ADDENDUM NO. 1
to
CONTRACT DOCUMENTS

for
HVAC RENOVATIONS TO PRINCETON HIGH SCHOOL
located at 151 Moore Street, Princeton, NJ 08540

for the
PRINCETON PUBLIC SCHOOLS
Princeton, Mercer County, New Jersey

FVHD PROJECT NO. 5516E

Issued: February 24, 2026

FRAYTAK VEISZ HOPKINS DUTHIE, P.C.
Architects – Planners
1515 Lower Ferry Road, Trenton, NJ 08618
Tel: 609.883.7101 - Fax: 609.883.2694
William D. Hopkins III, AIA, LEED AP
License No. 21AI01706000

CM ENGINEERS, LLC
Consulting MEP Engineers
385 Route 24, Suite 3-O
Chester, NJ 07930
Joseph T. Mistretta, P.E.
License No. GE02823800

INTENT: **This Document supersedes all conflicting and contrary information in said Bid Documents. Said documents are hereby amended in certain particulars as described herein after. Unless specifically noted or specified hereinafter all work shall conform to the applicable provisions of the Bid Documents. Bidders shall acknowledge receiving this document on the Bid Proposal Form.**

This Addendum includes six (6) pages and the following:

1. Pre-Bid Meeting Sign-In Sheet, dated 2/12/26, (2-pages).

2. Revised Bid Proposal Form (4-pages).

3. Sworn Contractor Certification Form, (1-page).

4. New Specification Section: 06400 (5-pages).

5. Revised Drawings:
   a. Architectural: A101, A102, A103, A104, A105, A201, A203.
   b. Mechanical: C-000, M-701, M-801, M-901.
   c. Electrical: ED-502, E-601.

REQUESTS FOR INFORMATION (RFI'S)

1. Question: Is the AHU-E3 mentioned on Drawing C000 Add/Alternate #1 the same as the AHU-E2 shown on the schedule?

   Response: Yes, the reference to AHU-E3 should be AHU-E2.

2. Question: Is EF-C4 to be included in Alternate #2 as shown on Drawing M-503?

   Response: Yes. The three (3) plan views on Drawing M-503 reference Add/Alt #2

3. Question: Is EF-E9, shown as Alternate #2 on the schedule, a replacement of EF-E9 as shown on M-435?

   Response: The existing exhaust fan (EF-E9) is only being rebalanced under the base project.

   There is a reference for the new exhaust fan (EF-E9) on Drawing (M-701) that showed Alt #2. This Drawing has been revised to show Alt #1. The installation of the new fan is shown on Drawing M-435-1.

   Exhaust fan EF-E9 is being replaced under Alt #1, not Alt #2. The mechanical schedule Drawing (M-701) was revised to reflect Alt #1. The replacement of this fan is shown on Drawing M-435-1. The scope of work on Drawing M-435 pertains to the base bid in which EF-E9 is only being rebalanced.

4. Question: For bidding purposes, please provide quantities and sizes of the strainers to be cleaned per Drawing C-000 - General New Work Note #36

   Response: There are approximately 250 fan coil units and unit ventilators with an average piping size of 1". The strainers for the main mechanical equipment in the Boiler Room and Chiller Room need to be included as well.

5. Question: On Drawing A201, Notes (3)- 9 times, (4) - 1 time, and (10) -5 times, all refer to 11/A201, there is no 11 / A201, please advise. Also are we to assume (1) angle frame per occurrence?

   Response: 10/A201 should be 6/A201, and 11/A201 should be 4/A201. (Refer to the updated Drawing). The steel angle RTU support size is referenced in the steel notes on Detail 6/A201.

6. Question: What is the existing controls in the building?

   Response: The existing control system is Automated Logic Corporation.

7. Question: Who is the Controls Contractor in the building?

   Response: Pennetta & Sons, Victor Pennetta, vpennetta@pennetta.com 201 420-1693

8. Question: Please provide Sequence of Operations Drawings M-06, M-07, M-08, as mentioned on Drawing M-901 Item A (Control System Performance Specification).

   Response: The reference to M-06 thru M-08 is a mistake. The Control Drawings and Sequences of Operation are found on M-600 thru M612.

9. Question: On the Unit Prices, does "materials in place" means the materials have been bought, delivered and are ready to be used but not yet installed, e.g., motors, actuators, sprinklers, etc.? Our responsibility is to install them. Please clarify.

   Response: The (Sub)Contractor is to provide the cost to furnish and install the item(s).

10. Question: Please provide pump connection details.

    Response: Refer to revised Drawings attached to this Addendum.

11. Question: E Drawing notes specify EMT and Rain-tight fittings are acceptable on roof and specs call out IMC for outdoors and exposed. Please advise.

    Response: Response: As noted in the "General Notes" on the Electrical Roof Plans, galvanized EMT with rain-tight fittings should be used.

12. Question: Who is the Fire alarm vendor?

    Response: This information is provided on Drawing FA-301.

13. Question: As per Drawings requesting a 3 week turn around for metering existing loads, will this be mandated? If so, is there any way we can extend the 3 week turn around?

    Response: The metering of the panels shall begin within three (3) weeks of award. The panels shall be metered for one (1) week. There is time needed to collect the data and prepare the graphs. The results are expected to be a week or so after that.

14. Question: Per Note 9 on E601, we are to provide a new breaker to feed THP-1. Note 1 on E505 states we are to re-use an existing breaker to feed THP-1. Please Advise.

    Response: The existing 125A breaker shall be reused. Refer to revised Drawing E-601, attached to this Addendum.

15. Question: On Drawing ED-502 Detail 1, Note ED is missing. Please Advise.

    Response: Note on ED-502 has been added to remove conductors from breaker (ckt 79) for DWH control circuit and label breaker as 'spare'.

REFER TO DRAWINGS

The following Drawings and/or Sketches are attached to this Addendum:

DRAWING NO.	TITLE
A101	EXISTING GROUND FLOOR PLANS, GENERAL NOTES, DEMOLITION NOTES, PHOTOS AND DETAILS
A102	EXISTING PARTIAL GROUND FLOOR PLAN AND NOTES
A103	EXISTING PARTIAL FIRST FLOOR PLAN, NOTES, PHOTOS AND DETAILS
A104	EXISTING PARTIAL FIRST FLOOR PLAN, NOTES, PHOTOS, AND DETAILS
A105	EXISTING PARTIAL SECOND FLOOR PLAN, NOTES, PHOTOS, AND DETAILS
A201	EXISTING ROOF PLAN, ROOF WARRANTY LEGEND, AND NOTES
A203	ROOFING DETAILS, STRUCTURAL DETAILS, AND NOTES
C-000	COVER SHEET
M-701	MECHANICAL - SCHEDULES SHEET 1
M-801	MECHANICAL DETAILS

M-901	MECHANICAL - SPECIFICATIONS
ED-502	ELECTRICAL - GROUND FLOOR PARTIAL DEMOLITIONS PLANS
E-601	ELECTRICAL - PARTIAL SINGLE LINE DIAGRAM NEW WORK PLAN

The following Drawings to be revised or corrected as follows:

DRAWING NO.	CHANGES AND CORRECTIONS
A101, A102, A103, A104, A105, A201, A203	Delete the referenced drawings in their entirety and substitute with the enclosed revised drawings.
C-000, M-701, M-801, M-901	Delete the referenced drawings in their entirety and substitute with the enclosed revised drawings.
ED-502, E-601	Delete the referenced drawings in their entirety and substitute with the enclosed revised drawings.

BIDDING INFORMATION

Add the attached Sworn Contractor Certification Form.

PROPOSAL FORM

Delete the Bid Proposal Form in its entirety and substitute with the enclosed revised document.

REFER TO SPECIFICATIONS

TABLE OF CONTENTS

Under Part - 2 General Construction Work, add the following new section which is attached to this Addendum:

06400 Architectural Woodwork, 5 pages.

PART 1 - SECTION 01151 - UNIT PRICES

Page	Paragraph	
01151-1	1.2	Delete the reference "$ **2.90** per board ft.", and substitute with the following: "$_____ per board ft."

PART 1 - SECTION 01900 - GUARANTEES AND WARRANTIES

Page	Paragraph	
01900-4	1.2	Add the following new subparagraph:

J. Architectural Woodwork as specified in Section 06400.

1. Special Project Warranty: Provide Manufacturer's / Installer's / Contractor's warrantees against delamination, warping, hardware and support system failure and deterioration of finish.
   a. Warranty period shall be for **two (2) years** which shall start from approved date of substantial completion of work.

PART 2 - SECTION 06400 - ARCHITECTURAL WOODWORK

Add new Section 06400, attached to this Addendum.

PART 1 - SECTION 09900 - PAINTING

Page	Paragraph	
09900-1	1.1, B	Add the following subparagraph:

9. Section 06400 - Architectural Woodwork.

09900-3	1.3, E	Add the following subparagraph:

(8) Stains: VOC content of not more than 250 g/L.

	1.4, B	Add the following subparagraph:

2. On actual wood surfaces, provide two 4" x 8" samples of natural and stained wood finish. Label and identify each as to location and application.

09900-7	2.5	Add the following subparagraph:

D. Transparent Waterborne Varnish Finish:

1. Stain Coat (if required): 755000000 - Minwax Performance Series Tintable Wood Stain 250, Color to match the existing.

2. 1st Coat: 630250444 - Minwax® Water Based Polyurethane 275 VOC Clear.

3. 2nd Coat: 630250444 - Minwax® Water Based Polyurethane 275 VOC Clear

4. 3rd Coat: 630250444 - Minwax® Water Based Polyurethane 275 VOC Clear

5. Apply to Architectural woodwork.

09900-7	3.2, A.5	Add the following subparagraph:

c. Wood (interior) - 8% maximum.

09900-8	3.2	Add the following subparagraph:

D. Wood:

1. Clean wood surfaces to be stained of dirt, oil, or other foreign

substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view, and dust off. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.

2. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job. Prime edges, ends, faces, undersides, and backsides of such wood, including panels, and trim.

3. When transparent finish is required, use spar varnish for backpriming.

09900-9 3.4 Add the following subparagraph:

L. Transparent (Clear) Finishes: Use multiple coats to produce glass-smooth surface film of even luster. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections.

1. Provide satin finish for final coats, unless otherwise indicated.

END OF ADDENDUM NO. 1

ADDENDUM NO. 1

BID PROPOSAL FORM

SINGLE OVERALL CONTRACT

DPMC Classifications: C032 Prime Contractor
with C009, C029, C030, C047, C066 & C068 Subcontractors

To: Princeton Public Schools
25 Valley Road
Princeton, NJ 08540

1. The undersigned, having familiarized themself with the local conditions affecting the cost of the work, the Drawings, the Specifications and other Bid Documents, as in the Advertisement for Bids thereto, for the **HVAC Renovations at Princeton High School (FVHD#5516E)**, 151 Moore Street, Princeton, NJ 08540, together with all work incidental thereto, in accordance with the requirements of the Drawings and Specifications prepared by Fraytak Veisz Hopkins Duthie, P.C., Architects/Planners, Trenton, New Jersey, hereby proposes to furnish all labor, materials and equipment required for all Work and as follows:

SINGLE OVERALL CONTRACT - BASE BID: All Work at the above referenced school, including applicable Allowances - Section 01020, in accordance with the requirements of Bid Documents. If written amount differs from the numerical figure, only the written amount will be accepted as the correct bid.

TOTAL BASE BID INCLUDING ALLOWANCE: $_____
(Numerical)

_____
(To be written in full)

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Submitted by:_____
(Firm Name)

2. **Alternate Proposal(s) - Section 01030** shall be quoted as additions to, deductions from or No Change (NC) to the Base Bid and shall be in accordance with the Specifications for Alternate Bid Work. If written amount differs from the numerical figure, only the written amount will be accepted as the correct bid.

Alternate Bid No. 1: Rooftop Unit Replacement @ Old Gym & Team Rooms (AHU-E1 & AHU-E2)

ADD $_____
(Numerical)

_____
(To be written in full)

Alternate Bid No. 2: Air Handler Unit Replacement (AHU-C1 & AHU-C2)

ADD $_____
(Numerical)

_____
(To be written in full)

Alternate Bid No. 3: Boiler Room Domestic Water Heater Replacement

ADD $_____
(Numerical)

_____
(To be written in full)

Alternate Bid No. 4: Access Platform & Guard Railing at Library AHU-A2

ADD $_____
(Numerical)

_____
(To be written in full)

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Submitted by:_____
(Firm Name)

3. **UNIT PRICES - SECTION 01151: Materials in Place.**

UNIT PRICES - GENERAL CONSTRUCTION: Materials in Place.

Replacement of existing damaged or deteriorated metal decking	$_____ per sq. ft.
Replacement of existing wet or deteriorated roof insulation board	$_____ per sq. ft.
Replacement of existing damaged or deteriorated wood nailers/blocking or framing, including removal of existing deteriorated wood, furnishing and installing new galvanized anchor bolts, expansion bolts at 4'-0" o.c. or nails through existing construction to remain:	$_____ per board ft.
a. 2x4 for the above work	$_____ per lin. ft.
b. 2x6 for the above work	$_____ per lin. ft.
c. 2x8 for the above work	$_____ per lin. ft.
d. 2x10 for the above work	$_____ per lin. ft.
e. 2x12 for the above work	$_____ per lin. ft.

UNIT PRICES - PLUMBING / FIRE PROTECTION: Materials in Place.

Removal and relocation of a sprinkler.	$_____ per unit

UNIT PRICES - HEATING AND VENTILATING: Materials in Place.

Replacement of a fan coil and unit ventilator motor.	$_____ per unit
Replacement of a fan coil and unit ventilator control panel and reprogramming.	$_____ per unit
Replacement for unit ventilator outside damper actuator.	$_____ per unit
Installation of a 16x2 manual balancing damper in existing duct.	$_____ per unit
Installation of a 12" diameter manual balancing damper in existing duct.	$_____ per unit

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Submitted by:_____
(Firm Name)

4. Bidder hereby acknowledges receipt of the following Addenda:
   No Addenda Issued ☐

Addendum No. 1,	issued_____	received_____	(initial)
Addendum No.___,	issued_____	received_____	(initial)
Addendum No.___,	issued_____	received_____	(initial)
Addendum No.___,	issued_____	received_____	(initial)

5. In submitting this bid, it is understood that the right is reserved by the Owner to accept or to reject bids pursuant to N.J.S.A. 18A:18-22 and any bid that is non-responsive or submitted by a Bidder that is not responsible, and it is agreed that this bid may not be withdrawn for a period of sixty (60) days from the date set of the opening thereof.

6. Bid Security in the sum of_____($_____)
   in the form of _____ (Certified Check, Cashier's Check, or Bid Bond) is submitted herewith in accordance with the requirements of the Specifications.

7. The undersigned is an individual ( )
   a partnership ( )
   a corporation ( ) under the laws of the State of _____,
   having principal office in the _____ of _____, County
   of _____, and State of _____.

Respectfully Submitted,

_____
(Company Name, if Bidder is a company)

BIDDER'S SIGNATURE

_____
(Company Officer, if Bidder is a Corporation or LLC)

(Seal, if Corporation)

_____
Printed or Typed Name Title of Officer (if the Bidder is a Company)

_____
Address

_____
City, State, Zip Code

_____
Phone & Fax

_____
Dated

_____
Email Address

NOTE: SEE BIDDERS CHECKLIST

Submitted by:_____
(Firm Name)

FVHD architects planners
Fraytak Veisz Hopkins Duthie, P.C.

William D. Hopkins III, AIA, LEED AP, NCARB
Jason J. Dubowitch, AIA, NCARB
Stephen W. Schreyer Jr., AIA, NCARB, LEED AP BD+C

PROJECT NAME: HVAC Renovations at Princeton High School for Princeton Public School District

DATE: Thurs, 2/12/2026 at 2:30 PM

FVHD PROJECT#: 5516E

PRE-BID SIGN-IN SHEET

REPRESENTATIVE NAME (Please Print)	COMPANY NAME & ADDRESS	CONTRACT NUMBER	TELEPHONE#	FAX#	E-MAIL
JOHNNIE WHITTINGTON	SH. METAL WORKERS LU 27	609 495 4090 →			JOHNW@SMWLU27.ORG
ERIC SCHWARTZ	UNICOMP SOMERSET, NJ		908-753-4800		eschwartz@hvac123.com
Abanob Fakhry	GDS Mechanical Inc.		973-757-7030		aba@gdsmechanical.com
Mina Beshay	GDS mechanical inc		201-205-5178		beshay@gdsmechanical.com
John Scala	GKS Electric		848 992 3424		JSCALA@GKSelectricinc.com
Tyler Zsenak	Zsenak Electric		609 586 5567		T_zsenak@zsenakelectric.com
Jim Dutko	CH Engineers	973-650-2882			jdutko@chengineers.com

FVHD architects planners
Fraytak Veisz Hopkins Duthie, P.C.

William D. Hopkins III, AIA, LEED AP, NCARB
Jason J. Dubowitch, AIA, NCARB
Stephen W. Schreyer Jr., AIA, NCARB, LEED AP BD+C

DAN SCHITTONE	FVHD		609.883.7101		DSCHITTONE@FVHDVC.com
STEVEN KLEIN	NewRoad		732-865-2396		SKLEIN@NEWROADCM.COM
Nick Saunders	NewRoad CM		215-933-9957		nsaunders@newroadcm.com
Tim Stoumer	New Road		2153805120		tstoumer@newroadcm.com
NOEL POTTER	Mon+Con		9733421761		Erika Room
DON DOUGLAS	DANDREA CONST.		856 767-7750		dandrea@dandreaconst.com

SWORN CONTRACTOR CERTIFICATION; QUALIFICATIONS AND CREDENTIALS
(Bidder's Certification)

Pursuant to N.J.S.A. 18A:7G-37, a pre-qualified contractor seeking to bid on school facilities projects, and any subcontractors, that are required to be named under N.J.S.A. 18A:7G-1 et seq. shall, as a condition of bidding, submit this Sworn Contractor Certification regarding qualifications and credentials.

I,_____, the principal owner or officer of the company, certify that the forging statements are true and our firm has the following qualifications and credentials:

- A current, valid certificate of registration issued pursuant to "The Public Works Contractor Registration Act," N.J.S.A. 34:11-56:48 et seq. A copy of which is submitted with its bid;

- A current, valid Certificate of Authority to perform work in New Jersey issued by the Department of Treasury, a copy of which is submitted with its bid;

- A current valid contractor trade license required under applicable New Jersey Law for any specialty trade or specialty area in which the firm seeks to perform work, a copy of which is submitted with its bid;

During the term of the school facilities project, I as principal owner or officer of the company or corporation, as the contractor, will have in place a suitable quality control and quality assurance program and appropriate safety and health plan.

I certify that, at the time of bidding, the amount of the bid proposal and the value of all of its outstanding incomplete contracts do not exceed the firm's existing aggregate rating limit.

Name of Company_____

Name of Owner or Officer_____

Signature of Owner or Officer_____

Notarized before me this_____day of_____, _____
Month Year

_____ _____
NOTARY PUBLIC SIGNATURE Print Name of Notary Public

My commission expires_____,_____.
Month Day Year

-SEAL- **STAMP**

To be completed, signed, notarized and returned with Bid

SECTION 06400 - ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DESCRIPTION OF WORK

A. Extent of type of architectural woodwork is indicated on the Drawings.

B. Type of architectural woodwork includes the following:

1. Standing and running trim (to match the existing).
2. Decorative interior wood wall surfacing (to match the existing).

C. Related Sections:

1. Section 06100 - Carpentry for wood framing, and blocking.
2. Section 09900 - Painting.

1.3 QUALITY ASSURANCE

A. AWI Quality Standard: Comply with applicable requirements of "Architectural Woodwork Quality Standards" published by the Architectural Woodwork Institute (AWI), except as otherwise indicated.

B. Special Project Warranty: Provide Manufacturer's / Installer's / Contractor's warrantees against delamination, warping, hardware and support system failure and deterioration of finish.

1. Warranty period shall be for **two (2) years** which shall start from approved date of substantial completion of work.

1.4 REFERENCES

A. AWI Quality Marking: Mark each assembled unit of architectural woodwork with manufacturer's identification and grade mark evidencing compliance with indicated AWI quality grade. Locate grade mark on surfaces which will not be exposed after installation. For other items requiring field assembly, a certification of compliance may be substituted for marking of individual pieces.

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's product data for each product and process specified as work of this section and incorporated into items of architectural woodwork during fabrication, finishing, and installation.

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B. Quality Certification: Submit woodwork Manufacturer's (Fabricator's) certification, stating that fabricated woodwork complies with quality grades and other requirements indicated.

C. Shop Drawings: Submit shop drawings showing location of each item, dimensioned plans and elevations, large scale details, attachment devices and other components.

D. Samples: Submit the following samples:

1. Lumber with or for transparent finish; set of 3 pieces 6" x 3/4" x 18", for each species and cut, finished on one side and one edge.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect woodwork during transit, delivery, storage and handling to prevent damage, soiling and deterioration.

B. Do not deliver woodwork, until painting, wet work, grinding and similar operations which could damage, soil or deteriorate woodwork have been completed in installation areas. If, due to unforeseen circumstances, woodwork must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.

1.7 PROJECT CONDITIONS

A. Conditioning: Do not install woodwork until required temperature and relative humidity have been stabilized and will be maintained in installation areas.

B. Maintain temperature and humidity in installation area, as required, to maintain moisture content of installed woodwork within a 1.0% tolerance of optimum moisture content, from date of installation through remainder of construction period. Require Woodwork Manufacturer to establish optimum moisture content and required temperature and humidity conditions.

1.8 WARRANTY

A. Special Project Warranty: Provide Manufacturer's / Installer's / Contractor's warrantees against delamination, warping, hardware and support system failure and deterioration of finish.

1. Warranty period shall be for **two (2) years** which shall start from approved date of substantial completion of work.

PART 2 - PRODUCTS

2.1 BASIC MATERIALS AND FABRICATION METHODS

A. General: Except as otherwise indicated, comply with the following requirements for architectural woodwork not specifically indicated as prefabricated or prefinished standard products.

B. Wood Moisture Content: Provide kiln-dried lumber with an average moisture content range of 6% to 11% for interior work. Maintain temperature and relative humidity during

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fabrication, storage and finishing operations so that moisture content values for woodwork at time of installation do not exceed the following:

1. Interior Wood finish: 5% - 10%.

C. Interior Wood for Transparent Finish:

1. Solid Wood: Rift-sawn Red Oak.

2. Match Existing Adjacent Wood Work: Where indicated or required, provide wood in finishes to match existing adjacent wood work, cabinets and other architectural wood work and as directed by the Architect.

2.2 FABRICATION

A. Quality Standards: For following types of architectural woodwork comply with indicated standards as applicable.

1. Standing and Running Trim: AWI Section 300
2. Casework and Countertops: AWI Section 400
3. Miscellaneous Work: AWI Section 700

B. Design and Construction Features: Comply with details shown for profile and construction of architectural woodwork; and, where not otherwise shown, comply with applicable Quality Standards, with alternate details as approved by Architect.

C. Pre-Cut Openings: Fabricate architectural woodwork with pre-cut openings, where possible, to receive hardware and similar items. Locate openings accurately and use templates or roughing-in diagrams for proper size and shape. Smooth edges of cutoffs and, where located in countertops and similar exposures seal edges of cutouts with a water-resistant coating.

D. Measurements: Before proceeding with fabrication of woodwork required to be fitted to other construction, obtain field measurements and verify dimensions and shop drawing details as required for accurate fit.

1. Where sequence of measuring substrates before fabrication would delay the project, proceed with fabrication (without field measurements) and provide ample borders and edges to allow for subsequent scribing and trimming of woodwork for accurate fit.

2.3 INTERIOR ARCHITECTURAL WOODWORK

A. Quality Standard: Comply with AWI Section 300.

B. Standing and Running Trim:

1. Grade: Premium

2. Fabricate panels, standing and running trim including jambs and board type paneling (if any) to dimensions, profiles and details shown. Rout or groove reverse side (backed-out) of trim members to be applied to flat surface, except for members with ends exposed in finish work.

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3. Plant assemble miters unless otherwise indicated.

2.4 WOOD PANELING

A. Quality Standard: Comply with AWI Section 500 and its Division 500A.

B. Wood Paneling: Comply with the following requirements:

1. Grade: Premium, thickness to match the existing.

2. Veneer Species: Oak & cut to match the existing.

3. Finish: Factory stained finish, to be selected by the Architect from manufacturer available full range of stain colors.

C. Panel Matching Method: Match panel(s) to the existing and one another.

PART 3 - EXECUTION

3.1 PREPARATION

A. Condition woodwork to average prevailing humidity conditions in installation areas prior to installing.

B. Pre-Installation Meeting: Meet at project site prior to delivery of architectural woodwork and review coordination and environmental controls required for proper installation and ambient conditioning in areas to receive work. Include in meeting the Contractor; Architect and other Owner Representatives (if any); installers of architectural woodwork, wet work such as plastering, other finishes, painting, mechanical work and electrical work; and firms or persons responsible for continued operation (whether temporary or permanent) of HVAC system as required to maintain temperature and humidity conditions. Proceed with woodwork installation only when everyone concerned agrees that required ambient conditions can be maintained.

C. Deliver inserts and similar anchoring devices to be built into substrates, well in advance of time substrates are to be built.

D. Prior to installation of architectural woodwork, examine shop fabricated work for completion, and complete work as required, including back priming and removal of packing.

3.2 INSTALLATION

A. Install woodwork plumb, level, true and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level (including tops); and with no variations in flushness of adjoining surfaces.

B. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.

C. Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to the greatest extent possible. Stagger

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joints in adjacent and related members. Cope at returns, miter at corners and comply with referenced Quality Standards for joinery.

D. Anchor woodwork to anchors or blocking built-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation. Except where prefinished matching fasteners heads are required, use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork, and matching final finish where transparent finish is indicated.

E. Paneling: Anchor paneling to supporting substrate with concealed clips, and by blind nailing on back-up strips, and similar associated trim and framing. Do not face-nail, unless otherwise indicated.

1. Comply with manufacturer's instructions and recommendation for installation of pre-manufactured interior wood surfacing system.

3.3 ADJUSTMENT, CLEANING, FINISHING, AND PROTECTION

A. Repair damaged and defective woodwork where possible to eliminate defects functionally and visually; where not possible to repair replace woodwork. Adjust joinery for uniform appearance.

B. Clean woodwork on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

C. Complete the finishing work specified as work of this section, to whatever extent not completed at shop or prior to installation of woodwork.

