconnects to Electrical Contractor for installation and wiring.
  - t. Provide owner training / commissioning of equipment and controls
  - u. All HVAC removals as shown and required for completion of the work.
6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.

7. Provide multiple shift work as needed to complete work as shown on milestone schedule. All work will be phased per the milestone schedule. MC to provide a more detailed schedule. It is the contractor's responsibility to include such shift work in their contract. The owner will not be responsible for paying any cost associated with shift work. Contractors will be required to provide a detailed schedule which will be approved by the CM for all shift work required prior to work commencing. Shift work will not be required during summer break unless necessary to maintain the project schedule.
- B. The Work of the Mechanical Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all plan drawings since certain details and/or notes may appear anywhere therein that apply to his/her particular work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:
1. Division 0- Bidding Requirements and Conditions of the Contract
  2. Division 1 –General Requirements all Sections, including Temporary Facilities indicated
  3. Section 07 84 13, Penetration Firestopping, as required for the Work of this Contract
  4. Section 07 84 43, Joint Firestopping, as required for the Work of this Contract
  5. Section 07 92 00, Joint Sealants, as required for the Work of this Contract
  6. Division 23 – Heating, Ventilating, and Air Conditioning, all Sections

#### 1.12 ELECTRICAL WORK CONTRACT - EC-1

- A. Work of this Contract includes, but is not limited to, the following descriptions:
1. Includes interior and exterior Electrical Lighting, Electrical Panel and Equipment connections and other systems traditionally recognized as Electrical work. This includes but is not limited to, all work shown on the Drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.
    - a. Drawings
      - 1) Electrical (AE Drawings)
  2. Coordination:
    - a. Coordination with the work of all of the prime contractors.
      - 1) Drawings
        - a) All
  3. Demolition:
    - a. Removal of items as shown and/or required.
    - b. Removal and disconnections of electrical devices in walls, ceilings, floors and site scheduled to be removed in portion of building and site where other work is being performed.
    - c. Coordinate with the Construction Manager for necessary shutdowns and removals. Minimum of 48-hour notice will be required for any shutdown so that it doesn't affect other trades or the school district's operations. Shutdown may be required to be performed during second shift or weekend.
    - d. Disconnect power to mechanical and plumbing equipment as required per the contract documents. Coordinate all work with HVAC Contractor.
    - e. All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, saw cuts, lintels (furnish and install), drywall work, plaster work, grouting, painting, ceiling removal and replacement, etc.
  4. Temporary Facilities
    - a. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls"
    - b. Provide and maintain temporary electric power and lighting.
    - c. Provide and maintain fire alarm and security system during replacement of the entrance doors and frames.

- d. Provide temporary power for the GC for Asbestos Abatement Work. GC to provide temporary panel for the Electrician to power and disconnect power at the end of work. This contract provides any required breakers to provide this temp. power.

5. New Construction:

- a. Provide ALL wiring to ALL HVAC equipment as indicated on the drawings
- b. Provide new lighting fixtures indicated on the contract documents.
- c. All existing and new wire shall be properly supported above the ceiling per the contract documents. This includes all wire that is currently sitting on the ceiling tile and grid in areas where ceilings are to be removed.
- d. Reinstall Items that were removed and relocated as per the contract documents.
- e. Remove, salvage and re-install all wall/ceiling mounted speakers in classrooms. Extend wiring as required due to ceiling height changes.
- f. Provide all cutting and patching required for installing all electrical fixtures, devices, wire and conduit.
- g. Provide all fees required for inspections and permits.
- h. Provide and install all interior lighting and exterior lighting. All cutting and patching for lighting will be by this contractor.
- i. Provide support framing for Electrical equipment and conduits.
- j. Provide firestopping and sealing all electrical penetrations
- k. Provide owner training

6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.

7. Provide multiple shift work as needed to complete work as shown on milestone schedule. It is the contractor's responsibility to include such shift work in their contract. The owner will not be responsible for paying any cost associated with shift work. Contractors will be required to provide a detailed schedule which will be approved by the CM for all shift work required prior to work commencing.

- B. The Work of the Electrical Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all plan drawings since certain details and/or notes may appear anywhere therein that apply to his/her particular work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:

1. Division 0- Bidding Requirements and Conditions of the Contract
2. Division 1 –General Requirements all Sections, including Temporary Facilities indicated
3. Section 07 84 13, Penetration Firestopping, as required for the Work of this Contract
4. Section 07 84 43, Joint Firestopping, as required for the Work of this Contract
5. Section 07 92 00, Joint Sealers, as required for the Work of this Contract
6. Division 23 – Heating, Ventilating and Air Conditioning as applicable for Equipment Connections
7. Division 26 - Electrical - All Sections
8. Division 28 – Electronic Safety and Security- All Sections

1.12 ELECTRICAL WORK CONTRACT - EC-2

- C. Work of this Contract includes, but is not limited to, the following descriptions:

1. Includes interior and exterior Electrical Lighting, Electrical Panel and Equipment connections and other systems traditionally recognized as Electrical work. This includes but is not limited to, all work shown on the Drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.

- a. Drawings
  - 1) Electrical (BE Drawings)

2. Coordination:

- a. Coordination with the work of all of the prime contractors.

- 1) Drawings
  - a) All

3. Demolition:

- a. Removal of items as shown and/or required.
- b. Removal and disconnections of electrical devices in walls, ceilings, floors and site scheduled to be removed in portion of building and site where other work is being performed.
- c. Coordinate with the Construction Manager for necessary shutdowns and removals. Minimum of 48-hour notice will be required for any shutdown so that it doesn't affect other trades or the school district's operations. Shutdown may be required to be performed during second shift or weekend.
- d. Disconnect power to mechanical and plumbing equipment as required per the contract documents. Coordinate all work with HVAC Contractor.
- e. All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, saw cuts, lintels (furnish and install), drywall work, plaster work, grouting, painting, ceiling removal and replacement, etc.

4. Temporary Facilities

- a. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls"
- b. Provide and maintain temporary electric power and lighting.
- c. Provide and maintain fire alarm and security system during replacement of the entrance doors and frames.
- d. Provide temporary power for the GC for Asbestos Abatement Work. GC to provide temporary panel for the Electrician to power and disconnect power at the end of work. This contract provides any required breakers to provide this temp. power.

5. New Construction:

- a. Provide ALL wiring to ALL HVAC equipment as indicated on the drawings
- b. Provide new lighting fixtures indicated on the contract documents.
- c. All existing and new wire shall be properly supported above the ceiling per the contract documents. This includes all wire that is currently sitting on the ceiling tile and grid in areas where ceilings are to be removed.
- d. Reinstall items that were removed and relocated as per the contract documents.
- e. Remove, salvage and re-install all wall/ceiling mounted speakers in classrooms. Extend wiring as required due to ceiling height changes.
- f. Provide all cutting and patching required for installing all electrical fixtures, devices, wire and conduit.
- g. Provide all fees required for inspections and permits.
- h. Provide and install all interior lighting and exterior lighting. All cutting and patching for lighting will be by this contractor.
- i. Provide support framing for Electrical equipment and conduits.
- j. Provide firestopping and sealing all electrical penetrations
- k. Provide owner training

6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.

7. Provide multiple shift work as needed to complete work as shown on milestone schedule. It is the contractor's responsibility to include such shift work in their contract. The owner will not be responsible for paying any cost associated with shift work. Contractors will be required to provide a detailed schedule which will be approved by the CM for all shift work required prior to work commencing.

D. The Work of the Electrical Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all plan drawings since certain details and/or notes may appear anywhere therein that apply to his/her particular work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:

1. Division 0- Bidding Requirements and Conditions of the Contract
2. Division 1 –General Requirements all Sections, including Temporary Facilities indicated
3. Section 07 84 13, Penetration Firestopping, as required for the Work of this Contract
4. Section 07 84 43, Joint Firestopping, as required for the Work of this Contract
5. Section 07 92 00, Joint Sealers, as required for the Work of this Contract
6. Division 23 – Heating, Ventilating and Air Conditioning as applicable for Equipment Connections
7. Division 26 - Electrical - All Sections
8. Division 28 – Electronic Safety and Security- All Sections

#### 1.13 CONTRACT PC-1 – PLUMBING WORK CONTRACTOR

A. Work of this Contract includes, but is not limited to, the following descriptions:

1. Includes All work traditionally recognized as Plumbing work. This includes but is not limited to, all work shown on the Drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.
  - a. Drawings
    - 1) Plumbing
2. Coordination:
  - a. Coordination with the work of all of the prime contractors.
    - 1) Drawings
      - a) All
3. Demolition:
  - a. Removal of items as shown and/or required.
  - b. Removal and disconnections of existing locker room and bathroom fixtures and piping
  - c. Provide all sawcutting of Concrete slabs, excavation and backfill for all trench work.
  - d. Coordinate with the Construction Manager for necessary shutdowns and removals. Minimum of 48-hour notice will be required for any shutdown so that it doesn't affect other trades or the school district's operations. Shutdown may be required to be performed during second shift or weekend.
  - ~~e. All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, saw cuts, lintels (furnish and install), drywall work, plaster work, grouting, painting, ceiling removal and replacement, etc.~~
4. Temporary Facilities
  - a. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls"
  - b. Provide and maintain temporary electric power and lighting.
  - ~~c. Provide and maintain fire alarm and security system during replacement of the entrance doors and frames.~~
5. New Construction:
  - a. Provide all new piping above and below slab. Layout, sawcutting, removal of concrete and excavation/backfilling and infilling with concrete is part of this contract. See detail 4/AP404 & 2/BP500
  - b. Provide all new fixtures
  - c. Provide all new insulation and label as shown in the contract documents
  - d. Provide firestopping and sealing all plumbing penetrations
  - e. Provide all testing of new and existing (that has been modified or impacted during construction) piping.
  - f. Provide all new insulation for piping that had insulation removed above ceilings and in walls by asbestos abatement contractor.
  - g. Provide owner training

6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.
  7. Provide multiple shift work as needed to complete work as shown on milestone schedule. It is the contractor's responsibility to include such shift work in their contract. The owner will not be responsible for paying any cost associated with shift work. Contractors will be required to provide a detailed schedule which will be approved by the CM for all shift work required prior to work commencing.
- B. The Work of the Plumbing Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all plan drawings since certain details and/or notes may appear anywhere therein that apply to his/her particular work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:
1. Division 0- Bidding Requirements and Conditions of the Contract
  2. Division 01 –General Requirements all Sections, including Temporary Facilities indicated
  3. Section 02 41 19, Selective Demolition
  4. Division 03 - 03 30 53- Miscellaneous Cast-in-Place
  5. Division 07 - 07 84 13, Penetration Firestopping, as required for the Work of this Contract
  6. Section 07 84 43, Joint Firestopping, as required for the Work of this Contract
  7. Division 07 - 07 92 00, Joint Sealers, as required for the Work of this Contract
  8. Division 22- Plumbing

#### 1.14 DEFINITION OF EXTENT OF PRIME CONTRACT WORK; ADDITIONAL PRIME CONTRACT WORK NOT PREVIOUSLY DESCRIBED

1. All Prime Contractors are responsible for reviewing plans and specs as it pertains to their scope of work mentioned in the contract documents. Scopes of work referenced may be found in multiple locations throughout the plans and specifications.
2. Local custom and trade union jurisdictional settlements do not control the scope of work included in each prime contract. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, the affected prime contracts shall promptly negotiate a reasonable settlement to avoid or minimize the pending interruption and delays.
3. All OSHA safety and hazardous materials regulations will be enforced on this project. All Contractors must submit a safety program, a hazardous materials program, (all required data must be maintained at the job site) and attend safety meetings. Toolbox talks will be required from each prime contractor.
4. All Contractors are responsible for any debris caused by their work. Daily clean-up and disposal are required by each Contractor for the periods which that Contractor is performing work on site. Each trade will assign at least one person to the weekly clean-up; the name of this person is to be submitted to the Construction Manager.
5. All Contractors are responsible for cutting/patching required to complete their work. All exposed finishes must be ready to receive paint, etc.; all concealed openings (piping, ductwork, conduit, etc.) must be repaired to comply with specified wall or deck conditions.
6. Multiple Crews: To maintain the project schedule, each Prime Contractor may be required to provide multiple crews. Each crew is to be furnished with its own supervision, cranes, scaffold and other means necessary to maintain the Project Schedule.
7. Supervision: The proposed project manager and field superintendent for the project is to have at least five years experience in the proposed position. Each successful bidder shall submit resumes to the Construction Manager for the proposed project manager and field superintendent for the project. This information will be reviewed with the Owner, Architect and Construction Manager for approval. Should the Project Managers and/or Superintendent prove unqualified for the position at any point in the project, the Construction Manager shall issue a letter stating that the person is to be removed from involvement in the project. Action by the contractor must be made within seven working days of receipt of such letter.
8. When selective demolition or cutting and patching (all demolition necessary for work of their contract, including layout, sleeves, coring, debris removal, saw cuts, drywall work,

plaster work, grouting, painting, ceiling removal, etc) is required solely by another prime contract to perform their work it shall be by the Prime Contractor requiring the work to achieve the result indicated. Under this condition, the prime contractor needing the demolition to perform the work will accomplish the demolition and the cutting and patching as indicated in Subparagraph 5 above.

9. Each prime contractor shall return areas disturbed by their work activities to condition prior to start of work.
10. Each prime contractor shall maintain a current set of Contract Documents (including any Addenda, Change Orders, and Modifications thereto), approved shop drawings, samples, color schedules and other data pertinent to the Project.
11. Each prime contractor is to survey existing work and submit to the Construction Manager a list of damaged areas (e.g., plaster walls, woodwork) prior to commencing work. Any damaged areas not identified prior to the work shall be the responsibility of the contractor/ Contractors working in that area. Construction Manager will have photos of existing conditions on file for reference.
12. Clean up: Each Prime Contractor is to stockpile their debris on a daily basis and place it in the dumpster. Dumpsters for non-asbestos containing materials shall be provided by each Prime Contractor for their own work.
13. The General Construction Work Contract (Contract # GC-1 & GC-2) is required to submit a construction and submittal schedule based on the milestone dates to the Construction Manager for review and comment no later than 2 weeks after a Notice to Proceed for the work is issued. The other prime contractors have 10 days to provide their duration schedule to the Construction Manager. The Construction manager will then distribute to the General Construction Contractor to provide a final construction schedule.
14. Unless a specific item or material is noted as to remain the Owner's property or to become the Contractor's property, any material having salvage or reuse value shall be inspected by the Owner. If the Owner wishes to retain this material, it shall be turned over to him on the site where directed. If the Construction Manager designates the material as scrap, it shall become the contractor's property and removed from the site. Material having salvage value shall be carefully removed.
15. When the building is occupied and fire alarm and safety system work is in progress, the Electrical Contractor shall continuously maintain the existing building's fire alarm and detection system and exit, and emergency lighting system or provisions must be made by the Electrical Contractor to provide equivalent safety. Electrical Contractor must notify the local fire department of any non-operating systems.
16. Electrical Contractor (Contract # EC-1 & EC-2) shall be responsible for all electrical conduit and associated work. The Electrical contractor shall coordinate with all local utilities for installation of their work. The Sitework contractor shall excavate and backfill trenches required for site lighting and associated conduit. Electrical Contractor shall provide and install all conduit.
17. All personnel required to be on site shall have all required personnel protective equipment on at all times.
18. All personnel on site shall at all times have a photo ID displayed where visible. Those without will be removed from site at once. If the same individual fails to have the ID a second time they will be removed from site and not be allowed back on site.

#### 1.15 TESTING

- A. Required testing and test procedures are indicated under each Division of the Technical Specifications. Other testing shall be performed per generally accepted standards.
- B. The Architect shall reserve the right to require additional information as is deemed necessary to fully evaluate testing results.
- C. The Owner shall employ and pay for an independent testing and inspection agency for testing requirements of their work as assigned by this scope of work. All testing shall be per technical specification requirements. The Prime Contractor requiring testing will notify the Construction Manager at least 48 hours in advance of the required testing to allow for coordination and scheduling. Failure to give sufficient notice will require the prime contractor to pay for alternate testing to satisfy the specification.

## 1.16 WORK SEQUENCE

- A. The Work will be conducted to provide the least possible interference to the activities of the Owner's personnel.
- B. All contract scopes of work in unoccupied areas of work can be performed weekdays from 7:00 AM to 3:30 PM unless otherwise noted. It is each contractor responsibility to work two shifts to complete the work by the substantial completion date. Work cannot be performed in occupied areas. Work shall be scheduled off-hours, vacations and weekends for occupied areas. A Construction Manager Superintendent must be on site at all times that work is being performed. If a contractor fails to maintain the progress as indicated by the milestone schedule by no other fault but its own and requires overtime to complete the work; the contractor shall make arrangements with the Construction Manager 24 hours in advance and pay for a Construction Manager's superintendent at \$125.00 per hour. If the cause for delay is multi-contract, then the costs shall be distributed evenly among the prime contractors. Advise the Construction Manager 48 hours prior to commencing work inside the building.
- C. Coordination of any utility and/or power interruption must be done with the Construction Manager. Shutdowns must occur during off-hours and on days when the building is not occupied by the owner.
- D. Construction access to the site shall be limited to those designated for contractor's personnel, equipment and deliveries by the Owner. Contractors' staging, parking and storage shall be coordinated by the Construction Manager.
- E. Each Contractor shall inspect the site and review the AHERA report on file for the presence of asbestos. Unless otherwise noted, there will be asbestos containing material in place that will require work to take place in the vicinity of, around and/or next to. Each prime contractor that will be working above ceilings, demolishing, in crawl spaces, boiler rooms and all other areas that may contain asbestos per the AHERA report, shall employ "Allied Trades: certified/licensed tradesman as part of the onsite workforce".

## 1.17 OCCUPANCY REQUIREMENTS

- A. The General Work Contractor shall provide indoor air quality management as specified by the Department of Labor and OSHA for the building, when the building is enclosed, as determined by the Construction Manager.
  - 1. Provide an exhaust air system for the project indoor areas that could produce fumes, VOC's off-gasses, gasses, dusts, mists, or other emissions.
  - 2. Exhaust air system for the project areas that could produce emissions listed in Paragraph 1 shall be utilized.
  - 3. Provide temporary partitions and air seals to prevent the migration of airborne contaminants from unoccupied areas to occupied areas when applicable.
- B. Quality assurance:
  - 1.
  - 2. Maintain a negative pressure between the work area and the space surrounding the work area.
  - 3. Before start of work, submit a design for the exhaust air system. Do not begin work until approval by the Owner is obtained.
    - a. The number of machines required.
    - b. Location of the machines in the workspace.
    - c. Description of the methods used to test air flow and pressure differential.
- C. System operation:
  - 1. A sufficient quantity of exhaust fans in existing window openings or other approved locations shall be operated in accordance with the following applicable standards.

2. Exhaust air system shall operate for a minimum of 72 hours after work is completed, or until all materials have cured sufficiently as to stop out gassing of fumes or odors and area has been ventilated to remove all detectable traces of odors and fumes.
3. Maintain fifty (50) feet clearance from all temporary exhaust outlets to all active building outdoor air intakes.