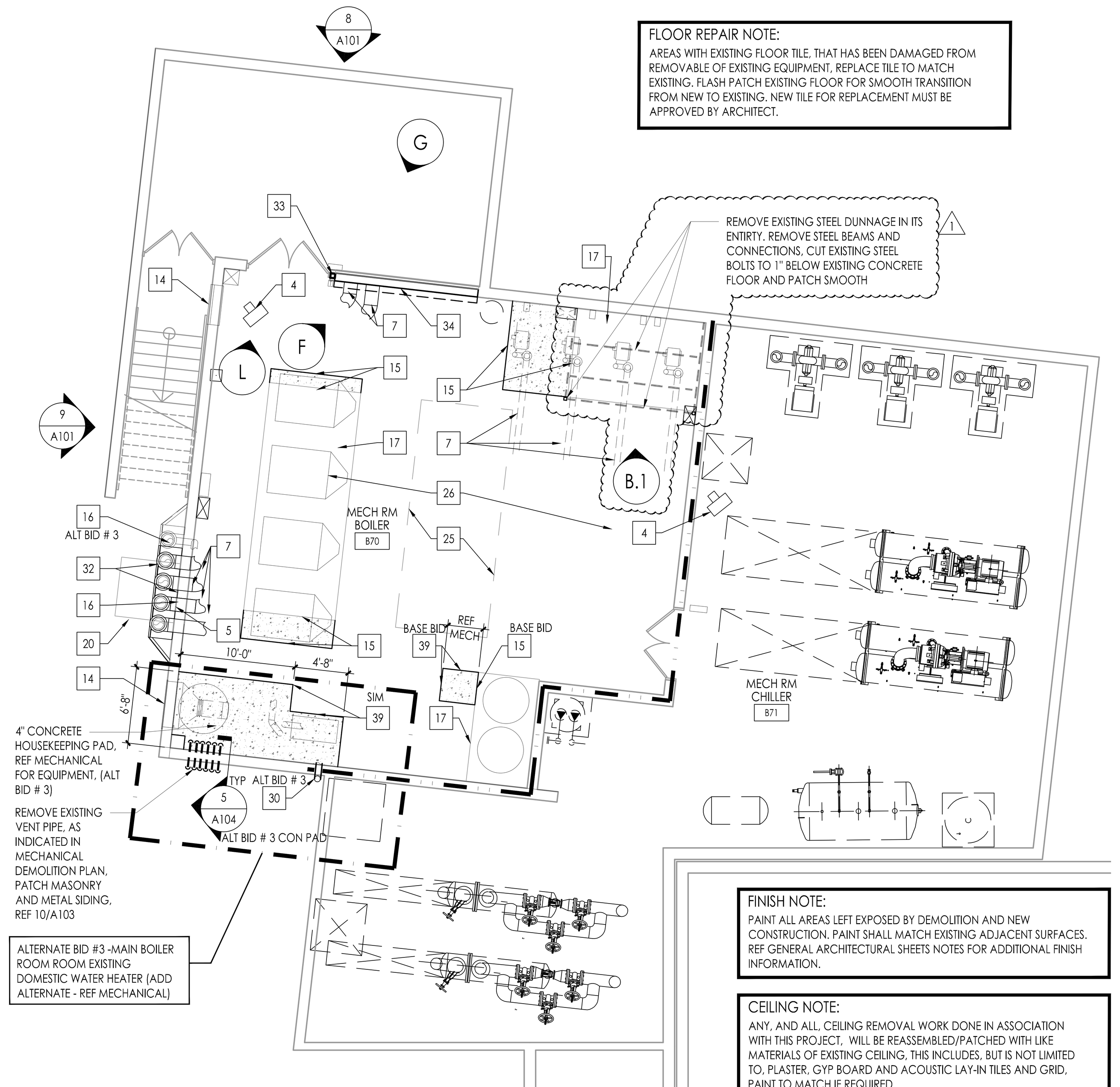
D. Refer to the Division-9 sections for final finishing of installed architectural woodwork.

E. Provide final protection and maintain conditions, in a manner acceptable to Fabricator and Installer, which ensures architectural woodwork being without damage or deterioration at time of substantial completion.

END OF SECTION 06400

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FLOOR REPAIR NOTE:
AREAS WITH EXISTING FLOOR TILE, THAT HAS BEEN DAMAGED FROM REMOVABLE OF EXISTING EQUIPMENT, REPLACE TILE TO MATCH EXISTING. FLASH PATCH EXISTING FLOOR FOR SMOOTH TRANSITION FROM NEW TO EXISTING. NEW TILE FOR REPLACEMENT MUST BE APPROVED BY ARCHITECT.



1 BOILER ROOM PLAN
Scale 1/8"=1'-0"

FINISH NOTE:
PAINT ALL AREAS LEFT EXPOSED BY DEMOLITION AND NEW CONSTRUCTION. PAINT SHALL MATCH EXISTING ADJACENT SURFACES. REF GENERAL ARCHITECTURAL SHEETS NOTES FOR ADDITIONAL FINISH INFORMATION.

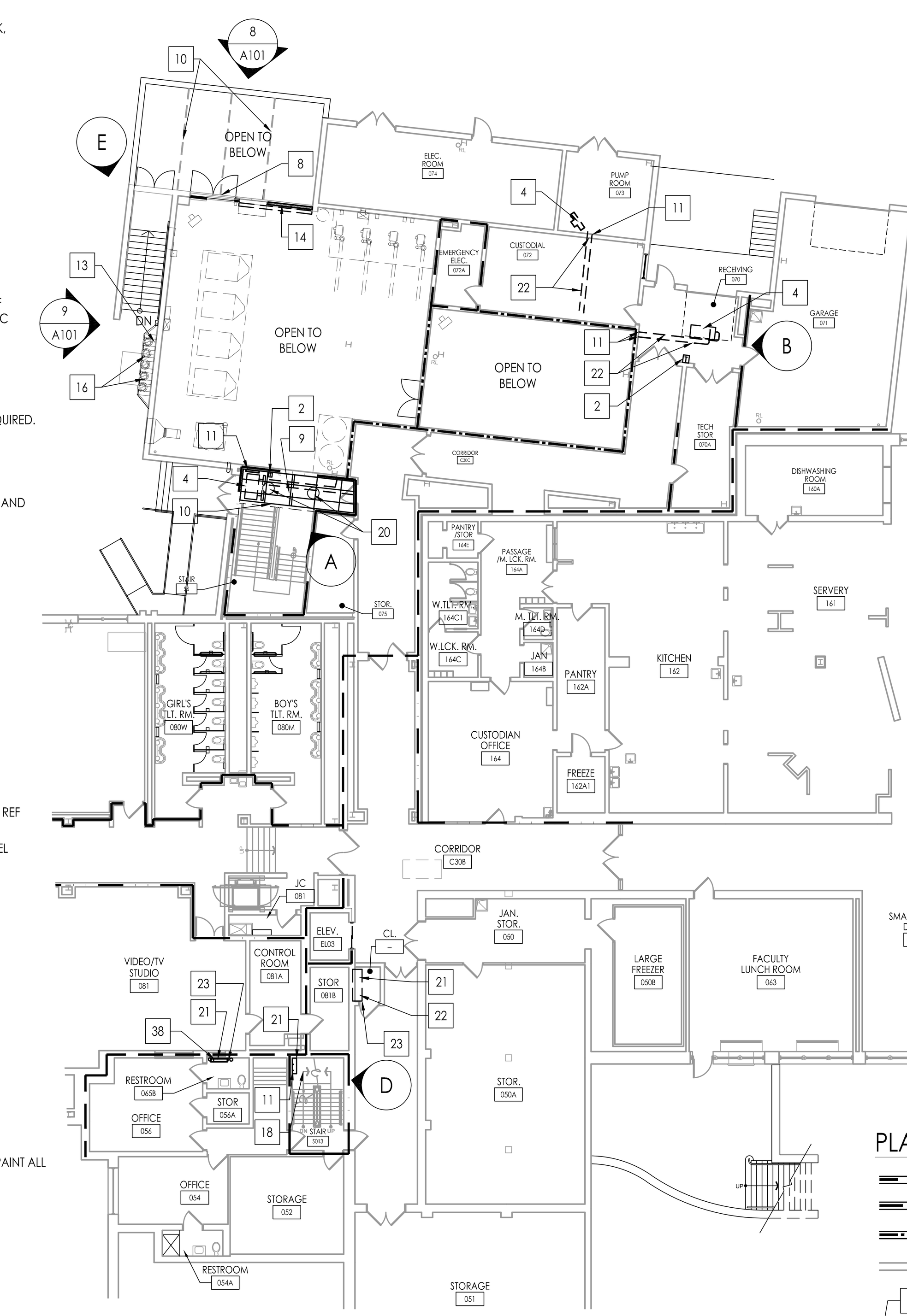
CEILING NOTE:
ANY, AND ALL, CEILING REMOVAL WORK DONE IN ASSOCIATION WITH THIS PROJECT, WILL BE REASSEMBLED/PATCHED WITH LIKE MATERIALS OF EXISTING CEILING, THIS INCLUDES, BUT IS NOT LIMITED TO, PLASTER, GYP BOARD AND ACOUSTIC LAY-IN TILES AND GRID, PAINT TO MATCH IF REQUIRED.

FIRE PROTECTION NOTE:
REFERENCE MECHANICAL FOR AREAS WHERE FIRE PROTECTION SYSTEM IS TO BE ALTERED AND/OR MODIFIED. TYP.

WALL PENETRATION NOTE:
REFERENCE FIRE-RATED PENETRATIONS CHART (UL DES # INFO) FOR INFILL AT RATED WALLS, THIS SHEET, MAINTAIN ASSIGNED RATING WITH LIKE MATERIALS. TYP.

CONSTRUCTION KEYNOTES

1. REMOVE AND STORE EXISTING ACOUSTICAL CEILING TILES AND SUSPENSION GRID TO ACCOMMODATE DEMOLITION AND HVAC NEW WORK. FOLLOWING COMPLETION OF WORK, REINSTALL ALL EXISTING PANELS AND GRID TO PREVIOUS LOCATIONS, UNLESS SUPERCEDED BY REFLECTED CEILING PLAN OR MECHANICAL/ELECTRICAL DRAWINGS. REPLACE ALL DAMAGED, OR DETERIORATED CEILING TILES AND SUSPENSION GRID WITH NEW TO MATCH EXISTING IN AREA DESCRIBED. REFERENCE MECHANICAL/ELECTRIC DRAWINGS.
2. PATCH AND REPAIR EXISTING WALL AT AREA OF REMOVED WALL MOUNTED THERMOSTAT, PATCH WALLS AND PAINT TO MATCH ADJACENT AT AREAS OF REMOVED WALL MOUNTED CONDUIT, TYP
3. MECHANICAL EQUIPMENT MOUNTED BELOW ROOF DECK ABOVE CEILING. REF MECHANICAL FOR ITEMS TO BE REMOVED AND REPLACED.
4. EXISTING CEILING MOUNTED EQUIPMENT TO BE REMOVED, REF MECHANICAL, TYP.
5. IN LOCATIONS WHERE NEW DUCT IS THRU EXISTING OPENINGS, FIELD VERIFY EXISTING OPENING AND MAKE REQUIRED MODIFICATIONS TO EXISTING WALL: THIS MAY REQUIRE ENLARGING OPENING AND/OR PATCHING EXISTING WALLS WITH LIKE MATERIAL WHERE DUCT IS SMALLER THEN EXISTING OPENING. TYP
6. NEW HVAC UNIT INSTALLED IN CEILING, REMOVE AND MODIFY EXISTING CEILING GRID AND TILE TO ACCEPT NEW UNIT. REPLACE CEILING TILE OR GRID DAMAGED FROM REMOVAL AND INSTALLATION OF UNIT AND ASSOCIATED EQUIPMENT, TYP
7. INDICATES NEW DUCT INSTALLED HIGH WITH HANGERS AND SUPPORTS, REF MECHANICAL . TYP.
8. NEW METAL SIDING OVER METAL STUD FURRING. MATCH EXISTING SIDING, REF 7/A101 . TYP.
9. REMOVE AND REPLACE EXISTING CEILING IN THIS AREA, TEMPORARILY REMOVE ALL CEILING EQUIPMENT AND REINSTALL INTO NEW CEILING, THIS INCLUDES EXISTING LIGHTING. REF MECHANICAL FOR FIRE PROTECTION SYSTEM RELOCATION. PATCH AND REPAIR EXISTING ADJACENT WALL AFTER CEILING IS INSTALLED, REF 2/A103 FOR CEILING EDGE AND SEISMIC BRACING WITH HANGER DETAIL, TYP.
10. DASHED LINE INDICATES EXISTING STEEL BEAM
11. CLEAN AND PATCH WALL PENETRATION FROM REMOVED PIPES AND CONDUIT. PATCH BOTH SIDES OF WALL WITH LIKE MATERIAL AND PAINT TO MATCH ADJACENT WALL.
12. EXISTING LOUVER TO REMAIN, LOUVER WILL BE CLEANED AND EXISTING BIRD SCREEN REPLACED, REF MECHANICAL. PROVIDE NEW PERIMETER SEALANT AT EXTERIOR JOINT, AS REQUIRED.
13. EXISTING SURFACE MOUNTED LIGHTING TO BE RELOCATED, REF ELECTRIC FOR ADDITIONAL INFORMATION
14. EXISTING EXTERIOR LOUVER TO REMAIN, REF MECHANICAL
15. EXTEND EXISTING CONCRETE HOUSEKEEPING PADS TO ASSOCIATED NEW MECHANICAL EQUIPMENT, REF MECHANICAL FOR EXACT SIZE, REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION, PANT TO MACH EXISTING WITH SAFETY YELLOW EDGE BAND, TYP
16. METAL FLUE PIPE FASTENED TO EXISTING BUILDING, REF MECHANICAL AND 8/A101
17. EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN, PATCH AND REPAIR AS REQUIRED FOR NEW EQUIPMENT, TYP
18. HARD LID, GYP BOARD, CEILING, REF MECHANICAL FOR FULL EXTENT OF DEMOLITION AND NEW CONSTRUCTION. REMOVE ONLY AS NEEDED FOR NEW WORK, PATCH AND REPAIR WITH LIKE MATERIAL AND PAINT CEILING TO MATCH EXISTING.
19. EXISTING PIPES TO BE REMOVED AND NEW PIPES THRU-FLOOR TO BE INSTALLED. REPLACE EXISTING CEILING DAMAGED FROM WORK ABOVE CEILING WITH NEW CEILING TILE TO MATCH AT LOCATIONS OF EXISTING PIPES BEING REMOVED OR NEW PIPES BEING INSTALLED, REF MECHANICAL AND PLUMBING. PATCH EXISTING FLOORS, AS REQUIRE, WITH PORTLAND CEMENT AND SMOOTH FINISH.
20. INDICATES CEILING LIGHTING, REF ELECTRIC FOR RELOCATED LIGHT AND/OR NEW IN THIS AREA
21. REMOVE EXISTING EQUIPMENT, AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS, PATCH AND REPAIR ALL EXISTING MASONRY WALLS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR RATED WALLS PER FIRE-RATED PENETRATIONS CHART, A101. WALLS WITH PAINT WILL RECEIVE PAINT TO MATCH EXISTING FINISHES AT PATCHED AND REPAIRED AREAS
22. INDICATES EXISTING PIPES TO BE REMOVED THROUGH WALLS AND FLOOR, REF MECHANICAL AND PLUMBING. PATCH AND REPAIR ALL EXISTING UNUSED PENETRATIONS WITH LIKE MATERIAL, CONCRETE FLOORS WILL PATCHED WITH CONCRETE AND FINISHED TO MATCH ADJACENT FLOOR. I LOCATIONS WITH TILE OR CARPET TILE, MATCH EXISTING
23. FINISH EXPOSED UNFINISHED SURFACES TO MATCH EXISTING. REPLACE DAMAGED FLOOR TILE FROM REMOVAL OR INSTALLATION WITH LIKE MATERIAL, TYP.
24. REMOVE EXISTING HVAC EQUIPMENT IN EXISTING WALL, REF MECHANICAL, REMOVE EXISTING HVAC COVER AND REPLACE WITH NEW SHEET METAL COVER WITH HEMMED EDGES, REF 4/A103 FOR SHEET METAL COVER, METAL COLOR TO MATCH ADJACENT WALL, TYP.
25. EXISTING CONCRETE HOUSE KEEPING PAD AND ASSOCIATED STEEL TIES TO BE REMOVED, GRID EXISTING FLOOR SURFACE SMOOTH AND PREP FOR PAINT. GRIND ANY EXISTING STEEL REBAR TIES TO 1" BELOW FINISHED FLOOR ELEVATION AND PATCH SMOOTH WITH FLOOR PATCH, PAINT TO MATCH ADJACENT FLOOR.
26. REMOVE EXISTING MECHANICAL/BOILER ROOM EQUIPMENT, AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS, PATCH AND REPAIR ALL EXISTING MASONRY WALLS AND CEILINGS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR EXISTING CONCRETE HOUSE KEEPING PADS TO REMAIN AND PAINT, TYP REF MECHANICAL
27. INDICATES EXISTING DUCT TO BE REMOVED, REF MECHANICAL
28. REMOVE EXISTING LOUVER, PREP OPENING FOR NEW MASONRY INFILL AND METAL SIDING, REF 5/A103 AND REF MECHANICAL FOR ADDITIONAL INFORMATION
29. EXISTING DUCT TO REMAIN AND BE CAPPED, REF MECHANICAL
30. METAL VENT PIPE THRU MASONRY WALL AND METAL SIDING.REF MECHANICAL FOR SIZE AND LOCATION, REF 5/A104 FOR THRU-WALL DETAIL, (**ALT BID # 3**)
31. INFILL EXISTING OPENING WITH CMU, DOWEL AND TOOTH BACK AND PAINT. REF 6/A103
32. THROUGH WALL FLUE WITH INTERIOR AND EXTERIOR COVER PLATES, STEEL SUPPORTS AND KICKERS PAINTED, REF 3/A101
33. EXISTING REMOVABLE STEEL COLUMN TO REMAIN
34. MECHANICAL LOUVER TO BE REMOVED AND NEW REMOVABLE INSULATED WALL PANEL SYSTEM INSTALLED, REF 2/A102
35. REF MECHANICAL AND PLUMBING FOR ITEMS BEING REMOVED AND REPLACED, AT EXISTING DECK AND TROUGH EXISTING ROOF DECK, IN THIS ARES. PATCH, AS REQUIRED, AND PAINT ALL EXPOSED DUCT AND PIPING TO MATCH EXISTING COLOR OF ROOF DECK. REF 4/A104 FOR DECK PATCH AND PAINT, TYP
36. REF MECHANICAL FOR EXISTING EQUIPMENT TO BE REMOVED IN THIS AREA. REPLACE EXISTING MECHANICAL SHROUD WITH NEW SOLID 22GA. METAL SHROUD. PAINT TO MATCH ADJACENT WALLS, REF 4/A103 FOR "SIM" CONDITION
37. REMOVE EXISTING EXPANDED METAL COVER AND REPLACE WITH 22ga. METAL COVER TO FIT INTO EXISTING TRIM TO REMAIN, PAINT TO MATCH EXISTING TRIM
38. INDICATES NEW MECHANICAL EQUIPMENT INSTALLED, REF MECHANICAL, ELECTRIC ,AND PLUMBING FOR EXTENT OF NEW CONSTRUCTION
39. NEW CONCRETE HOUSEKEEPING PAD, REF MECHANICAL FOR EXACT SIZE AND LOCATION, REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION, PANT TO MACH EXISTING WITH SAFETY YELLOW EDGE BAND, TYP



2 PARTIAL GROUND FLOOR PLAN
Scale 1/16"=1'-0"

EXISTING FIRE ALARM SYSTEM NOTE
IF ANY PORTION OF THE EXISTING FIRE ALARM SYSTEM MUST BE TAKEN OUT OF SERVICE FOR ANY LENGTH OF TIME, THE LOCAL FIRE MARSHAL MUST BE CONTACTED AND MUST APPROVE SHUTDOWN PLANS, PROCEDURES AND FIRE WATCH PLANS THAT WILL BE IMPLEMENTED.

CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE LOCAL FIRE MARSHAL CONCERNING THE EXISTING FIRE ALARM SYSTEM SHUTDOWN PLANS, PROCEDURES AND FIRE WATCH PLANS THAT WILL BE IMPLEMENTED FOR SYSTEM INTERRUPTIONS DURING CONSTRUCTION.

NOTE THAT TEMPORARILY COVERING EXISTING DETECTION DEVICES TO PREVENT ACCIDENTAL ALARM ACTIVATIONS DUE TO DUST AND DIRT CONSTITUTES A PARTIAL SHUTDOWN OF THE EXISTING FIRE ALARM SYSTEM.

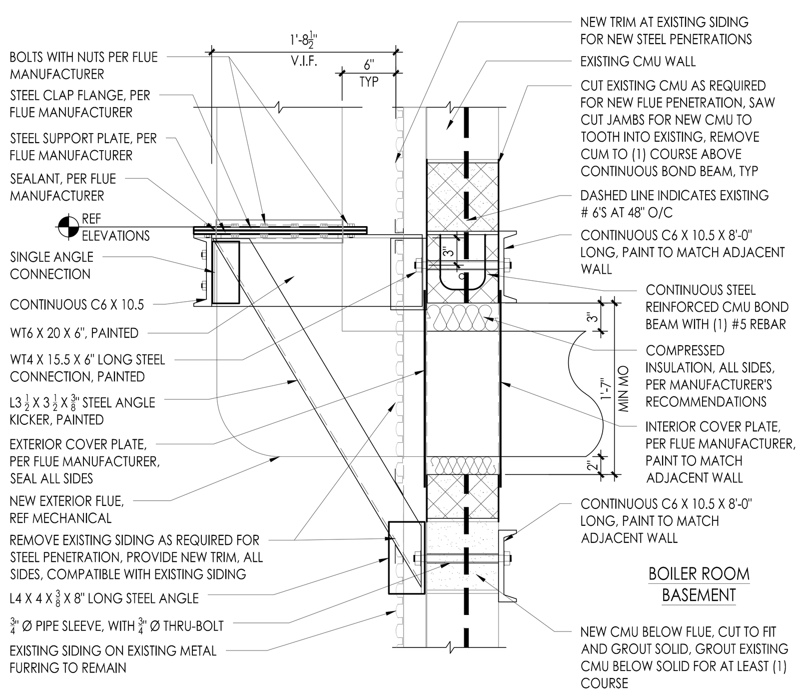
GENERAL ARCHITECTURAL SHEET NOTES:

THESE NOTES ARE GENERAL NOTES. ALL CONDITIONS NEED TO BE VERIFIED IN FIELD

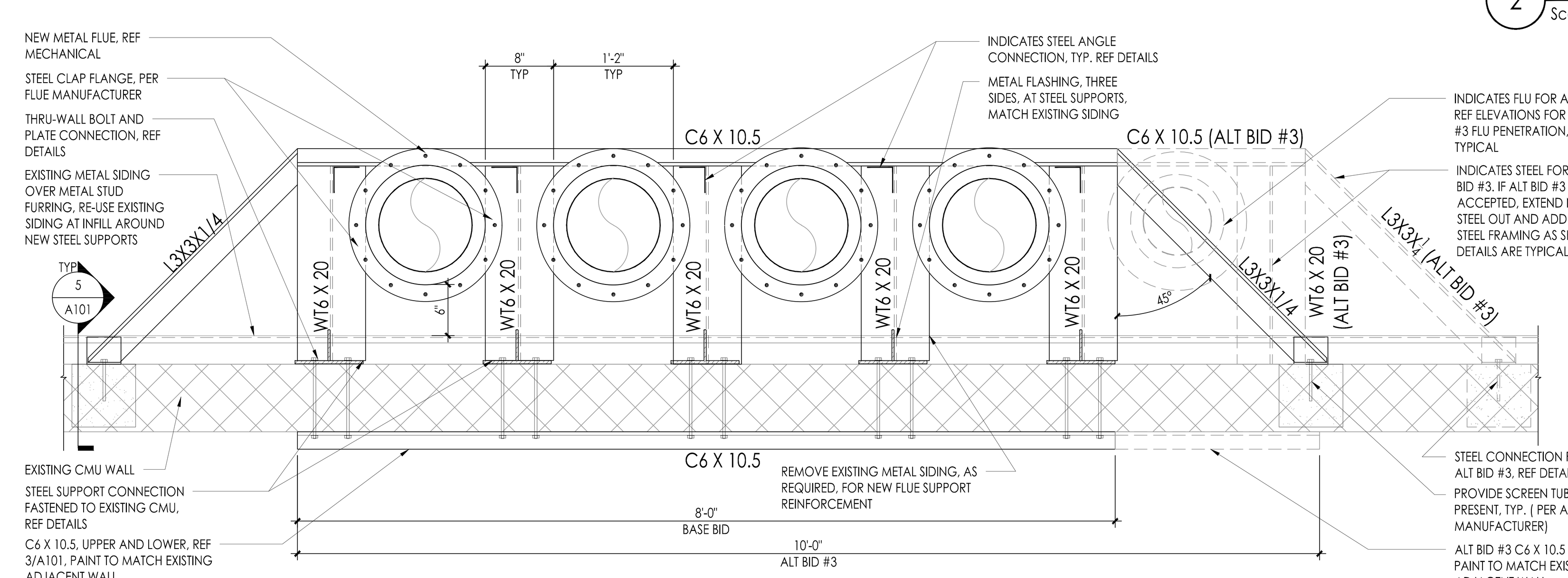
A. SEE SPECIFICATION FOR ADDITIONAL INFORMATION ON MATERIALS / MANUFACTURER / PERFORMANCE AND WARRANTY INFORMATION .
B. WITHIN THE EXISTING BUILDING, AT ALL AREAS OF NEW CONSTRUCTION ADJACENT TO EXISTING, NEW CONSTRUCTION SHALL BE FINISHED TO MATCH EXISTING ADJACENT CONSTRUCTION INCLUDING BRICK, TILE, PLASTER, PAINT, BASE, CEILING, ETC.
C. IN ALL SPACES WHERE EXISTING UNITS ARE REPLACED WITH NEW SMALLER UNITS, WHERE UNFINISHED FLOORS AND WALLS ARE EXPOSED, WILL BE FINISHED TO MATCH EXISTING. REF DETAILS FOR ADDITIONAL INFORMATION.
D. IN SPACES WITH EXISTING HORIZONTAL METAL SHROUDS TO REMAIN THAT ARE DAMAGED WITH LOOSE AND/OR SHARP CORNERS, WILL BE TIGHTENED UP WITH SHEET METAL SCREWS THAT MATCH EXISTING.
E. SPACES WITH VERTICAL PIPE SHROUDS THAT ARE NOT STAINLESS STEEL WILL BE PAINTED TO MATCH ADJACENT WALL, REF DETAIL 3/A103 AND MECHANICAL FOR ADDITIONAL INFORMATION.
F. IN SPACES WHERE CEILING UNITS INSTALLED AND LEAVE EXPOSED SURFACES: GYP BOARD OR PLASTER, PATCH TO NEW LIKE CONDITION WITH LIKE MATERIAL AND PAINT TO MATCH EXISTING.
G. INFORMATIONAL PHOTOS ARE DISPLAYED ON ARCHITECTURAL SHEETS WITH ALPHABETICAL DESIGNATIONS.
H. REF SHEET A103 FOR ADDITIONAL MASONRY, CONCRETE AND STEEL NOTES

PLAN LEGEND & SYMBOLS

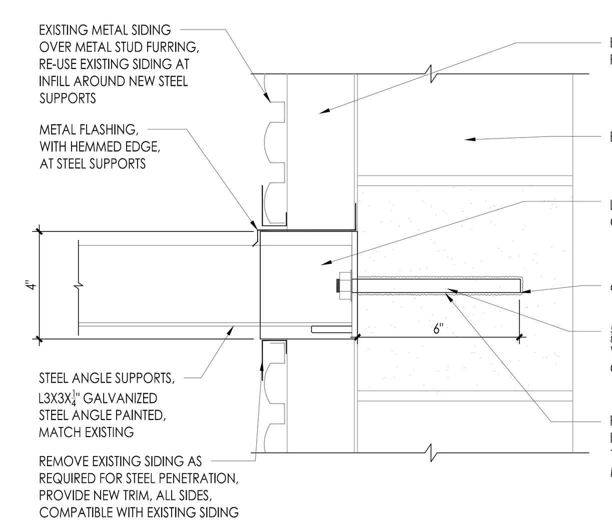
Symbol	Description
	(2) HOUR FIRE WALL
	(1) HOUR FIRE SEPARATION
	INDICATES SMOKE PARTITION
	EXISTING WALLS AND CHASES
X	INDICATES CONSTRUCTION NOTE
XX / AXXX	section number; WALL SECTION; drawing number
XXXX / 000	ROOM NAME / NUMBER
X	INDICATES INFORMATIONAL PHOTO REF ARCHITECTURAL SHEETS



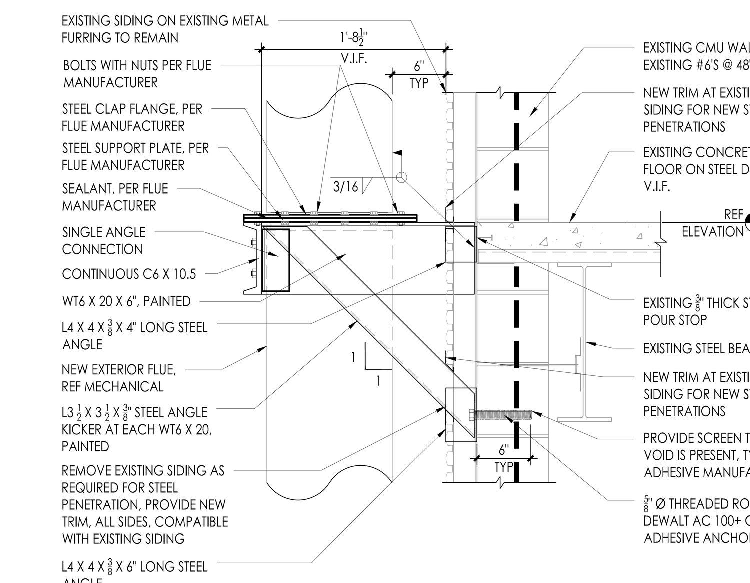
3 BOTTOM FLUE BRACKET DETAIL
1" = 1'-0"



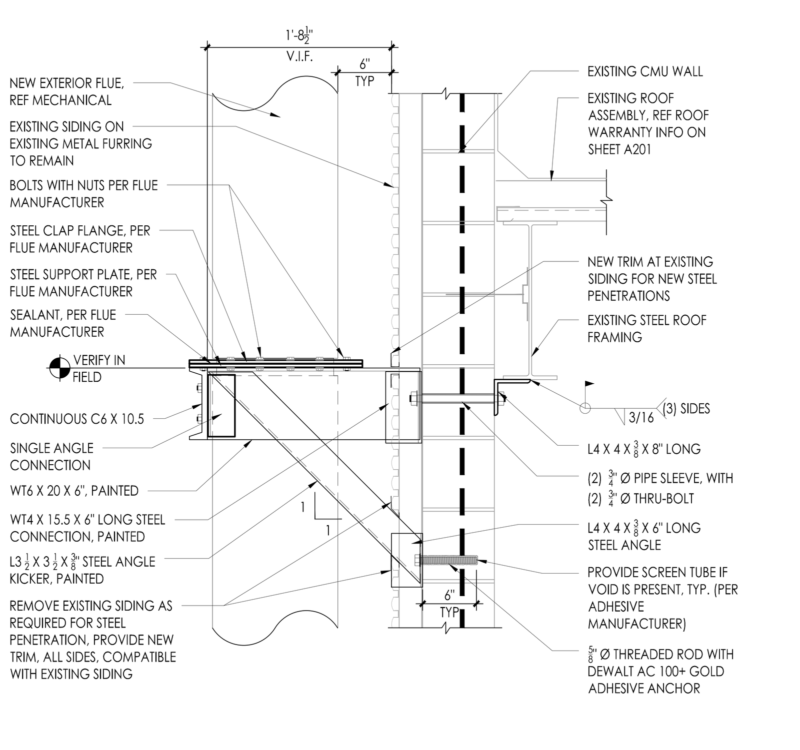
4 TYPICAL FLUE SUPPORT PLAN
Scale: 1" = 1'-0"



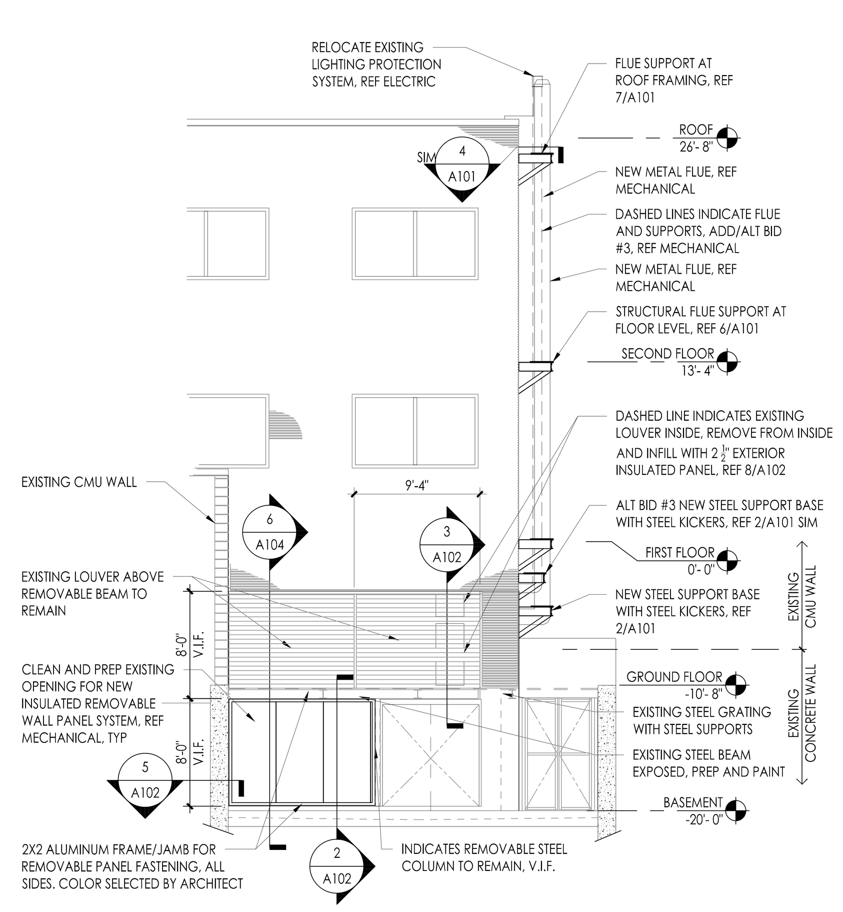
5 WALL CONNECTION DETAIL
3" = 1'-0"



6 FLUE BRACKET @ FLOOR LEVEL DETAIL
1" = 1'-0"

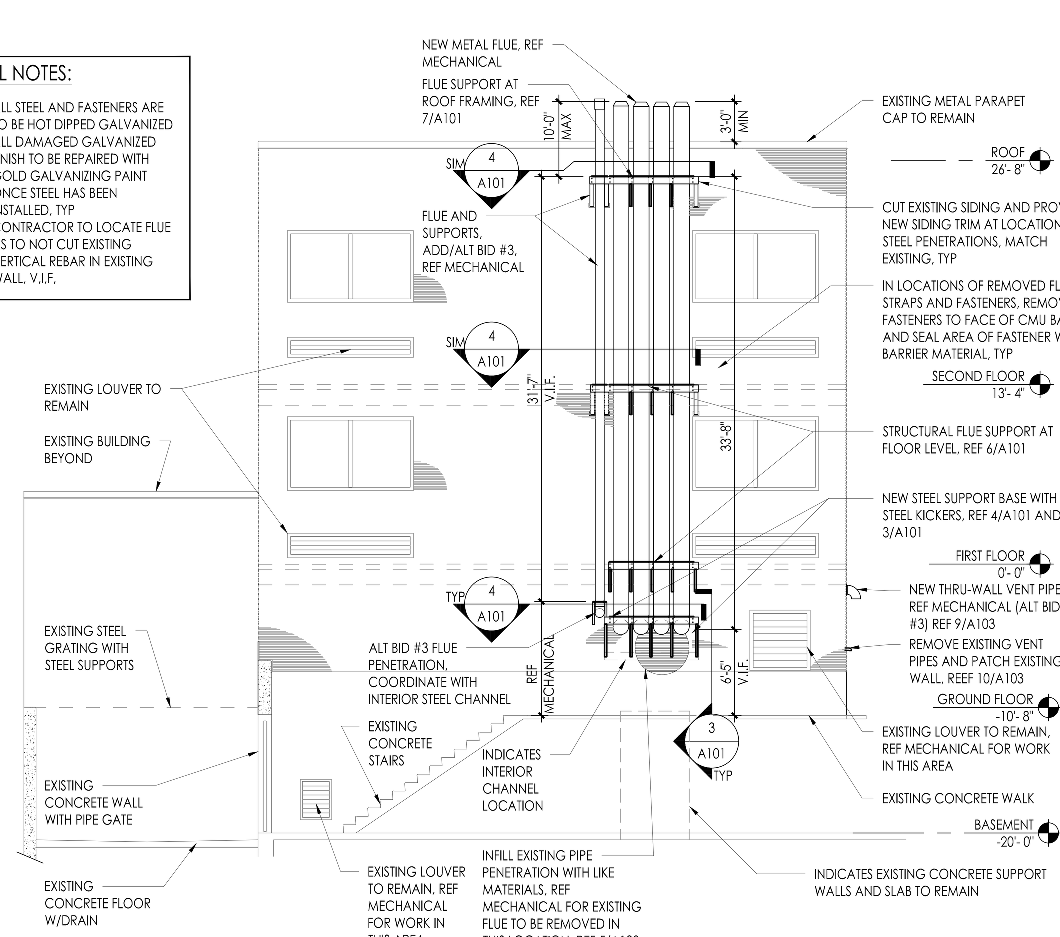


7 FLUE BRACKET @ ROOF DETAIL
1" = 1'-0"



8 PARTIAL ELEVATION
Scale 1/8"=1'-0"

STEEL NOTES:
1) ALL STEEL AND FASTENERS ARE TO BE HOT DIPPED GALVANIZED
2) ALL DAMAGED GALVANIZED FINISH TO BE REPAIRED WITH GOLD GALVANIZING PAINT ONCE STEEL HAS BEEN INSTALLED, TYP
3) CONTRACTOR TO LOCATE FLUE AS TO NOT CUT EXISTING VERTICAL REBAR IN EXISTING WALL, V.I.F,

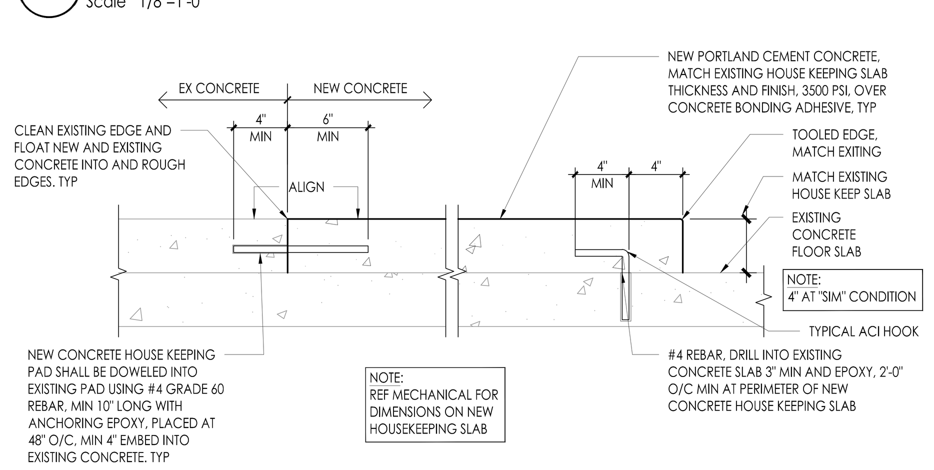


9 PARTIAL ELEVATION
Scale 1/8"=1'-0"

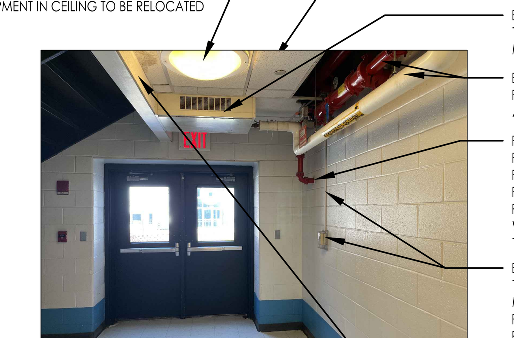
FIRE-RATED PENETRATION CHART

UL CLASSIFIED SYSTEM

CONCRETE OR BLOCK WALLS			GYPSUM WALLBOARD ASSEMBLIES		
TYPE OF PENETRATE	FIRE RATING		TYPE OF PENETRANT	FIRE RATING	UL CLASSIFIED SYSTEM
CIRCULAR BLANK OPENINGS	1	CAJ 0055, CAJ 0070	METAL PIPES OR CONDUIT	1	WL 1054, WL 1058, WL 1164
	2	CAJ 0055, CAJ 0070		2	WL 1054, WL 1058, WL 1164
SINGLE METAL PIPES OR CONDUIT	1	CAJ 1226, WJ 1021	NON-METALLIC PIPES OR CONDUIT	1	WL 2078, WL 2075, WL 2128
	2	CAJ 1226, WJ 1021		2	WL 2078, WL 2075, WL 2128
SINGLE NON-METALLIC PIPE OR CONDUIT (I.E. PVC, CPVC, ABS, FRP, ENT)	1	CAJ 2109, CAJ 2098, CAJ 2167	SINGLE OR BUNDLED CABLES	1	WL 3065, WL 3111, WL 3112
	2	CAJ 2109, CAJ 2098, CAJ 2167		2	WL 3065, WL 3111, WL 3112
			CABLE TRAY	1	WL 4011, WL 4019
SINGLE INSULATED PIPES	1	CAJ 5090, CAJ 5091, CAJ 5061		2	WL 4011, WL 4019
	2	CAJ 5090, CAJ 5091, CAJ 5061	INSULATED PIPES	1	WL 5028, WL 5029, WL 5047
ELECTRICAL BUSWAY	1	CAJ 6006, CAJ 6017		2	WL 5028, WL 5029, WL 5047
	2	CAJ 6006, CAJ 6017	NON-INSULATED MECHANICAL DUCTWORK WITHOUT DAMPERS	1	WL 7017, WL 7040, WL 7042
NON-INSULATED MECHANICAL DUCTWORK WITHOUT DAMPERS	1	CAJ 7046, CAJ 7051, WJ 7021, WJ 7022		2	WL 7040, WL 7042
	2	CAJ 7046, CAJ 7051, WJ 7021, WJ 7022			
			MIXED PENETRANTS	1	WL 1095, WL 8013
MIXED PENETRANTS	1	CAJ 8041, CAJ 8056, WJ 8007		2	WL 1095, WL 8013
	2	CAJ 8041, CAJ 8056, WJ 8007			



10 CONCRETE HOUSEKEEPING PAD EXTENSION
1 1/2" = 1'-0"



A PHOTOGRAPH
STAIR S6 (GROUND FLOOR)

GENERAL DEMOLITION NOTES:

A. ALL CONTRACTORS ARE ADVISED TO VISIT THE SITE AND VERIFY ALL AREAS AND CONDITIONS PRIOR TO SUBMITTING THEIR BIDS. THE CONTRACTOR MUST NOTIFY THE ARCHITECT OF ANY DISCREPANCIES AND/OR OMISSIONS IN WRITING AT LEAST SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. FAILURE TO SO NOTIFY THE ARCHITECT INDICATES THAT ANY ADDITIONAL COSTS ASSOCIATED WITH THE DISCREPANCIES AND / OR OMISSIONS ARE INCLUDED IN THE CONTRACTOR'S BID AND THAT NO CHANGE TO THE CONTRACT AMOUNT WILL BE MADE AFTER THE RECEIPT OF BIDS OR THE AWARD OF CONTRACTS.

B. ALL MECHANICAL OR ELECTRICAL DISCONNECTS SHALL BE MADE BY THE RESPECTIVE TRADES. ALL EQUIPMENT, DEVICES, FIXTURES, ETC. SHALL BE REMOVED FROM THE SITE BY THE RESPECTIVE CONTRACTOR. NOTE: THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DIMINISHED NOR SHALL EXISTING FIRE ALARM DEVICES BE REMOVED UNTIL NEW DEVICES ARE READY FOR SWITCHOVER.

C. UNLESS NOTED OTHERWISE ALL DEMOLITION MATERIAL SHALL BE REMOVED OFF SITE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

D. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT PORTIONS OF THE EXISTING CONSTRUCTION WHICH ARE ADJACENT TO AREAS TO BE DEMOLISHED. MAKE ALL CUTS AS NEATLY AS POSSIBLE. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ITEMS BEING REMOVED.

E. IF NOT OTHERWISE NOTED OR DETAILED, ALL SURFACES LEFT ROUGH OR UNFINISHED BY DEMOLITION AND WHICH ARE EXPOSED TO VIEW, SHALL BE PATCHED TO MATCH ADJACENT SURFACES AND FINISHED TO PROVIDE A UNIFORM APPEARANCE WITH REGARD TO SIZE, SHAPE, COLOR, TEXTURE AND MATERIAL.

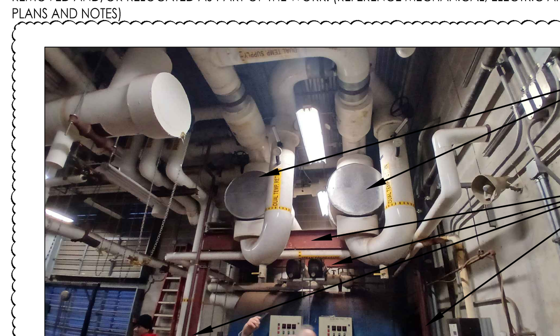
F. THE CONTRACTOR SHALL PROVIDE A PHYSICAL BARRIER TO CONTAIN DUST AND DIRT AROUND THE DEMOLITION AREA AND SHALL MAKE EVERY EFFORT TO KEEP THE DEMOLITION SITE AND SURROUNDING AREAS AS CLEAN AS POSSIBLE.

G. NO DEMOLITION OF STEEL SHALL BEGIN UNTIL PROPER BRACING OF EXISTING ROOF IS IN PLACE AND ALL PROTECTION IS IN PLACE AND APPROVED BY ARCHITECT & OWNER TO ENSURE THE SAFETY OF THE PUBLIC, THE BUILDING OCCUPANTS, CONSTRUCTION WORKERS AND TO CONTAIN DUST AND DIRT WITHIN THE AREA OF DEMOLITION.

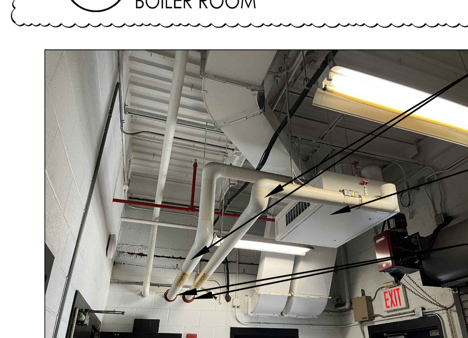
H. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REGARDING THE REMOVAL AND DISPOSAL OF ALL MATERIALS & EQUIPMENT.

I. THE CONTRACTORS SHALL TAKE INTO ACCOUNT THEIR METHODS OF CONSTRUCTION FOR THE NEW WORK AND INCLUDE IN THEIR BID THE COST OF ADDITIONAL DEMOLITION WORK NECESSARY TO FACILITATE THE CONSTRUCTION. THIS INCLUDES ITEMS TO REMAIN THAT NEED TO BE RELOCATED DO TO SIZE OF, OR LOCATION OF, NEW EQUIPMENT.

J. THE DEMOLITION WORK SHOWN ON THIS PLAN IS INTENDED TO BE A GENERAL OVERVIEW OF MAJOR DEMOLITION WORK REQUIRED. IT IS NOT A COMPLETE AND EXCLUSIVE REPRESENTATION OF ALL DEMOLITION WORK NEEDED FOR EXECUTION OF THE PROJECT. WHEN PREPARING THEIR BIDS, CONTRACTORS MUST REFER TO THE FULL SET OF CONSTRUCTION DOCUMENTS FOR VARIOUS MISCELLANEOUS ITEMS WHICH MUST BE REMOVED AND/OR RELOCATED AS PART OF THE WORK. (REFERENCE MECHANICAL, ELECTRIC AND PLUMING FOR ADDITIONAL DEMOLITION PLANS AND NOTES)



B.1 PHOTOGRAPH
BOILER ROOM

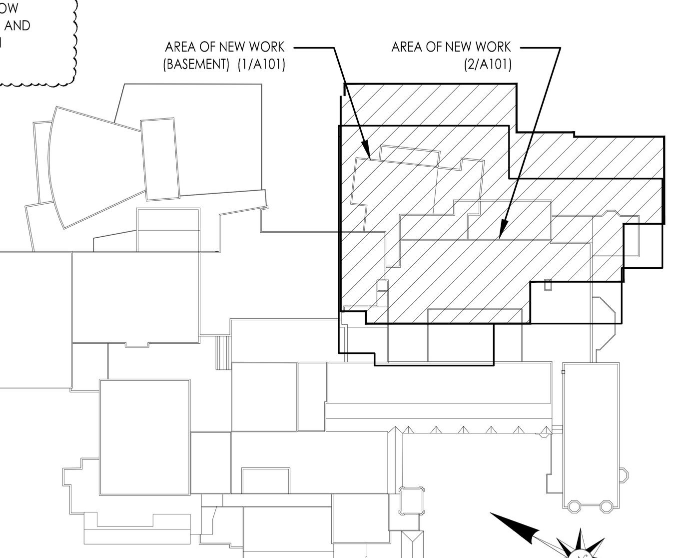


B PHOTOGRAPH
RECEIVING 70

GENERAL CONSTRUCTION NOTES:

THESE NOTES SHALL APPLY TO ALL WORK THROUGHOUT THE PROJECT.

A. ALL CONTRACTORS SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS BEFORE SUBMITTING A BID. DISCREPANCIES OR OMISSIONS MUST BE REPORTED TO THE ARCHITECT IN WRITING (15) DAYS PRIOR TO BID OPENING. IF HE OR SHE DOES NOT, CONTRACTOR SHALL CORRECT SAME AT NO CHANGE IN CONTRACT PRICE.
B. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL REQUIRED SAFETY PROTECTION DURING CONSTRUCTION.
C. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A SUFFICIENT WORK FORCE TO MEET COMPLETION DATES AS OUTLINED IN THE SPECIFICATIONS. NO EXCEPTIONS WILL BE ALLOWED.
D. CONTRACTOR SHALL PROVIDE ALL REQUIRED SAFETY PROTECTION DURING CONSTRUCTION.
E. DO NOT SCALE THE DRAWINGS.
F. DETAILS NOTED "TYPICAL" IMPLY ALL SUCH CONDITIONS BE TREATED SIMILARLY.
G. ALL WORK PERTAINING TO THESE DRAWINGS SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND IN AGREEMENT WITH ALL AGENCIES HAVING JURISDICTION.
H. THE CONTRACTOR IS RESPONSIBLE TO SECURE ALL PERMITS, TO OBTAIN APPROVALS AS REQUIRED AND COORDINATE INSPECTION WITH LOCAL BUILDING INSPECTOR. ALL PERMIT AND APPLICATION FEES, (INCLUDING REVIEW FEES, ETC) WILL BE PAID BY THE CONTRACTOR AND REIMBURSED BY THE OWNER.
I. DRAWINGS AND SPECIFICATIONS COMPLEMENT EACH OTHER. WORK NOT SHOWN ON DRAWING BUT CALLED FOR IN THE SPECIFICATIONS IS STILL REQUIRED, AND ALL WORK NOT CALLED FOR IN SPECIFICATIONS, BUT CALLED OUT OR SHOWN IN DRAWINGS IS STILL REQUIRED.
J. UNLESS OTHERWISE NOTED AND UNLESS FACTORY FINISHED, ALL EXPOSED SURFACES OF CMU, CONCRETE, PLASTER, WOOD, GYPSUM BOARD, HOLLOW METAL, HARDWOODS, MISCELLANEOUS METALS ETC., ARE TO RECEIVE PRIME AND FINISH COATS OF PAINT OR CLEAR FINISH AS SPECIFIED AND IN COLORS AS SELECTED BY ARCHITECT. EXCLUDED FROM THIS IS BRICK.
K. ALL EXISTING FINISHES NOTED IN PLAN ARE TO BE FIELD VERIFIED : CEILINGS, WALLS AND FLOORS.
L. THE OWNER WILL REMOVE AND RE-INSTALL ALL MOVEABLE EQUIPMENT. EACH CONTRACTOR IS RESPONSIBLE TO REMOVE, STORE AND RE-INSTALL EXISTING BUILT-IN EQUIPMENT REQUIRED TO PERFORM THEIR WORK UNLESS NOTED OTHERWISE.
M. CALL BEFORE YOU DIG. BEFORE DIGGING CONTRACTOR SHALL CALL 1-800-242-1776 TO HAVE UTILITIES IDENTIFY UNDERGROUND LOCATION OF ALL SERVICE LINES.
N. ALL OUTSIDE CORNERS OF INTERIOR CONCRETE MASONRY UNITS (CMU) ARE TO BE BULL NOSED UNLESS NOTED OTHERWISE.
O. ALL BLOCKING FOR THE PROJECT SHALL BE FIRE RETARDANT TREATED WOOD BLOCKING, UNLESS OTHERWISE NOTED.