1.18 PROJECT MILESTONE SCHEDULE The Work shall be conducted in accordance with the following schedule:

1. General Work Contractor (GC-1):

- a. Contract Award Date: March 20,2024.
- b. Commencement of Off-Site Activities: Immediately following Contract Award.
- c. Commencement of On-Site Activities:
  - 1) Field work interior to buildings, prior to June 3, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner's representative and may not interfere with academic or other related educational activities.
  - 2) Wallkill Senior High School- this project will be completed over 2 summer (2024 & 2025)
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
- d. Construction Activities:
  - 1) Prior to June 3, 2024, no interior work can be completed within any of the district buildings.
  - 2) During Testing: On-Site construction activities between the hours of 7:00 AM and 3:30 PM with motorized equipment, delivery of construction material or any construction practice that may be distracting to students will NOT to be allowed without Owner and CM's written approval on the following dates:
- e. Construction Activities: Daily Work Limits
  - 1) Monday – Friday: On-Site (Interior / Exterior) construction activities between the hours of 7:00 AM and 10:00 PM with motorized equipment, delivery of construction material or any construction practice. Written Permission from Owner required for additional work hours. Provide Owner with 72 Hour Notice before proposed work.
  - 2) Saturday – Sunday: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
  - 3) Federal Holidays: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
- f. Submittals: Provide all submittals within 30 days after award of contract.
- a. Substantial Completion Date:
  - 1) Wallkill Senior High School: August 30, 2024
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates

- 2) Wallkill Senior High School: August 29, 2025
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
  - b. Owner / End User Access – Facility Use: By September 3, 2024
  - c. Final completion date: 60 days after Substantial Completion
2. General Work Contractor (GC-2):
- a. Contract Award Date: March 20, 2024.
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.
  - c. Commencement of On-Site Activities:
    - 1) Field work interior to buildings, prior to June 27, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner’s representative and may not interfere with academic or other related educational activities.
    - 2) John G. Borden Middle School this project will be completed over 2 summer (2024 & 2025)
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
  - d. Construction Activities:
    - 1) Prior to June 14, 2024 no interior work can be completed within any of the district building.
    - 2) During Testing: On-Site construction activities between the hours of 7:00 AM and 3:30 PM with motorized equipment, delivery of construction material or any construction practice that may be distracting to students will NOT to be allowed without Owner and CM’s written approval on the following dates:
  - e. Construction Activities: Daily Work Limits
    - 1) Monday – Friday: On-Site (Interior / Exterior) construction activities between the hours of 7:00 AM and 10:00 PM with motorized equipment, delivery of construction material or any construction practice. Written Permission from Owner required for additional work hours. Provide Owner with 72 Hour Notice before proposed work.
    - 2) Saturday – Sunday: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
    - 3) Federal Holidays: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
  - f. Submittals: Provide all submittals within 30 days after award of contract.
  - g. Substantial Completion Date:
    - 1) John G. Borden Middle School: August 30, 2024
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates

- 2) John G. Borden Middle School: August 29, 2025
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
  - h. Owner / End User Access – Facility Use: By September 3, 2024
  - i. Final completion date: 60 days after Substantial Completion
3. General Work Contractor (GC-3):
- a. Contract Award Date: March 20, 2024.
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.
  - c. Commencement of On-Site Activities:
    - 1) Field work interior to buildings, prior to July 1, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner’s representative and may not interfere with academic or other related educational activities.
    - 2) Plattekill Elementary School
      - a) Interior Improvements construction start date: July 1, 2024
  - d. Construction Activities:
    - 1) Prior to July 1, 2024 no interior work can be completed within any of the district building.
    - 2) During Testing: On-Site construction activities between the hours of 7:00 AM and 3:30 PM with motorized equipment, delivery of construction material or any construction practice that may be distracting to students will NOT to be allowed without Owner and A/E’s written approval on the following dates:
  - e. Construction Activities: Daily Work Limits
    - 1) Monday – Friday: On-Site (Interior / Exterior) construction activities between the hours of 7:00 AM and 10:00 PM with motorized equipment, delivery of construction material or any construction practice. Written Permission from Owner required for additional work hours. Provide Owner with 72 Hour Notice before proposed work.
    - 2) Saturday – Sunday: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
    - 3) Federal Holidays: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
  - f. Submittals: Provide all submittals within 30 days after award of contract.
  - g. Substantial Completion Date:
    - 1) Plattekill Elementary School: August 30, 2024.
  - h. Owner / End User Access – Facility Use: By September 3, 2024
  - i. Final completion date: 60 days after Substantial Completion

4. Mechanical Work Contractor (HVAC-1):
  - a. Contract Award Date: March 20, 2024.
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.
  - c. Commencement of On-Site Activities:
    - 1) Field work interior to buildings, prior to June 14, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner's representative and may not interfere with academic or other related educational activities.
    - 2) Wallkill Senior High School this project will be completed over 2 summer (2024 & 2025)
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
      - c) See Mechanical Drawing Schedule
    - 3) John G. Borden Middle School this project will be completed over 2 summer (2024 & 2025)
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
      - c) See Mechanical Drawing Schedule
  - d. Construction Activities:
    - 1) Prior to June 14, 2024 and after September 3, 2024, no interior work can be completed within any of the district buildings between the hours of 7:00 AM and 3:30 PM without Owner and CM's written approval.
    - 2) During Testing: On-Site construction activities between the hours of 7:00 AM and 3:30 PM with motorized equipment, delivery of construction material or any construction practice that may be distracting to students will NOT be allowed without Owner and CM's written approval on the following dates:
  - e. Construction Activities: Daily Work Limits
    - 1) Monday – Friday: On-Site (Interior / Exterior) construction activities between the hours of 7:00 AM and 10:00 PM with motorized equipment, delivery of construction material or any construction practice. Written Permission from Owner required for additional work hours. Provide Owner with 72 Hour Notice before proposed work.
    - 2) Saturday – Sunday: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
    - 3) Federal Holidays: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
  - f. Submittals: Provide all submittals within 30 days after award of contract.
  - g. Substantial Completion Date:
    - 1) Wallkill Senior High School: August 30, 2024
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates

- c) See Mechanical Drawing Schedule
  - 2) Wallkill Senior High School: August 29, 2025
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
    - c) See Mechanical Drawing Schedule
    - d)
  - 3) John G. Borden Middle School: August 30, 2024
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
    - c) See Mechanical Drawing Schedule
  - 4) John G. Borden Middle School: August 29, 2025
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
    - c) See Mechanical Drawing Schedule
- h. Owner / End User Access – Facility Use: By September 3, 2024
- i. Final completion date: 60 days after Substantial Completion
- 5. Electrical Work Contractor (EC-1):
  - a. Contract Award Date: March 20, 2024.
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.
  - c. Commencement of On-Site Activities:
    - 1) Field work interior to buildings, prior to June 14, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner’s representative and may not interfere with academic or other related educational activities.
    - 2) Wallkill Senior High School
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
  - d. Construction Activities:
    - 1) Prior to June 14, 2024 and after September 1, 2024, no interior work can be completed within any of the district buildings between the hours of 7:00 AM and 3:30 PM without Owner and CM’s written approval.
    - 2) During Testing: On-Site construction activities between the hours of 7:00 AM and 3:30 PM with motorized equipment, delivery of construction material or any construction practice that may be distracting to students will NOT to be allowed without Owner and CM’s written approval on the following dates:
  - e. Construction Activities: Daily Work Limits
    - 1) Monday – Friday: On-Site (Interior / Exterior) construction activities between the hours of 7:00 AM and 10:00 PM with motorized equipment, delivery of construction material or any construction practice. Written Permission from Owner required for additional work hours. Provide Owner with 72 Hour Notice before proposed work.

- 2) Saturday – Sunday: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
  - 3) Federal Holidays: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
- f. Submittals: Provide all submittals within 30 days after award of contract.
- g. Substantial Completion Date:
- 1) Wallkill Senior High School: August 30, 2024
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
  - 2) Wallkill Senior High School: August 29, 2025
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
- h. Owner / End User Access – Facility Use: By September 3, 2024
- i. Final completion date: 60 days after Substantial Completion
6. Electrical Work Contractor (EC-2):
- a. Contract Award Date: March 20, 2024
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.
  - c. Commencement of On-Site Activities:
    - 1) Field work interior to buildings, prior to June 14, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner’s representative and may not interfere with academic or other related educational activities.
    - 2) John G. Borden Middle School
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
  - d. Construction Activities:
    - 1) Prior to June 14, 2024 and after September 3, 2024, no interior work can be completed within any of the district buildings between the hours of 7:00 AM and 3:30 PM without Owner and CM’s written approval.
    - 2) During Testing: On-Site construction activities between the hours of 7:00 AM and 3:30 PM with motorized equipment, delivery of construction material or any construction practice that may be distracting to students will NOT be allowed without Owner and CM’s written approval on the following dates:
  - e. Construction Activities: Daily Work Limits
    - 1) Monday – Friday: On-Site (Interior / Exterior) construction activities between the hours of 7:00 AM and 10:00 PM with motorized equipment, delivery of construction material or any construction practice. Written Permission from Owner required for additional work hours. Provide Owner with 72 Hour Notice before proposed work.

- 2) Saturday – Sunday: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
- 3) Federal Holidays: Written Permission from Owner required for Saturday and Sunday work. Provide Owner with 72 Hour Notice before proposed work.
- f. Submittals: Provide all submittals within 30 days after award of contract.
- g. Substantial Completion Date:
  - 1) John G. Borden Middle School: August 30, 2024
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
  - 2) John G. Borden Middle School: August 29, 2025
    - a) See Milestone Dates attached
    - b) See phasing drawing with dates
- h. Owner / End User Access – Facility Use: By September 3, 2024
- i. Final completion date: 60 days after Substantial Completion
- 7. Plumbing Work Contractor (PC-1):
  - a. Contract Award Date: March 20, 2024.
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.
  - c. Commencement of On-Site Activities:
    - 1) Field work interior to buildings, prior to June 14, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner’s representative and may not interfere with academic or other related educational activities.
    - 2) Wallkill Senior High School this project will be completed over 2 summer (2024 & 2025)
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
    - 3) John G. Borden Middle School this project will be completed over 2 summer (2024 & 2025)
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
  - d. Plumbing Construction Activities:
    - 1) Prior to June 14, 2024 and after September 3, 2024, no interior work can be completed within any of the district buildings between the hours of 7:00 AM and 3:30 PM without Owner and CM’s written approval.
    - 2) During Testing: On-Site construction activities between the hours of 7:00 AM and 3:30 PM with motorized equipment, delivery of construction material or any construction practice that may be distracting to students will NOT be allowed without Owner and CM’s written approval on the following dates:
  - e. Construction Activities: Daily Work Limits

- f. Submittals: Provide all submittals within 30 days after award of contract.
  - g. Substantial Completion Date:
    - 1) Wallkill Senior High School: August 30, 2024
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
    - 2) Wallkill Senior High School: August 29, 2025
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
    - 3) John G. Borden Middle School: August 30, 2024
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
    - 4) John G. Borden Middle School: August 29, 2025
      - a) See Milestone Dates attached
      - b) See phasing drawing with dates
  - h. Owner / End User Access – Facility Use: By September 3, 2024
  - i. Final completion date: 60 days after Substantial Completion
8. Senior High School Gymnasium Floor Contractor:
- a. Contract Award Date: March 20, 2024.
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.
  - c. Commencement of On-Site Activities:
    - 1) Field work interior to buildings, prior to July1, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner’s representative and may not interfere with academic or other related educational activities.
    - 2) Wallkill Senior High School
      - a) Interior Improvements construction start date: July 1, 2024.
  - d. Submittals: Provide all submittals within 30 days after award of contract.
  - e. Substantial Completion Date:
    - 1) Wallkill Senior High School: August 30, 2024
  - f. Owner / End User Access – Facility Use: By September 3, 2024
  - g. Final completion date: 60 days after Substantial Completion
9. Roofing Contractor (RC-4 & RC-5):
- a. Contract Award Date: March 20,2024.
  - b. Commencement of Off-Site Activities: Immediately following Contract Award.

- c. Commencement of On-Site Activities:
  - 1) Field work interior to buildings, prior to July 1, 2024, for submittals and other preparation activities: Immediately upon required insurances being in place. Field Work to be coordinated with owner's representative and may not interfere with academic or other related educational activities.
  - 2) Wallkill Senior High School
    - a) Exterior Improvements construction start date: July 1, 2024.
  - 3) Borden Middle School
    - a) Exterior Improvements construction start date: July 1, 2024.
  - 4) Wallkill Senior High School: August 30, 2024
  - 5) Borden Middle School: August 30, 2024
- d. Owner / End User Access – Facility Use: By September 3, 2024
- e. Final completion date: 60 days after Substantial Completion

#### 1.19 ALLOWANCES

- A. See Specification Section 01 21 00.

#### 1.20 ALTERNATES

- A. The Contractor shall state where requested on the Bid Form the amount to be added to or deducted from the base bid for the alternates described in Section 01 23 00 - Alternates.

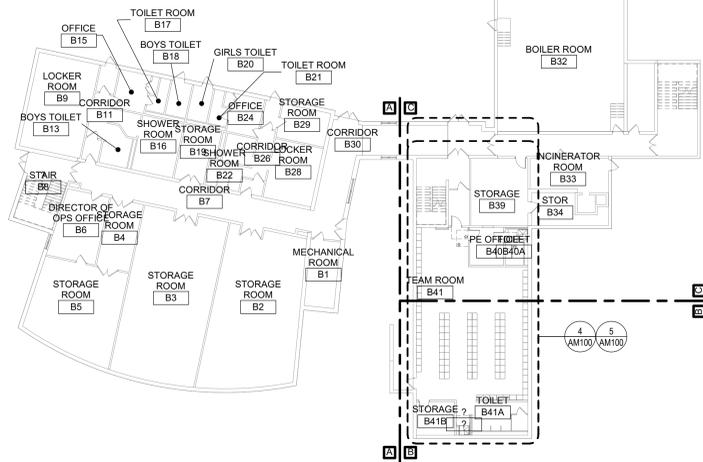
END OF SECTION 01 10 00

Milestone Dates  
Senior High School  
(All Contractors)

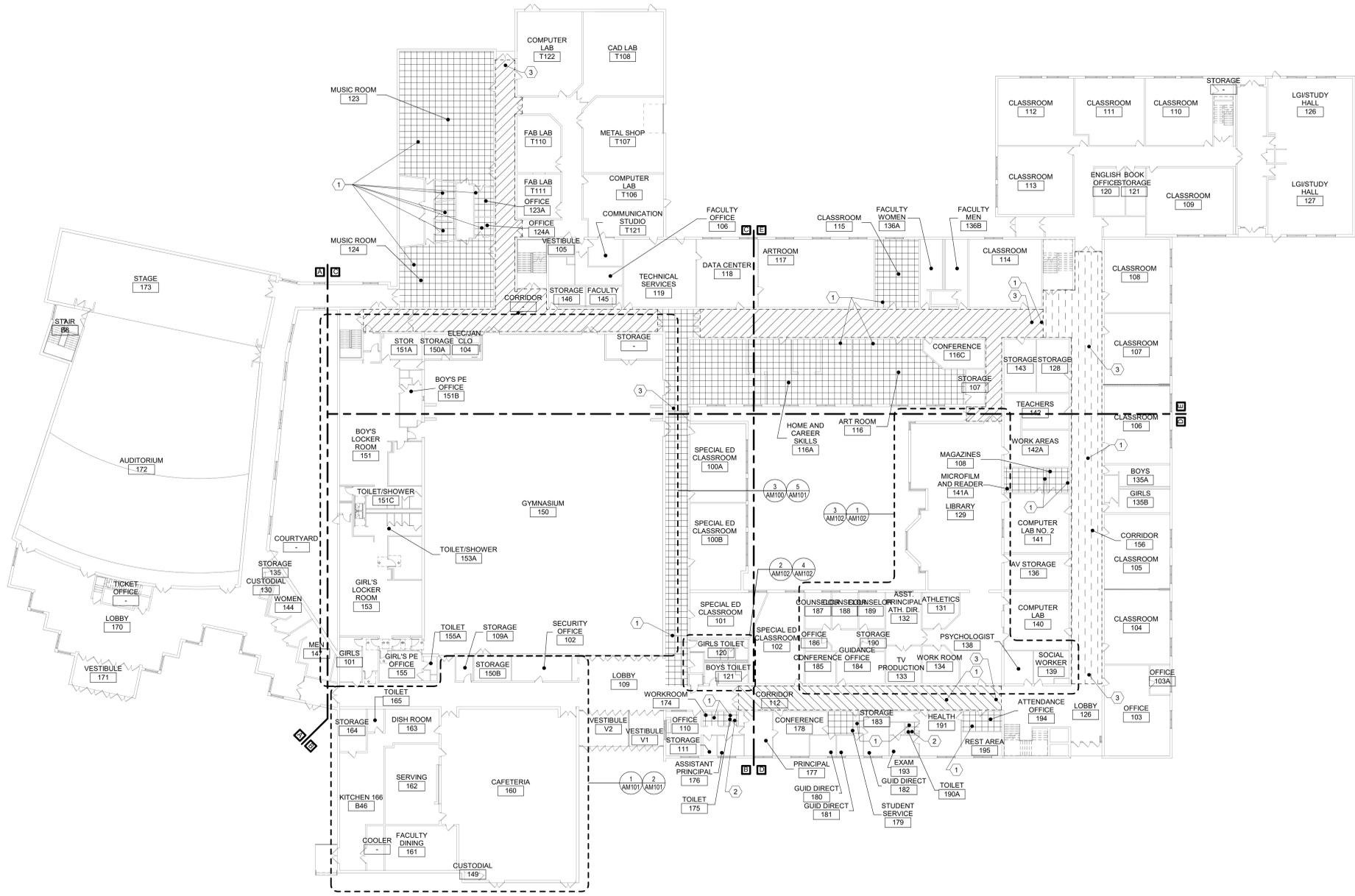
- Team Locker Room B41- 6/3/24-8/16/24
- Locker Room 151 & 153 Demo (that doesn't disturb asbestos abatement)- 6/14/24-6/27/24
- Locker Room 151 & 153 and bathrooms 120 & 121 abatement 6/29/24-7/7/24 (locations must be turned back to the contractors by 7/8/24)
- Locker Room 151 & 153 and bathrooms 120 & 121 all remaining work 7/8/24-8/23/24
- Ceiling and Lighting Replacement see phasing plan attached
- Alternate HS-1, HS-2, HS-3, & Music Room 123 & 124 6/30/25-8/1/25
- Structural Steel upgrades- 7/8/24-8/2/24
- HVAC Equipment will not be onsite until summer of 2025.
  - Final electric connections to units- summer 2025
- Storage Room 150B- 6/30/25-8/22/25
- Facility Dining 161- 6/30/25-8/22/25
- See mechanical drawing schedule attached for additional info.

Milestone Dates  
John G. Borden Middle School  
(All Contractors)

- All Interior Asbestos Abatement 6/28/24-7/7/24
- Second Floor Ceiling and Lighting Replacement 7/1/24-7/19/24
- First Floor Ceiling and Lighting Replacement 7/8/24-7/26/24
- Locker Rooms 7/8/24-8/23/24
- Masonry Repointing- 7/1/24-8/2/24
- Structural Steel upgrades- 7/8/24-8/2/24
- HVAC Equipment will not be onsite until summer of 2025.
  - Final electric connections to units- summer 2025
- Ceiling, Lighting and Ductwork Replacements in Cafeteria 6/30/25-8/22/25
- See mechanical drawing schedule attached for additional info.



2 Basement Key Plan  
3/64" = 1'-0"



1 First Floor Key Plan  
3/64" = 1'-0"

Alternate Legend

- ALTERNATE NO. HS-1
- ALTERNATE NO. HS-2
- ALTERNATE NO. HS-3
- BASE BID

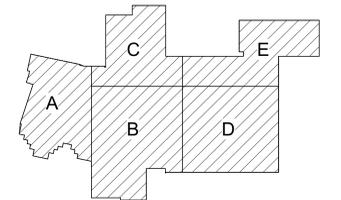
Keyed Notes

- 1 DISCONNECT AND REMOVE MECHANICAL EQUIPMENT IN ROOMS 108, 115, 116, 116A, 141A, 174, 175, 179, 190A AND 194 AS REQUIRED FOR COMPLETION OF CEILING WORK. STORE, PROTECT AND REINSTALL MECHANICAL EQUIPMENT AFTER COMPLETION OF CEILING WORK. PLAN ON CEILINGS BEING DROPPED APPROXIMATELY 4" AND RELOCATING TO FIT WITHIN CEILING GRID.  
EQUIPMENT TOTALS:  
ROOM NAME & NUMBER  
• MAGAZINES 108 (1) 8x6  
• LOBBY 109 (1) 24x24  
• CLASSROOM 115 (1) 24x16  
• ART ROOM 116 (1) 12x12  
• HOME & CAREER SKILLS 116A (4) 8x14, (1) 10x12, (1) 12x12  
• MICROFILM 141A (1) 10x10  
• MUSIC ROOM 123 (8) 12x12, (4) 18x10  
• OFFICE 123A (1) 10x10  
• PRACTICE P1 (1) 10x10  
• PRACTICE P2 (1) 10x10  
• PRACTICE P3 (1) 10x10  
• MUSIC ROOM 124 (6) 12x12  
• OFFICE 124A (1) 10x10  
• WORKROOM 174 (1) 8x6  
• TOILET 175 (1) 6x4  
• STUDENT SERVICE 179 (1) 12x12  
• TOILET 190A (1) 4x4  
• ATTENDANCE OFFICE 194 (1) 12x12  
• ALTERNATE NO. HS-1 (2) 24x24  
• ALTERNATE NO. HS-2 (2) 24x24, (2) 36x4  
• ALTERNATE NO. HS-3 (1) 36x4
- 2 REBALANCE EXHAUST GRILLES TO 75 CFM
- 3 REMOVE CUH FACEPLATE, SANDBLAST, REPAINT, AND REINSTALL.

Schedule:  
- All Work associated to Keyed Notes 1, 2, & 3 for Base Bid work except Music rooms 123 & 124 is to be completed summer 2024  
- All Alternate work and Music rooms 123 & 124 to be completed summer 2025

General Notes

- A. THE FOLLOWING GENERAL NOTES APPLY TO ALL "AM" SERIES DRAWINGS.
- B. REFER TO ALL CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS FOR DETAILED STANDARDS AND REQUIREMENTS.
- C. REPORT UNSAFE OR UNSATISFACTORY CONDITIONS IN WRITING TO ARCHITECT AND RESOLVE ISSUES BEFORE PROCEEDING. WORK INCLUDES ALL LABOR AND MATERIALS REQUIRED TO PROVIDE COMPLETE WORKING SYSTEMS.
- D. COORDINATE PHASING REQUIREMENTS AT JOB MEETINGS AND ON WORK SCHEDULES.
- E. DO NOT SCALE DRAWINGS. PIPING AND DUCTWORK ARE SHOWN DIAGRAMMATICALLY. IT IS NOT POSSIBLE TO SHOW EVERY TRANSITION, FITTING, ASPECT RATIO CHANGE, ETC.; PROVIDE AS REQUIRED TO FIT WITHIN STRUCTURAL CONSTRAINTS. EXAMINE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND VERIFY ALL ACCESS, LOCATIONS, DIMENSIONS, ARRANGEMENTS, ELECTRICAL CHARACTERISTICS AND INTERFERENCE IN THE FIELD PRIOR TO BID.
- F. VERIFY EXTENT OF CEILING WORK SHOWN ELSEWHERE IN THE CONTRACT DOCUMENTS. PROVIDE FOR ADDITIONAL CEILING REMOVAL, PROTECTION, AND REINSTALLATION AS REQUIRED FOR CONTRACT WORK.
- G. DEMOLITION DRAWINGS SHOW THE GENERAL SCOPE OF ITEMS AND SYSTEMS TO BE REMOVED. IT IS NOT THE INTENT TO SHOW ALL ITEMS TO BE REMOVED. FIELD VERIFY AND REMOVE ALL ASSOCIATED ITEMS BACK TO POINT OF CONTINUED SERVICE, UNLESS OTHERWISE NOTED. VERIFY WHAT ALL EQUIPMENT SERVES PRIOR TO REMOVAL.
- H. GIVE ALL REMOVED EQUIPMENT TO THE OWNER. DELIVER ON SITE WHERE DESIGNATED BY THE OWNER. PROMPTLY REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ANY SUCH ITEMS DECLINED BY OWNER.
- I. UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL CONFLICTS ARE ENCOUNTERED, INVESTIGATE AND REPORT BOTH NATURE AND EXTENT OF THE CONFLICT. RE-ROUTE WORK AS REQUIRED.
- J. CUT, DRILL, OR OTHERWISE CREATE OPENINGS AS NEATLY AS POSSIBLE, AS REQUIRED FOR THE INDICATED CONTRACT WORK. PROVIDE SUPPORT AS REQUIRED FOR AND USE METHODS LEAST LIKELY TO DAMAGE ELEMENTS TO REMAIN. PRIOR TO WORK, VERIFY LOCATIONS OF ALL STRUCTURAL MEMBERS INCLUDING CROSS BRACING, ELECTRICAL WIRING, PLUMBING, ETC. PROMPTLY NOTIFY ARCHITECT OF ANY CONFLICTS. DO NOT CUT ANY STRUCTURAL MEMBERS OR OTHER SERVICES UNTIL SPECIFICALLY DIRECTED TO DO SO. PENDING RECEIPT OF DIRECTIVE, REARRANGE SCHEDULE AS NECESSARY TO CONTINUE OVERALL JOB PROGRESS WITHOUT DELAY.
- K. PATCH ALL DISTURBANCES RESULTING FROM DEMOLITION OR NEW WORK TO MATCH SURROUNDING SURFACES. PATCH FOLLOWING DEMOLITION, AND AGAIN FOLLOWING WORK, WHERE HOLES REMAIN FROM REMOVALS. INFILL AND PATCH TO MATCH UNLESS HOLES IS TO BE REUSED.
- L. PROTECT ALL CONTRACT EQUIPMENT, ELEMENTS TO REMAIN, OWNER'S BELONGINGS, AND EQUIPMENT TO BE REUSED OR RETAINED BY OWNER DURING ALL CONTRACT WORK. AT NO ADDITIONAL COST TO OWNER, REPAIR OR REPLACE ITEMS WHICH ARE DAMAGED.
- M. THOROUGHLY CLEAN FOLLOWING DEMOLITION AND BEFORE BEGINNING CONTRACT INSTALLATIONS. THOROUGHLY CLEAN AGAIN DURING AND FOLLOWING CONTRACT WORK AS REQUIRED. LEAVE ALL WORK AREAS CLEANER THAN FOUND. LEGALLY DISPOSE OF ALL CONSTRUCTION DEBRIS.
- N. PROVIDE TEMPORARY PIPING, DUCT, HEAT, WEATHERPROOFING, ETC. TO SERVICES TO REMAIN UNTIL PERMANENT INSTALLATIONS CAN BE MADE.
- O. ALL EXCESS MATERIALS AND SCRAPS ARE CONTRACTOR'S PROPERTY. PROMPTLY REMOVE FROM SITE UNLESS SPECIFICALLY DIRECTED OTHERWISE.
- P. EXISTING HVAC COMPONENTS IN THIS BUILDING MAY CONTAIN BE IN PROXIMITY TO OR WORK ON THEM MAY CAUSE DISTURBANCE OF ASBESTOS CONTAINING OR OTHER HAZARDOUS MATERIALS. REFER TO ABATEMENT SERIES DRAWINGS AND SPECIFICATIONS COMPLETE FOR ADDITIONAL INFORMATION. PROVIDE FOR RE-INSULATION AS SPECIFIED FOR ALL EXISTING TO REMAIN HVAC COMPONENTS WHERE INSULATION IS REMOVED AS A PART OF ABATEMENT WORK.
- Q. SEAL ALL FLOOR, WALL AND CEILING PENETRATIONS PER FIRE-RISISTANCE RATINGS NOTED ON BG-SERIES DRAWINGS, BUT NOT LESS THAN 1-HOUR, AND IN ACCORDANCE WITH SECTION 07 84 13 - PENETRATION FIRESTOPPING. THIS INCLUDES ALL NEW PENETRATIONS AND EXISTING UNFIRESTOPPED PENETRATIONS CREATED BY REMOVALS AS REQUIRED TO PERFORM THE WORK.



Key Plan  
N.T.S.

S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.	Date	Description



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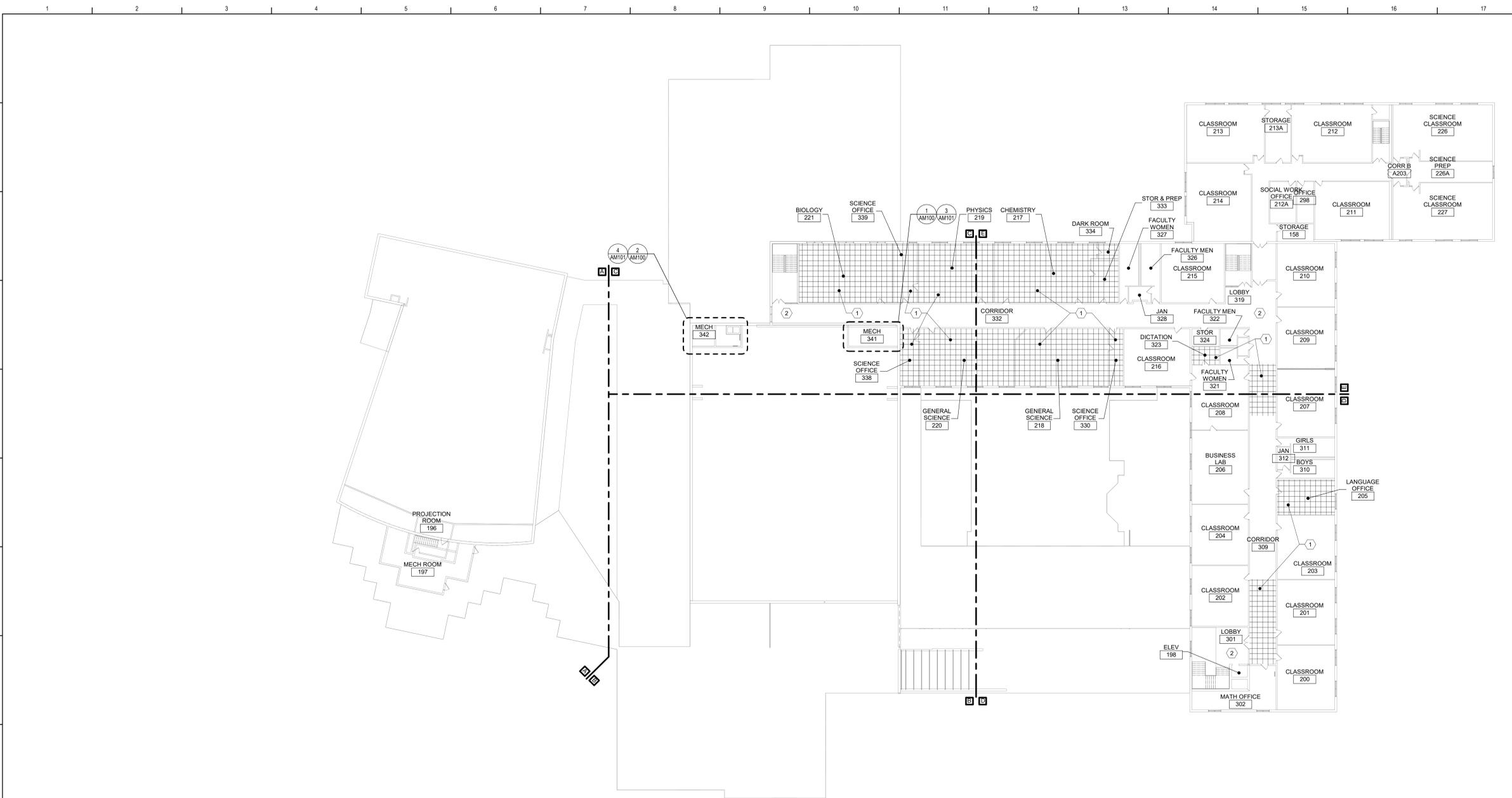


Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
Walkkill Senior High School

Basement and First Floor Key Plans

Drawn By: JPF/igpm	Date: 06/30/2023	Drawing Number: AM050
Project No.:	17597-22002	



1 Second Floor Key Plan  
3/64" = 1'-0"

Schedule:  
- All Work associated to Keyed Notes 1 & 2 is to be completed summer 2024

**General Notes**

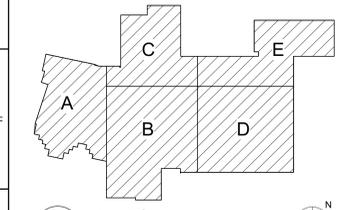
A. REFER TO AM050 FOR GENERAL NOTES.

**Keyed Notes**

- 1 DISCONNECT AND REMOVE MECHANICAL EQUIPMENT IN ROOMS 205, 217, 218, 219, 220, 221, 309, 330, 338 AND 339 AS REQUIRED FOR COMPLETION OF CEILING WORK. STORE, PROTECT AND REINSTALL MECHANICAL EQUIPMENT AFTER COMPLETION OF CEILING WORK. PLAN ON CEILINGS BEING DROPPED APPROXIMATELY 4" AND RELOCATING TO FIT WITHIN CEILING GRID.
- EQUIPMENT TOTALS:
- | ROOM NAME & NUMBER  | GRILLE              |
|---------------------|---------------------|
| LANGUAGE OFFICE 205 | (1) 20x18           |
| CHEMISTRY 217       | (2) 12x12, (2) 16x6 |
| GENERAL SCIENCE 218 | (2) 12x12           |
| PHYSICS 219         | (2) 12x12, (2) 16x6 |
| GENERAL SCIENCE 220 | (1) 12x12           |
| BIOLOGY 221         | (1) 12x12, (2) 16x6 |
| CORRIDOR 309        | (4) 26x20           |
| DICTION 323         | (1) 12x6            |
| SCIENCE OFFICE 330  | (1) 12x12           |
| STOR & PREP 333     | (1) 14x14           |
| DARK ROOM 334       | (1) 4x6             |
| SCIENCE OFFICE 338  | (1) 12x12           |
| SCIENCE OFFICE 339  | (2) 12x12           |
- 2 REMOVE CUH FACEPLATE, SANDBLAST, REPAINT, AND REINSTALL.

**Alternate Legend**

- ALTERNATE NO. HS-1
- ALTERNATE NO. HS-2
- ALTERNATE NO. HS-3
- BASE BID



Key Plan  
N.T.S.

S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.	Date	Description



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**BID SET**



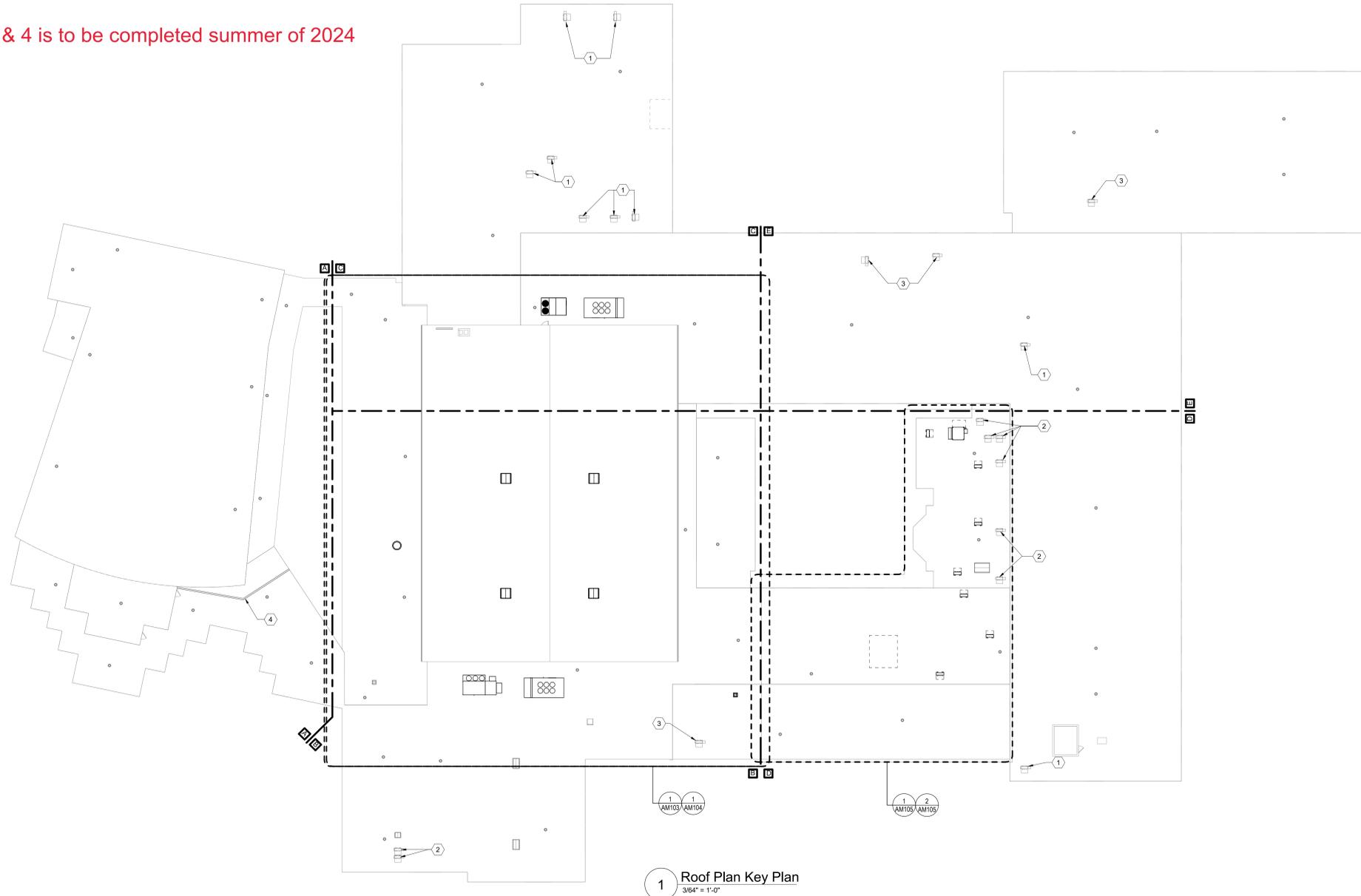
Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
Walkkill Senior High School

Second Floor Key Plan

Drawn By: JPF/ljgm	Date: 06/30/2023	Drawing Number:
Project No.:	AM051	
17597-22002		

Schedule:  
 - Worked associated Keyed Notes 1, 2, 3, & 4 is to be completed summer of 2024



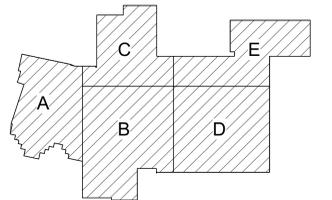
1 Roof Plan Key Plan  
 3/64" = 1'-0"

**General Notes**

A. REFER TO AM050 FOR GENERAL NOTES.

**Keyed Notes**

- ① EXISTING TO REMAIN MECHANICAL EQUIPMENT. REPLACE PIPE INSULATION TO UNITS ON ROOF.
- ② TEMPORARILY REMOVE CONDENSING UNIT AND STORE FOR REUSE. EVACUATE AND LABEL (WITH RCU SYSTEM) ALL REFRIGERANT PRIOR TO REMOVAL. DISCONNECT AND REMOVE REFRIGERANT TUBING AS REQUIRED UNTIL COMPLETION OF ROOFING WORK. REINSTALL CONDENSING UNIT ON EXISTING SUPPORTS SYSTEM. RECONNECT REFRIGERANT TUBING AND CHARGE UNIT WITH CAPTURED REFRIGERANT. PROVIDE ADDITIONAL REFRIGERANT AS REQUIRED TO REACH REFRIGERANT DESIGN SYSTEM PRESSURE. INSULATE REFRIGERANT TUBING. COORDINATE WITH ROOFING WORK.
- ③ TEMPORARILY REMOVE CONDENSING UNIT AND STORE FOR REUSE. EVACUATE ALL REFRIGERANT PRIOR TO REMOVAL. DISCONNECT AND REMOVE REFRIGERANT TUBING AS REQUIRED UNTIL COMPLETION OF ROOFING WORK. PROVIDE NON-PENETRATING ROOF STRUT SUPPORT SYSTEM FOR RCU INSTALLATION (REFER TO RCU MOUNTING DETAIL). REINSTALL CONDENSING UNIT ON SUPPORT SYSTEM AND EXTEND REFRIGERANT TUBING AND POWER WIRING TO UNIT. MATCH REFRIGERANT TUBING SIZES AND FULLY CHARGE UNIT WITH NEW REFRIGERANT. INSULATE REFRIGERANT TUBING. COORDINATE WITH ROOFING WORK.
- ④ REINSULATE (6) REFRIGERANT SUCTION PIPES FROM WALL PENETRATION TO RCUs IN COURTYARD. REPLACE CLAMPS TO ALLOW CONTINUOUS PIPE INSULATION (AND PROVIDE EXTERIOR PIPE JACKET). COORDINATE WITH ROOFING WORK.



Key Plan  
 N.T.S.