KEY PLAN
NTS

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI01706000 | PA - RA012520X
JASON J. DUBOWITCH, AIA
NJ - 21AI01979800 | PA - RA406009
STEPHEN W. SCHREYER JR., AIA, LEED AP BD+C
NJ - 21AI02003100 | PA - RA410435
Architect
Date 01/29/26

FVHD architects planners
Fraytak Veisz Hopkins Duthie P C
EST 1918
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
F V H D P C . C O M

Project Name	HVAC Renovations at Princeton High School
Project Owner Name	Princeton Public Schools
Project Location	151 Moore Street, Princeton, NJ 08540
Project Number	5516E
Project Date	01.29. 2026
Checked By	W.D.H.
Drawn By	BO
Scale	AS NOTED
Drawing Name	EXISTING GROUND FLOOR PLANS, GENERAL NOTES, DEMOLITION NOTES, PHOTOS AND DETAILS

Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
A101

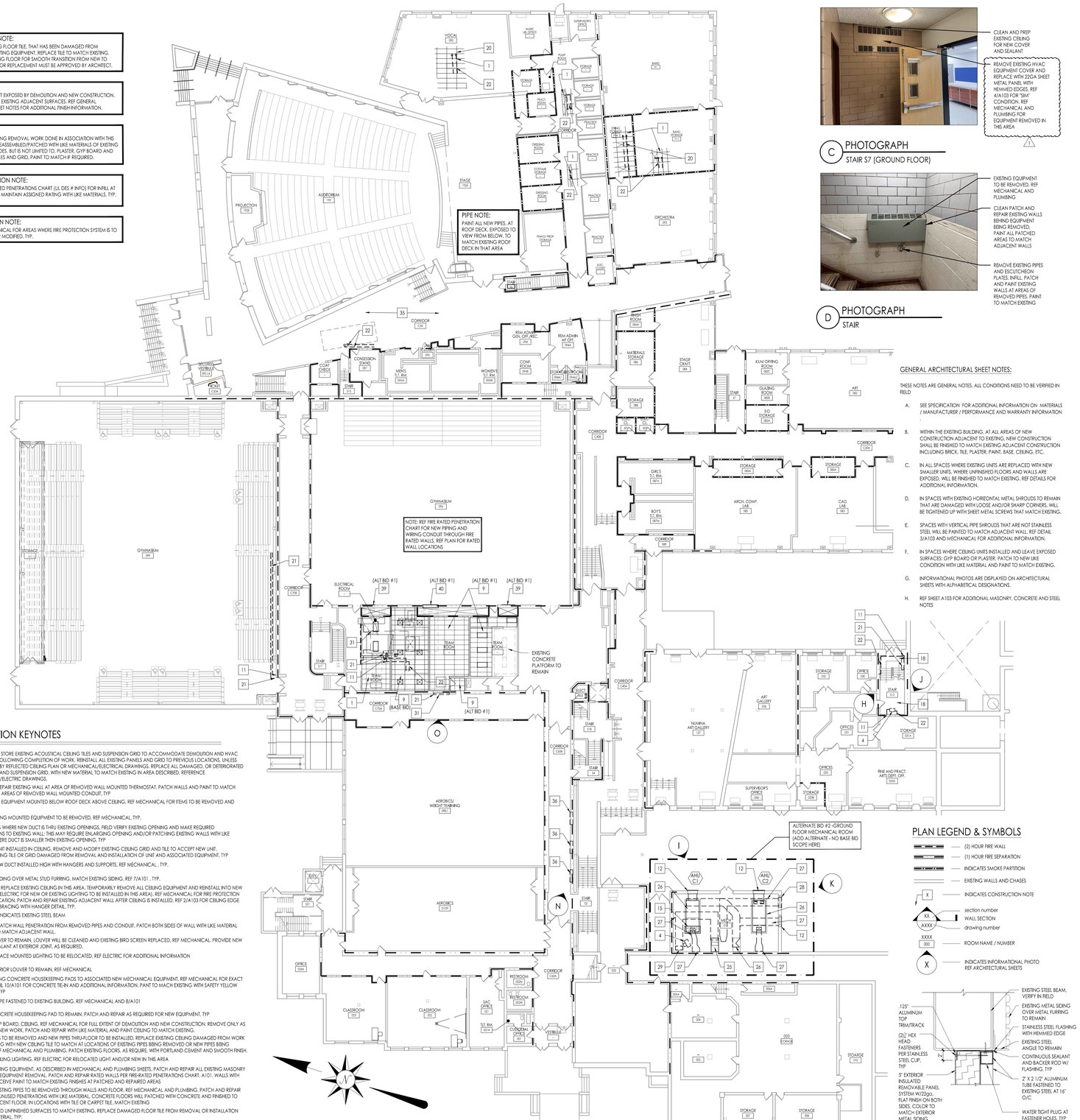
FLOOR REPAIR NOTE:
AREAS WITH EXISTING FLOOR TILE, THAT HAS BEEN DAMAGED FROM REMOVABLE OF EXISTING EQUIPMENT, REPLACE TILE TO MATCH EXISTING. FLASH PATCH EXISTING FLOOR FOR SMOOTH TRANSITION FROM NEW TO EXISTING. NEW TILE FOR REPLACEMENT MUST BE APPROVED BY ARCHITECT.

FINISH NOTE:
PAINT ALL AREAS LEFT EXPOSED BY DEMOLITION AND NEW CONSTRUCTION. PAINT SHALL MATCH EXISTING ADJACENT SURFACES. REF GENERAL ARCHITECTURAL SHEET NOTES FOR ADDITIONAL FINISH INFORMATION.

CEILING NOTE:
ANY, AND ALL, CEILING REMOVAL WORK DONE IN ASSOCIATION WITH THIS PROJECT. WILL BE REASSEMBLED/PATCHED WITH LIKE MATERIALS OF EXISTING CEILING. THIS INCLUDES, BUT IS NOT LIMITED TO, PLASTER, GYP BOARD AND ACOUSTIC LAY-IN TILES AND GRID. PAINT TO MATCH IF REQUIRED.

WALL PENETRATION NOTE:
REFERENCE FIRE-RATED PENETRATIONS CHART (UL DES # INFO) FOR INFILL AT RATED WALLS, A101, MAINTAIN ASSIGNED RATING WITH LIKE MATERIALS. TYP.

FIRE PROTECTION NOTE:
REFERENCE MECHANICAL FOR AREAS WHERE FIRE PROTECTION SYSTEM IS TO BE ALTERED AND/OR MODIFIED. TYP.



CONSTRUCTION KEYNOTES

1. REMOVE AND STORE EXISTING ACOUSTICAL CEILING TILES AND SUSPENSION GRID TO ACCOMMODATE DEMOLITION AND HVAC NEW WORK. FOLLOWING COMPLETION OF WORK, REINSTALL ALL EXISTING PANELS AND GRID TO PREVIOUS LOCATIONS, UNLESS SUPERCEDED BY REFLECTED CEILING PLAN OR MECHANICAL/ELECTRICAL DRAWINGS. REPLACE ALL DAMAGED, OR DETERIORATED CEILING TILES AND SUSPENSION GRID, WITH NEW MATERIAL TO MATCH EXISTING IN AREA DESCRIBED. REFERENCE MECHANICAL/ELECTRIC DRAWINGS.
2. PATCH AND REPAIR EXISTING WALL AT AREA OF REMOVED WALL MOUNTED THERMOSTAT. PATCH WALLS AND PAINT TO MATCH ADJACENT AT AREAS OF REMOVED WALL MOUNTED CONDUIT. TYP
3. MECHANICAL EQUIPMENT MOUNTED BELOW ROOF DECK ABOVE CEILING. REF MECHANICAL FOR ITEMS TO BE REMOVED AND REPLACED.
4. EXISTING CEILING MOUNTED EQUIPMENT TO BE REMOVED. REF MECHANICAL. TYP.
5. IN LOCATIONS WHERE NEW DUCT IS THRU EXISTING OPENINGS. FIELD VERIFY EXISTING OPENING AND MAKE REQUIRED MODIFICATIONS TO EXISTING WALL! THIS MAY REQUIRE ENLARGING OPENING AND/OR PATCHING EXISTING WALLS WITH LIKE MATERIAL WHERE DUCT IS SMALLER THEN EXISTING OPENING. TYP
6. NEW HVAC UNIT INSTALLED IN CEILING. REMOVE AND MODIFY EXISTING CEILING GRID AND TILE TO ACCEPT NEW UNIT. REPLACE CEILING TILE OR GRID DAMAGED FROM REMOVAL AND INSTALLATION OF UNIT AND ASSOCIATED EQUIPMENT. TYP
7. INDICATES NEW DUCT INSTALLED HIGH WITH HANGERS AND SUPPORTS. REF MECHANICAL . TYP.
8. NEW METAL SIDING OVER METAL STUD FURRING. MATCH EXISTING SIDING. REF 7/A101 . TYP.
9. REMOVE AND REPLACE EXISTING CEILING IN THIS AREA. TEMPORARILY REMOVE ALL CEILING EQUIPMENT AND REINSTALL INTO NEW CEILING. (REF ELECTRIC FOR NEW OR EXISTING LIGHTING TO BE INSTALLED IN THIS AREA). REF MECHANICAL FOR FIRE PROTECTION SYSTEM RELOCATION. PATCH AND REPAIR EXISTING ADJACENT WALL AFTER CEILING IS INSTALLED. REF 2/A103 FOR CEILING EDGE AND SEISMIC BRACING WITH HANGER DETAIL. TYP.
10. DASHED LINE INDICATES EXISTING STEEL BEAM.
11. CLEAN AND PATCH WALL PENETRATION FROM REMOVED PIPES AND CONDUIT. PATCH BOTH SIDES OF WALL WITH LIKE MATERIAL AND PAINT TO MATCH ADJACENT WALL.
12. EXISTING LOUVER TO REMAIN. LOUVER WILL BE CLEANED AND EXISTING BIRD SCREEN REPLACED. REF MECHANICAL. PROVIDE NEW PERIMETER SEALANT AT EXTERIOR JOINT. AS REQUIRED.
13. EXISTING SURFACE MOUNTED LIGHTING TO BE RELOCATED. REF ELECTRIC FOR ADDITIONAL INFORMATION
14. EXISTING EXTERIOR LOUVER TO REMAIN. REF MECHANICAL
15. EXTEND EXISTING CONCRETE HOUSEKEEPING PADS TO ASSOCIATED NEW MECHANICAL EQUIPMENT. REF MECHANICAL FOR EXACT SIZE. REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION. PAINT TO MACH EXISTING WITH SAFETY YELLOW EDGE BAND. TYP
16. METAL FLUE PIPE FASTENED TO EXISTING BUILDING. REF MECHANICAL AND B/A101
17. EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN. PATCH AND REPAIR AS REQUIRED FOR NEW EQUIPMENT. TYP
18. HARD LID, GYP BOARD, CEILING. REF MECHANICAL FOR FULL EXTENT OF DEMOLITION AND NEW CONSTRUCTION. REMOVE ONLY AS NEEDED FOR NEW WORK. PATCH AND REPAIR WITH LIKE MATERIAL AND PAINT CEILING TO MATCH EXISTING.
19. EXISTING PIPES TO BE REMOVED AND NEW PIPES THRU-FLOOR TO BE INSTALLED. REPLACE EXISTING CEILING DAMAGED FROM WORK ABOVE CEILING WITH NEW CEILING TILE TO MATCH AT LOCATIONS OF EXISTING PIPES BEING REMOVED OR NEW PIPES BEING INSTALLED. REF MECHANICAL AND PLUMBING. PATCH EXISTING FLOORS. AS REQUIRE. WITH PORTLAND CEMENT AND SMOOTH FINISH.
20. INDICATES CEILING LIGHTING. REF ELECTRIC FOR RELOCATED LIGHT AND/OR NEW IN THIS AREA
21. REMOVE EXISTING EQUIPMENT, AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR RATED WALLS PER FIRE-RATED PENETRATIONS CHART, A101. WALLS WITH PAINT WILL RECEIVE PAINT TO MATCH EXISTING FINISHES AT PATCHED AND REPAIRED AREAS
22. INDICATES EXISTING PIPES TO BE REMOVED THROUGH WALLS AND FLOOR. REF MECHANICAL AND PLUMBING. PATCH AND REPAIR ALL EXISTING UNUSED PENETRATIONS WITH LIKE MATERIAL. CONCRETE FLOORS WILL PATCHED WITH CONCRETE AND FINISHED TO MATCH ADJACENT FLOOR. IN LOCATIONS WITH TILE OR CARPET TILE, MATCH EXISTING
23. FINISH EXPOSED UNFINISHED SURFACES TO MATCH EXISTING. REPLACE DAMAGED FLOOR TILE FROM REMOVAL OR INSTALLATION WITH LIKE MATERIAL. TYP.
24. REMOVE EXISTING HVAC EQUIPMENT IN EXISTING WALL. REF MECHANICAL. REMOVE EXISTING HVAC COVER AND REPLACE WITH NEW SHEET METAL COVER WITH HEMMED EDGES. REF 4/A103 FOR SHEET METAL COVER. METAL COLOR TO MATCH ADJACENT WALL. TYP.
25. EXISTING CONCRETE HOUSE KEEPING PAD AND ASSOCIATED STEEL TIES TO BE REMOVED. GRID EXISTING FLOOR SURFACE SMOOTH AND PREP FOR PAINT. GRIND ANY EXISTING STEEL REBAR TIES TO 1" BELOW FINISHED FLOOR ELEVATION AND PATCH SMOOTH WITH FLOOR PATCH. PAINT TO MATCH ADJACENT FLOOR.
26. REMOVE EXISTING MECHANICAL/BOILER ROOM EQUIPMENT, AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS AND CEILINGS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR EXISTING CONCRETE HOUSE KEEPING PADS TO REMAIN AND PAINT. TYP. REF MECHANICAL
27. INDICATES EXISTING DUCT TO BE REMOVED. REF MECHANICAL
28. REMOVE EXISTING LOUVER. PREP OPENING FOR NEW MASONRY INFILL AND METAL SIDING. REF S/A103 AND REF MECHANICAL FOR ADDITIONAL INFORMATION
29. EXISTING DUCT TO REMAIN AND BE CAPPED. REF MECHANICAL
30. METAL VENT PIPE THRU MASONRY WALL AND METAL SIDING.REF MECHANICAL FOR SIZE AND LOCATION. REF S/A104 FOR THRU-WALL DETAIL. (**ALT BID # 3**)
31. INFILL EXISTING OPENING WITH CMU, DOWEL AND TOOTH BACK AND PAINT. REF 6/A103
32. THROUGH WALL FLUE WITH INTERIOR AND EXTERIOR COVER PLATES. STEEL SUPPORTS AND KICKERS PAINTED. REF 3/A101
33. EXISTING REMOVABLE STEEL COLUMN TO REMAIN
34. MECHANICAL LOUVER TO BE REMOVED AND NEW REMOVABLE/INSULATED WALL PANEL SYSTEM INSTALLED. REF 2/A102
35. REF MECHANICAL AND PLUMBING FOR ITEMS BEING REMOVED AND REPLACED. AT EXISTING DECK AND TROUGH EXISTING ROOF DECK. IN THIS AREA. PATCH, AS REQUIRED, AND PAINT ALL EXPOSED DUCT AND PIPING TO MATCH EXISTING COLOR OF ROOF DECK. REF 4/A104 FOR DECK PATCH AND PAINT. TYP
36. REF MECHANICAL FOR EXISTING EQUIPMENT TO BE REMOVED IN THIS AREA. REPLACE EXISTING MECHANICAL SHROUD WITH NEW SOLID 22GA. METAL SHROUD. PAINT TO MATCH ADJACENT WALLS. REF 4/A103 FOR "SIM" CONDITION
37. REMOVE EXISTING EXPANDED METAL COVER AND REPLACE WITH 22ga. METAL COVER TO FIT INTO EXISTING TRIM TO REMAIN. PAINT TO MATCH EXISTING TRIM
38. INDICATES NEW MECHANICAL EQUIPMENT INSTALLED. REF MECHANICAL, ELECTRIC, AND PLUMBING FOR EXTENT OF NEW CONSTRUCTION
39. REMOVE EXISTING LOUVER IN GYM. REF MECHANICAL, AND INFILL WITH LIKE MATERIAL. PAINT TO MATCH ADJACENT WALL. REF 6/A103 FOR "SIM" CONDITION (ALT BID #1)
40. REMOVE EXISTING THROUGH WALL DUCT INTO GYM AND INFILL WITH LIKE MATERIAL. PAINT TO MATCH ADJACENT WALL. REF 6/A103 FOR "SIM" CONDITION (ALT BID #1)

1 PARTIAL GROUND FLOOR PLAN
Scale 1/16"=1'-0"

CLEAN AND PREP EXISTING CEILING FOR NEW COVER AND SEALANT

REMOVE EXISTING HVAC EQUIPMENT COVER AND REPLACE WITH 22GA SHEET METAL PANEL WITH HEMMED EDGES. REF 4/A103 FOR "SIM" CONDITION. REF MECHANICAL AND PLUMBING FOR EQUIPMENT REMOVED IN THIS AREA

C PHOTOGRAPH
STAIR S7 (GROUND FLOOR)

EXISTING EQUIPMENT TO BE REMOVED. REF MECHANICAL AND PLUMBING

CLEAN PATCH AND REPAIR EXISTING WALLS BEHIND EQUIPMENT BEING REMOVED. PAINT ALL PATCHED AREAS TO MATCH ADJACENT WALLS

REMOVE EXISTING PIPES AND ESCUTCHEON PLATES. INFILL, PATCH AND PAINT EXISTING WALLS AT AREAS OF REMOVED PIPES. PAINT TO MATCH EXISTING

D PHOTOGRAPH
STAIR

GENERAL ARCHITECTURAL SHEET NOTES:

THESE NOTES ARE GENERAL NOTES. ALL CONDITIONS NEED TO BE VERIFIED IN FIELD

A. SEE SPECIFICATION FOR ADDITIONAL INFORMATION ON MATERIALS / MANUFACTURER / PERFORMANCE AND WARRANTY INFORMATION .

B. WITHIN THE EXISTING BUILDING, AT ALL AREAS OF NEW CONSTRUCTION ADJACENT TO EXISTING, NEW CONSTRUCTION SHALL BE FINISHED TO MATCH EXISTING ADJACENT CONSTRUCTION INCLUDING BRICK, TILE, PLASTER, PAINT, BASE, CEILING, ETC.

C. IN ALL SPACES WHERE EXISTING UNITS ARE REPLACED WITH NEW SMALLER UNITS, WHERE UNFINISHED FLOORS AND WALLS ARE EXPOSED, WILL BE FINISHED TO MATCH EXISTING. REF DETAILS FOR ADDITIONAL INFORMATION.

D. IN SPACES WITH EXISTING HORIZONTAL METAL SHROUDS TO REMAIN THAT ARE DAMAGED WITH LOOSE AND/OR SHARP CORNERS, WILL BE TIGHTENED UP WITH SHEET METAL SCREWS THAT MATCH EXISTING.

E. SPACES WITH VERTICAL PIPE SHROUDS THAT ARE NOT STAINLESS STEEL WILL BE PAINTED TO MATCH ADJACENT WALL. REF DETAIL 3/A103 AND MECHANICAL FOR ADDITIONAL INFORMATION.

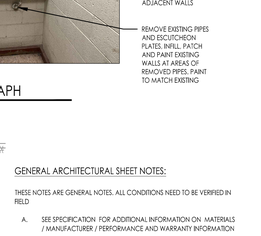
F. IN SPACES WHERE CEILING UNITS INSTALLED AND LEAVE EXPOSED SURFACES: GYP BOARD OR PLASTER, PATCH TO NEW LIKE CONDITION WITH LIKE MATERIAL AND PAINT TO MATCH EXISTING.

G. INFORMATIONAL PHOTOS ARE DISPLAYED ON ARCHITECTURAL SHEETS WITH ALPHABETICAL DESIGNATIONS.

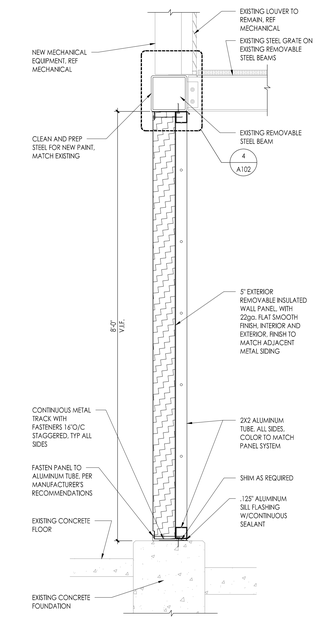
H. REF SHEET A103 FOR ADDITIONAL MASONRY, CONCRETE AND STEEL NOTES

PLAN LEGEND & SYMBOLS

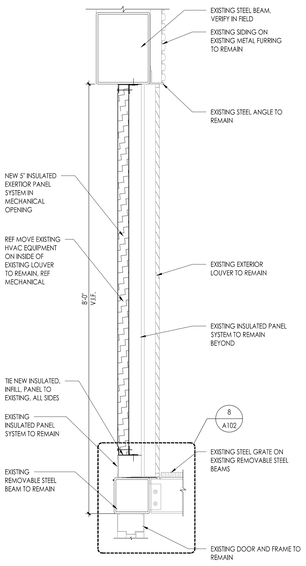
- (2) HOUR FIRE WALL
- (1) HOUR FIRE SEPARATION
- INDICATES SMOKE PARTITION
- EXISTING WALLS AND CHASES
- X — INDICATES CONSTRUCTION NOTE
- XX / AXXX — section number / WALL SECTION / drawing number
- XXXX / 000 — ROOM NAME / NUMBER
- X — INDICATES INFORMATIONAL PHOTO REF ARCHITECTURAL SHEETS



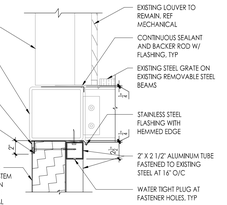
6 LOWER WALL HEAD DETAIL
1 1/2" = 1'-0"



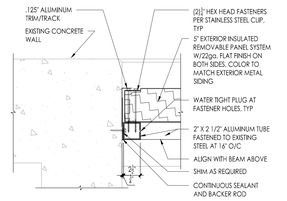
2 REMOVABLE WALL SECTION
1" = 1'-0"



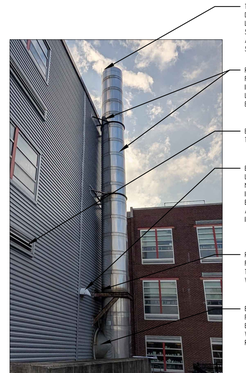
3 PANEL INFILL SECTION
1" = 1'-0"



4 HEAD AND SILL WALL PANEL DETAIL
1 1/2" = 1'-0"



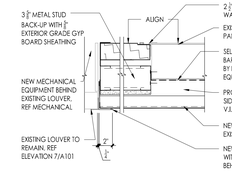
5 JAMB DETAIL AT WALL PANEL
1 1/2" = 1'-0"



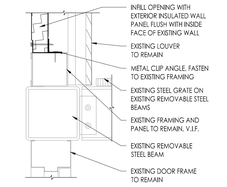
E PHOTOGRAPH
BOILER ROOM (EX FLUE STACK)



F PHOTOGRAPH
LOUVERS (BOILER ROOM)



7 UPPER JAMB DETAIL AT EX LOUVER
1 1/2" = 1'-0"



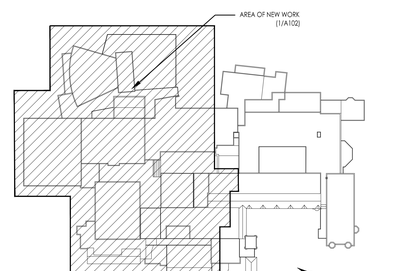
8 PANEL INFILL DETAIL
1 1/2" = 1'-0"



G PHOTOGRAPH
EXTERIOR LOUVER (BOILER ROOM)



H PHOTOGRAPH
STAIR S12 (GROUND FLOOR)



KEY PLAN
NTS

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI01706000 | PA - RA012209
JASON J. DUBOWITCH, AIA
NJ - 21AI07190600 | PA - RA406209
STEPHEN W. SCHREITER JR., AIA, LEED AP BD+C
NJ - 21AI20201500 | PA - RA416563
01/29/26
Date
Architect
FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C.
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
F V H D P C . C O M

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
W.D.H.

Drawn By
BO

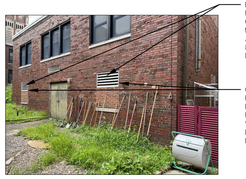
Scale
AS NOTED

Drawing Name
EXISTING PARTIAL GROUND FLOOR PLAN AND NOTES

Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
A102



EXISTING LOUVER TO REMAIN. SCRAPE AND CLEAN AND PROVIDE NEW INSECT SCREENS AS DESCRIBED IN MECHANICAL DRAWINGS

CLEAN EXISTING PERIMETER SEALANT AT EXISTING LOUVERS TO REMAIN AND AND RE-SEAL WITH NEW SEALANT AND BACKER ROD. MATCH EXISTING COLOR

I PHOTOGRAPH
MECH 011 (EXTERIOR)

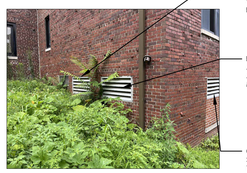


EXISTING RADIATOR MOUNTING SUPPORTS AND EXISTING PIPING TO BE REMOVED. REF MECHANICAL AND PLUMBING

REMOVE EXISTING PIPES AND ESCUTCHEON PLATES. INFILL PATCH AND PAINT EXISTING WALLS AND CEILINGS AT AREAS OF REMOVED PIPES. PAINT TO MATCH EXISTING

CLEAN PATCH AND REPAIR EXISTING CEILING ABOVE EQUIPMENT BEING REMOVED. REMOVE SUPPORTS AND PATCH AND PAINT TO MATCH ADJACENT CEILING

J PHOTOGRAPH
STAIR S12 (UPPER LANDING)



REMOVE EXISTING LOUVER AND ACCESSORIES. CLEAN AND PREP OPENING FOR NEW MASONRY INFILL. REF 2/A102

CLEAN EXISTING PERIMETER SEALANT AT EXISTING LOUVERS TO REMAIN AND AND RE-SEAL WITH NEW SEALANT AND BACKER ROD. MATCH EXISTING COLOR

K PHOTOGRAPH
MECH 011 (EXTERIOR)



EXISTING STEEL BEAM TO REMAIN. VERIFY EXACT HEIGHT IN FIELD

REMOVE EXISTING MOTORIZED LOUVER. REF MECHANICAL AND ELECTRIC. INSTALL NEW INSULATED PANEL TO MATCH EXISTING ADJACENT PANEL

EXISTING INSULATED WALL PANEL TO REMAIN. BUTT, ALIGN, AND SEAL. NEW INSULATED (REMOVABLE) WALL PANEL WITH EXISTING. REF 7/A102

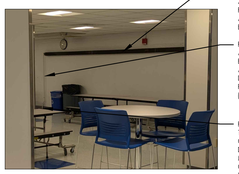
EXISTING LOUVERS TO BE REMOVED. REF MECHANICAL

EXISTING REMOVABLE STEEL BEAM TO REMAIN. VERIFY EXACT HEIGHT IN FIELD

EXISTING STEEL COLUMN TO REMAIN

EXISTING METAL DOOR TO REMAIN

L PHOTOGRAPH
MECH /BOILER (B70)

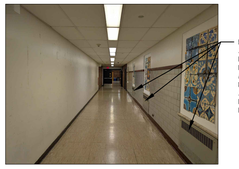


REMOVE EXISTING FINTUBE FROM WALL. REF MECHANICAL. PATCH AND FILL ALL HOLES FROM FASTENERS. PAINT AREA TO MATCH EXISTING

REMOVE EXISTING PIPES AND FASTENERS FROM EXISTING WALL. PATCH AND REPAIR ANY DAMAGE IN CMU AND PAINT TO MATCH. (BOTH SIDES)

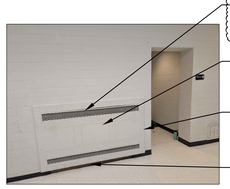
REMOVE EXISTING PIPE TO BELOW EXISTING CONCRETE FLOOR. AS DESCRIBED IN MECHANICAL. FILL WITH CONCRETE AND FINISH WITH FLOOR TILE TO MATCH EXISTING. PROVIDE TILE FOR ARCHITECTURAL APPROVAL

M PHOTOGRAPH
SMALL GROUP DINING (60.1A)



REMOVE EXISTING SHROUD AND MECHANICAL EQUIPMENT IN WALL. AS DESCRIBED IN MECHANICAL. PROVIDE NEW 22ga METAL COVER AND PAINT TO MATCH EXISTING TILE. REF 1/A103 FOR "SIM" CONDITION

N PHOTOGRAPH
CORRIDOR (60B)



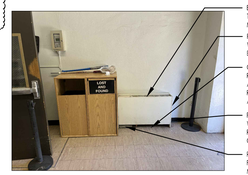
REMOVE EXISTING FINTUBE AND SHROUD FROM WALL. AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS

INFILL EXISTING OPENING WITH (MIN) 6" CMU. REF 4/A103. FILL AND PAINT TO MATCH ADJACENT WALL

CUT CMU AT JAMBS FOR NEW CMU INFILL TOOTHED INTO EXISTING. PINT ALL JOINTS SOLID AND FINISH TO MATCH ADJACENT.