S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.:      Date:      Description:



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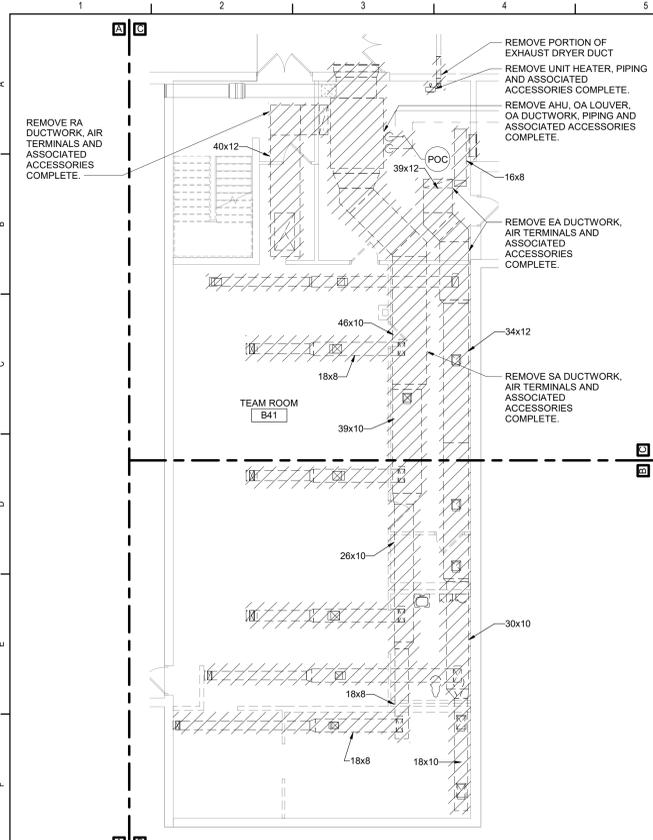
Walkkill Central School District  
 Walkkill, New York

Reconstruction to:  
 Walkkill Senior High School

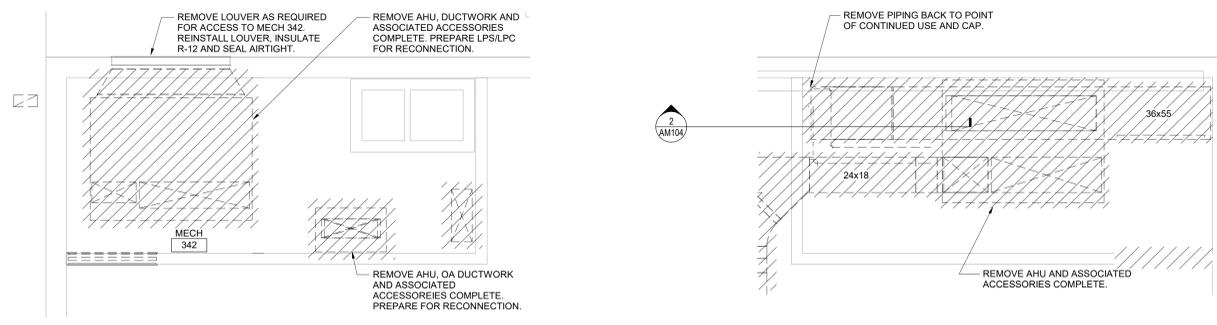
Roof Key Plan

Drawn By: JPF1/pgm	Date: 06/30/2023	Drawing Number:
Project No.:	AM052	
17597-22002		

BID SET



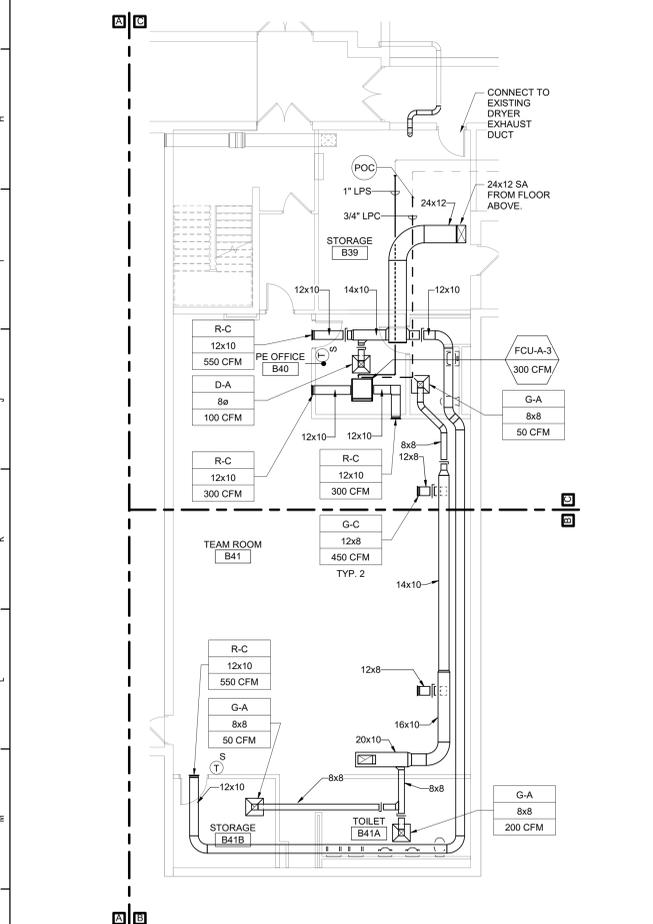
4 Partial Basement Demolition Plan - Area B  
1/8" = 1'-0"



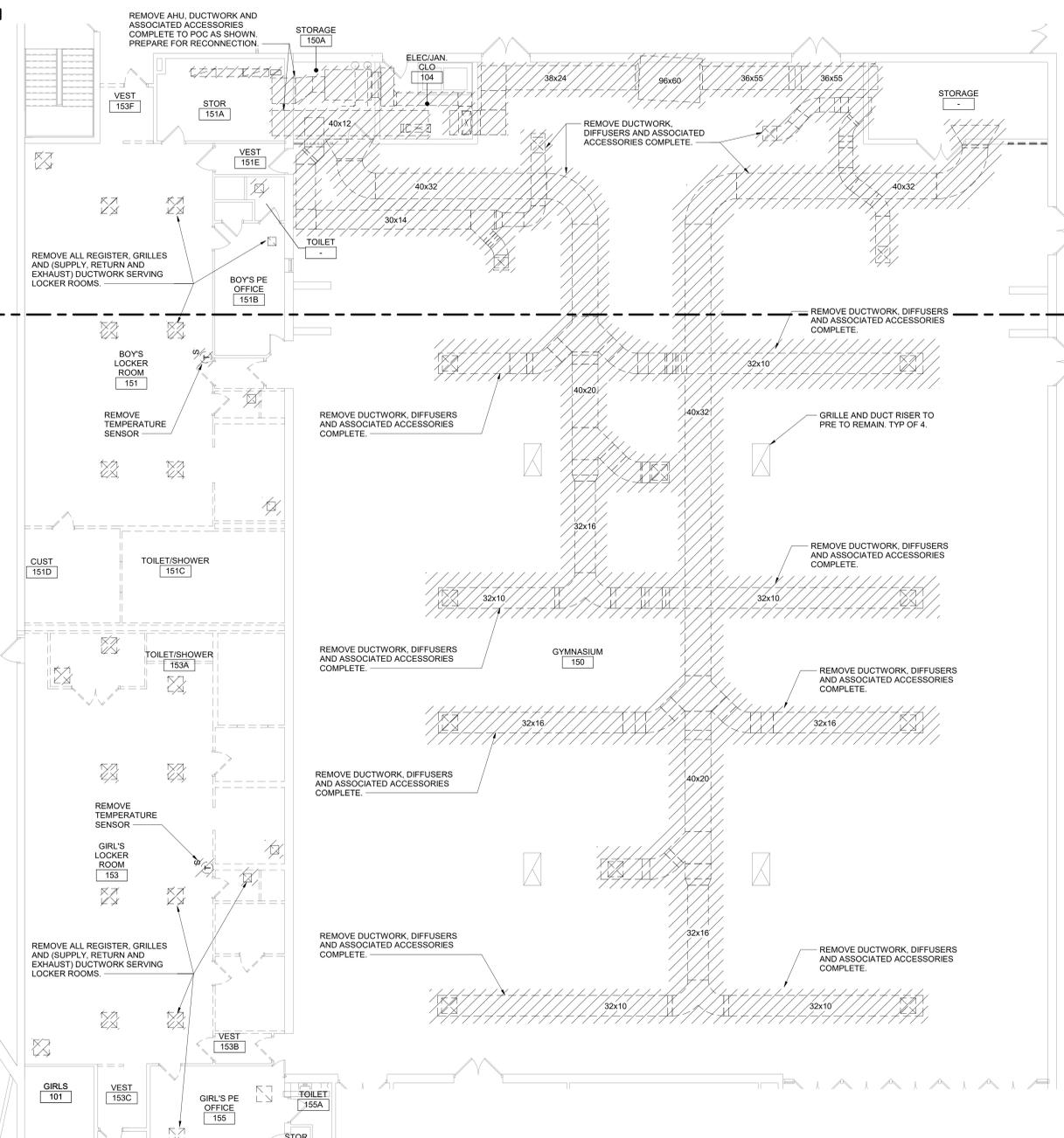
2 Mezzanine Enlarged Demolition Plan - Mech 342  
1/4" = 1'-0"

1 Mezzanine Enlarged Demolition Plan - Mech 341  
1/4" = 1'-0"

**Schedule:**  
 - Team room B41 ductwork to be demolished in summer of 2024.  
 - Team room B41 new ductwork to be completed in summer of 2024  
 - Gymnasium 150, Mezzanine 342 & 341 to be completed in summer of 2025

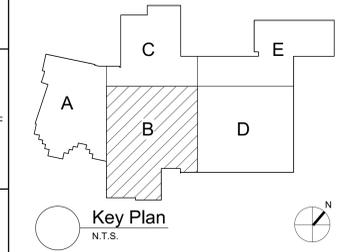


5 Partial Basement Plan - Area B  
1/8" = 1'-0"



3 Partial First Floor Demolition Plan - Area B  
1/8" = 1'-0"

**General Notes**  
 A. REFER TO AM050 FOR GENERAL NOTES.



S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.	Date	Description


**WALKKILL**  
 CENTRAL SCHOOL DISTRICT

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**TETRA TECH**  
 ARCHITECTS & ENGINEERS

Walkkill Central School District  
 Walkkill, New York

Reconstruction to:  
 Walkkill Senior High School

Basement and First Floor Partial Plans  
 - Area B & C

Drawn By: JPF/igpm	Date: 06/30/2023	Drawing Number:
Project No.:	17597-22002	

AM100

4 Enlarged Plan - Mech 342  
1/4" = 1'-0"

3 Enlarged Plan - Mech 341  
1/4" = 1'-0"

1 Partial First Floor Plan - Area B - Cafeteria  
1/8" = 1'-0"

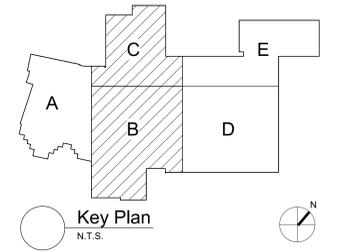
5 Partial First Floor Plan - Area B  
1/8" = 1'-0"

2 Partial First Floor Demolition Plan - Area B - Cafeteria  
1/8" = 1'-0"

**General Notes**

A. REFER TO AM050 FOR GENERAL NOTES.

**Schedule:**  
 - Locker Room 151 & 153 to be completed in summer of 2024  
 - Gymnasium 150, Mech 341 & 342 and Cafeteria Area B Demo and New to be completed in summer of 2025



S.E.D. Control No. 62-18-01-06-0-007-019

2	11/16/23	SED ADD NO. 2
Rev. No.:	Date:	Description:



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**BID SET**



Walkkill Central School District  
Walkkill, New York

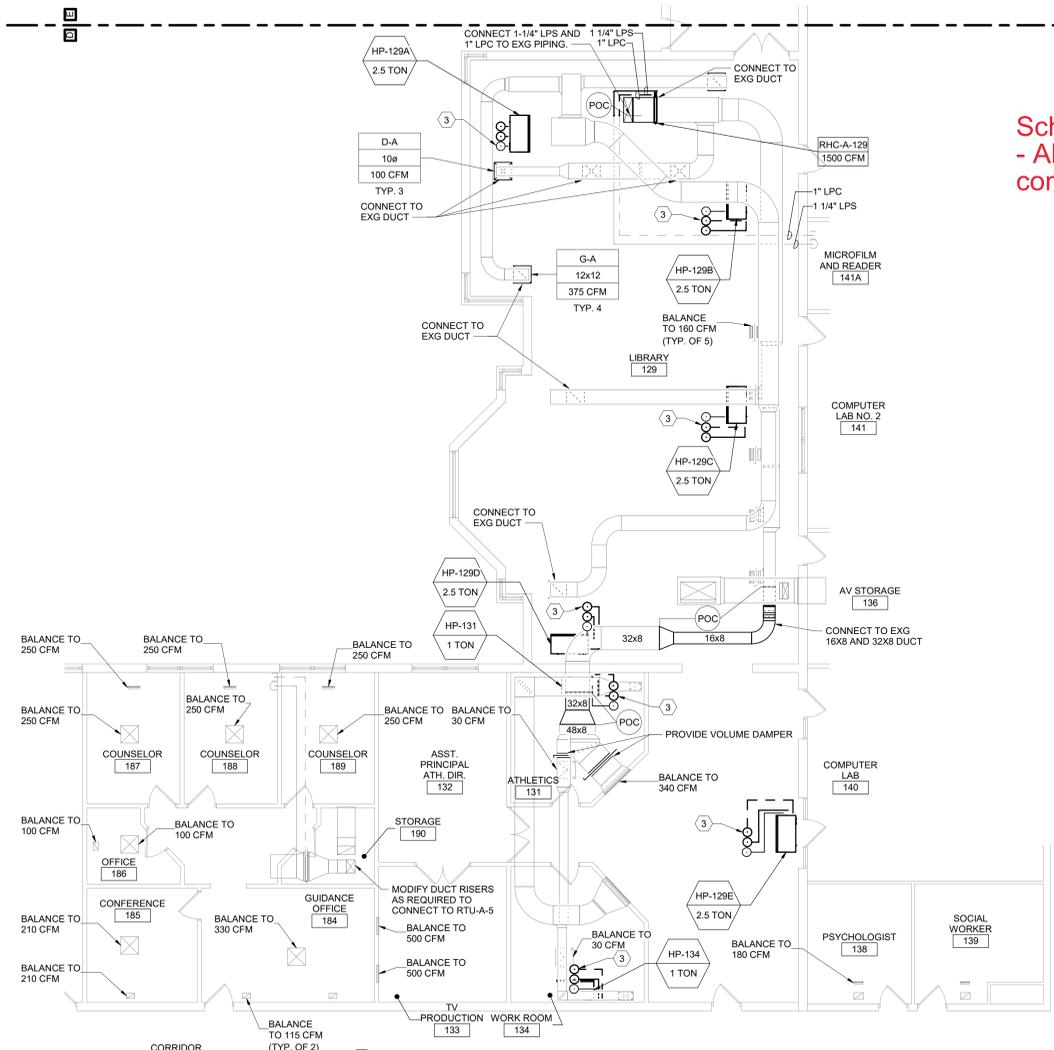
Reconstruction to:  
Walkkill Senior High School

First Floor Partial Plans - Areas B & C

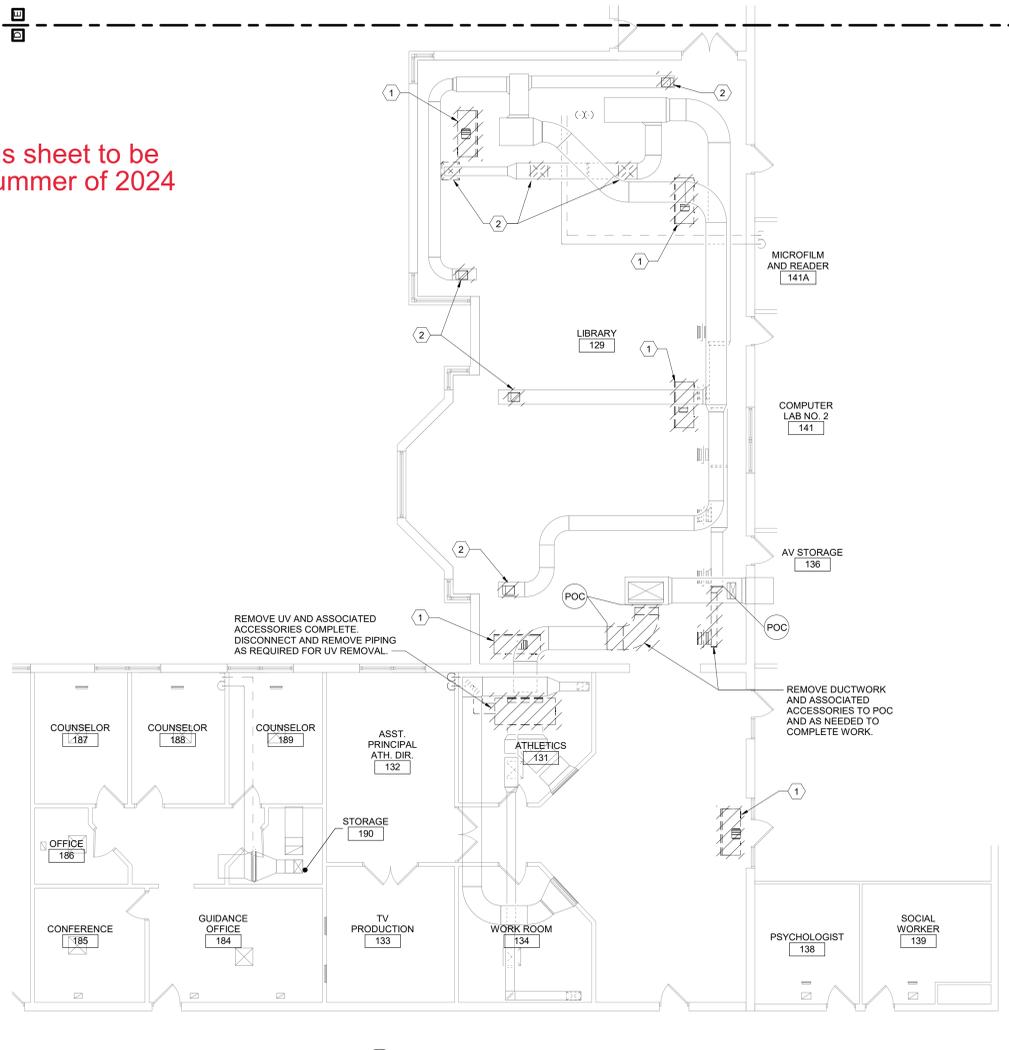
Drawn By: JPF/ijgm	Date: 06/30/2023	Drawing Number: AM101
Project No.:	17597-22002	

REMOVE PACKAGED DX UV, LOUVER, SLEEVE, AND ASSOCIATED ACCESSORIES COMPLETE. DISCONNECT, EVACUATE AND RECLAIM REFRIGERANT DISPOSE OF REFRIGERANT IN ACCORDANCE WITH ASHRAE 15. REMOVE AND MODIFY STEAM PIPING AS REQUIRED FOR NEW WORK REFER TO ARCH DRAWINGS FOR INFILL DETAILS.

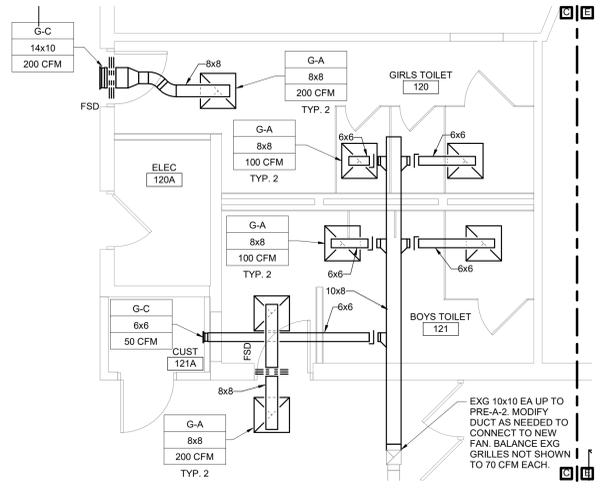
Schedule:  
- All work on this sheet to be completed in summer of 2024



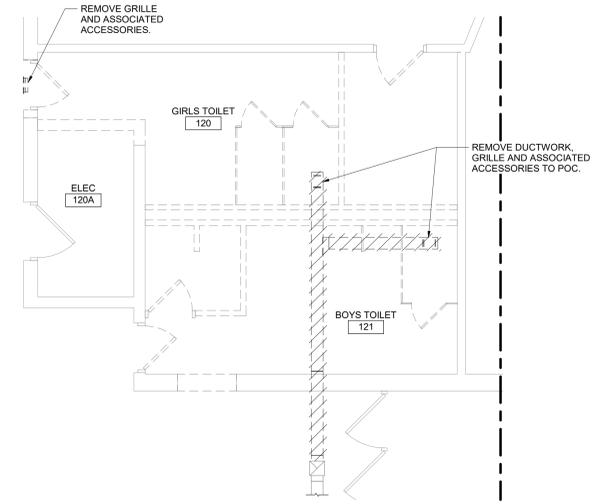
3 Partial First Floor Plan - Area D  
1/8" = 1'-0"



1 Partial First Floor Demolition Plan - Area D  
1/8" = 1'-0"



4 Partial First Floor Plan - Area B - Toilet Rooms  
1/4" = 1'-0"



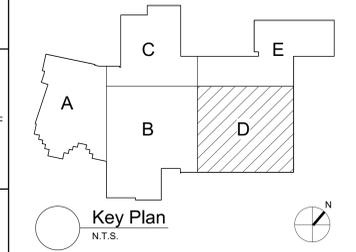
2 Partial First Floor Demolition Plan - Area B - Toilet Rooms  
1/4" = 1'-0"

General Notes

A. REFER TO AM050 FOR GENERAL NOTES.

Keyed Notes

- 1 REMOVE AC UNIT AND ASSOCIATED ACCESSORIES COMPLETE. DISCONNECT, EVACUATE AND RECLAIM REFRIGERANT. DISPOSE OF REFRIGERANT IN ACCORDANCE WITH ASHRAE 15. REMOVE IN-LINE FAN ABOVE CEILING AND ASSOCIATED FLEXIBLE DUCTWORK.
- 2 REMOVE CEILING DIFFUSER/GRILLE. DUCT TO REMAIN. PREPARE FOR RECONNECTION.
- 3 RS AND RL UP TO RCJ ON ROOF. VERIFY LINE SIZES WITH UNIT MANUFACTURER. PROVIDE 1" CD UP TO ROOF. SEE DETAIL 11/AM500 FOR ADDITIONAL INFORMATION.