PROVIDE NEW RUBBER BASE AT INFILLED AREA. MATCH EXISTING ADJACENT BASE IN COLOR, HEIGHT, AND PROFILE

O PHOTOGRAPH
CORRIDOR (C70A)



EXISTING HVAC EQUIPMENT TO BE REMOVED. REF MECHANICAL. TYP.

PATCH AND PAINT EXISTING WALL BEHIND EQUIPMENT BEING REMOVED. TYP.

CLEAN EXISTING FLOOR TILE TO REMAIN AND REPLACE FLOOR TILE AS REQUIRED AFTER EQUIPMENT IS REMOVED. ALL FLOOR TILE MUST BE APPROVED BY ARCHITECT. TYP.

PROVIDE NEW WALL BASE WHERE EQUIPMENT WAS REMOVED. MATCH EXISTING COLOR AND PROFILE. TYP..

REMOVE EXISTING DUCT IN FLOOR. AS DESCRIBED IN MECHANICAL SHEETS. INFILL FLOOR WITH CONCRETE TO MATCH EXISTING. TYP..

P PHOTOGRAPH
STAIR 1 (1st FLOOR)



EXISTING TRIM WITH EXPOSED BOLTS TO REMAIN. SCRAP AND CLEAN EXISTING TRIM FOR PAINT. PAINT EXISTING TRIM WITH EXPOSED BOLTS TO MATCH EXISTING BASE TRIM COLOR. TYP.

SIZE EXISTING OPENING IN FIELD AND INFILL WITH 22ga. METAL PANEL. PAINT TO MATCH TRIM.

EXISTING HVAC EQUIPMENT TO BE REMOVED. REF MECHANICAL. TYP.

Q PHOTOGRAPH
STAIR 10 (1st FLOOR)



EXISTING TRIM WITH EXPOSED BOLTS TO REMAIN. SCRAP AND CLEAN EXISTING TRIM FOR PAINT. PAINT EXISTING TRIM WITH EXPOSED BOLTS TO MATCH EXISTING BASE TRIM COLOR. TYP.

SIZE EXISTING OPENING IN FIELD AND INFILL WITH 22ga. METAL PANEL. PAINT TO MATCH TRIM.

REMOVE EXISTING EXPANDED METAL PANEL AND REMOVE EXISTING HVAC EQUIPMENT AS DESCRIBED IN MECHANICAL. REF MECHANICAL. TYP.

R PHOTOGRAPH
STAIR 10 (1st FLOOR)

CONSTRUCTION KEYNOTES

1. REMOVE AND STORE EXISTING ACOUSTICAL CEILING TILES AND SUSPENSION GRID TO ACCOMMODATE DEMOLITION AND HVAC NEW WORK. FOLLOWING COMPLETION OF WORK, REINSTALL ALL EXISTING PANELS AND GRID TO PREVIOUS LOCATIONS, UNLESS SUPERCEDED BY REFLECTED CEILING PLAN OR MECHANICAL/ELECTRICAL DRAWINGS. REPLACE ALL DAMAGED, OR DETERIORATED CEILING TILES AND SUSPENSION GRID. WITH NEW MATERIAL TO MATCH EXISTING IN AREA DESCRIBED. REFERENCE MECHANICAL/ELECTRIC DRAWINGS.
2. PATCH AND REPAIR EXISTING WALL AT AREA OF REMOVED WALL MOUNTED THERMOSTAT. PATCH WALLS AND PAINT TO MATCH ADJACENT AT AREAS OF REMOVED WALL MOUNTED CONDUIT. TYP
3. MECHANICAL EQUIPMENT MOUNTED BELOW ROOF DECK ABOVE CEILING. REF MECHANICAL FOR ITEMS TO BE REMOVED AND REPLACED.
4. EXISTING CEILING MOUNTED EQUIPMENT TO BE REMOVED. REF MECHANICAL. TYP.
5. IN LOCATIONS WHERE NEW DUCT IS THRU EXISTING OPENINGS. FIELD VERIFY EXISTING OPENING AND MAKE REQUIRED MODIFICATIONS TO EXISTING WALL. THIS MAY REQUIRE ENLARGING OPENING AND/OR PATCHING EXISTING WALLS WITH LIKE MATERIAL WHERE DUCT IS SMALLER THEN EXISTING OPENING. TYP
6. NEW HVAC UNIT INSTALLED IN CEILING. REMOVE AND MODIFY EXISTING CEILING GRID AND TILE TO ACCEPT NEW UNIT. REPLACE CEILING TILE OR GRID DAMAGED FROM REMOVAL AND INSTALLATION OF UNIT AND ASSOCIATED EQUIPMENT. TYP
7. INDICATES NEW DUCT INSTALLED HIGH WITH HANGERS AND SUPPORTS. REF MECHANICAL . TYP.
8. NEW METAL SIDING OVER METAL STUD FURRING. MATCH EXISTING SIDING. REF 7/A101 . TYP.
9. REMOVE AND REPLACE EXISTING CEILING IN THIS AREA. TEMPORARILY REMOVE ALL CEILING EQUIPMENT AND REINSTALL INTO NEW CEILING. THIS INCLUDES EXISTING LIGHTING. REF MECHANICAL FOR FIRE PROTECTION SYSTEM RELOCATION. PATCH AND REPAIR EXISTING ADJACENT WALL AFTER CEILING IS INSTALLED. REF 2/A103 FOR CEILING EDGE AND SEISMIC BRACING WITH HANGER DETAIL. TYP.
10. DASHED LINE INDICATES EXISTING STEEL BEAM
11. CLEAN AND PATCH WALL PENETRATION FROM REMOVED PIPES AND CONDUIT. PATCH BOTH SIDES OF WALL WITH LIKE MATERIAL AND PAINT TO MATCH ADJACENT WALL.
12. EXISTING LOUVER TO REMAIN. LOUVER WILL BE CLEANED AND EXISTING BIRD SCREEN REPLACED. REF MECHANICAL. PROVIDE NEW PERIMETER SEALANT AT EXTERIOR JOINT. AS REQUIRED.
13. EXISTING SURFACE MOUNTED LIGHTING TO BE RELOCATED. REF ELECTRIC FOR ADDITIONAL INFORMATION
14. EXISTING EXTERIOR LOUVER TO REMAIN. REF MECHANICAL
15. EXTEND EXISTING CONCRETE HOUSEKEEPING PADS TO ASSOCIATED NEW MECHANICAL EQUIPMENT. REF MECHANICAL FOR EXACT SIZE. REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION. PAINT TO MATCH EXISTING WITH SAFETY YELLOW EDGE BAND. TYP
16. METAL FLUE PIPE FASTENED TO EXISTING BUILDING. REF MECHANICAL AND B/A101
17. EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN. PATCH AND REPAIR AS REQUIRED FOR NEW EQUIPMENT. TYP
18. HARD LID. GYP BOARD. CEILING. REF MECHANICAL FOR FULL EXTENT OF DEMOLITION AND NEW CONSTRUCTION. REMOVE ONLY AS NEEDED FOR NEW WORK. PATCH AND REPAIR WITH LIKE MATERIAL AND PAINT CEILING TO MATCH EXISTING.
19. EXISTING PIPES TO BE REMOVED AND NEW PIPES THRU-FLOOR TO BE INSTALLED. REPLACE EXISTING CEILING DAMAGED FROM WORK ABOVE CEILING WITH NEW CEILING TILE TO MATCH AT LOCATIONS OF EXISTING PIPES BEING REMOVED OR NEW PIPES BEING INSTALLED. REF MECHANICAL AND PLUMBING. PATCH EXISTING FLOORS. AS REQUIRE. WITH PORTLAND CEMENT AND SMOOTH FINISH.
20. INDICATES CEILING LIGHTING. REF ELECTRIC FOR RELOCATED LIGHT AND/OR NEW IN THIS AREA
21. REMOVE EXISTING EQUIPMENT. AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR RATED WALLS PER FIRE-RATED PENETRATIONS CHART. A101. WALLS WITH PAINT WILL RECEIVE PAINT TO MATCH EXISTING FINISHES AT PATCHED AND REPAIRED AREAS.
22. INDICATES EXISTING PIPES TO BE REMOVED THROUGH WALLS AND FLOOR. REF MECHANICAL AND PLUMBING. PATCH AND REPAIR ALL EXISTING UNUSED PENETRATIONS WITH LIKE MATERIAL. CONCRETE FLOORS WILL PATCHED WITH CONCRETE AND FINISHED TO MATCH ADJACENT FLOOR. I LOCATIONS WITH TILE OR CARPET TILE. MATCH EXISTING
23. FINISH EXPOSED UNFINISHED SURFACES TO MATCH EXISTING. REPLACE DAMAGED FLOOR TILE FROM REMOVAL OR INSTALLATION WITH LIKE MATERIAL TYP.
24. REMOVE EXISTING HVAC EQUIPMENT IN EXISTING WALL. REF MECHANICAL. REMOVE EXISTING HVAC COVER AND REPLACE WITH NEW SHEET METAL COVER WITH HEMMED EDGES. REF 4/A103 FOR SHEET METAL COVER. METAL COLOR TO MATCH ADJACENT WALL. TYP.
25. EXISTING CONCRETE HOUSE KEEPING PAD AND ASSOCIATED STEEL TIES TO BE REMOVED. GRID EXISTING FLOOR SURFACE SMOOTH AND PREP FOR PAINT. GRIND ANY EXISTING STEEL REBAR TIES TO 1" BELOW FINISHED FLOOR ELEVATION AND PATCH SMOOTH WITH FLOOR PATCH. PAINT TO MATCH ADJACENT FLOOR.
26. REMOVE EXISTING MECHANICAL/BOILER ROOM EQUIPMENT. AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS AND CEILINGS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR EXISTING CONCRETE HOUSE KEEPING PADS TO REMAIN AND PAINT. TYP REF MECHANICAL
27. INDICATES EXISTING DUCT TO BE REMOVED. REF MECHANICAL
28. REMOVE EXISTING LOUVER. PREP OPENING FOR NEW MASONRY INFILL AND METAL SIDING. REF 5/A103 AND REF MECHANICAL FOR ADDITIONAL INFORMATION
29. EXISTING DUCT TO REMAIN AND BE CAPPED. REF MECHANICAL
30. METAL VENT PIPE THRU MASONRY WALL AND METAL SIDING.REF MECHANICAL FOR SIZE AND LOCATION. REF 5/A104 FOR THRU-WALL DETAIL. **(ALT BID # 3)**
31. INFILL EXISTING OPENING WITH CMU. DOWEL AND TOOTH BACK AND PAINT. REF 6/A103
32. THROUGH WALL FLUE WITH INTERIOR AND EXTERIOR COVER PLATES. STEEL SUPPORTS AND KICKERS PAINTED. REF 3/A101
33. EXISTING REMOVABLE STEEL COLUMN TO REMAIN
34. MECHANICAL LOUVER TO BE REMOVED AND NEW REMOVABLE INSULATED WALL PANEL SYSTEM INSTALLED. REF 2/A102
35. REF MECHANICAL AND PLUMBING FOR ITEMS BEING REMOVED AND REPLACED. AT EXISTING DECK AND TROUGH EXISTING ROOF DECK. IN THIS AREA. PATCH. AS REQUIRED. AND PAINT ALL EXPOSED DUCT AND PIPING TO MATCH EXISTING COLOR OF ROOF DECK. REF 4/A104 FOR DECK PATCH AND PAINT. TYP
36. REF MECHANICAL FOR EXISTING EQUIPMENT TO BE REMOVED IN THIS AREA. REPLACE EXISTING MECHANICAL SHROUD WITH NEW SOLID 22GA. METAL SHROUD. PAINT TO MATCH ADJACENT WALLS. REF 4/A103 FOR "SIM" CONDITION
37. REMOVE EXISTING EXPANDED METAL COVER AND REPLACE WITH 22ga. METAL COVER TO FIT INTO EXISTING TRIM TO REMAIN. PAINT TO MATCH EXISTING TRIM
38. INDICATES NEW MECHANICAL EQUIPMENT INSTALLED. REF MECHANICAL. ELECTRIC . AND PLUMBING FOR EXTENT OF NEW CONSTRUCTION
39. NEW 4" CONCRETE HOUSEKEEPING PAD ON EXISTING CONCRETE. REF 10/A101 FOR "SIM" CONDITION. COORDINATE WITH MECHANICAL FOR EXACT SIZE AND LOCATION. REF SHEET A103 FOR ADDITIONAL CONCRETE AND STEEL REINFORCING NOTES

MASONRY

1) ALL BLOCK WORK SHALL BE IN ACCORDANCE WITH LATEST IBC w/NJ MODIFICATION AND OTHER APPLICABLE CODES.
2) ALL BLOCK SHALL BE NORMAL WEIGHT AGGREGATE AND CONFORM TO ASTM C 90.
3) MORTAR SHALL BE ASTM C 270. TYPE "M" FOR BELOW GRADE AND TYPE "M" OR "S" FOR ABOVE GRADE WORK.
4) HORIZONTAL REINFORCING SHALL No. 9 GAGE "DUR-O-WALL" OR EQUIVALENT.
5) WHERE BLOCK FILL IS CALLED FOR ON DRAWINGS, USE TYPE "M" MORTAR OR CONCRETE WITH A COMPRESSIVE STRENGTH OF 2500psi IN ACCORDANCE WITH ASTM C 476 AND INSTALLED IN ACCORDANCE WITH ACI-531 FOR HIGH OR LOW LIFT PROCEDURES.
6) COORDINATE MASONRY WITH ALL TRADES REQUIRING ITEMS TO BE BUILT IN.

CONCRETE FLATWORK

1) ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE.
2) ALL CONCRETE SHALL ATTAIN 3000psi COMPRESSIVE STRENGTH AT 28 DAYS.
3) WHERE EXISTING CONTROL JOINTS MEET NEW CONCRETE. CONTINUE WITH NEW IN SAME LOCATION TO WALL.
4) FINISHES TO MATCH EXISTING ADJACENT CONCRETE FINISHES

REINFORCING

1) ALL REINFORCING BAR DETAILS SHALL CONFORM TO THE LATEST ACI CODE AND DETAILING MANUAL.
2) ALL BARS SHALL BE ASTM A-615 GRADE 60.
3) WELDED WIRE FABRIC SHALL BE ASTM A-185.
4) CLEARANCE OF MAIN REINFORCEMENT FROM ADJACENT SURFACES. UNLESS SHOWN OTHERWISE, SHALL BE:
   A) UNFORMED SURFACES IN CONTACT WITH GROUND OR EXPOSED TO WEATHER.
   B) BOTTOM SURFACE OF SLAB ON GRADE: 3"
   C) FORMED SURFACES IN CONTACT WITH GROUND OR EXPOSED TO WEATHER : #5 BARS OR SMALLER: 1 1/2".
   D) EXTERIOR WALL SURFACES: 2"
5) ALL REINFORCEMENT SHALL BE INSPECTED AND APPROVED BY ARCHITECT BEFORE CONCRETE IS POURED.

STEEL NOTES

1) REF SHEET A202

MISCELLANEOUS

1) CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SECTIONS AND ELEVATIONS ON JOB.
2) CONSULT ALL OTHER DISCIPLINES DRAWINGS FOR VERIFICATION OF LOCATIONS AND DIMENSIONS OF INSERTS, OPENINGS, SLEEVES, WASHES REQUIRED, EQUIPMENT PADS AND OTHER PRODUCT REQUIREMENTS.

GENERAL ARCHITECTURAL SHEET NOTES:

THESE NOTES ARE GENERAL NOTES. ALL CONDITIONS NEED TO BE VERIFIED IN FIELD

A. SEE SPECIFICATION FOR ADDITIONAL INFORMATION ON MATERIALS / MANUFACTURER / PERFORMANCE AND WARRANTY INFORMATION .

B. WITHIN THE EXISTING BUILDING, AT ALL AREAS OF NEW CONSTRUCTION ADJACENT TO EXISTING. NEW CONSTRUCTION SHALL BE FINISHED TO MATCH EXISTING ADJACENT CONSTRUCTION INCLUDING BRICK. TILE. PLASTER. PAINT. BASE. CEILING. ETC.

C. IN ALL SPACES WHERE EXISTING UNITS ARE REPLACED WITH NEW SMALLER UNITS. WHERE UNFINISHED FLOORS AND WALLS ARE EXPOSED. WILL BE FINISHED TO MATCH EXISTING. REF DETAILS FOR ADDITIONAL INFORMATION.

D. IN SPACES WITH EXISTING HORIZONTAL METAL SHROUDS TO REMAIN THAT ARE DAMAGED WITH LOOSE AND/OR SHARP CORNERS. WILL BE TIGHTENED UP WITH SHEET METAL SCREWS THAT MATCH EXISTING.

E. SPACES WITH VERTICAL PIPE SHROUDS THAT ARE NOT STAINLESS STEEL WILL BE PAINTED TO MATCH ADJACENT WALL. REF DETAIL 3/A103 AND MECHANICAL FOR ADDITIONAL INFORMATION.

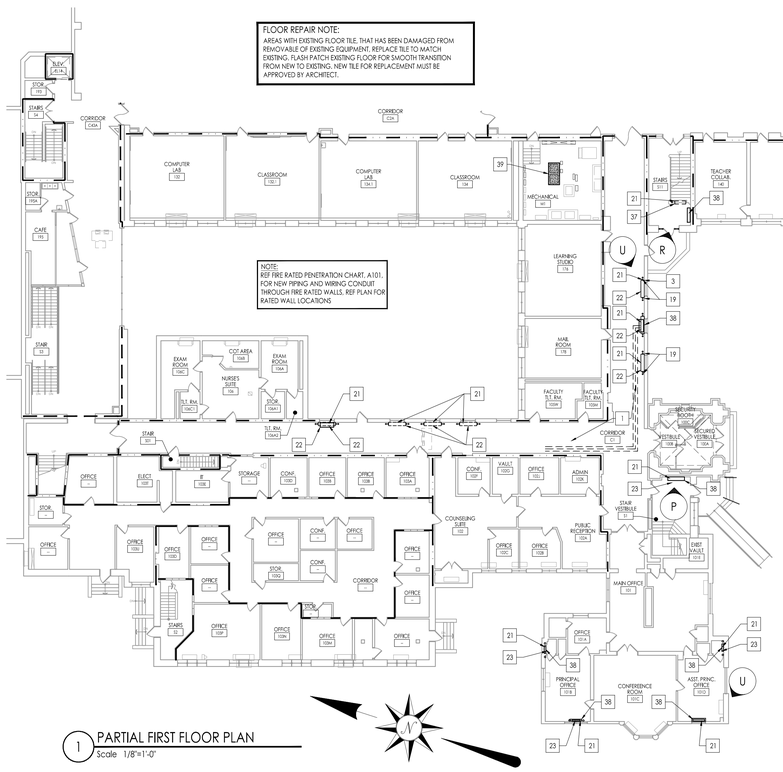
F. IN SPACES WHERE CEILING UNITS INSTALLED AND LEAVE EXPOSED SURFACES: GYP BOARD OR PLASTER. PATCH TO NEW LIKE CONDITION WITH LIKE MATERIAL AND PAINT TO MATCH EXISTING.

G. INFORMATIONAL PHOTOS ARE DISPLAYED ON ARCHITECTURAL SHEETS WITH ALPHABETICAL DESIGNATIONS.

H. REF SHEET A103 FOR ADDITIONAL MASONRY. CONCRETE AND STEEL NOTES

FLOOR REPAIR NOTE:
AREAS WITH EXISTING FLOOR TILE. THAT HAS BEEN DAMAGED FROM REMOVABLE OF EXISTING EQUIPMENT. REPLACE TILE TO MATCH EXISTING. FLASH PATCH EXISTING FLOOR FOR SMOOTH TRANSITION FROM NEW TO EXISTING. NEW TILE FOR REPLACEMENT MUST BE APPROVED BY ARCHITECT.

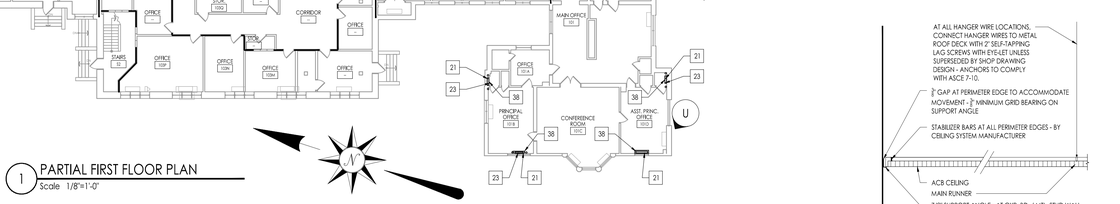
NOTE:
REF FIRE RATED PENETRATION CHART. A101. FOR NEW PIPING AND WIRING CONDUIT THROUGH FIRE RATED WALLS. REF PLAN FOR RATED WALL LOCATIONS



1 PARTIAL FIRST FLOOR PLAN
Scale 1/8"=1'-0"

PLAN LEGEND & SYMBOLS

- (2) HOUR FIRE WALL
- (1) HOUR FIRE SEPARATION
- INDICATES SMOKE PARTITION
- EXISTING WALLS AND CHASES
- X — INDICATES CONSTRUCTION NOTE
- XX / AXXX — section number / WALL SECTION / drawing number
- XXXX / 000 — ROOM NAME / NUMBER
- X — INDICATES PHOTO DIRECTION



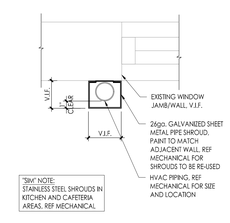
AT ALL HANGER WIRE LOCATIONS. CONNECT HANGER WIRES TO METAL ROOF DECK WITH 2" SELF-TAPPING LAG SCREWS WITH EYE-LET UNLESS SUPERSEDED BY SHOP DRAWING DESIGN - ANCHORS TO COMPLY WITH ASCE 7-10.

3/4" GAP AT PERIMETER EDGE TO ACCOMMODATE MOVEMENT - 2" MINIMUM GRID BEARING ON SUPPORT ANGLE

STABILIZER BARS AT ALL PERIMETER EDGES - BY CEILING SYSTEM MANUFACTURER

ACB CEILING
MAIN RUNNER
7/8" SUPPORT ANGLE - AT GYP. BD. / MTL. STUD WALL. SECURE USING #8 x 1-1/4" WAFER HEAD SELF DRILL SHEET METAL SCREW UNLESS SUPERSEDED BY SHOP DRAWING DESIGN - AT CMU WALLS. SECURE ANGLE USING POWER ACTUATED FASTENERS UNLESS SUPERSEDED BY SHOP DRAWING DESIGN
EXISTING WALL

2 ACB SEISMIC BRACING DETAIL
Scale: 1"=1'-0"



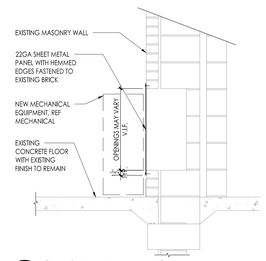
EXISTING WINDOW JAMB/WALL. V.I.F.