S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.:      Date:      Description:

**WALKKILL**  
CENTRAL SCHOOL DISTRICT

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**BID SET**

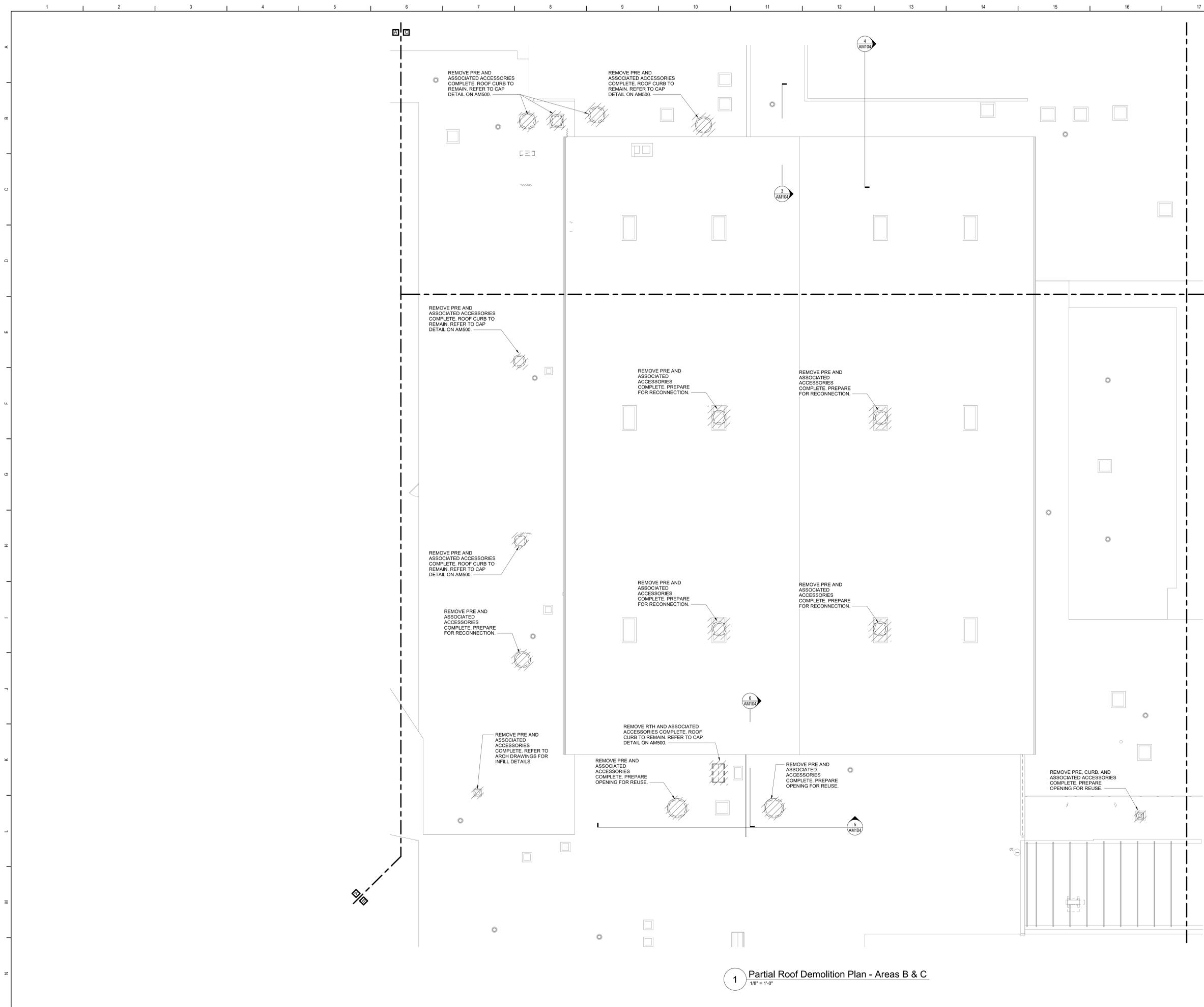
**TETRA TECH**  
ARCHITECTS & ENGINEERS

Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
Walkkill Senior High School

First Floor Plans - Partial Areas B & D

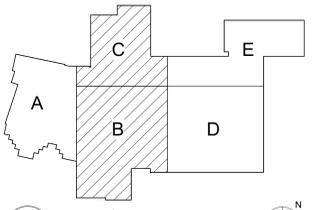
Drawn By: JPF/ijgm      Date: 06/30/2023      Drawing Number:  
Project No.: 17597-22002      **AM102**



1 Partial Roof Demolition Plan - Areas B & C  
1/8" = 1'-0"

**General Notes**

A. REFER TO AM050 FOR GENERAL NOTES.



Key Plan  
N.T.S.

S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.	Date	Description



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**BID SET**

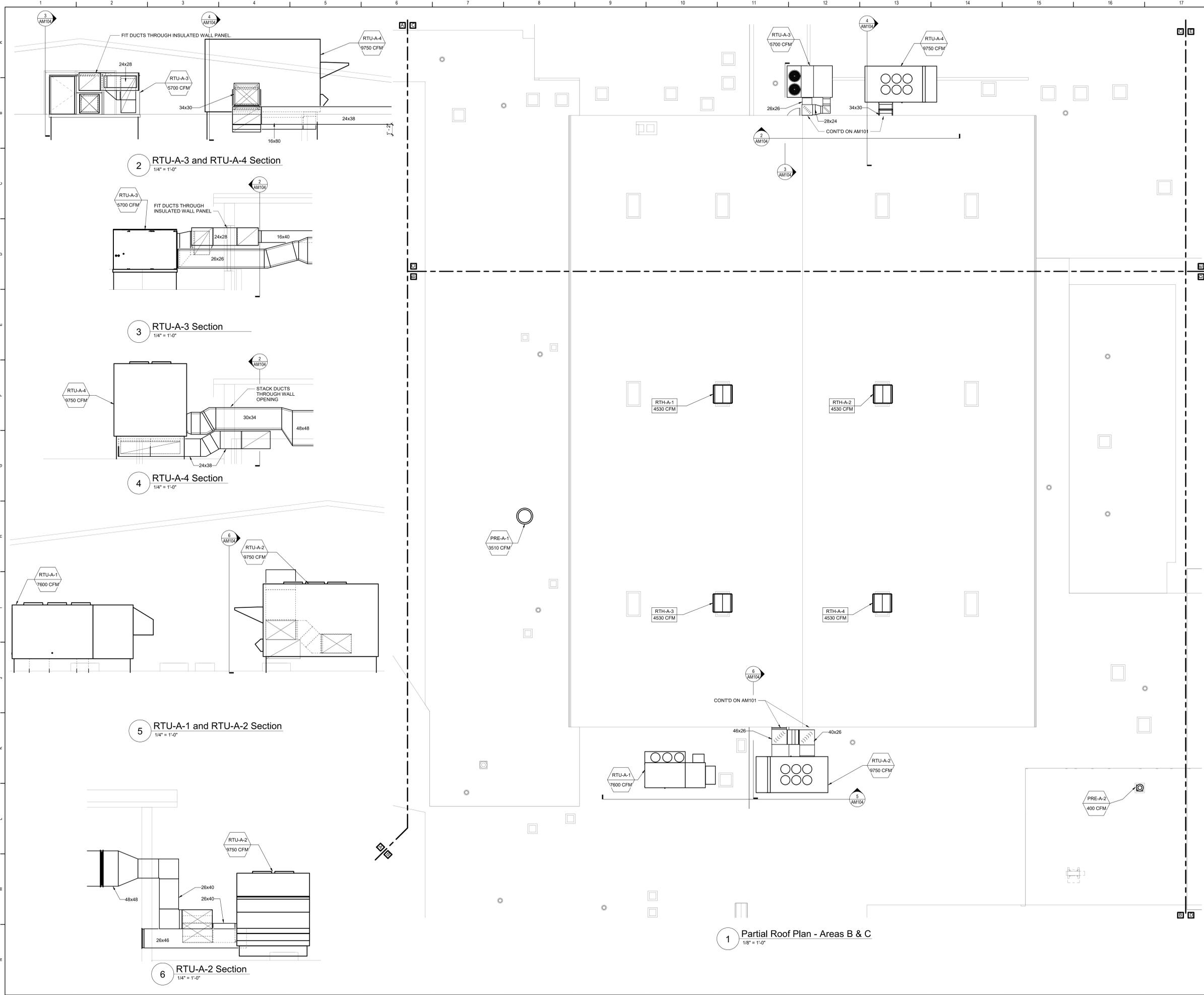


Walkkill Central School District  
Walkkill, New York

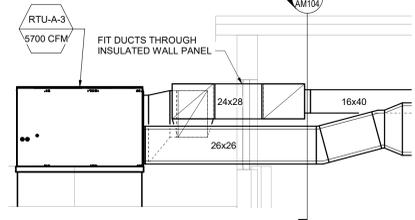
Reconstruction to:  
Walkkill Senior High School

Partial Roof Demolition Plan - Areas B & C

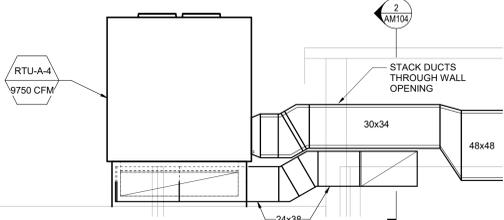
Drawn By: JPF/jpgm	Date: 06/30/2023	Drawing Number:
Project No.:	AM103	
17597-22002		



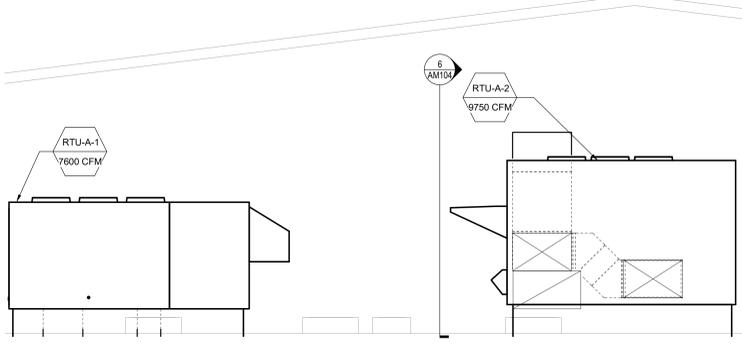
2 RTU-A-3 and RTU-A-4 Section  
1/4" = 1'-0"



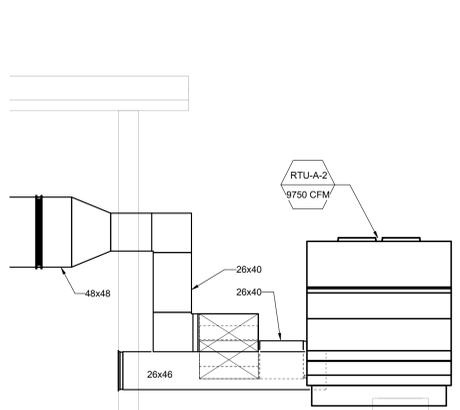
3 RTU-A-3 Section  
1/4" = 1'-0"



4 RTU-A-4 Section  
1/4" = 1'-0"



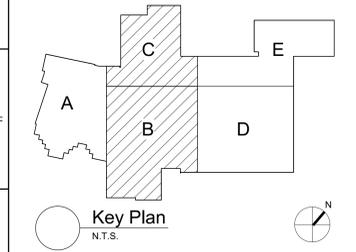
5 RTU-A-1 and RTU-A-2 Section  
1/4" = 1'-0"



6 RTU-A-2 Section  
1/4" = 1'-0"

1 Partial Roof Plan - Areas B & C  
1/8" = 1'-0"

**General Notes**  
A. REFER TO AM050 FOR GENERAL NOTES.



S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.	Date	Description



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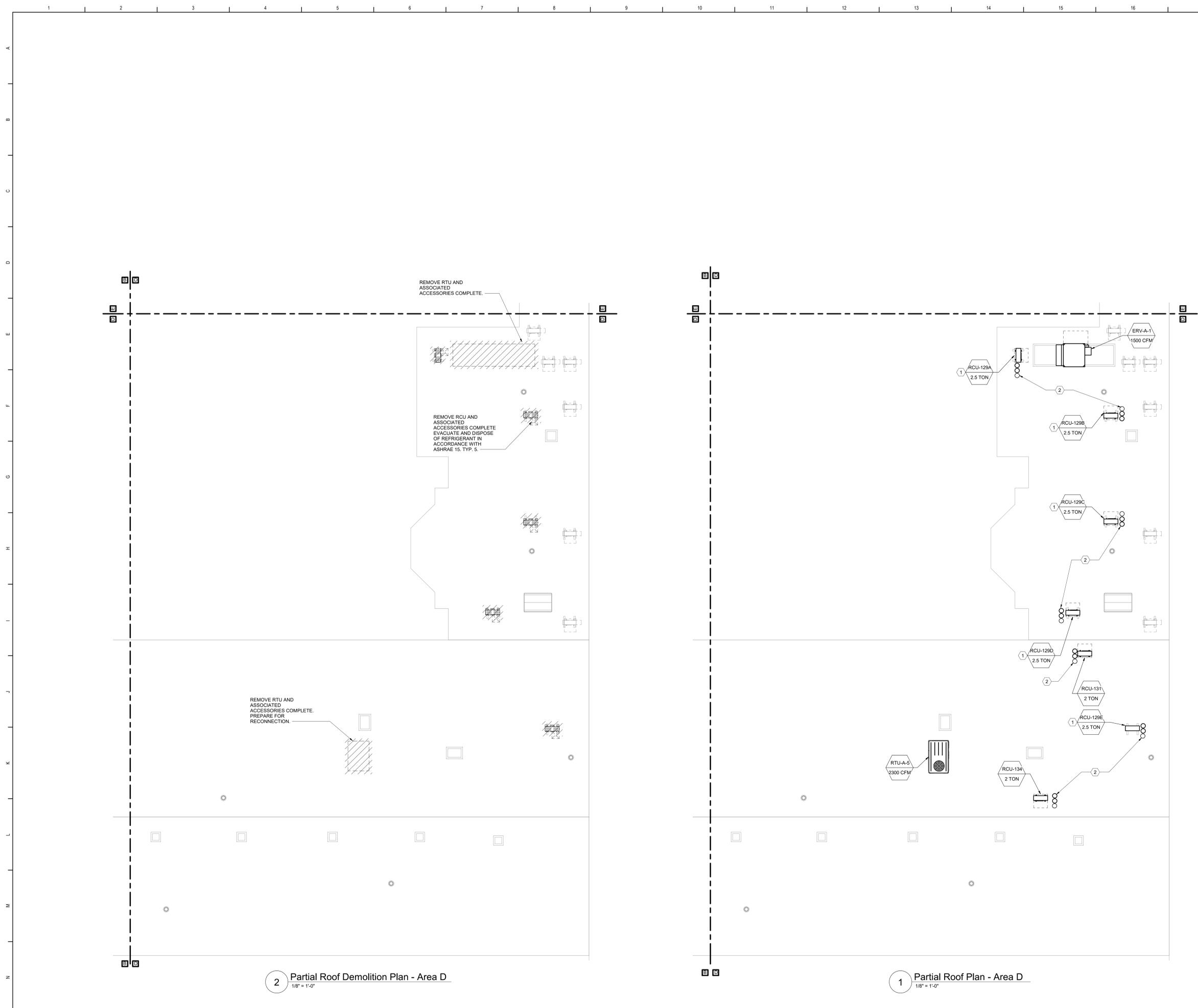
Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
Walkkill Senior High School

Roof Plan - Areas B & C

Drawn By: JPF/ijgm	Date: 06/30/2023	Drawing Number: <b>AM104</b>
Project No.: 17597-22002		

**BID SET**



2 Partial Roof Demolition Plan - Area D  
1/8" = 1'-0"

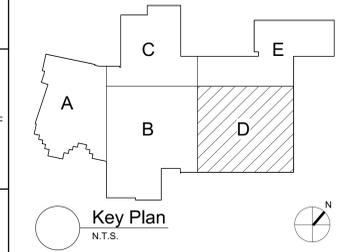
1 Partial Roof Plan - Area D  
1/8" = 1'-0"

**General Notes**

A. REFER TO AM050 FOR GENERAL NOTES.

**Keyed Notes**

- 1 INSTALL CONDENSING UNIT ON EXISTING SUPPORTS SYSTEM.
- 2 RS/RL UP TO RCU. VERIFY LINE SIZE WITH UNIT MANUFACTURER. 1" CD UP FROM BELOW. SEE DETAIL 11/AM500 FOR ADDITIONAL INFORMATION.



S.E.D. Control No. 62-18-01-06-0-007-019

Rev. No.	Date	Description



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**BID SET**

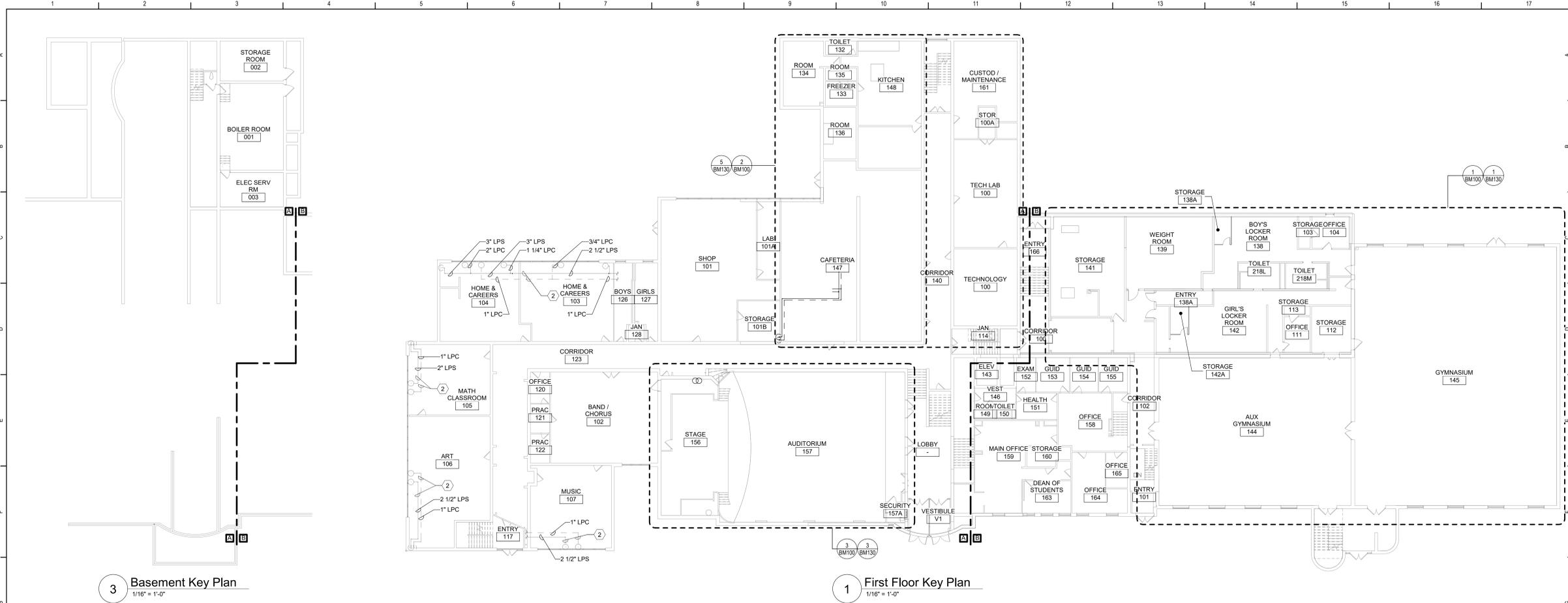


Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
Walkkill Senior High School

Roof Plans - Partial Area D

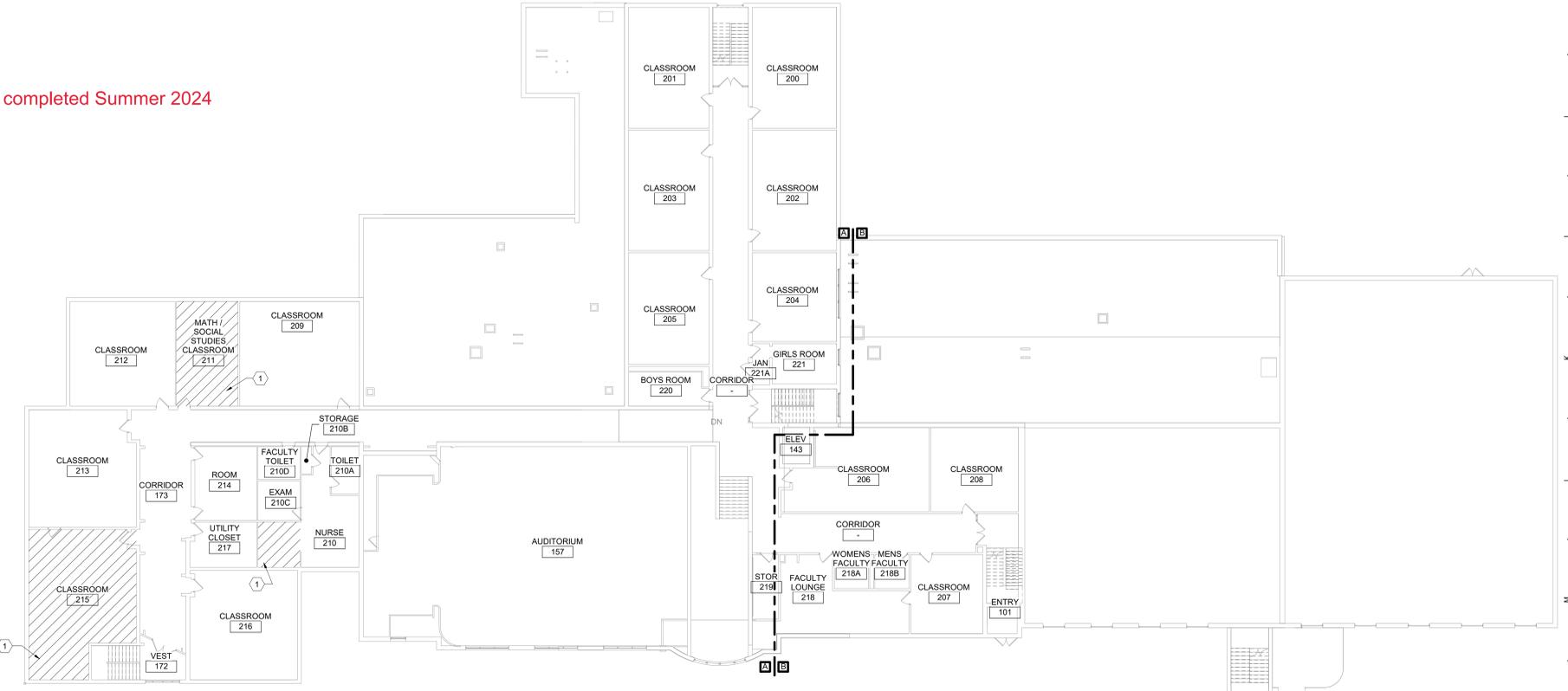
Drawn By: JPF/jpgm	Date: 06/30/2023	Drawing Number:
Project No.:	AM105	
17597-22002		



3 Basement Key Plan  
1/16" = 1'-0"

1 First Floor Key Plan  
1/16" = 1'-0"

Schedule:  
- All work associated to Keyed Notes 1 & 2 is to be completed Summer 2024



2 Second Floor - Key Plan  
1/16" = 1'-0"

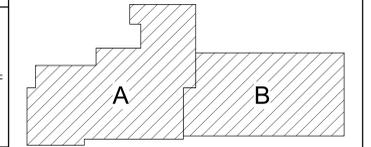
**KEYED NOTES:**

- 1 DISCONNECT AND REMOVE MECHANICAL EQUIPMENT IN SHADED AREA OF RM 210, 211 AND 215 AS REQUIRED FOR COMPLETION OF CEILING WORK. STORE, PROTECT AND REINSTALL MECHANICAL EQUIPMENT AFTER COMPLETION OF CEILING WORK.
- EQUIPMENT TOTALS:
 

ROOM NAME & NUMBER	GRILLE
NURSE 210	(1) 12x12
MATH/SOCIAL STUDIES CLRM 211	(1) 10x10
CLASSROOM 215	(1) CEILING MOUNTED EXHAUST FAN
- 2 REINSULATE EXISTING LPS/LPC PIPING AFTER ASBESTOS ABATEMENT. VERIFY IN FIELD EXACT SIZES, QUANTITIES AND LOCATIONS.

**General Notes**

- A. THE FOLLOWING GENERAL NOTES APPLY TO ALL "BM" SERIES DRAWINGS.
- B. REFER TO ALL CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS, FOR DETAILED STANDARDS AND REQUIREMENTS.
- C. REPORT UNSAFE OR UNSATISFACTORY CONDITIONS IN WRITING TO ARCHITECT AND RESOLVE ISSUES BEFORE PROCEEDING.
- D. WORK INCLUDES ALL LABOR AND MATERIALS REQUIRED TO PROVIDE COMPLETE WORKING SYSTEMS.
- E. COORDINATE PHASING REQUIREMENTS AT JOB MEETINGS AND ON WORK SCHEDULES.
- F. DO NOT SCALE DRAWINGS. PIPING AND DUCTWORK ARE SHOWN DIAGRAMMATICALLY. IT IS NOT POSSIBLE TO SHOW EVERY TRANSITION, FITTING, ASPECT RATIO CHANGE, ETC. - PROVIDE AS REQUIRED TO FIT WITHIN STRUCTURAL CONSTRAINTS. EXAMINE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND VERIFY ALL ACCESS, LOCATIONS, DIMENSIONS, ARRANGEMENTS, ELECTRICAL CHARACTERISTICS AND INTERFERENCE IN THE FIELD PRIOR TO BID.
- G. VERIFY EXTENT OF CEILING WORK SHOWN ELSEWHERE IN THE CONTRACT DOCUMENTS. PROVIDE FOR ADDITIONAL CEILING SYSTEM REMOVAL, PROTECTION, AND REINSTALLATION AS REQUIRED FOR CONTRACT WORK.
- H. DEMOLITION DRAWINGS SHOW THE GENERAL SCOPE OF ITEMS AND SYSTEMS TO BE REMOVED. IT IS NOT THE INTENT TO SHOW ALL ITEMS TO BE REMOVED. FIELD VERIFY AND REMOVE ALL ASSOCIATED ITEMS BACK TO POINT OF CONTINUED SERVICE, UNLESS OTHERWISE NOTED. VERIFY WHAT ALL EQUIPMENT SERVES PRIOR TO REMOVAL.
- I. GIVE ALL REMOVED EQUIPMENT TO THE OWNER. DELIVER ON SITE WHERE DESIGNATED BY THE OWNER. PROMPTLY REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ANY SUCH ITEMS DECLINED BY OWNER.
- J. IF UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL CONFLICTS ARE ENCOUNTERED, INVESTIGATE AND REPORT BOTH NATURE AND EXTENT OF THE CONFLICT. RE-ROUTE WORK AS REQUIRED.
- K. CUT, DRILL, OR OTHERWISE CREATE OPENINGS AS NEATLY AS POSSIBLE, AS REQUIRED FOR THE INDICATED CONTRACT WORK. PROVIDE SUPPORT AS REQUIRED FOR AND USE METHODS LEAST LIKELY TO DAMAGE ELEMENTS TO REMAIN. PRIOR TO WORK, VERIFY LOCATIONS OF ALL STRUCTURAL MEMBERS INCLUDING CROSS BRACING, ELECTRICAL WIRING, PLUMBING, ETC. PROMPTLY NOTIFY ARCHITECT OF ANY CONFLICTS. DO NOT CUT ANY STRUCTURAL MEMBERS OR OTHER SERVICES UNTIL SPECIFICALLY DIRECTED TO DO SO. PENDING RECEIPT OF DIRECTIVE, REARRANGE SCHEDULE AS NECESSARY TO CONTINUE OVERALL JOB PROGRESS WITHOUT DELAY.
- L. PATCH ALL DISTURBANCES RESULTING FROM DEMOLITION OR NEW WORK TO MATCH SURROUNDING SURFACES. PATCH FOLLOWING DEMOLITION, AND AGAIN FOLLOWING WORK, WHERE HOLES FROM REMOVALS, INFL AND PATCH TO MATCH UNLESS HOLE IS TO BE REUSED.
- M. PROTECT ALL CONTRACT EQUIPMENT, ELEMENTS TO REMAIN, OWNER'S BELONGINGS, AND EQUIPMENT TO BE REUSED OR RETAINED BY OWNER DURING ALL CONTRACT WORK. AT NO ADDITIONAL COST TO OWNER, REPAIR OR REPLACE ITEMS WHICH ARE DAMAGED.
- N. THOROUGHLY CLEAN FOLLOWING DEMOLITION AND BEFORE BEGINNING CONTRACT INSTALLATIONS. THOROUGHLY CLEAN AGAIN DURING AND FOLLOWING CONTRACT WORK AS REQUIRED. LEAVE ALL WORK AREAS CLEANER THAN FOUND. LEGALLY DISPOSE OF ALL CONSTRUCTION DEBRIS.
- O. PROVIDE TEMPORARY PIPING, DUCT, HEAT, WEATHERPROOFING, ETC. TO SERVICES TO REMAIN UNTIL PERMANENT INSTALLATIONS CAN BE MADE.
- P. ALL EXCESS MATERIALS AND SCRAPS ARE CONTRACTOR'S PROPERTY. PROMPTLY REMOVE FROM SITE UNLESS SPECIFICALLY DIRECTED OTHERWISE.
- Q. EXISTING HVAC COMPONENTS IN THIS BUILDING MAY CONTAIN, BE IN PROXIMITY TO, OR, WORK ON THEM MAY CAUSE DISTURBANCE OF ASBESTOS CONTAINING OR OTHER HAZARDOUS MATERIALS. REFER TO ABATEMENT SERIES DRAWINGS AND SPECIFICATIONS COMPLETE FOR ADDITIONAL INFORMATION. PROVIDE FOR RE-INSULATION AS SPECIFIED FOR ALL EXISTING TO REMAIN HVAC COMPONENTS WHERE INSULATION IS REMOVED AS A PART OF ABATEMENT WORK.
- R. SEAL ALL FLOOR, WALL AND CEILING PENETRATIONS PER FIRE RESISTANCE RATINGS NOTED ON BG-SERIES DRAWINGS, BUT NOT LESS THAN 1-HOUR, AND IN ACCORDANCE WITH SECTION 07 84 13-PENETRATION FIRESTOPPING. THIS INCLUDES ALL NEW PENETRATIONS AND EXISTING UNFIRESTOPPED PENETRATIONS CREATED BY REMOVALS, AS REQUIRED TO PERFORM THE WORK.



Key Plan  
N.T.S.

S.E.D. Control No. 62-18-01-06-0-002-015

Rev. No.	Date	Description



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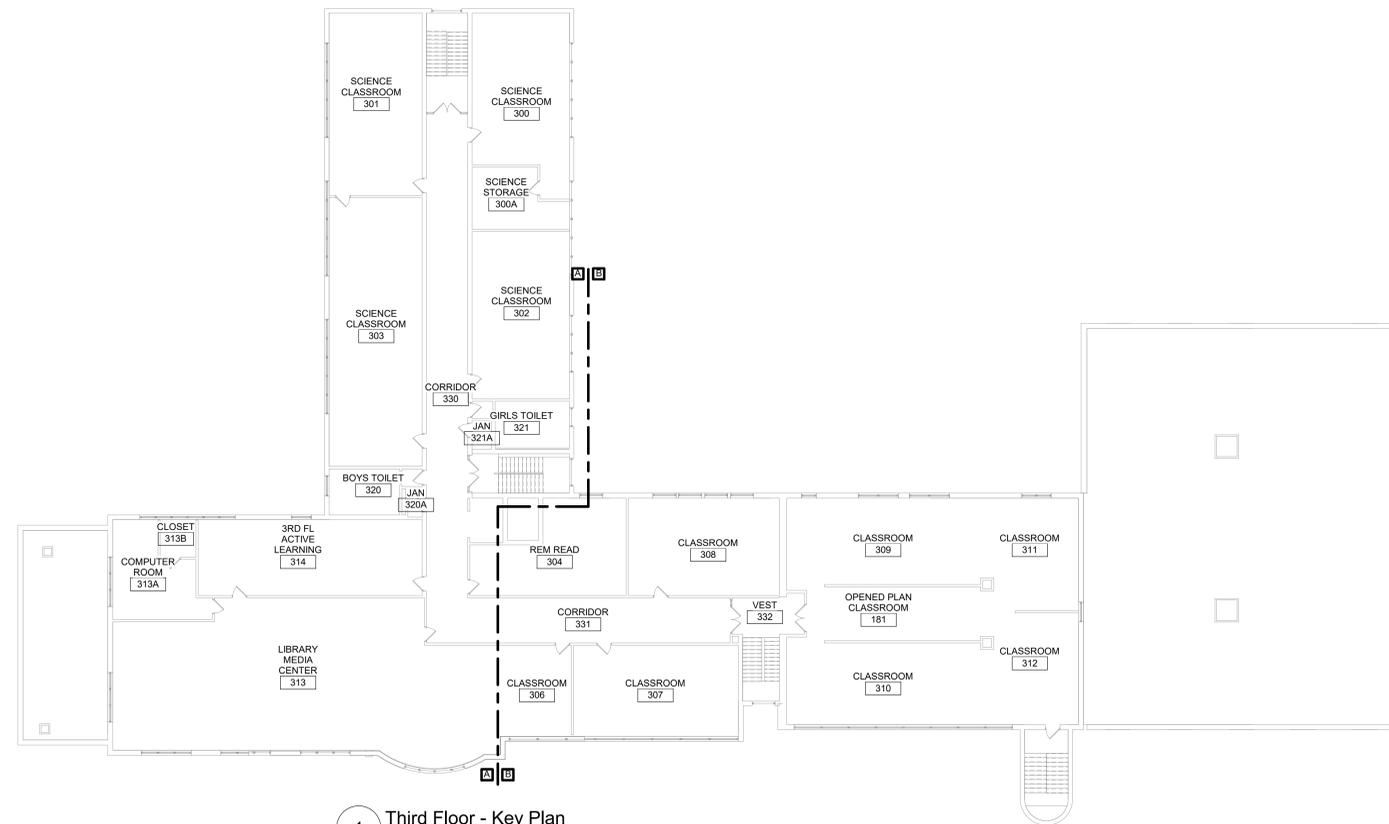
Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
John G. Borden Middle School

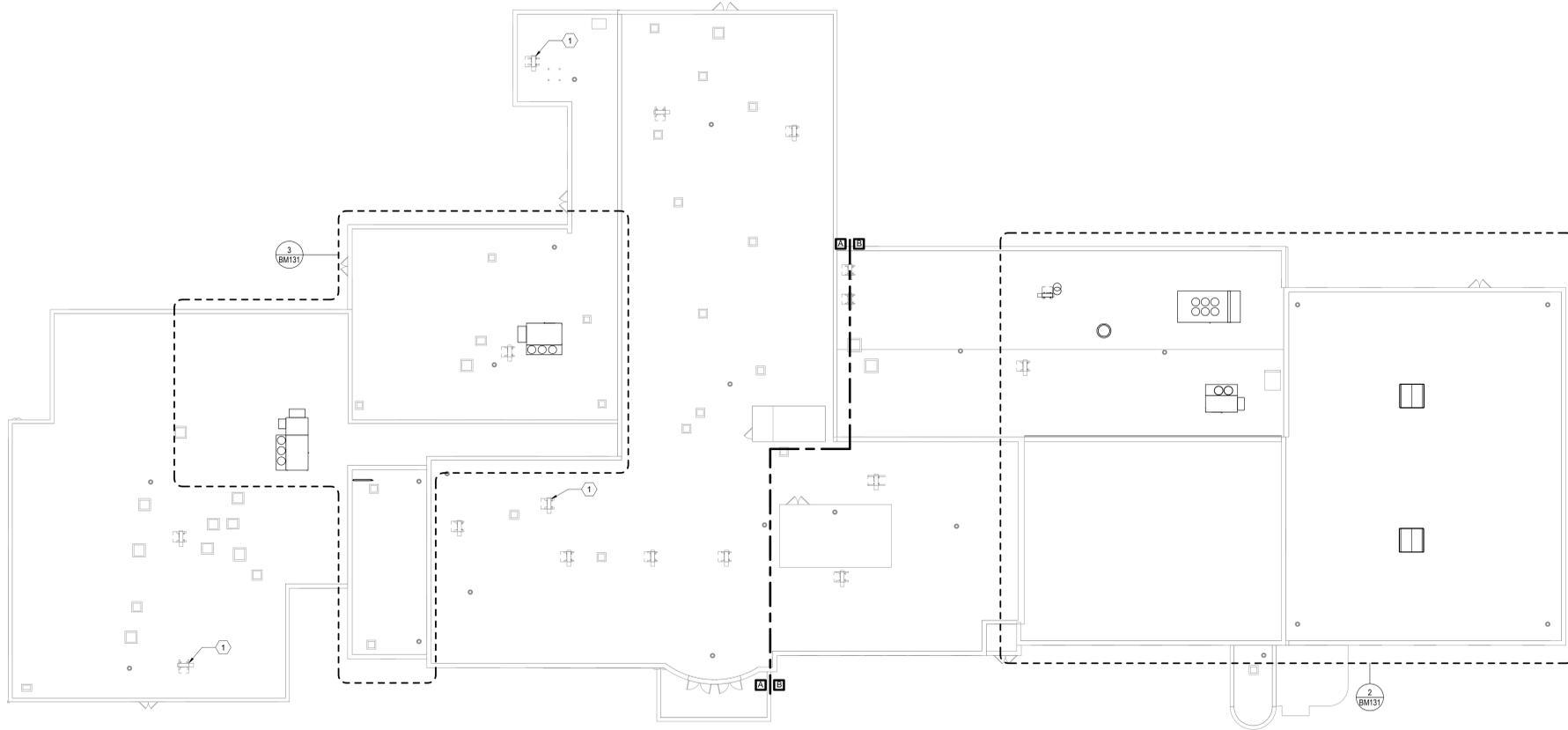
Basement, First and Second Floor Key Plans

Drawn By: JPF/pgm	Date: 06/30/2023	Drawing Number: <b>BM051</b>
Project No.: 17597-22002		

**BID SET**



1 Third Floor - Key Plan  
1/16" = 1'-0"



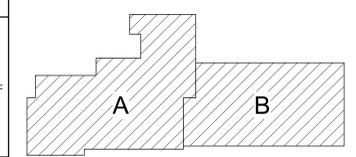
2 Roof Key Plan  
1/16" = 1'-0"

**General Notes**

A. REFER TO BM051 FOR GENERAL NOTES.

**Keyed Notes**

① TEMPORARILY REMOVE CONDENSING UNIT AND STORE FOR REUSE. EVACUATE AND LABEL (WITH RCU SYSTEM) ALL REFRIGERANT PRIOR TO REMOVAL. DISCONNECT AND REMOVE REFRIGERANT TUBING AS REQUIRED UNTIL COMPLETION OF ROOFING WORK. REINSTALL CONDENSING UNIT ON EXISTING SUPPORTS SYSTEM. RECONNECT REFRIGERANT TUBING AND CHARGE UNIT WITH CAPTURED REFRIGERANT. PROVIDE ADDITIONAL REFRIGERANT AS REQUIRED TO REACH REFRIGERANT DESIGN SYSTEM PRESSURE. INSULATE REFRIGERANT TUBING. COORDINATE WITH ROOFING WORK.



Key Plan  
N.T.S.

S.E.D. Control No. 62-18-01-06-0-002-015

Rev. No.	Date	Description



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**BID SET**

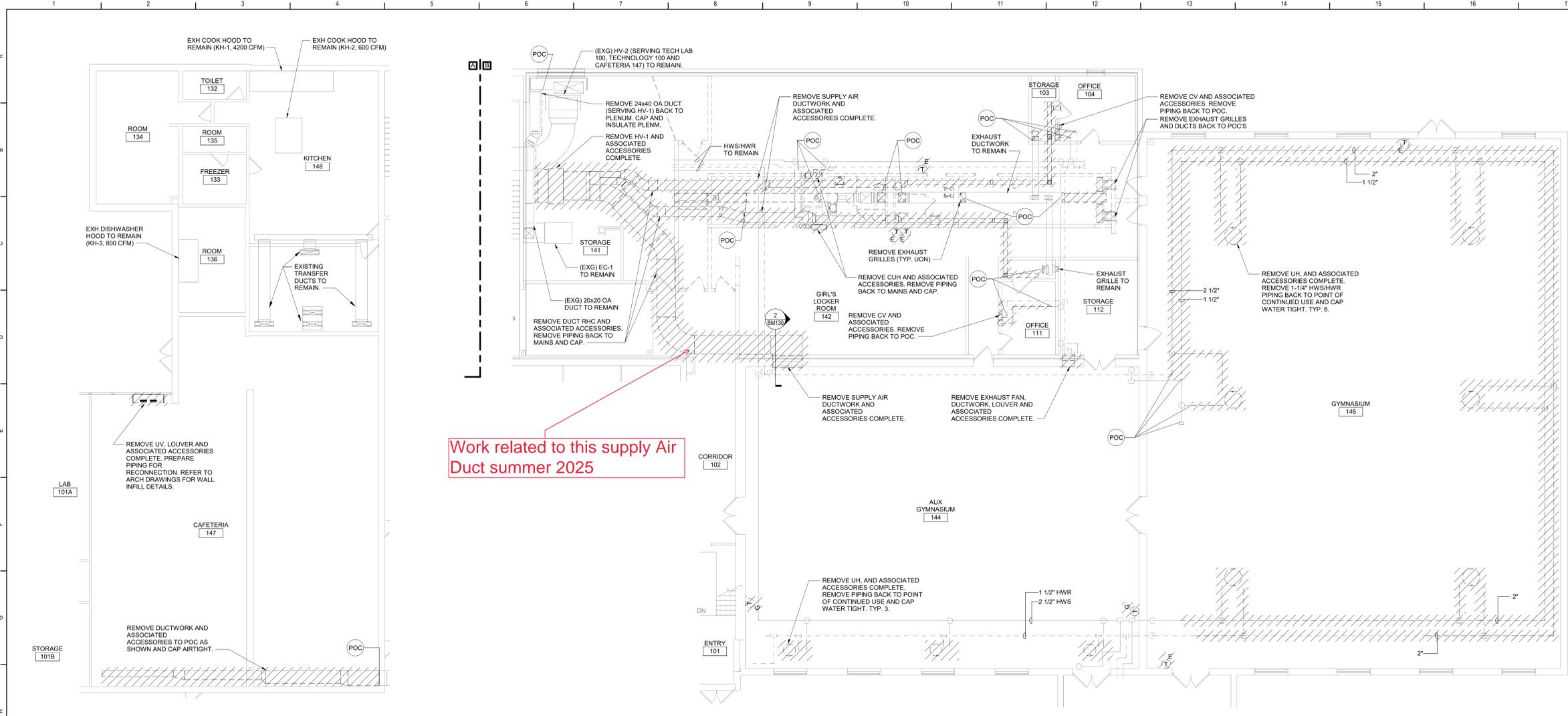


Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
John G. Borden Middle School

Third Floor and Roof Key Plans

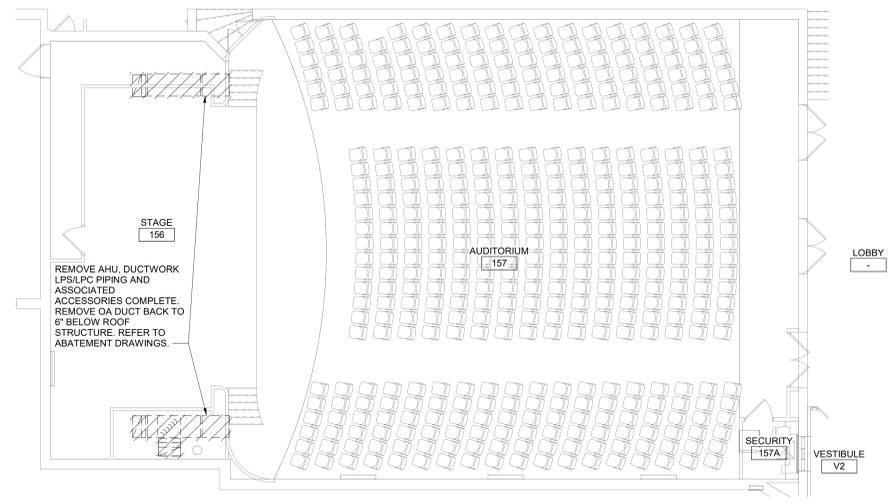
Drawn By: JPF/pgm	Date: 06/30/2023	Drawing Number:
Project No.:	17597-22002	
		<b>BM052</b>



Work related to this supply Air Duct summer 2025

2 Cafeteria Demolition Plan  
1/8" = 1'-0"

1 Locker Rooms and Gymnasium Demolition Plan  
1/8" = 1'-0"

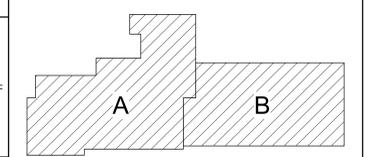


3 Auditorium Demolition Plan  
1/8" = 1'-0"

**Schedule:**  
 -Work in Audituim summer of 2024  
 -Work in locker rooms summer 2024 (except as noted)  
 -Work in Cafeteria summer of 2025  
 -Work in Aux Gymnasium 144 and Gymnasium 145 summer of 2025

**General Notes**

A. REFER TO BM051 FOR GENERAL NOTES.



Key Plan  
N.T.S.