26ga. GALVANIZED SHEET METAL PIPE SHROUD. PAINT TO MATCH ADJACENT WALL. REF MECHANICAL FOR SHROUDS TO BE RE-USED

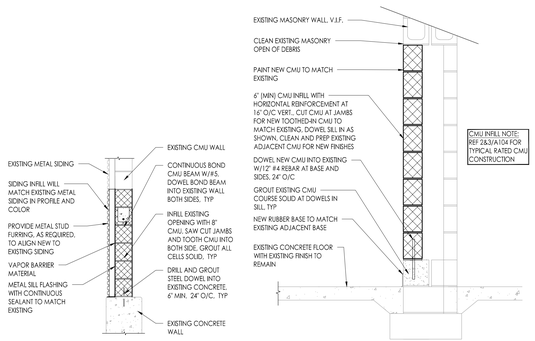
HVAC PIPING. REF MECHANICAL FOR SIZE AND LOCATION

"SIM" NOTE:
STAINLESS STEEL SHROUDS IN KITCHEN AND CAFETERIA AREAS. REF MECHANICAL

3 VERTICAL METAL PIPE SHROUD
Scale: 1 1/2" = 1'-0"

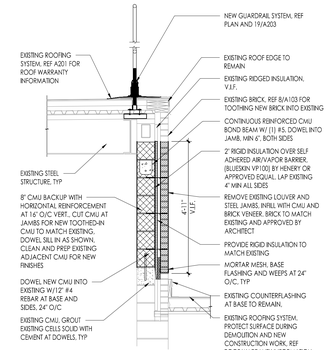


4 CHASE INFILL AT BRICK
3/4" = 1'-0"

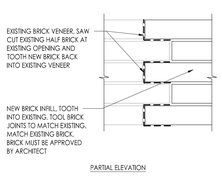


5 LOUVER INFILL W/CMU WALL
1/2" = 1'-0"

6 CMU INFILL AT REMOVED EQUIPMENT
3/4" = 1'-0"

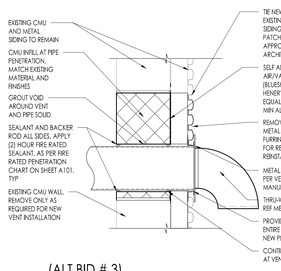


7 THRU-WALL DUCT FLASHING
1/2" = 1'-0"

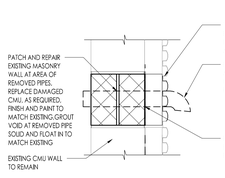


PARTIAL ELEVATION

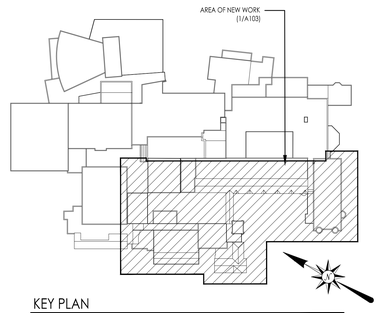
8 BRICK TIE-IN DETAIL
Scale: 1"=1'-0"



(ALT BID # 3)
9 VENT PENETRATION FLASHING
1 1/2" = 1'-0"



10 THRU-WALL INFILL
1 1/2" = 1'-0"



KEY PLAN
NTS

FINISH NOTE:
PAINT ALL AREAS LEFT EXPOSED BY DEMOLITION AND NEW CONSTRUCTION. PAINT SHALL MATCH EXISTING ADJACENT SURFACES. REF GENERAL ARCHITECTURAL SHEET NOTES FOR ADDITIONAL FINISH INFORMATION.

CEILING NOTE:
ANY. AND ALL. CEILING REMOVAL WORK DONE IN ASSOCIATION WITH THIS PROJECT. WILL BE REASSEMBLED/PATCHED WITH LIKE MATERIALS OF EXISTING CEILING. THIS INCLUDES. BUT IS NOT LIMITED TO. PLASTER. GYP BOARD AND ACOUSTIC LAY-IN TILES AND GRID. PAINT TO MATCH IF REQUIRED.

WALL PENETRATION NOTE:
REFERENCE FIRE-RATED PENETRATIONS CHART (UL DES # INFO) FOR INFILL AT RATED WALLS. A101. MAINTAIN ASSIGNED RATING WITH LIKE MATERIALS. TYP.

FIRE PROTECTION NOTE:
REFERENCE MECHANICAL FOR AREAS WHERE FIRE PROTECTION SYSTEM IS TO BE ALTERED AND/OR MODIFIED. TYP.

WILLIAM D. HOPKINS III. AIA. LEED AP
NJ - 21A01706900 | PA - RA012209
JASON J. DUBOWITCH. AIA
NJ - 21A01990001 | PA - RA406309
STEPHEN W. SCHRETTER JR.. AIA. LEED AP BD+C
NJ - 21A02020100 | PA - RA416563
William D. Hopkins III 01/29/26
Architect
Date

FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C.
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
FVHDPC.COM

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
W.D.H.

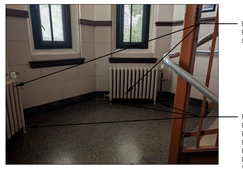
Drawn By
BO

Scale
AS NOTED

Drawing Name
EXISTING PARTIAL FIRST FLOOR PLAN, NOTES, PHOTOS AND DETAILS

Revisions		
No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
A103



EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR WITH DARK GRAY PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR. CEMENT COLOR TO BE APPROVED BY ARCHITECT

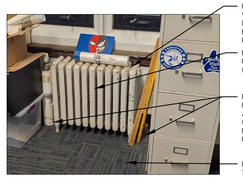
S PHOTOGRAPH
STAIR 8 (1st FLOOR)



EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR

T PHOTOGRAPH
STAIR 9



REPAIR AND PAINT EXISTING WALLS DAMAGED FROM DEMOLITION OF EXISTING EQUIPMENT OR REINSTALLATION OF NEW

EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

EXISTING TO BE REMOVED, REF PLUMBING. PATCH, AND/OR REPLACE EXISTING CARPET TILE AT REMOVED EQUIPMENT AND FLOOR PATCH. MATCH EXISTING

EXISTING CARPET TILE FLOOR TO REMAIN

U PHOTOGRAPH
ASST. PRINC. (101D)



CLEAN/REPAIR NEWLY EXPOSED SURFACES FROM REMOVAL OF EXISTING EQUIPMENT, TYP

EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

EXISTING TERRAZZO FLOOR TO REMAIN

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR WITH DARK GRAY PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR. CEMENT COLOR TO BE APPROVED BY ARCHITECT

V PHOTOGRAPH
STAIR 10 (1st FLOOR)



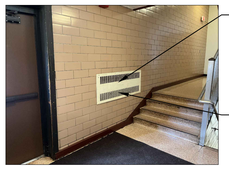
CLEAN/REPAIR NEWLY EXPOSED SURFACES FROM REMOVAL OF EXISTING EQUIPMENT, TYP

EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR WITH DARK GRAY PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR. CEMENT COLOR TO BE APPROVED BY ARCHITECT

EXISTING TERRAZZO FLOOR TO REMAIN

W PHOTOGRAPH
STAIR 12 (1st FLOOR)



REMOVE EXISTING METAL SHROUD AND REPLACE WITH 22ga. METAL COVER WITH HEMMED EDGES. PAINT TO MATCH ADJACENT WALL

MECHANICAL EQUIPMENT WILL BE REMOVED, AS DESCRIBED IN MECHANICAL DRAWINGS

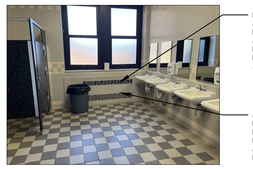
X PHOTOGRAPH
STAIR 07 (1st FLOOR)



REMOVE EXISTING METAL SHROUD AND REPLACE WITH 22ga. METAL COVER WITH HEMMED EDGES. PAINT TO MATCH ADJACENT WALL

MECHANICAL EQUIPMENT WILL BE REMOVED, AS DESCRIBED IN MECHANICAL DRAWINGS

Y PHOTOGRAPH
BOYS 137 (SIM OTHER TOILETS)



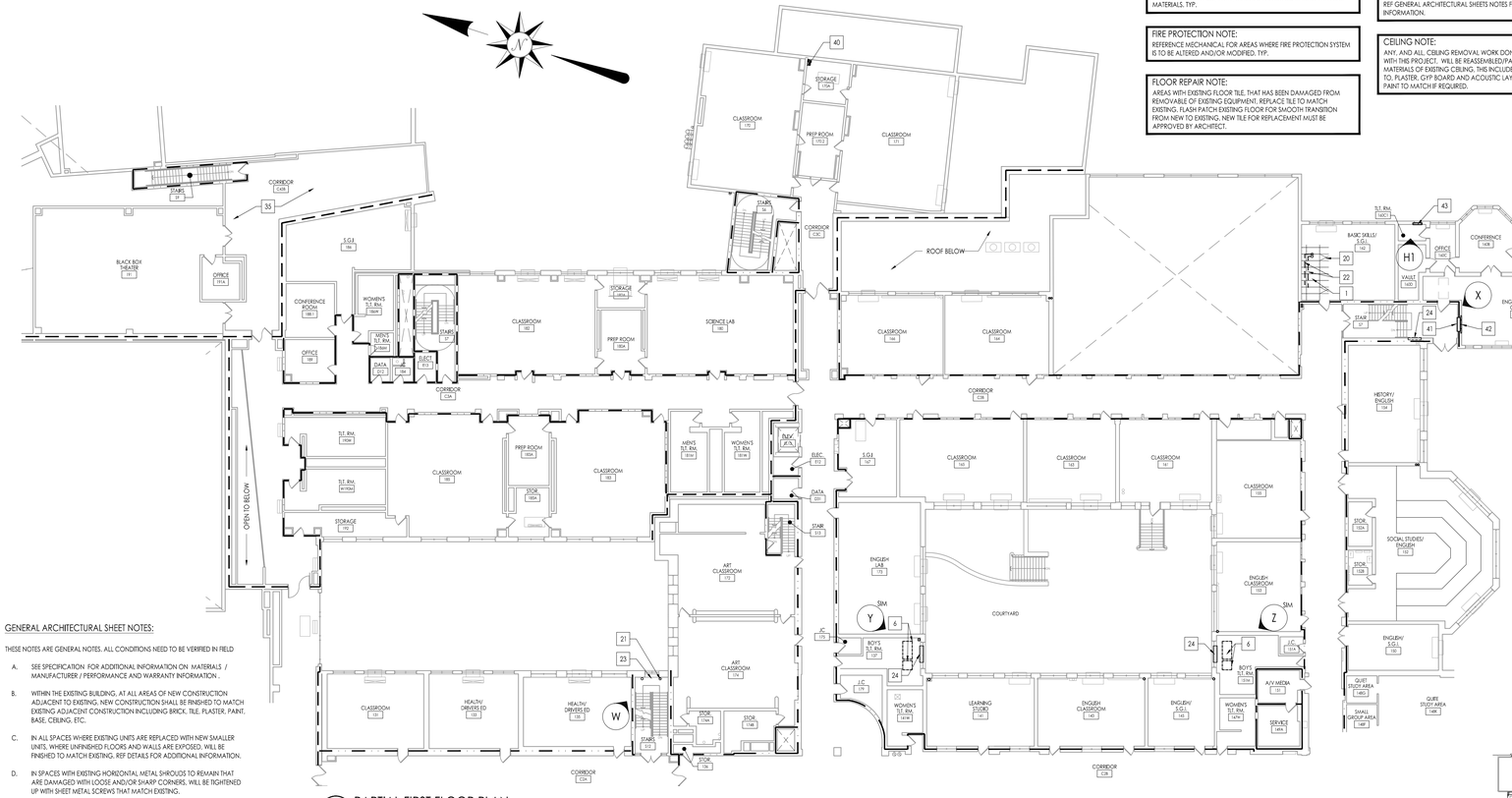
REMOVE EXISTING METAL SHROUD AND REPLACE WITH 22ga. METAL COVER WITH HEMMED EDGES. PAINT TO MATCH ADJACENT WALL

MECHANICAL EQUIPMENT WILL BE REMOVED, AS DESCRIBED IN MECHANICAL DRAWINGS

Z PHOTOGRAPH
BOYS 418 (SIM OTHER TOILETS)

CONSTRUCTION KEYNOTES

1. REMOVE AND STORE EXISTING ACOUSTICAL CEILING TILES AND SUSPENSION GRID TO ACCOMMODATE DEMOLITION AND HVAC NEW WORK. FOLLOWING COMPLETION OF WORK, REINSTALL ALL EXISTING PANELS AND GRID TO PREVIOUS LOCATIONS, UNLESS SUPERCEDED BY REFLECTED CEILING PLAN OR MECHANICAL/ELECTRICAL DRAWINGS. REPLACE ALL DAMAGED, OR DETERIORATED CEILING TILES AND SUSPENSION GRID, WITH NEW MATERIAL TO MATCH EXISTING IN AREA DESCRIBED. REFERENCE MECHANICAL/ELECTRIC DRAWINGS.
2. PATCH AND REPAIR EXISTING WALL AT AREA OF REMOVED WALL MOUNTED THERMOSTAT, PATCH WALLS AND PAINT TO MATCH ADJACENT AT AREAS OF REMOVED WALL MOUNTED CONDUIT. TYP
3. MECHANICAL EQUIPMENT MOUNTED BELOW ROOF DECK ABOVE CEILING. REF MECHANICAL FOR ITEMS TO BE REMOVED AND REPLACED.
4. EXISTING CEILING MOUNTED EQUIPMENT TO BE REMOVED. REF MECHANICAL. TYP.
5. IN LOCATIONS WHERE NEW DUCT IS THRU EXISTING OPENINGS, FIELD VERIFY EXISTING OPENING AND MAKE REQUIRED MODIFICATIONS TO EXISTING WALL; THIS MAY REQUIRE ENLARGING OPENING AND/OR PATCHING EXISTING WALLS WITH LIKE MATERIAL WHERE DUCT IS SMALLER THEN EXISTING OPENING. TYP
6. NEW HVAC UNIT INSTALLED IN CEILING. REMOVE AND MODIFY EXISTING CEILING GRID AND TILE TO ACCEPT NEW UNIT. REPLACE CEILING TILE OR GRID DAMAGED FROM REMOVAL AND INSTALLATION OF UNIT AND ASSOCIATED EQUIPMENT. TYP
7. INDICATES NEW DUCT INSTALLED HIGH WITH HANGERS AND SUPPORTS. REF MECHANICAL . TYP.
8. NEW METAL SIDING OVER METAL STUD FURRING. MATCH EXISTING SIDING. REF 7/A101 . TYP.
9. REMOVE AND REPLACE EXISTING CEILING IN THIS AREA. TEMPORARILY REMOVE ALL CEILING EQUIPMENT AND REINSTALL INTO NEW CEILING. THIS INCLUDES EXISTING LIGHTING. REF MECHANICAL FOR FIRE PROTECTION SYSTEM RELOCATION. PATCH AND REPAIR EXISTING ADJACENT WALL AFTER CEILING IS INSTALLED. REF 2/A103 FOR CEILING EDGE AND SEISMIC BRACING WITH HANGER DETAIL. TYP.
10. DASHED LINE INDICATES EXISTING STEEL BEAM
11. CLEAN AND PATCH WALL PENETRATION FROM REMOVED PIPES AND CONDUIT. PATCH BOTH SIDES OF WALL WITH LIKE MATERIAL AND PAINT TO MATCH ADJACENT WALL.
12. EXISTING LOUVER TO REMAIN. LOUVER WILL BE CLEANED AND EXISTING BIRD SCREEN REPLACED. REF MECHANICAL. PROVIDE NEW PERIMETER SEALANT AT EXTERIOR JOINT, AS REQUIRED.
13. EXISTING SURFACE MOUNTED LIGHTING TO BE RELOCATED. REF ELECTRIC FOR ADDITIONAL INFORMATION
14. EXISTING EXTERIOR LOUVER TO REMAIN. REF MECHANICAL
15. EXTEND EXISTING CONCRETE HOUSEKEEPING PADS TO ASSOCIATED NEW MECHANICAL EQUIPMENT. REF MECHANICAL FOR EXACT SIZE. REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION. PAINT TO MACH EXISTING WITH SAFETY YELLOW EDGE BAND. TYP
16. METAL FLUE PIPE FASTENED TO EXISTING BUILDING. REF MECHANICAL AND 8/A101
17. EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN. PATCH AND REPAIR AS REQUIRED FOR NEW EQUIPMENT. TYP
18. HARD LID, GYP BOARD, CEILING. REF MECHANICAL FOR FULL EXTENT OF DEMOLITION AND NEW CONSTRUCTION. REMOVE ONLY AS NEEDED FOR NEW WORK. PATCH AND REPAIR WITH LIKE MATERIAL AND PAINT CEILING TO MATCH EXISTING.
19. EXISTING PIPES TO BE REMOVED AND NEW PIPES THRU-FLOOR TO BE INSTALLED. REPLACE EXISTING CEILING DAMAGED FROM WORK ABOVE CEILING WITH NEW CEILING TILE TO MATCH AT LOCATIONS OF EXISTING PIPES BEING REMOVED OR NEW PIPES BEING INSTALLED. REF MECHANICAL AND PLUMBING. PATCH EXISTING FLOORS, AS REQUIRE. WITH PORTLAND CEMENT AND SMOOTH FINISH.
20. INDICATES CEILING LIGHTING. REF ELECTRIC FOR RELOCATED LIGHT AND/OR NEW IN THIS AREA
21. REMOVE EXISTING EQUIPMENT, AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR RATED WALLS PER FIRE-RATED PENETRATIONS CHART, A101. WALLS WITH PAINT WILL RECEIVE PAINT TO MATCH EXISTING FINISHES AT PATCHED AND REPAIRED AREAS
22. INDICATES EXISTING PIPES TO BE REMOVED THROUGH WALLS AND FLOOR. REF MECHANICAL AND PLUMBING. PATCH AND REPAIR ALL EXISTING UNUSED PENETRATIONS WITH LIKE MATERIAL. CONCRETE FLOORS WILL PATCHED WITH CONCRETE AND FINISHED TO MATCH ADJACENT FLOOR. I LOCATIONS WITH TILE OR CARPET TILE, MATCH EXISTING
23. FINISH EXPOSED UNFINISHED SURFACES TO MATCH EXISTING. REPLACE DAMAGED FLOOR TILE FROM REMOVAL OR INSTALLATION WITH LIKE MATERIAL, TYP.
24. REMOVE EXISTING HVAC EQUIPMENT IN EXISTING WALL. REF MECHANICAL. REMOVE EXISTING HVAC COVER AND REPLACE WITH NEW SHEET METAL COVER WITH HEMMED EDGES. REF 4/A103 FOR SHEET METAL COVER. METAL COLOR TO MATCH ADJACENT WALL. TYP.
25. EXISTING CONCRETE HOUSE KEEPING PAD AND ASSOCIATED STEEL TIES TO BE REMOVED. GRID EXISTING FLOOR SURFACE SMOOTH AND PREP FOR PAINT. GRIND ANY EXISTING STEEL REBAR TIES TO 1" BELOW FINISHED FLOOR ELEVATION AND PATCH SMOOTH WITH FLOOR PATCH, PAINT TO MATCH ADJACENT FLOOR.
26. REMOVE EXISTING MECHANICAL/BOILER ROOM EQUIPMENT, AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS AND CEILINGS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR EXISTING CONCRETE HOUSE KEEPING PADS TO REMAIN AND PAINT. TYP REF MECHANICAL
27. INDICATES EXISTING DUCT TO BE REMOVED. REF MECHANICAL
28. REMOVE EXISTING LOUVER. PREP OPENING FOR NEW MASONRY INFILL AND METAL SIDING. REF 5/A103 AND REF MECHANICAL FOR ADDITIONAL INFORMATION
29. EXISTING DUCT TO REMAIN AND BE CAPPED. REF MECHANICAL
30. METAL VENT PIPE THRU MASONRY WALL AND METAL SIDING.REF MECHANICAL FOR SIZE AND LOCATION. REF 5/A104 FOR THRU-WALL DETAIL. **(ALT BID # 3)**
31. INFILL EXISTING OPENING WITH CMU, DOWEL AND TOOTH BACK AND PAINT. REF 6/A103
32. THROUGH WALL FLUE WITH INTERIOR AND EXTERIOR COVER PLATES, STEEL SUPPORTS AND KICKERS PAINTED. REF 3/A101
33. EXISTING REMOVABLE STEEL COLUMN TO REMAIN
34. MECHANICAL LOUVER TO BE REMOVED AND NEW REMOVABLE INSULATED WALL PANEL SYSTEM INSTALLED. REF 2/A102
35. REF MECHANICAL AND PLUMBING FOR ITEMS BEING REMOVED AND REPLACED. AT EXISTING DECK AND THROUGH EXISTING ROOF DECK. IN THIS AREA, PATCH, AS REQUIRED, AND PAINT ALL EXPOSED DUCT AND PIPING TO MATCH EXISTING COLOR OF ROOF DECK. REF 4/A104 FOR DECK PATCH AND PAINT. TYP
36. REF MECHANICAL FOR EXISTING EQUIPMENT TO BE REMOVED IN THIS AREA. REPLACE EXISTING MECHANICAL SHROUD WITH NEW SOLID 22GA. METAL SHROUD. PAINT TO MATCH ADJACENT WALLS. REF 4/A103 FOR "SIM" CONDITION
37. REMOVE EXISTING EXPANDED METAL COVER AND REPLACE WITH 22ga. METAL COVER TO FIT INTO EXISTING TRIM TO REMAIN. PAINT TO MATCH EXISTING TRIM
38. INDICATES NEW MECHANICAL EQUIPMENT INSTALLED. REF MECHANICAL, ELECTRIC, AND PLUMBING FOR EXTENT OF NEW CONSTRUCTION
39. NEW CONCRETE HOUSEKEEPING PAD. REF MECHANICAL FOR EXACT SIZE AND LOCATION. REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION. PAINT TO MACH EXISTING WITH SAFETY YELLOW EDGE BAND. TYP
40. (1) HOUR RATED CMU PIPE CHASE FROM FLOOR TO DECK ABOVE. PROVIDE FIRESAFING CLOSURE MATERIAL BETWEEN LAST COURSE AND DECK. REF 5/A104
41. SAW CUT EXISTING GLAZED BLOCK FOR NEW RECESSED CABINET HEATER. AS DESCRIBED IN ELECTRICAL DRAWINGS. REMOVE CMU. VERIFY IN FIELD EXACT DEPTH OF EXISTING WALL AND PROVIDE CMU BACKING THAT ALLOWS FOR UNIT AND COVER TO ROOM BEYOND., MAINTAIN FIRE RATING OF WALL, AS INDICATED ON PLAN. PATCH AND REPAIR ANY DAMAGE IN ADJACENT OFFICE TO NEW LIKE CONDITION, MATCH ALL EXISTING FINISHES. REF CEILING NOTES. THIS SHEET. FOR ANY REMOVAL OR REPAIR TO EXISTING CEILINGS IN THIS AREA. TYP
42. INDICATES NEW 4" SOLID CMU BACKING FOR NEW RECESSED HEATER. TOOTH BACK IN NEW CMU TO EXISTING, MAINTAIN (1) FIRE SEPARATION. FINISH AND PAINT TO MATCH EXISTING OFFICE WALL
43. REMOVE EXISTING METAL SHROUD AND EXISTING RECESSED HVAC EQUIPMENT IN EXISTING WALL. REF MECHANICAL/ELECTRIC FOR NEW UNIT IN EXISTING LOCATION. PATCH AND REPAIR EXISTING TILE AND MASONRY WALLS TO NEW LIKE CONDITION. PROVIDE 2" SHEET METAL TRIM WITH HEMMED EDGE , METAL COLOR TO MATCH ADJACENT WALL. TRIM MUST COVER ENTIRE PERIMETER. REF ELECTRIC FOR NEW UNIT SIZE. REF PHOTO H1/A105. TYP.



1 PARTIAL FIRST FLOOR PLAN
Scale 1/8"=1'-0"

PLAN LEGEND & SYMBOLS

- (2) HOUR FIRE WALL
- (1) HOUR FIRE SEPARATION
- INDICATES SMOKE PARTITION
- EXISTING WALLS AND CHASES
- INDICATES CONSTRUCTION NOTE
- section number / WALL SECTION / drawing number
- ROOM NAME / NUMBER
- INDICATES PHOTO DIRECTION

WALL PENETRATION NOTE:
REFERENCE FIRE-RATED PENETRATIONS CHART (UL DES # INFO) FOR INFILL AT RATED WALLS. A101. MAINTAIN ASSIGNED RATING WITH LIKE MATERIALS. TYP.

FIRE PROTECTION NOTE:
REFERENCE MECHANICAL FOR AREAS WHERE FIRE PROTECTION SYSTEM IS TO BE ALTERED AND/OR MODIFIED. TYP.

FLOOR REPAIR NOTE:
AREAS WITH EXISTING FLOOR TILE. THAT HAS BEEN DAMAGED FROM REMOVABLE OF EXISTING EQUIPMENT. REPLACE TILE TO MATCH EXISTING. FLASH PATCH EXISTING FLOOR FOR SMOOTH TRANSITION FROM NEW TO EXISTING. NEW TILE FOR REPLACEMENT MUST BE APPROVED BY ARCHITECT.

FINISH NOTE:
PAINT ALL AREAS LEFT EXPOSED BY DEMOLITION AND NEW CONSTRUCTION. PAINT SHALL MATCH EXISTING ADJACENT SURFACES. REF GENERAL ARCHITECTURAL SHEETS NOTES FOR ADDITIONAL FINISH INFORMATION.

CEILING NOTE:
ANY, AND ALL, CEILING REMOVAL WORK DONE IN ASSOCIATION WITH THIS PROJECT. WILL BE REASSEMBLED/PATCHED WITH LIKE MATERIALS OF EXISTING CEILING. THIS INCLUDES, BUT IS NOT LIMITED TO, PLASTER, GYP BOARD AND ACOUSTIC LAY-IN TILES AND GRID. PAINT TO MATCH IF REQUIRED.

GENERAL ARCHITECTURAL SHEET NOTES:

THESE NOTES ARE GENERAL NOTES. ALL CONDITIONS NEED TO BE VERIFIED IN FIELD

A. SEE SPECIFICATION FOR ADDITIONAL INFORMATION ON MATERIALS / MANUFACTURER / PERFORMANCE AND WARRANTY INFORMATION .

B. WITHIN THE EXISTING BUILDING, AT ALL AREAS OF NEW CONSTRUCTION ADJACENT TO EXISTING, NEW CONSTRUCTION SHALL BE FINISHED TO MATCH EXISTING ADJACENT CONSTRUCTION INCLUDING BRICK, TILE, PLASTER, PAINT, BASE, CEILING, ETC..

C. IN ALL SPACES WHERE EXISTING UNITS ARE REPLACED WITH NEW SMALLER UNITS, WHERE UNFINISHED FLOORS AND WALLS ARE EXPOSED, WILL BE FINISHED TO MATCH EXISTING. REF DETAILS FOR ADDITIONAL INFORMATION.

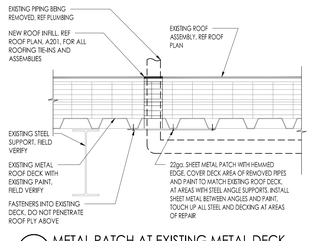
D. IN SPACES WITH EXISTING HORIZONTAL METAL SHROUDS TO REMAIN THAT ARE DAMAGED WITH LOOSE AND/OR SHARP CORNERS, WILL BE TIGHTENED UP WITH SHEET METAL SCREWS THAT MATCH EXISTING.

E. SPACES WITH VERTICAL PIPE SHROUDS THAT ARE NOT STAINLESS STEEL WILL BE PAINTED TO MATCH ADJACENT WALL. REF DETAIL 3/A103 AND MECHANICAL FOR ADDITIONAL INFORMATION.

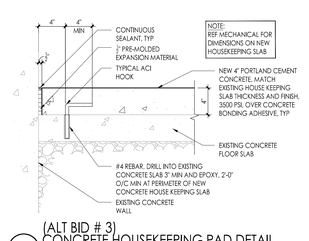
F. IN SPACES WHERE CEILING UNITS INSTALLED AND LEAVE EXPOSED SURFACES: GYP BOARD OR PLASTER. PATCH TO NEW LIKE CONDITION WITH LIKE MATERIAL AND PAINT TO MATCH EXISTING.