S.E.D. Control No. 62-18-01-06-0-002-015



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**BID SET**



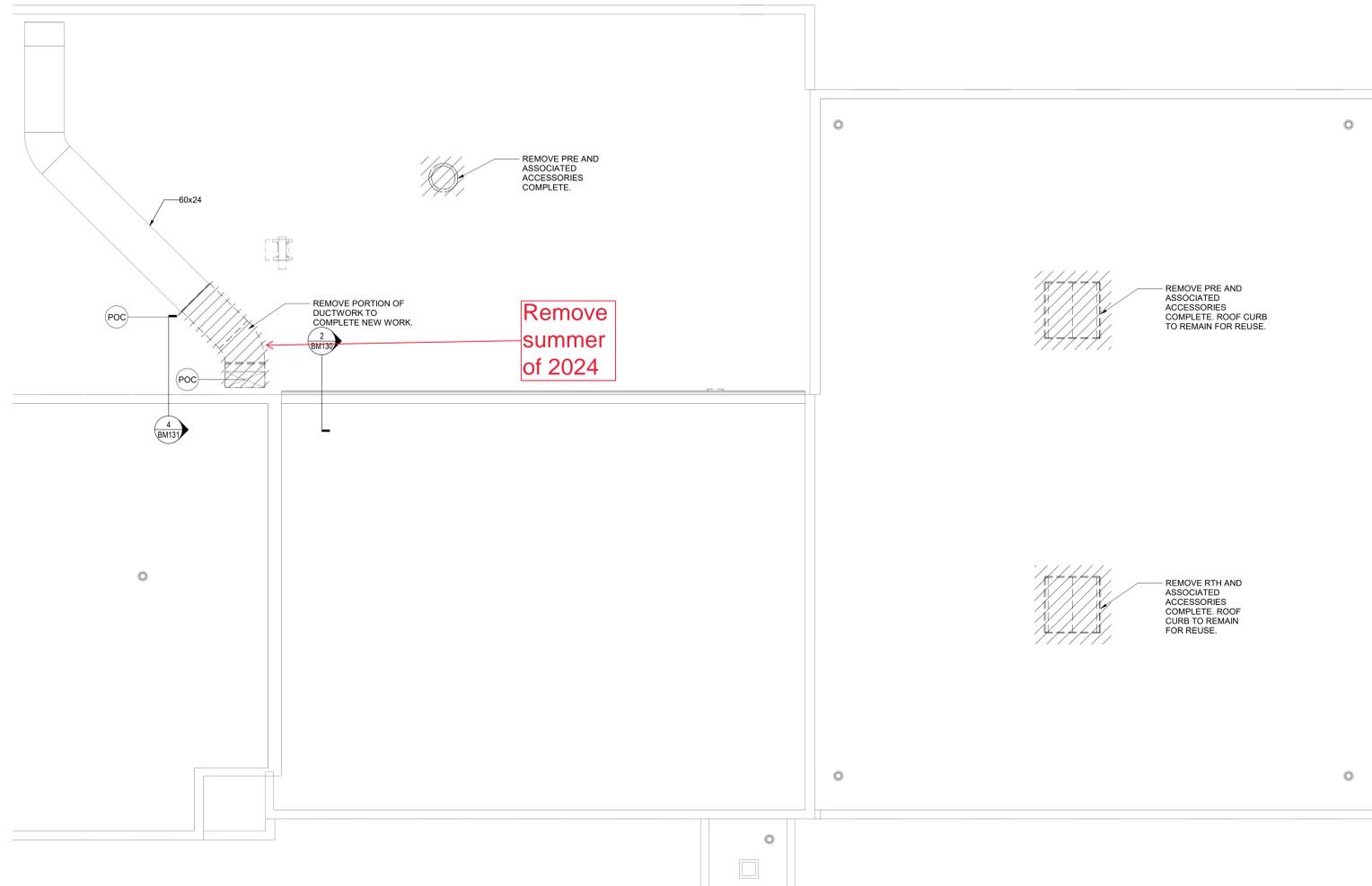
Walkkill Central School District  
 Walkkill, New York

Reconstruction to:  
 John G. Borden Middle School

Partial First Floor Demolition Plans

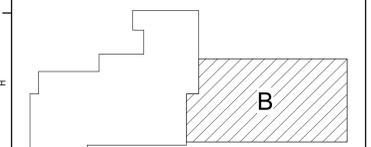
Drawn By: JPF/pgm	Date: 06/30/2023	Drawing Number:
Project No.:	17597-22002	
		<b>BM100</b>

Schedule:  
 -Removal of PRE and Associated work Summer of 2025



**General Notes**

A. REFER TO BM051 FOR GENERAL NOTES.



Key Plan  
 N.T.S.

S.E.D. Control No. 62-18-01-06-0-002-015

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Walkkill Central School District  
 Walkkill, New York

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 John G. Borden Middle School

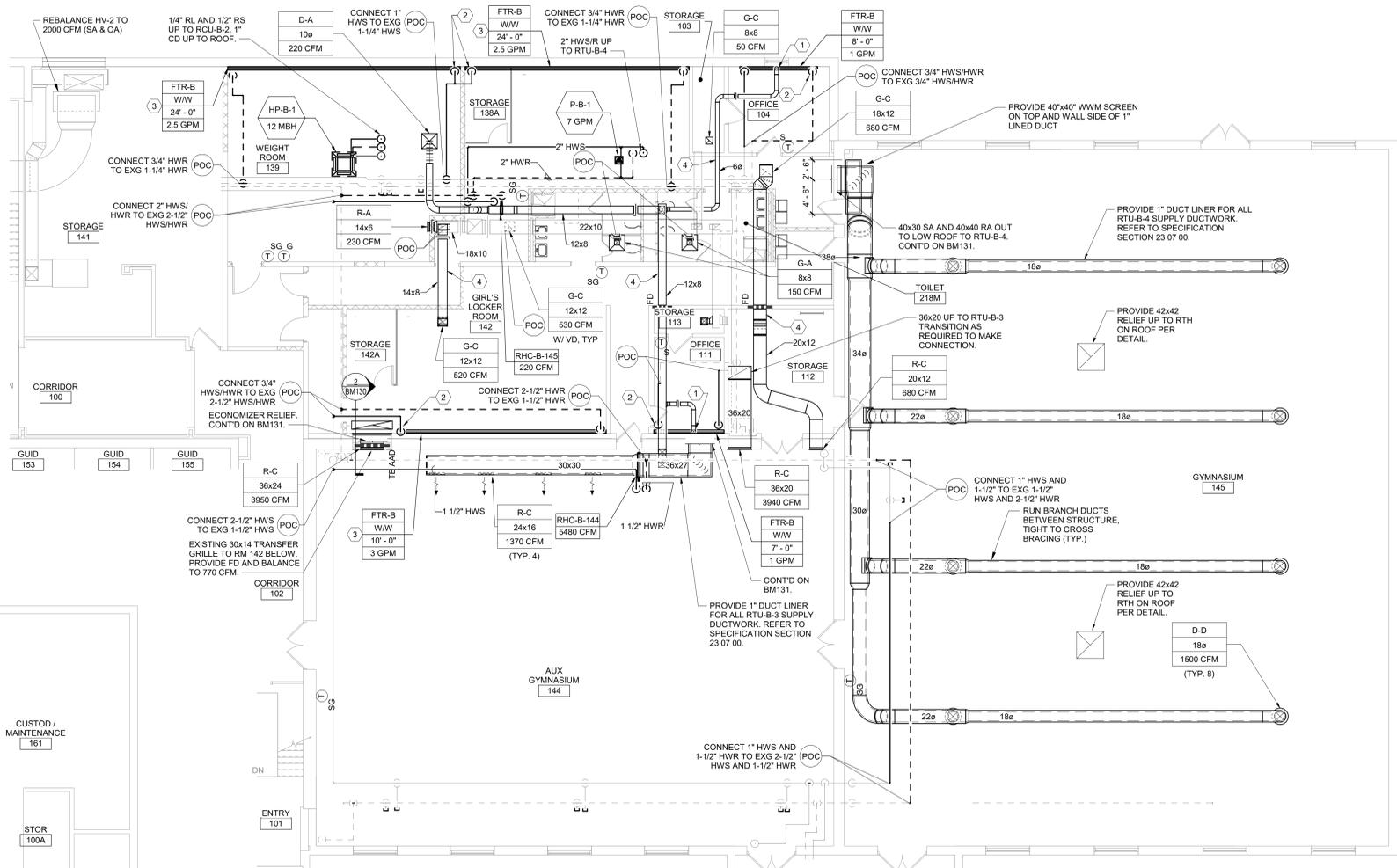
Roof Demolition Plan

Drawn By: JPF/jpgm	Date: 06/30/2023	Drawing Number:
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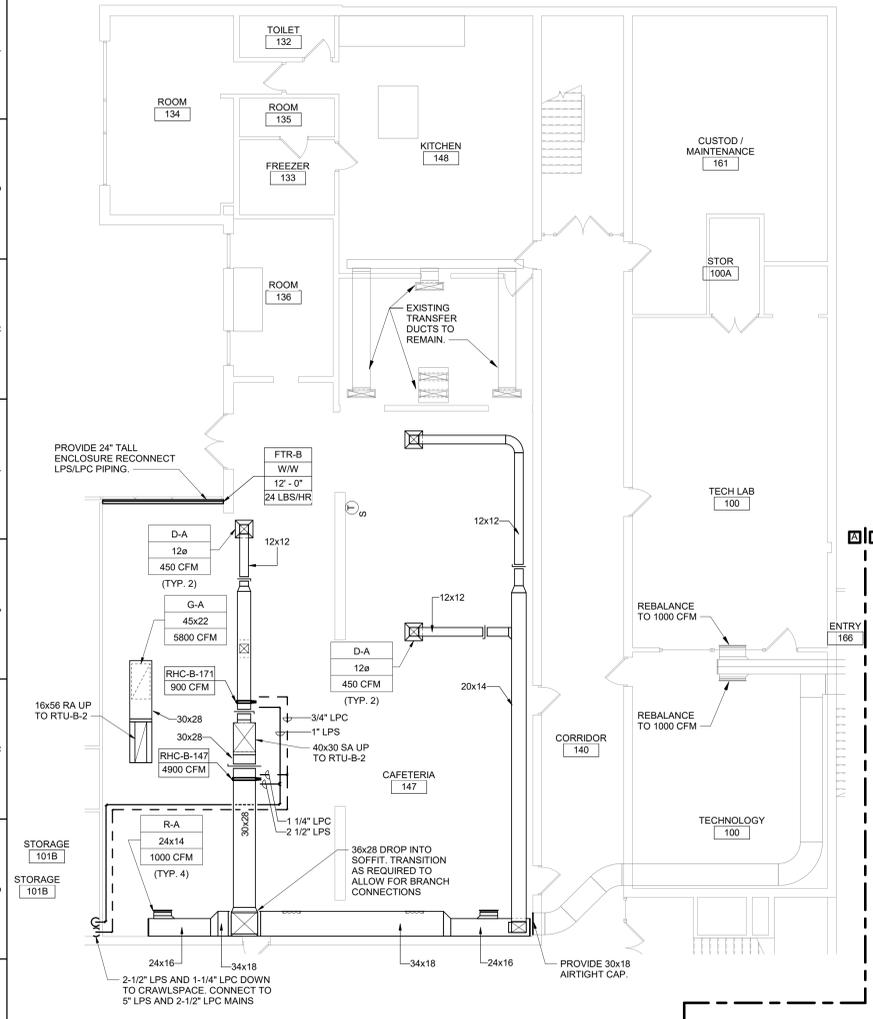
Project No.: 17597-22002	<b>BM101</b>
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1 Partial Roof Demolition Plan - Area B  
 1/8" = 1'-0"

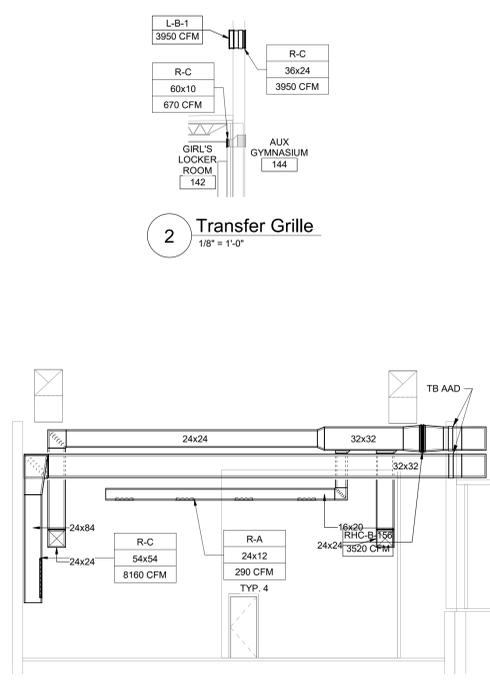
**Schedule:**  
 -Catereria work summer of 2025  
 -Auditorium/stage work summer 2024  
 -Locker Rooms and Gymnasium 145  
 Summer of 2024  
 -Aux Gymnasium summer of 2025



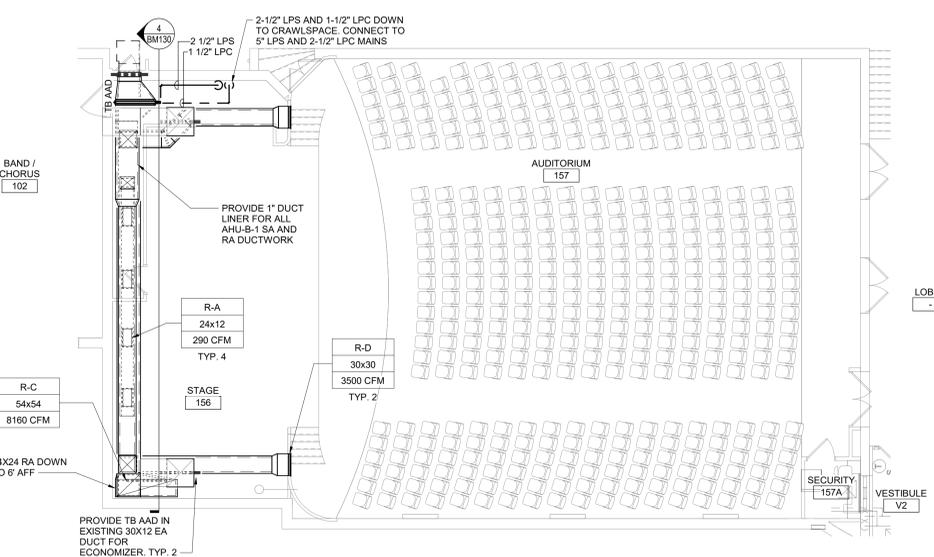
1 First Floor Locker Rooms and Gymnasium Plan  
 1/8" = 1'-0"



5 First Floor Cafeteria Plan  
 1/8" = 1'-0"



4 Stage Section  
 1/8" = 1'-0"

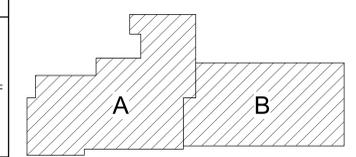


3 First Floor Auditorium Plan  
 1/8" = 1'-0"

**General Notes**  
 A. REFER TO BM051 FOR GENERAL NOTES.

**Keyed Notes**

- INSTALL FTR TIGHT (<1") TO CEILING. DIRECT OPEN ENDED DUCT TO DISCHARGE DIRECTLY INTO FTR ENCLOSURE. BALANCE TO 50 CFM.
- 3/4" HWS/R DOWN TO SERVE FTR.
- INSTALL FTR HIGH ON WALL UPSIDE DOWN AND TIGHT TO CEILING. -2" FROM CEILING. COORDINATE WITH LOCKERS. RUN DUCT BETWEEN JOISTS.



Key Plan  
 N.T.S.

S.E.D. Control No. 62-18-01-06-0-002-015

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**BID SET**

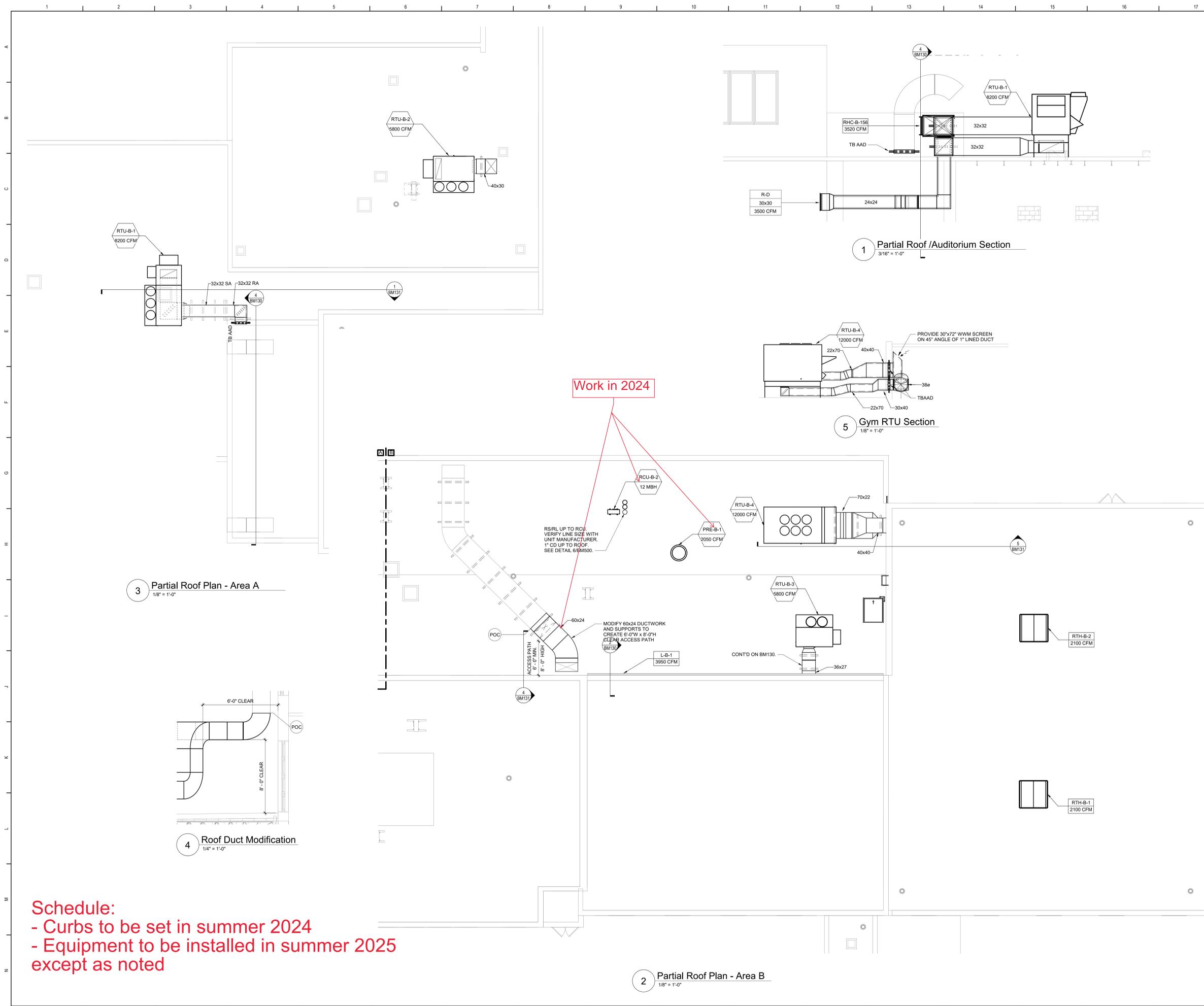


Walkkill Central School District  
 Walkkill, New York

Reconstruction to:  
 John G. Borden Middle School

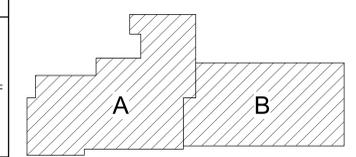
Partial First Floor Plan

Drawn By: JPF/pgm Date: 06/30/2023 Drawing Number:  
 Project No.: 17597-22002 BM130



**General Notes**

A. REFER TO BM051 FOR GENERAL NOTES.



**Key Plan**  
N.T.S.

S.E.D. Control No. 62-18-01-06-0-002-015

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**BID SET**



Walkkill Central School District  
Walkkill, New York

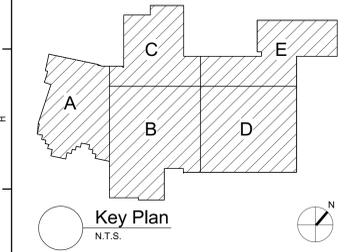
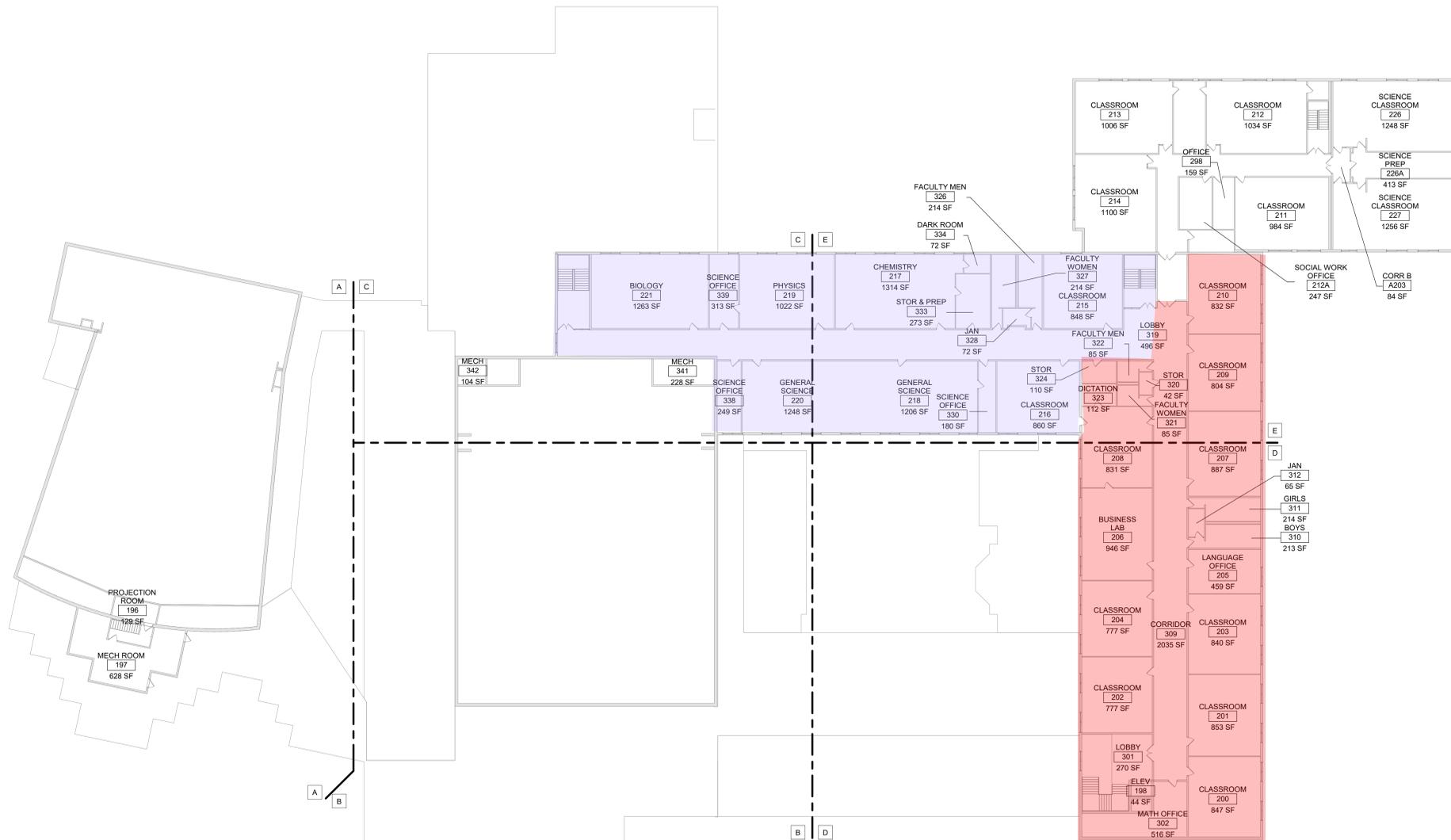
Reconstruction to:  
John G. Borden Middle School

Partial Roof Plan

Drawn By: JPF/pgm	Date: 06/30/2023	Drawing Number:
Project No.:	17597-22002	
		<b>BM131</b>

**Schedule:**  
 - Curbs to be set in summer 2024  
 - Equipment to be installed in summer 2025  
 except as noted





1 Second Floor - Key Plan  
3/64" = 1'-0"

July 8 - July 26  
July 29 - August 16

Rev. No.	Date	Description



Walkkill Central School District  
Walkkill, New York

Reconstruction to:  
Walkkill Senior High School

Second Floor Ceiling Phasing Plan

Date: 1/16/2024	Drawing Number:
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ACM101

## **SECTION 23 62 13 – UNITARY HEAT PUMP EQUIPMENT**

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Split System Heat Pumps.
- B. Products Furnished but not Installed Under this Section
  - 1. Associated refrigerant piping and condensate drain piping.

#### 1.3 SYSTEM DESCRIPTION

- A. Design Requirements
  - 1. Cooling performance rated in accordance with ARI Testing.
  - 2. Unit efficiencies meet scheduled performance and exceed Energy Code Requirements.
  - 3. Units listed and labeled by UL and ETL.
  - 4. Provide all refrigeration equipment and related installation in compliance with the latest editions of the Mechanical Code of NYS chapter 11, the safety code for mechanical refrigeration ASHRAE Standard 15, and ANSI Refrigeration Safety Code B 9.1.

#### 1.4 SUBMITTALS

- A. Comply with requirements of SECTION 01 33 00 - Submittals and as modified below.
- B. Product Data: Provide manufacturer's specification data for each unit, showing operating weight, all sizes, dimensions, capacity, operating and performance characteristics, motor horsepower, and other pertinent data including color chart.
- C. Contract Closeout Submittals: Comply with requirements of SECTION 01 77 00, including submission of operating and maintenance instructions as item in "Operating and Maintenance Data" manual described in that section.

## PART 2 - PRODUCTS

### 2.1 DUCTLESS SPLIT HEAT/COOL HEAT PUMP UNIT

- A. Unit Description: Unit bearing ARI Certification Symbol and listed by ETL Testing Laboratories, Inc. consisting of outdoor unit which contains refrigerant compressor and can provide cooling only or heating and cooling of spaces, indoor unit connected by insulated copper refrigerant tubing with flare type fittings. System equipped with factory-installed solid core filter drier, large capacity suction accumulator, low ambient controls, and other accessories as specified and as scheduled.
1. Refrigerant Run Capability: 130 feet of lift with maximum tubing length of 130 feet of interconnecting piping for up to 1.5 ton capacity unit, and 50 feet of lift with maximum tubing length of 164 feet for unit with greater than 1.5 ton capacity up to 3.5 ton capacity.
  2. Refer to drawings for capacities and performance ratings.
- B. Refrigerant: Sufficient R-410A or 407C refrigerant provided in outdoor unit to charge complete system.
- C. Outdoor Condensing Unit: Outdoor with inverter driven variable speed compressors which provides efficient cooling and heating performance.
1. General data:
    - a. Factory assembled and pre-wired with all necessary electronic and refrigerant controls.
    - b. Refrigeration circuit consisting of a digital scroll compressor, motors, fans, condenser coil, electronic expansion valve, solenoid valves, 4 way valve, distribution headers, capillaries, filters, service isolation valves, oil separators, service ports, liquid receivers and accumulators.
    - c. Both liquid and suction lines must be individually insulated between the outdoor and indoor units on heat pump units. Liquid line insulation is not required on cooling only units.
    - d. The outdoor unit can be wired and piped with outdoor unit access from left, right, rear or bottom.
    - e. The sound pressure at rated conditions: maximum of 58 decibels dB(A) at 3 feet from the front of the unit. Provide with night operation mode capable of operating at further reduced noise.
    - f. The system will automatically restart operation after a power failure and will not cause any settings to be lost, thus eliminating the need for re-programming.
    - g. The outdoor unit shall be modular in design and should allow for side-by-side installation with minimum spacing.



- e. Each compressor shall be equipped with a crankcase heater, high pressure safety switch, and internal thermal overload protector.
  - f. Oil separators shall be standard with the equipment together with an oil balancing circuit.
  - g. The compressor shall be mounted to avoid the transmission of vibration.
6. Electrical:
- a. The power supply to the outdoor unit shall be in voltage and phasing as shown on the drawings, with a tolerance of +/- 10% from nominal indicated.
  - b. The control voltage between the indoor and outdoor unit shall be low voltage control wiring compatible with the energy management and control system as specified in Section 23 09 00. The control wiring shall be a multiplex communication system, making it possible to connect multiple indoor units to one outdoor unit with one cable, thus simplifying the wiring operation.

D. Indoor Unit – Ceiling Cassette Unit

- 1. General: The indoor unit model shall be a ceiling cassette fan coil unit, operable with scheduled refrigerant, for installation into the ceiling cavity with an air panel grille. It shall be a four-way air distribution type, ivory white, impact resistant, and washable decoration panel. The supply air is distributed via motorized louvers which can be horizontally and vertically adjusted from 0° to 90°. Computerized control shall be used to maintain room temperature within 1°F. The indoor units sound pressure shall range from 28 dB(A) to 33 dB(A) at low speed measured at 5 feet below the unit.
- 2. Indoor Unit:
  - a. The indoor unit shall be completely factory assembled and tested. Included in the unit is factory wiring, piping, electronic proportional expansion valve, control circuit board, fan motor thermal protector, flare connections, condensate drain pan, condensate drain pump, self-diagnostics, auto-restart function, 3-minute fused time delay, and test run switch.
  - b. Indoor unit and refrigerant pipes will be charged with dehydrated air prior to shipment from the factory.
  - c. Both refrigerant lines shall be insulated from the outdoor unit.
  - d. The 4-way supply air flow can be field modified to 3-way and 2-way airflow to accommodate various installation configurations including corner installations.
  - e. Return air shall be through the concentric panel, which includes a resin net mold resistant filter.
  - f. Indoor units shall be capable of accepting outside air delivered through sidewall knock-outs sized for acceptance of scheduled outside air flow rates.

- g. The indoor units shall be equipped with an insulated corrosion proof condensate pan under the coil capturing and controlling all condensate.
  - h. Provide a condensate pump with a 21 inch lift located below the coil in the condensate pan, complete with a built in safety high level alarm and interlock.
  - i. The indoor units shall be equipped with a return air thermistor.
3. Unit Cabinet:
- a. The cabinet shall be space saving and shall be located into the ceiling.
  - b. Three auto-swing positions shall be available to choose, which include standard, draft prevention and ceiling stain prevention.
  - c. The airflow of the unit shall have the ability to shut down one or two sides allowing for simpler corner installation.
  - d. The cabinet shall be constructed with sound absorbing foamed polystyrene and polyethylene insulation.
4. Fan:
- a. The fan shall be direct-drive turbo fan type with statically and dynamically balanced impeller with high and low fan speeds available.
  - b. The fan motor shall operate with a motor output range from 0.06 to 0.12 HP.
  - c. The air flow rate shall be available in high and low settings.
  - d. The fan motor shall be thermally protected.
5. Filter:
- a. The return air shall be filtered by means of a washable long-life filter with mildew proof resin.
6. Coil:
- a. Coils shall be of the direct expansion type constructed from copper tubes expanded into aluminum fins to form a mechanical bond.
  - b. The coil shall be of a waffle louver fin and high heat exchange, rifled bore tube design to ensure highly efficient performance.
  - c. The coil shall be a 2 row (minimum) evaporator coil completely factory tested.
  - d. A thermistor will be located on the liquid and gas line.

E. Indoor, Suspended, Ceiling-Mounted Units

- 1. General: The indoor unit model shall be a suspended ceiling-mounted fan coil unit, operable with scheduled refrigerant, for installation completely below the ceiling. It shall be a one-way air distribution type, ivory white, impact resistant, and washable decoration panel. The supply air is distributed via motorized louvers which can be horizontally and vertically adjusted from 0° to 90°. The return air shall enter from the bottom. Computerized control shall be used to maintain room temperature within 1°F. The indoor units sound pressure shall range from 28 dB(A) to 35 dB(A) at low speed measured at 5 feet below the unit.

2. Indoor Unit:
  - a. The indoor unit shall be completely factory assembled and tested. Included in the unit is factory wiring, piping, electronic proportional expansion valve, control circuit board, fan motor thermal protector, flare connections, condensate drain pan, condensate drain pump, self-diagnostics, auto-restart function, 3-minute fused time delay, and test run switch.
  - b. Indoor unit and refrigerant pipes will be charged with dehydrated air prior to shipment from the factory.
  - c. Both refrigerant lines shall be insulated from the outdoor unit.
  - d. Return air shall be through a resin net mold resistant filter.
  - e. The cabinet shall be constructed with sound absorbing foamed polystyrene and polyethylene insulation.
  - f. The indoor units shall be equipped with an insulated corrosion proof condensate pan under the coil capturing and controlling all condensate.
  - g. Provide a condensate pump with a 21 inch lift located below the coil in the condensate pan, complete with a built in discharge check valve and safety high level alarm with interlock.
  - h. The indoor units shall be equipped with a return air thermistor.
3. Unit Cabinet:
  - a. The cabinet shall be space saving and shall be completely located within 10 inches below the ceiling.
  - b. Three auto-swing positions shall be available to choose, which include standard, draft prevention and ceiling stain prevention.
  - c. The cabinet shall be constructed with sound absorbing foamed polystyrene and polyethylene insulation.
4. Fan:
  - a. The fan shall be direct-drive turbo fan type with statically and dynamically balanced impeller with high and low fan speeds available.
  - b. The fan motor shall operate with a motor output range from 0.06 to 0.15 HP.
  - c. The air flow rate shall be available in high and low settings.
  - d. The fan motor shall be thermally protected.
5. Coil:
  - a. Coils shall be of the direct expansion type constructed from copper tubes expanded into aluminum fins to form a mechanical bond.
  - b. The coil shall be of a waffle louver fin and high heat exchange, rifled bore tube design to ensure highly efficient performance.

- c. The coil shall be a 2 row (minimum) evaporator coil completely factory tested.
- d. A thermistor will be located on the liquid and gas line.

6. Unit Accessories:

- a. Remote Room Temperature Sensor Kit: Wall-mounted, hardwired room temperature sensor kit for use in rooms that do not have room temperature measurement.

F. Indoor Unit – Wall Mount Unit

- 1. General: The indoor unit shall be a wall mounted fan coil unit, operable with refrigerant R410A, for installation onto a wall within a conditioned space, with a white casing. Computerized control shall be used to maintain room temperature within 1°F. A mildew-proof, polystyrene air filter and condensate drain pan shall be included as standard equipment. The indoor units sound pressure shall range from 32 dB(A) to 35 dB(A) at low speed measured at 3.3 feet below and from the unit.

2. Indoor Unit:

- a. The indoor unit shall be completely factory assembled and tested. Included in the unit is factory wiring, piping, electronic proportional expansion valve, control circuit board, fan motor thermal protector, flare connections, condensate drain pan, self-diagnostics, auto-restart function, 3-minute fused time delay, and test run switch. The unit shall have an auto-swing louver which ensures efficient air distribution, which closes automatically when the unit stops. The remote controller shall be able to set five (5) steps of discharge angle. The front grille shall be easily removed for washing. The discharge angle shall automatically set at the same angle as the previous operation upon restart. The drain pipe can be fitted to from either left or right sides.
- b. Indoor unit and refrigerant pipes will be charged with dehydrated air prior to shipment from the factory.
- c. Both refrigerant lines shall be insulated from the outdoor unit.
- d. Return air shall be through a resin net mold resistant filter.
- e. The indoor units shall be equipped with an insulated corrosion proof condensate pan under the coil capturing and controlling all condensate.
- f. Provide a condensate pump with a 21 inch lift located below the coil in the condensate pan, complete with a built in discharge check valve and safety high level alarm with interlock.
- g. The indoor units shall be equipped with a return air thermistor.

3. Unit Cabinet:

- a. The cabinet shall be affixed to a factory supplied wall mounting template and located in the conditioned space.

- b. The cabinet shall be constructed with sound absorbing foamed polystyrene and polyethylene insulation.
  - 4. Fan:
    - a. The fan shall be a direct-drive cross-flow fan, statically and dynamically balanced impeller with high and low fan speeds available.
    - b. The fan motor shall operate with a motor output range 0.054 to 0.58 HP.
    - c. The air flow rate shall be available in high and low settings.
    - d. The fan motor shall be thermally protected.
  - 5. Coil:
    - a. Coils shall be of the direct expansion type constructed from copper tubes expanded into aluminum fins to form a mechanical bond.
    - b. The coil shall be of a waffle louver fin and high heat exchange, rifled bore tube design to ensure highly efficient performance.
    - c. The coil shall be a 2 row (minimum) cross fin copper evaporator coil completely factory tested.
    - d. The refrigerant connections shall be flare connections and the condensate will be 1-1/4 inch outside diameter PVC.
    - e. A thermistor will be located on the liquid and gas line.
    - f. A condensate pan shall be located in the unit.
- G. Electrical:
- 1. Transmission (control) wiring between the indoor and outdoor unit shall be a maximum of 3,280 feet (total 6,560 feet).
  - 2. Transmission (control) wiring between the indoor and remote controller shall be a maximum distance of 1,640 feet.
- H. Controls:
- 1. Provide intelligent touch controller to control entire system. Provide gateway to seamlessly interface with EMCS.
  - 2. Provide Simplified wired remote controller for each space. All room controllers to wire to intelligent touch controller which can be monitored at the OWS.
- I. Manufacturers:
- 1. Basis of design is as scheduled on the drawings.
  - 2. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Carrier / Toshiba.
    - b. Daikin.
    - c. Sanyo.
    - d. Trane / Mitsubishi.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verification of Conditions: Examine conditions under which unitary heat pump equipment is to be installed and notify affected Contractors and Architect in writing of any conditions detrimental to proper and timely installation. Do not proceed with installation until unsatisfactory conditions have been corrected in an acceptable manner.
  - 1. When conditions are confirmed to be acceptable to ensure proper and timely installation and to ensure requirements for applicable warranty or guarantee can be satisfied, submit to Architect written confirmation. Failure to submit written confirmation and subsequent installation will be assumed to indicate conditions are acceptable.

### 3.2 INSTALLATION

- A. Install in strict accordance with manufacturer's recommendations and as follows.
  - 1. Provide combination equipment / piping curb in proper position on roof, secured and leveled as recommended by manufacturer. Provide sufficient portals in pipe penetration portion of curb for refrigerant, electrical power, and control wiring.
- B. Provide all required supports, attachment devices, vibration isolators, gasketing, sealants, and accessories needed to insure stable, quiet, leak free operation.
- C. Provide all refrigerant piping in strict accordance with section 23 23 00 – Refrigerant Piping.
- D. Run insulated condensate drain line to approved point of indirect waste disposal through properly sized P-trap. Pitch drain line continuously in direction of flow. If gravity drain is not possible, provide condensate removal pump as specified, piped to nearest approved point of indirect waste disposal.

### 3.3 FACTORY START UP AND FIELD QUALITY CONTROL

- A. Provide authorized factory representative to start-up unit, check following items, and furnish report:
  - 1. Measure and check voltage of components.
  - 2. Check removal of shipping bracing.
  - 3. Proper connection of drains.
  - 4. Check control circuitry, operation, and performance during all modes of operation.
  - 5. Fan check (RPM, motor amps, rotation, belt tension, etc.).
  - 6. All wiring circuits.
  - 7. All accessory equipment operation, such as filters, controls, condensate drain, etc.

END OF SECTION 23 62 13