G. INFORMATIONAL PHOTOS ARE DISPLAYED ON ARCHITECTURAL SHEETS WITH ALPHABETICAL DESIGNATIONS.

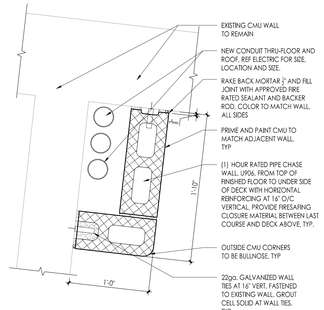
H. REF SHEET A103 FOR ADDITIONAL MASONRY, CONCRETE AND STEEL NOTES



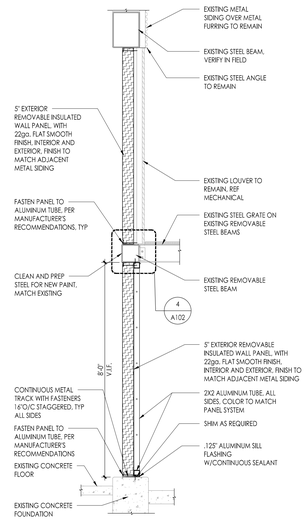
4 METAL PATCH AT EXISTING METAL DECK
1-1/2" = 1'-0"



(ALT BID # 3)
5 CONCRETE HOUSEKEEPING PAD DETAIL
1 1/2" = 1'-0"

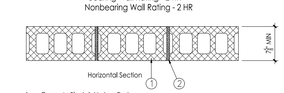


5 CMU PIPE CHASE (RATED)
1-1/2" = 1'-0"



6 REMOVABLE WALL SECTION
1" = 1'-0"

Design No. U905
Bearing Wall Rating - 2 HR
Nonbearing Wall Rating - 2 HR

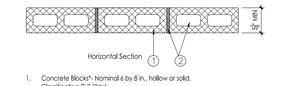


1. Concrete Blocks*- Various Designs. Classifications D-2 (2hr). See Concrete Blocks category for list of eligible manufacturers.
2. Mortar- Blocks laid in full bed of mortar, nom 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

*Bearing the UL Classification Marking

2 TYPICAL RATED CONSTRUCTION - 8" CONCRETE MASONRY UNITS
N.T.S.

Design No. U906
Bearing Wall Rating - 2 HR
Nonbearing Wall Rating - 2 HR



1. Concrete Blocks*- Nominal 6 by 8 in., hollow or solid. Classification D-2 (2 hr) Anchor Concrete Products, Inc. Empire Materials Co. Florida Rock Industries, Inc.
2. Mortar- Blocks laid in full bed of mortar, nom 3/8 in. thick, of not less than 2-1/4 and not more than 3 1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

*Bearing the UL Classification Marking

3 TYPICAL RATED CONSTRUCTION - 6" CONCRETE MASONRY UNITS
N.T.S.



KEY PLAN
NTS

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21A01705600 | PA - RA012509
JASON J. DUBOWITCH, AIA
NJ - 21A01719000 | PA - 144009
STEPHEN W. SCHREITER JR., AIA, LEED AP BD+C
NJ - 21A02001050 | PA - 154435
01/29/26
Date
Architect

FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C.
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
FVHDPC.COM

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
W.D.H.

Drawn By
BO

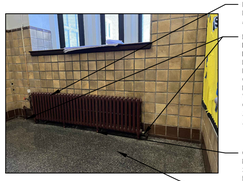
Scale
AS NOTED

Drawing Name
EXISTING PARTIAL FIRST FLOOR PLAN, NOTES, PHOTOS, AND DETAILS

Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
A104



EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR WITH DARK GRAY PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR. CEMENT COLOR TO BE APPROVED BY ARCHITECT

CLEAN/REPAIR AND NEWLY EXPOSED SURFACES FROM REMOVAL OF EXISTING EQUIPMENT, TYP

EXISTING TERRAZZO FLOOR TO REMAIN

A1 PHOTOGRAPH
STAIR 10 (2nd FLOOR)



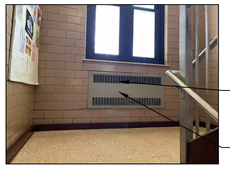
CLEAN/REPAIR NEWLY EXPOSED SURFACES FROM REMOVAL OF EXISTING EQUIPMENT, TYP

EXISTING EQUIPMENT TO BE REMOVED. REF MECHANICAL

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR WITH DARK GRAY PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR. CEMENT COLOR TO BE APPROVED BY ARCHITECT

EXISTING TERRAZZO FLOOR TO REMAIN

B1 PHOTOGRAPH
STAIR 12 (MID LANDING)

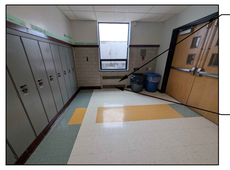


REMOVE EXISTING METAL SHROUD AND REPLACE WITH 22ga. METAL COVER WITH HEMMED EDGES, PAINT TO MATCH ADJACENT WALL

MECHANICAL EQUIPMENT WILL BE REMOVED, AS DESCRIBED IN MECHANICAL DRAWINGS

D1 PHOTOGRAPH
STAIR 11 (2nd FLOOR)

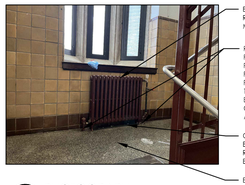
EXPOSED PIPE NOTE:
PAINT ALL NEW PIPES, AT ROOF DECK, EXPOSED TO VIEW FROM BELOW, TO MATCH EXISTING ROOF DECK IN THAT AREA



REMOVE EXISTING METAL SHROUD AND REPLACE WITH 22ga. METAL COVER WITH HEMMED EDGES, PAINT TO MATCH ADJACENT WALL. REF A-103 FOR "SIM" CONDITION

MECHANICAL EQUIPMENT WILL BE REMOVED, AS DESCRIBED IN MECHANICAL DRAWINGS

E1 PHOTOGRAPH
CORRIDOR 250 (2nd FLOOR)



EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR WITH DARK GRAY PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR. CEMENT COLOR TO BE APPROVED BY ARCHITECT

CLEAN/REPAIR NEWLY EXPOSED SURFACES FROM REMOVAL OF EXISTING EQUIPMENT, TYP

EXISTING TERRAZZO FLOOR TO REMAIN

F1 PHOTOGRAPH
STAIR 1 (2nd FLOOR)

GENERAL ARCHITECTURAL SHEET NOTES:

THESE NOTES ARE GENERAL NOTES. ALL CONDITIONS NEED TO BE VERIFIED IN FIELD

A. SEE SPECIFICATION FOR ADDITIONAL INFORMATION ON MATERIALS / MANUFACTURER / PERFORMANCE AND WARRANTY INFORMATION.

B. WITHIN THE EXISTING BUILDING, AT ALL AREAS OF NEW CONSTRUCTION ADJACENT TO EXISTING, NEW CONSTRUCTION SHALL BE FINISHED TO MATCH EXISTING ADJACENT CONSTRUCTION INCLUDING BRICK, TILE, PLASTER, PAINT, BASE, CIBLING, ETC.

C. IN ALL SPACES WHERE EXISTING UNITS ARE REPLACED WITH NEW SMALLER UNITS, WHERE UNFINISHED FLOORS AND WALLS ARE EXPOSED, WILL BE FINISHED TO MATCH EXISTING. REF DETAILS FOR ADDITIONAL INFORMATION.

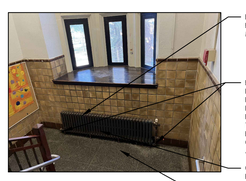
D. IN SPACES WITH EXISTING HORIZONTAL METAL SHROUDS TO REMAIN THAT ARE DAMAGED WITH LOOSE AND/OR SHARP CORNERS, WILL BE TIGHTENED UP WITH SHEET METAL SCREWS THAT MATCH EXISTING.

E. SPACES WITH VERTICAL PIPE SHROUDS THAT ARE NOT STAINLESS STEEL WILL BE PAINTED TO MATCH ADJACENT WALL. REF DETAIL 3/A103 AND MECHANICAL FOR ADDITIONAL INFORMATION.

F. IN SPACES WHERE CIBLING UNITS INSTALLED AND LEAVE EXPOSED SURFACES: GYP BOARD OR PLASTER, PATCH TO NEW LIKE CONDITION WITH LIKE MATERIAL AND PAINT TO MATCH EXISTING.

G. INFORMATIONAL PHOTOS ARE DISPLAYED ON ARCHITECTURAL SHEETS WITH ALPHABETICAL DESIGNATIONS.

H. REF SHEET A103 FOR ADDITIONAL MASONRY, CONCRETE AND STEEL NOTES



EXISTING EQUIPMENT TO BE REMOVED, REF MECHANICAL

REMOVE EXISTING PIPES IN FLOOR, AS DESCRIBED IN PLUMBING SHEETS. PATCH FLOOR WITH DARK GRAY PORTLAND CEMENT. SURFACE IS TO BE SMOOTH AND FLUSH WITH EXISTING FLOOR. CEMENT COLOR TO BE APPROVED BY ARCHITECT

CLEAN/REPAIR NEWLY EXPOSED SURFACES FROM REMOVAL OF EXISTING EQUIPMENT, TYP

EXISTING TERRAZZO FLOOR TO REMAIN

C1 PHOTOGRAPH
STAIR 11 (2nd FLOOR)



SAW CUT AND REMOVE EXISTING BRICK AND CMU FOR NEW THRU-WALL LOUVER. REF MECHANICAL AND 2/A105

EXISTING FASCIA TO REMAIN. REMOVE AND REINSTALL ONLY AS REQUIRED FOR NEW MASONRY INFILL

EXISTING ROOF LADDER TO REMAIN

REMOVE EXISTING FASTENERS. CUT EXISTING BRICK TO TOOTH NEW BRICK INTO EXISTING VENEER AND PREP OPENING FOR NEW MASONRY INFILL

EXISTING MECHANICAL EQUIPMENT. WALL MOUNTED. REF MECHANICAL

REMOVE EXISTING LOUVER IN ITS ENTIRETY. REF MECHANICAL FOR EQUIPMENT INSIDE TO BE REMOVED.

EXISTING METAL FLASHING TO REMAIN. V.I.F.

EXISTING ROOF ASSEMBLY TO REMAIN. REF ROOF WARRANTY INFORMATION SHEET A201

EXISTING ROOF DRAIN. REF GENERAL ROOF CONSTRUCTION NOTE "O" ON SHEET A201. TYP

G1 PHOTOGRAPH
EXTERIOR LOUVER (ROOF)

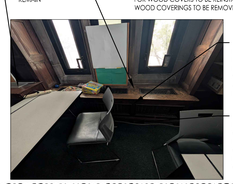


REPAIR EXISTING WALLS FROM DEMOLITION OF EXISTING UNIT AND INSTALLATION OF NEW HEATER.

REMOVE EXISTING SHROUD AND HEATING UNIT. REF MECHANICAL AND ELECTRIC

NEW 2" TRIM AT NEW UNIT. COORDINATE TRIM SIZE WITH EXISTING OPENING AND NEW UNIT SIZE. MATCH COLOR OF EXISTING

H1 PHOTOGRAPH
TOILET 160A



WOOD COVER AND EQUIPMENT TO REMAIN

CAREFULLY REMOVE EXISTING WOOD COUNTER COVER AND STORE FOR REINSTALLATION. REF PLAN FOR WOOD COVERS TO BE REINSTALLED AND WOOD COVERINGS TO BE REMOVED

REMOVE EXISTING RADIATOR AND EQUIPMENT, AS DISCRIBED IN MAECHANICAL AND PLUMBING DRAWINGS

REPAIR EXISTING FLOOR FINISHES WITH LIKE MATERIAL, FROM DEMOLITION WORK AND OR REINSTALLATION OF WOOD COVERING

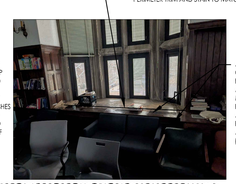
J1 PHOTOGRAPH
EX WOOD COVER (CON. ROOM)



REMOVE EXISTING WOOD COUNTER COVER FOR REMOVAL OF EXISTING RADIATOR AND PLUMBING, AS DISCRIBED IN MECHANICAL AND PLUMBING DRAWINGS. PREP AREA FOR NEW FINISHES

AFTER REMOVAL OF COVER, CLEAN, PREP AND PAINT EXPOSED WALL TO MATCH EXISTING ADJACENT WALL. PROVIDE FINISHES TO NEWLY EXPOSED FLOOR SURFACES TO MATCH EXISTING. REF 3/A105 (APPROVED BY ARCHITECT)

K1 PHOTOGRAPH
EX WOOD COVER (CON. ROOM)



CUT AND REMOVE EXISTING WOOD COUNTER COVER, AS SHOWN. ADD WOOD PANEL WITH PERIMETER TRIM AND STAIN TO MATCH EXISTING.

AFTER REMOVAL OF COVER AND EXISTING RADIATOR AND PLUMBING, AS DISCRIBED IN MECHANICAL AND PLUMNG. CLEAN AND PREP AREA FOR NEW INFILL FINISH. PROVIDE BLOCKING AS REQUIRED. REF 4/A105 (APPROVED BY ARCHITECT)

L1 PHOTOGRAPH
EX WOOD COVER (CON. ROOM)

CEILING NOTE:
ANY, AND ALL, CEILING REMOVAL WORK DONE IN ASSOCIATION WITH THIS PROJECT. WILL BE REASSEMBLED/PATCHED WITH LIKE MATERIALS OF EXISTING CEILING. THIS INCLUDES, BUT IS NOT LIMITED TO, PLASTER, GYP BOARD AND ACOUSTIC LAY-IN TILES AND GRID. PAINT TO MATCH IF REQUIRED.

FINISH NOTE:
PAINT ALL AREAS LEFT EXPOSED BY DEMOLITION AND NEW CONSTRUCTION. PAINT SHALL MATCH EXISTING ADJACENT SURFACES. REF GENERAL ARCHITECTURAL SHEET NOTES FOR ADDITIONAL FINISH INFORMATION.

1 PARTIAL SECOND FLOOR PLAN
Scale 1/8"=1'-0"

UPPER TOWER FLOOR

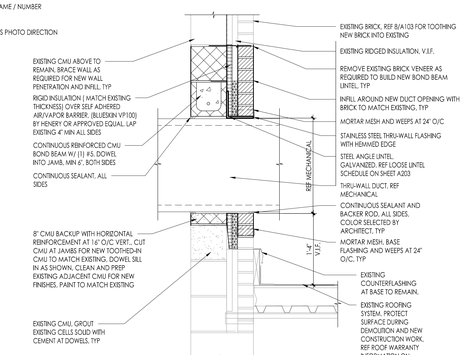
FLOOR REPAIR NOTE:
AREAS WITH EXISTING FLOOR TILE, THAT HAS BEEN DAMAGED FROM REMOVABLE OF EXISTING EQUIPMENT. REPLACE TILE TO MATCH EXISTING. FLASH PATCH EXISTING FLOOR FOR SMOOTH TRANSITION FROM NEW TO EXISTING. NEW TILE FOR REPLACEMENT MUST BE APPROVED BY ARCHITECT.

PLAN LEGEND & SYMBOLS

- (2) HOUR FIRE WALL
- (1) HOUR FIRE SEPARATION
- INDICATES SMOKE PARTITION
- EXISTING WALLS AND CHASES
- X — INDICATES CONSTRUCTION NOTE
- XX / AXXX — section number / WALL SECTION / drawing number
- XXXX / 000 — ROOM NAME / NUMBER
- X — INDICATES PHOTO DIRECTION

WALL PENETRATION NOTE:
REFERENCE FIRE-RATED PENETRATIONS CHART (UL DES # INFO) FOR INFILL AT RATED WALLS, A101. MAINTAIN ASSIGNED RATING WITH LIKE MATERIALS. TYP.

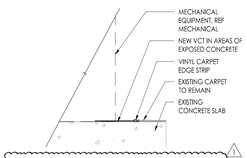
FIRE PROTECTION NOTE:
REFERENCE MECHANICAL FOR AREAS WHERE FIRE PROTECTION SYSTEM IS TO BE ALTERED AND/OR MODIFIED. TYP.



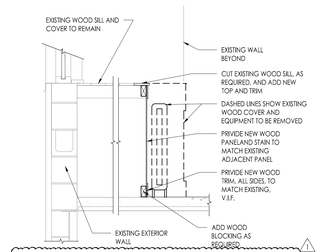
2 TRU-WALL DUCT INFILL/FLASHING
1" = 1'-0"

CONSTRUCTION KEYNOTES

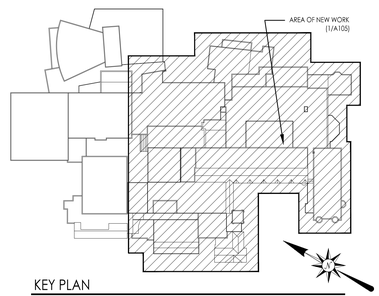
1. REMOVE AND STORE EXISTING ACOUSTICAL CEILING TILES AND SUSPENSION GRID TO ACCOMMODATE DEMOLITION AND HVAC NEW WORK. FOLLOWING COMPLETION OF WORK, REINSTALL ALL EXISTING PANELS AND GRID TO PREVIOUS LOCATIONS, UNLESS SUPERCEDED BY REFLECTED CIBLING PLAN OR MECHANICAL/ELECTRICAL DRAWINGS. REPLACE ALL DAMAGED, OR DETERIORATED CIBLING TILES AND SUSPENSION GRID, WITH NEW MATERIAL TO MATCH EXISTING IN AREA DESCRIBED. REFERENCE MECHANICAL/ELECTRIC DRAWINGS.
2. PATCH AND REPAIR EXISTING WALL AT AREA OF REMOVED WALL MOUNTED THERMOSTAT. PATCH WALLS AND PAINT TO MATCH ADJACENT AT AREAS OF REMOVED WALL MOUNTED CONDUIT. TYP
3. MECHANICAL EQUIPMENT MOUNTED BELOW ROOF DECK ABOVE CEILING. REF MECHANICAL FOR ITEMS TO BE REMOVED AND REPLACED.
4. EXISTING CEILING MOUNTED EQUIPMENT TO BE REMOVED. REF MECHANICAL, TYP.
5. IN LOCATIONS WHERE NEW DUCT IS THRU EXISTING OPENINGS, FIELD VERIFY EXISTING OPENING AND MAKE REQUIRED MODIFICATIONS TO EXISTING WALL: THIS MAY REQUIRE ENLARGING OPENING AND/OR PATCHING EXISTING WALLS WITH LIKE MATERIAL WHERE DUCT IS SMALLER THEN EXISTING OPENING. TYP
6. NEW HVAC UNIT INSTALLED IN CEILING. REMOVE AND MODIFY EXISTING CEILING GRID AND TILE TO ACCEPT NEW UNIT. REPLACE CEILING TILE OR GRID DAMAGED FROM REMOVAL AND INSTALLATION OF UNIT AND ASSOCIATED EQUIPMENT. TYP
7. INDICATES NEW DUCT INSTALLED HIGH WITH HANGERS AND SUPPORTS. REF MECHANICAL . TYP.
8. NEW METAL SIDING OVER METAL STUD FURRING, MATCH EXISTING SIDING. REF 7/A101 . TYP.
9. REMOVE AND REPLACE EXISTING CEILING IN THIS AREA. TEMPORARILY REMOVE ALL CEILING EQUIPMENT AND REINSTALL INTO NEW CEILING. THIS INCLUDES EXISTING LIGHTING. REF MECHANICAL FOR FIRE PROTECTION SYSTEM RELOCATION. PATCH AND REPAIR EXISTING ADJACENT WALL AFTER CEILING IS INSTALLED. REF 2/A103 FOR CEILING EDGE AND SEISMIC BRACING WITH HANGER DETAIL, TYP.
10. DASHED LINE INDICATES EXISTING STEEL BEAM
11. CLEAN AND PATCH WALL PENETRATION FROM REMOVED PIPES AND CONDUIT. PATCH BOTH SIDES OF WALL WITH LIKE MATERIAL AND PAINT TO MATCH ADJACENT WALL.
12. EXISTING LOUVER TO REMAIN. LOUVER WILL BE CLEANED AND EXISTING BIRD SCREEN REPLACED. REF MECHANICAL. PROVIDE NEW PERIMETER SEALANT AT EXTERIOR JOINT. AS REQUIRED.
13. EXISTING SURFACE MOUNTED LIGHTING TO BE RELOCATED. REF ELECTRIC FOR ADDITIONAL INFORMATION
14. EXISTING EXTERIOR LOUVER TO REMAIN. REF MECHANICAL
15. EXTEND EXISTING CONCRETE HOUSEKEEPING PADS TO ASSOCIATED NEW MECHANICAL EQUIPMENT. REF MECHANICAL FOR EXACT SIZE. REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION. PAINT TO MACH EXISTING WITH SAFETY YELLOW EDGE BAND, TYP
16. METAL FLUE PIPE FASTENED TO EXISTING BUILDING. REF MECHANICAL AND 8/A101
17. EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN. PATCH AND REPAIR AS REQUIRED FOR NEW EQUIPMENT. TYP
18. HARD LID, GYP BOARD, CEILING. REF MECHANICAL FOR FULL EXTENT OF DEMOLITION AND NEW CONSTRUCTION. REMOVE ONLY AS NEEDED FOR NEW WORK. PATCH AND REPAIR WITH LIKE MATERIAL AND PAINT CEILING TO MATCH EXISTING.
19. EXISTING PIPES TO BE REMOVED AND NEW PIPES THRU-FLOOR TO BE INSTALLED. REPLACE EXISTING CEILING DAMAGED FROM WORK ABOVE CEILING WITH NEW CEILING TILE TO MATCH AT LOCATIONS OF EXISTING PIPES BEING REMOVED OR NEW PIPES BEING INSTALLED. REF MECHANICAL AND PLUMBING. PATCH EXISTING FLOORS. AS REQUIRE. WITH PORTLAND CEMENT AND SMOOTH FINISH.
20. INDICATES CEILING LIGHTING. REF ELECTRIC FOR RELOCATED LIGHT AND/OR NEW IN THIS AREA
21. REMOVE EXISTING EQUIPMENT, AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR RATED WALLS PER FIRE-RATED PENETRATIONS CHART, A101. WALLS WITH PAINT WILL RECEIVE PAINT TO MATCH EXISTING FINISHES AT PATCHED AND REPAIRED AREAS.
22. INDICATES EXISTING PIPES TO BE REMOVED THROUGH WALLS AND FLOOR. REF MECHANICAL AND PLUMBING. PATCH AND REPAIR ALL EXISTING UNUSED PENETRATIONS WITH LIKE MATERIAL. CONCRETE FLOORS WILL PATCHED WITH CONCRETE AND FINISHED TO MATCH ADJACENT FLOOR. I LOCATIONS WITH TILE OR CARPET TILE. MATCH EXISTING
23. FINISH EXPOSED UNFINISHED SURFACES TO MATCH EXISTING. REPLACE DAMAGED FLOOR TILE FROM REMOVAL OR INSTALLATION WITH LIKE MATERIAL. TYP.
24. REMOVE EXISTING HVAC EQUIPMENT IN EXISTING WALL. REF MECHANICAL. REMOVE EXISTING HVAC COVER AND REPLACE WITH NEW SHEET METAL COVER WITH HEMMED EDGES. REF 4/A103 FOR SHEET METAL COVER. METAL COLOR TO MATCH ADJACENT WALL. TYP.
25. EXISTING CONCRETE HOUSE KEEPING PAD AND ASSOCIATED STEEL TIES TO BE REMOVED. GRID EXISTING FLOOR SURFACE SMOOTH AND PREP FOR PAINT. GRIND ANY EXISTING STEEL REBAR TIES TO 1" BELOW FINISHED FLOOR ELEVATION AND PATCH SMOOTH WITH FLOOR PATCH. PAINT TO MATCH ADJACENT FLOOR.
26. REMOVE EXISTING MECHANICAL/BOILER ROOM EQUIPMENT. AS DESCRIBED IN MECHANICAL AND PLUMBING SHEETS. PATCH AND REPAIR ALL EXISTING MASONRY WALLS AND CEILINGS FROM EQUIPMENT REMOVAL. PATCH AND REPAIR EXISTING CONCRETE HOUSE KEEPING PADS TO REMAIN AND PAINT. TYP REF MECHANICAL
27. INDICATES EXISTING DUCT TO BE REMOVED. REF MECHANICAL
28. REMOVE EXISTING LOUVER. PREP OPENING FOR NEW MASONRY INFILL AND METAL SIDING. REF 5/A103 AND REF MECHANICAL FOR ADDITIONAL INFORMATION
29. EXISTING DUCT TO REMAIN AND BE CAPPED. REF MECHANICAL
30. METAL VENT PIPE THRU MASONRY WALL AND METAL SIDING.REF MECHANICAL FOR SIZE AND LOCATION. REF 5/A104 FOR THRU-WALL DETAIL. (**ALT BID # 3**)
31. INFILL EXISTING OPENING WITH CMU, DOWEL AND TOOTH BACK AND PAINT. REF 6/A103
32. THROUGH WALL FLUE WITH INTERIOR AND EXTERIOR COVER PLATES, STEEL SUPPORTS AND KICKERS PAINTED. REF 3/A101
33. EXISTING REMOVABLE STEEL COLUMN TO REMAIN
34. MECHANICAL LOUVER TO BE REMOVED AND NEW REMOVABLE INSULATED WALL PANEL SYSTEM INSTALLED. REF 2/A102
35. REF MECHANICAL AND PLUMBING FOR ITEMS BEING REMOVED AND REPLACED. AT EXISTING DECK AND TROUGH EXISTING ROOF DECK. IN THIS AREA. PATCH. AS REQUIRED. AND PAINT ALL EXPOSED DUCT AND PIPING TO MATCH EXISTING COLOR OF ROOF DECK. REF 4/A104 FOR DECK PATCH AND PAINT. TYP
36. REF MECHANICAL FOR EXISTING EQUIPMENT TO BE REMOVED IN THIS AREA. REPLACE EXISTING MECHANICAL SHROUD WITH NEW SOLID 22GA. METAL SHROUD. PAINT TO MATCH ADJACENT WALLS. REF 4/A103 FOR "SIM" CONDITION
37. REMOVE EXISTING EXPANDED METAL COVER AND REPLACE WITH 22ga. METAL COVER TO FIT INTO EXISTING TRIM TO REMAIN. PAINT TO MATCH EXISTING TRIM
38. INDICATES NEW MECHANICAL EQUIPMENT INSTALLED. REF MECHANICAL. ELECTRIC. AND PLUMBING FOR EXTENT OF NEW CONSTRUCTION
39. NEW CONCRETE HOUSEKEEPING PAD. REF MECHANICAL FOR EXACT SIZE AND LOCATION. REF DETAIL 10/A101 FOR CONCRETE TIE-IN AND ADDITIONAL INFORMATION. PAINT TO MACH EXISTING WITH SAFETY YELLOW EDGE BAND, TYP
40. (1) HOUR RATED CMU PIPE CHASE FROM FLOOR TO DECK ABOVE. PROVIDE FIRESAFING CLOSURE MATERIAL BETWEEN LAST COURSE AND DECK. REF 5/A104
41. REMOVE EXISTING WOOD COVER AT EXISTING RADIATOR TO BE REMOVED. REMOVE AS REQUIRED AND PATCH ALL ADJACENT SURFACES TO NEW LIKE CONDITION. THIS INCLUDES, BUT IS NOT LIMITED TO: ADJACENT WOOD COUNTER AND SHELVES, ADJACENT WALLS, AND NEWLY EXPOSED FLOOR SURFACES. (FLOOR FINISHES WILL MATCH EXISTING AND BE APPROVED BY ARCHITECT-VERIFY IN FIELD)
42. CAREFULLY REMOVE EXISTING WOOD COVER AT EXISTING RADIATOR TO BE REMOVED AND STORE SAFELY FOR REINSTALLATION. AT LOCATION WHERE NO NEW EQUIPMENT WILL BE INSTALLED AFTER REMOVAL OF EXISTING RADIATOR. REINSTALL REMOVED WOOD COVER IN EXISTING LOCATION. PATCH ALL ADJACENT SURFACES TO MATCH EXISTING. (COORDINATE REINSTALLATION WITH OWNER)



3 FLOOR TRANSITION STRIP
1" = 1'-0"



4 WOOD INFILL AT REMOVED EQUIPMENT
3/4" = 1'-0"



KEY PLAN
NTS

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI01706000 | PA - RA012209
JASON J. DUBOWITCH, AIA
NJ - 21AI079900 | PA - RA406209
STEPHEN W. SCHREITER JR., AIA, LEED AP BD+C
NJ - 21AI020100 | PA - RA410563
Date 01/29/26
Architect

FVHDPC.COM

FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
W.D.H.

Drawn By
BO

Scale
AS NOTED

Drawing Name
EXISTING PARTIAL SECOND FLOOR PLAN, NOTES, PHOTOS, AND DETAILS

Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
A105

STAGING NOTES:

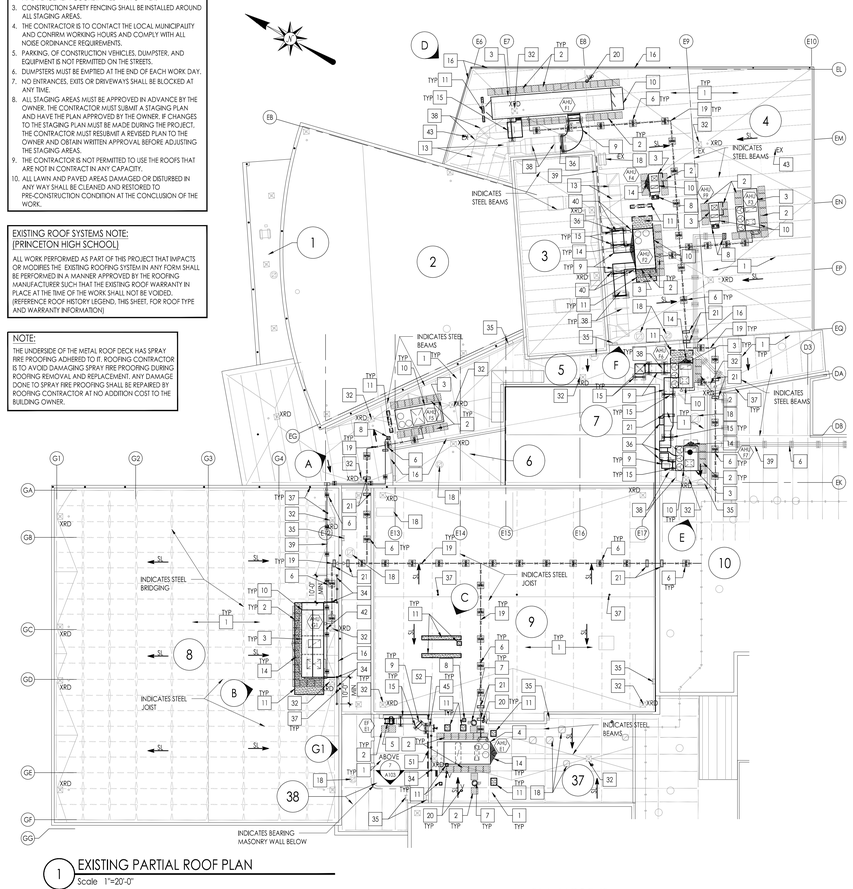
1. NO STAGING IS PERMITTED ON THE SIDEWALKS.
2. TEMPORARY TOILETS SHALL BE PROVIDED BY THE CONTRACTOR AND PLACEMENT COORDINATED WITH OWNER.
3. CONSTRUCTION SAFETY FENCING SHALL BE INSTALLED AROUND ALL STAGING AREAS.
4. THE CONTRACTOR IS TO CONTACT THE LOCAL MUNICIPALITY AND CONFIRM WORKING HOURS AND COMPLY WITH ALL NOISE ORDINANCE REQUIREMENTS.
5. PARKING, OF CONSTRUCTION VEHICLES, DUMPSTER, AND EQUIPMENT IS NOT PERMITTED ON THE STREETS.
6. DUMPSTERS MUST BE EMPTIED AT THE END OF EACH WORK DAY.
7. NO ENTRANCES, EXITS OR DRIVEWAYS SHALL BE BLOCKED AT ANY TIME.
8. ALL STAGING AREAS MUST BE APPROVED IN ADVANCE BY THE OWNER. THE CONTRACTOR MUST SUBMIT A STAGING PLAN AND HAVE THE PLAN APPROVED BY THE OWNER. IF CHANGES TO THE STAGING PLAN MUST BE MADE DURING THE PROJECT, THE CONTRACTOR MUST RESUBMIT A REVISED PLAN TO THE OWNER AND OBTAIN WRITTEN APPROVAL BEFORE ADJUSTING THE STAGING AREAS.
9. THE CONTRACTOR IS NOT PERMITTED TO USE THE ROOFS THAT ARE NOT IN CONTRACT IN ANY CAPACITY.
10. ALL LAWN AND PAVED AREAS DAMAGED OR DISTURBED IN ANY WAY SHALL BE CLEANED AND RESTORED TO PRE-CONSTRUCTION CONDITION AT THE CONCLUSION OF THE WORK.

EXISTING ROOF SYSTEMS NOTE: (PRINCETON HIGH SCHOOL)

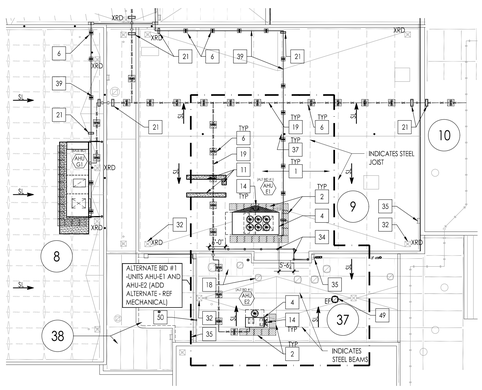
ALL WORK PERFORMED AS PART OF THIS PROJECT THAT IMPACTS OR MODIFIES THE EXISTING ROOFING SYSTEM IN ANY FORM SHALL BE PERFORMED IN A MANNER APPROVED BY THE ROOFING MANUFACTURER SUCH THAT THE EXISTING ROOF WARRANTY IN PLACE AT THE TIME OF THE WORK SHALL NOT BE VOIDED. (REFERENCE ROOF HISTORY LEGEND, THIS SHEET, FOR ROOF TYPE AND WARRANTY INFORMATION)

NOTE:

THE UNDERSIDE OF THE METAL ROOF DECK HAS SPRAY FIRE PROOFING ADHERED TO IT. ROOFING CONTRACTOR IS TO AVOID DAMAGING SPRAY FIRE PROOFING DURING ROOFING REMOVAL AND REPLACEMENT. ANY DAMAGE DONE TO SPRAY FIRE PROOFING SHALL BE REPAIRED BY ROOFING CONTRACTOR AT NO ADDITION COST TO THE BUILDING OWNER.



1 EXISTING PARTIAL ROOF PLAN
Scale 1"=20'-0"



3 EXISTING PARTIAL ROOF PLAN (ALT BID #1)
Scale 1"=20'-0"

GENERAL ROOF DEMOLITION NOTES:

A. THE ROOFING CONTRACTOR SHALL VERIFY THE EXACT LOCATION, DIMENSION, CONDITION AND QUANTITY OF ALL ROOFTOP EQUIPMENT AND APPURTENANCES WHICH INCLUDES, BUT ARE NOT LIMITED TO: EXHAUST FANS, VENT PIPES, DRAINS, HATCHES, FLUE PIPES, HOT STACKS, HVAC EQUIPMENT, CURBS, BASE FLASHING AND OTHER PENETRATIONS AND WORK ASSOCIATED WITH THIS ROOFING PORTION OF THE PROJECT.

B. THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DEMOLITION CAREFULLY CAUSING NO DAMAGE TO EXISTING CONSTRUCTION TO REMAIN. ANY DAMAGES MUST BE REPAIRED AND OR REPLACED BY THE ROOFING CONTRACTOR TO THE OWNER'S AND ARCHITECTS SATISFACTION AND AT NO ADDITIONAL COST TO THE CONTRACT PRICE. PRIOR TO THE COMMENCEMENT OF WORK, THE ROOFING CONTRACTOR IS RESPONSIBLE TO INSPECT AND PHOTOGRAPH EXISTING CONDITIONS WHICH COULD BE MISCONSTRUED AS DAMAGE RESULTING FROM DEMOLITION AND INSTALLATION WORK.

C. FOR PURPOSES OF THIS PROJECT, REMOVE SHALL MEAN REMOVE AND DISPOSE OF SAME OFF SITE IN AN APPROVED AND LEGAL MANNER, REF MECHANICAL, ELECTRIC, AND PLUMBING FOR ITEMS BEING REMOVED ON THE ROOF.

D. DETAILS REFERENCED IN THE PHOTOGRAPHS AND ON THESE DRAWINGS ARE TYPICAL. PHOTOGRAPHS ARE INTENDED TO SHOW TYPICAL EXISTING CONDITIONS AND ARE NOT INTENDED TO LIMIT SCOPE. THE ROOFING CONTRACTOR SHALL VERIFY THE TOTAL NUMBER AND EXACT LOCATION OF CONDITIONS IN THE FIELD AND PERFORM WORK IN ACCORDANCE WITH THE DETAILS REFERENCED AND/OR THOSE WHICH ARE SIMILAR.

E. THE ROOFING CONTRACTOR SHALL COORDINATE ALL DUMPSTER STAGING AND TRUCK ROUTES WITH THE OWNER. THE ROOFING CONTRACTOR SHALL PROTECT ALL EXISTING PAVED AND PLANTED AREAS. THE ROOFING CONTRACTOR SHALL REPAIR ANY PAVED OR PLANTED AREAS TO THE SATISFACTION OF THE OWNER. THE REPAIRS ARE TO INCLUDE, BUT ARE NOT LIMITED TO, RE-PAVING OF ASPHALT DRIVEWAYS AND PARKING LOTS. RE-GRADING AND SEEDING OF LAWN AND PLAYGROUND AREAS. (REF X/A203 FOR LAWN REPAIR DETAIL) AND REPLACING DAMAGED PLANTS, SHRUBS, ETC. ALL REPAIRS AND RESTORATIONS SHALL BE DONE AT NO ADDITIONAL COST TO THE CONTRACT PRICE.

F. THE BUILDING IS OCCUPIED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND FOR THE SAFETY OF ALL PERSONS AT THE PROJECT SITE.

G. LIGHTNING PROTECTION SYSTEMS: EXISTING LIGHTNING PROTECTION THAT IS REMOVED, OR RELOCATED, FOR NEW WORK, WILL BE STORED SAFELY AND REINSTALLED TO NEW EQUIPMENT IN EXISTING LOCATIONS. CONTRACTOR IS RESPONSIBLE BUT NOT LIMITED TO PROVIDE AND INSTALL MATERIALS, REPLACE ALL MISSING, DEFECTIVE PARTS AND CONDUCTOR LINES PER CODE COMPLIANT TO ASCERTAIN A U.L. MASTER LABEL CERTIFICATE UPON COMPLETION OF RE-INSTALLATION. CONTRACTOR SHALL RECONNECT LIGHTNING PROTECTION SYSTEM TO ALL EQUIPMENT AND APPURTENANCES REPLACING UNITS WHICH ARE CURRENTLY CONNECTED. REF 4/A203 AND 6/A203 FOR TYPICAL DETAILS.

GENERAL ROOF CONSTRUCTION NOTES:

A. PROVIDE ROOFING MATERIALS THAT COMPLY WITH A CLASS "A" SYSTEM.

B. NEW IMPOSED DEAD LOAD IS EQUAL TO OR LESS THAN EXISTING DEAD LOAD.

C. FRT WOOD BLOCKING SHOWN ON DRAWINGS IS DIAGRAMMATIC. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING CONSTRUCTION IN THICKNESS AND HEIGHT TO MATCH THICKNESS OF ROOF ASSEMBLY AND TO MAINTAIN A CONSTANT ROOF EDGE ELEVATION IN A HORIZONTAL PLANE UNLESS NOTED OTHERWISE.

D. THE ROOFING CONTRACTOR IS RESPONSIBLE FOR FLASHING ALL ROOF TOP PENETRATIONS, UNITS, AND CURBS ON THE ROOFS TO A WATERTIGHT CONDITION TO BE INCLUDED IN THE MANUFACTURER'S WARRANTY. REVIEW ALL DRAWINGS INCLUDED IN THIS SET FOR ROOFTOP PENETRATIONS. ALL ROOF TOP PENETRATIONS, UNITS, AND CURBS SHALL BE RAISED A MINIMUM OF 8" ABOVE THE NEW ROOF SYSTEM.

E. ALL CRICKETS/ GUSSETS/ SADDLES SHALL HAVE A 3:5 RATIO, WHERE THIS CONDITION CANNOT BE ACHIEVED DUE TO VALLEY LINE OF CRICKET INTERSECTING MECHANICAL EQUIPMENT, PENETRATION AND A HIGH POINT GREATER THAN THE THRU-WALL COUNTERFLASHING, PROVIDE MAXIMUM CRICKET WIDTH TO PROMOTE POSITIVE DRAINAGE TO ALL ROOF DRAINS.

F. UNLESS NOTED OTHERWISE ALL ROOFING, ACCESSORIES, MATERIALS, ETC., SHALL BE CONSIDERED NEW.

G. CONTRACTOR SHALL MAKE NECESSARY TIE-INS AND ALTERATIONS TO EXISTING ROOF IN ACCORDANCE WITH ORIGINAL ROOF MANUFACTURERS REQUIREMENTS, SO AS TO MAINTAIN ORIGINAL WARRANTY ON EXISTING ROOF.

H. CONTRACTOR SHALL AT ALL TIMES HAVE A FULL SET OF DRAWINGS AND SPECIFICATIONS ON ROOF TOP WHILE WORK IS IN PROGRESS.

I. CONTRACTOR IS RESPONSIBLE TO RECTIFY ANY PONDING WATER ON FINISHED ROOF SURFACE THAT REMAINS AFTER 48 HOURS AT NO ADDITIONAL COST.

J. SCRAPE, PRIME AND PAINT ALL GAS LINES YELLOW ON ALL ROOFS IN CONTRACT.

K. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE A SUFFICIENT WORK FORCE TO MEET COMPLETION DATES AS OUTLINED IN THE SPECIFICATIONS. NO EXCEPTIONS WILL BE ALLOWED.

L. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND ALL REQUIRED SAFETY PROTECTION DURING CONSTRUCTION.

M. DETAILS NOTED TYPICAL 'TYP' IMPLY ALL SUCH CONDITIONS BE TREATED SIMILARLY.

N. EXG ROOFS ARE UNDER WARRANTY, INSTALLATION OF ROOFTOP EQUIPMENT IN THESE AREAS SHALL BE DONE IN ACCORDANCE WITH THE ROOFING MANUFACTURES REQUIREMENTS TO MAINTAIN SAID WARRANTY, TYPICAL.

O. EXISTING DRAIN LINES FROM EXISTING ROOFS WHERE NEW WORK IS BEING PREFORMED SHALL BE ELECTRICALLY CLEANED TO INVERT OF HOUSE STORM SEWER USING POWER ROOTER (ROTO-ROOTER®). CONTRACTOR SHALL PROVIDE CERTIFICATION TO ARCHITECT AT COMPLETION OF PROJECT THAT THIS WORK HAS BEEN PERFORMED.

H. INFILL ALL AREAS, SHOWN IN CALL OUT OR NOT, OF ROOF WHERE EXISTING PIPE THRU-ROOF HAS BEEN ABANDONED AND REMOVED WITH LIKE MATERIALS. REF 12/A201 FOR ROOF INFILL. REF ROOF WARRANTY LEGEND FOR ROOF TYPE AND WARRANTY INFORMATION.

ROOF KEYNOTES

1. EXG ROOFS TO REMAIN ARE UNDER WARRANTY. INSTALLATION OF ROOFTOP EQUIPMENT IN THESE AREAS SHALL BE DONE IN ACCORDANCE WITH THE ROOFING MANUFACTURES REQUIREMENTS TO MAINTAIN SAID WARRANTY. TYPICAL. (REF ROOF WARRANTY LEGEND SHEET A201) REFERENCE MECHANICAL, PLUMBING, AND ELECTRICAL FOR ITEMS BEING REMOVED AND NEW ITEM INSTALLATIONS IN THESE AREAS
2. WALKWAY PADS - INSTALL AROUND ALL NEW ROOFTOP UNITS. ROOFTOP EQUIPMENT. MODIFY WALKWAY PADS AS REQUIRED SO THAT THE PAD MUST NOT IMPEDE THE FREE FLOW OF WATER TO THE DRAINAGE POINTS. REF ROOF TYPE WARRANTY INFORMATION THIS SHEET. REF 15/A203 FOR WALK PAD DETAILS AND NOTES. (REF ROOF WARRANTY LEGEND FOR ROOF TYPE)
3. NEW UNIT ON NEW CURB IN EXISTING LOCATION. FIELD VERIFY THAT NEW UNIT SETS ON EXISTING CURB STEEL. REMOVE EXISTING STEEL THAT IS UN-USED BY NEW UNIT. AND ADD NEW STEEL SUPPORT AND NEW ROOF DECK IN LOCATIONS WHERE NEW CURB IS NOT SUPPORTED BY EXISTING STEEL. REF 4/A201 FOR CURB REINFORCEMENT AND 6/A201 FOR JOIST REINFORCEMENT IN LOCATIONS WHERE ROOFTOP UNIT WARRANTY REQUIRES ROOF REPLACEMENT. REF 9/A203 FOR FLASHING AND TRIM DETAILS. ANY NEW STEEL SUPPORTS ADDED AND EXPOSED TO VIEW FROM BELOW WILL BE PAINTED TO MATCH THE EXISTING ROOF DECK IN THAT AREA. TYP.
4. INSTALL UNIT ON NEW CURB. REF MECHANICAL AND ROOF TYPE WARRANTIES INFORMATION. REF 4/A201 FOR UNIT STEEL REINFORCEMENT. REF 1/A203 AND 2/A203 FOR FLASHING DETAILS. REMOVE THE REQUIRED EXISTING ROOFING MATERIAL FOR NEW CURB AND DUCT PENETRATION. REF GENERAL ROOF DEMOLITION NOTES, AND GENERAL ROOF CONSTRUCTION NOTES THIS SHEET.
5. NEW UNIT ON NEW EQUIPMENT RAIL. REF MECHANICAL AND ROOF TYPE WARRANTY INFORMATION THIS SHEET. REF 8/A203 FOR EQUIPMENT RAIL FLASHING. REMOVE EXISTING ROOFING MATERIAL AS REQUIRED. FOR INSTALLATION OF NEW EQUIPMENT RAILS. REF GENERAL ROOF DEMOLITION NOTES AND GENERAL ROOF CONSTRUCTION NOTES ON SHEET A201.
6. NEW PIPE SUPPORT ON WARE PAD. REF 13/A203. REF PLUMBING, ELECTRIC, AND MECHANICAL SHEETS. REF ROOF WARRANTY LEGEND FOR ROOF TYPE AND WARE PAD COMPATIBILITY ON THIS SHEET.
7. EXISTING EXHAUST FAN RE-LOCATED ON NEW CURB OVER NEW STEEL REINFORCING. REF MECHANICAL FOR CURB AND EQUIPMENT INFORMATION. REF A201 FOR ROOF WARRANTY INFORMATION. AND 9/A203 FOR FLASHING DETAILS.
8. NEW PIPE CURB. REF MECHANICAL AND ELECTRIC FOR CURB INFO. REF A201 FOR ROOF WARRANTY INFORMATION. AND FLASHING DETAIL 7/A203.
9. NEW EXPOSED ROOFTOP DUCT WORK. REF MECHANICAL.
10. CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING STEEL ANGLE SUPPORTS. INSTALLATION OF NEW STEEL ANGLE SUPPORTS AND ROOF INFILL WITH NEW MECHANICAL AND ENERG CONDITIONS IN FIELD. REF TO 10/A203 FOR NEW CURB DETAILS AND 4/A201 FOR STEEL SUPPORTS. REFER TO MECHANICAL DRAWINGS CURB AND UNIT TYPE. NEW STEEL SUPPORTS EXPOSED TO VIEW WILL BE PAINTED TO MATCH THE EXISTING ROOF DECK IN THAT AREA.TYP
11. ROOF INFILL AT REMOVED EQUIPMENT. REF A201 FOR ROOF TYPE AND WARRANTY INFORMATION. INFILL PER MANUFACTURER'S RECOMMENDATIONS. REF 12/A201 ROOF AND DECK INFILL DETAIL. REF GENERAL ROOF CONSTRUCTION NOTE "H" FOR ADDITIONAL INFILL INFORMATION.
12. CONCRETE SPLASH BLOCK ON WARE PAD. REF MECHANICAL FOR SPLASH BLOCK INFORMATION. REF 14/A203 AND ROOF A201 FOR ROOF TYPE AND ROOF WARRANT INFORMATION.
13. EXISTING SURFACE MOUNTED DUCT ON EXISTING STANDS. REF MECHANICAL FOR NEW DUCT TIE-INS TO EXISTING
14. PROVIDE CRICKET AT NEW RTU'S AT 2"/FT FOR POSITIVE DRAINAGE AT UNITS. REF ROOF WARRANTY INFORMATION THIS SHEET AND GENERAL ROOF CONSTRUCTION NOTES SHEET A201
15. SURFACE MOUNTED DUCT SUPPORT STAND ON WARE PAD. REF ROOF WARRANTY LEGEND. REF MECHANICAL AND REF 16/A203
16. EXISTING GUARDRAIL TO REMAIN
17. NEW CONDENSATE LINE ON PIPE SUPPORT WITH WARE PAD. REF4/A203
18. EXISTING ROOF TOP EQUIPMENT TO REMAIN. REF MECHANICAL. MAINTAIN EXISTING LIGHTNING PROTECTION SYSTEM AT ALL EXISTING LOCATIONS.
19. NEW GAS LINE ON PIPE SUPPORTS PAINTED. REF ROOF TYPE AND WARRANTY LEGEND. REF MECHANICAL AND PLUMBING SHEETS
20. NEW VENT PIPE PENETRATION. REF 11/A203 AND PLUMBING SHEETS
21. FIXED PIPE SUPPORT. REF 12/A203 FOR FLASHING DETAILS. REF MECHANICAL AND PLUMBING SHEETS FOR ADDITIONAL INFORMATION.
22. SUSPENSION WIRE STEEL SUPPORT AND FLASHING. REF 12/A202 FOR SUPPORT SYSTEM AND FLASHING AND REF MECHANICAL SHEETS
23. EXISTING STEEL BEAM FOR EXISTING DUNNAGE TO REMAIN. SCRAP, PRIME AND PAINT TO MATCH EXISTING. TYP. ALL EXISTING DUNNAGE STEEL TO REMAIN.
24. NEW RTU ON EXISTING DUNNAGE WITH NEW STEEL SUPPORT BEAMS. REFERENCE MECHANICAL SHEETS AND REF ENLARGED DUNNAGE PLANS SHEET A202
25. INDICATES NEW STEEL SUPPORT BEAMS. PAINTED. AT EXISTING DUNNAGE. REF SHEET A202 FOR ENLARGED DUNNAGE PLANS AND ADDITIONAL INFORMATION
26. GALVANEED STEEL GRATING FOR CATWALK PAINTED. REF 1/A202 FOR ADDITIONAL INFORMATION. **(ALT BID # 4)**. REF MECHANICAL.
27. GALVANIZED STEEL CATWALK RAILING. **(ALT BID # 4)** REF 6/A202
28. NEW GALVANIZED STEEL PLATFORM LADDER. REF 3/A202 AND 5/A202 **(ALT BID # 4)**
30. NEW GALVANIZED STEEL CROSSOVER LADDER. REF 18/A203
31. EXISTING STEEL DUNNAGE COLUMN TO REMAIN
32. EXISTING ROOF DRAIN TO REMAIN. REF GENERAL ROOF CONSTRUCTION NOTE "O" THIS SHEET FOR MAINTAINING EXISTING DRAINS ON EXISTING ROOFS WHERE NEW WORK IS BEING CONDUCTED.
33. TYPICAL FLASHING AT DUCT ROOF PENETRATION. REF 1/A203 FOR "SNV" FLASHING DETAIL AND REF MECHANICAL FOR CURB AND DUCT INFORMATION
34. NEW GUARDRAIL SYSTEM IN EXISTING ROOF. REF 19/A203 FOR PIPE INSULATION AND FLASHING DETAIL, TYPICAL AT ALL LOCATIONS
35. EXISTING ROOF LADDER TO REMAIN
36. NEW SURFACED MOUNTED DUCT TIED INTO EXISTING SURFACE MOUNTED DUCT ON EXISTING STANDS. REF MECHANICAL FOR NEW DUCT TIE-INS TO EXISTING
37. INDICATES EXISTING LIGHTNING PROTECTION SYSTEM TO REMAIN. REMOVE ONLY AS REQUIRED FOR INSTALLATION OF NEW EQUIPMENT AND ROOF REPAIR. REF GENERAL ROOF DEMOLITION NOTE "G" FOR ADDITIONAL INFORMATION.
38. INDICATES EXISTING FIXED DUCT SUPPORTS TO REMAIN. PATCH AND REPAIR AS REQUIRED TO MAINTAIN WATER TIGHT SYSTEM
39. INDICATES NEW ELECTRIC CONDUIT ON PIPE SUPPORTS. REF PLAN LEGEND. REF ELECTRICAL SHEETS
40. EXISTING FLOOD LIGHT AND CONDUIT RELOCATED AND FASTENED TO NEW ROOF TOP EQUIPMENT. MODIFY EXISTING LIGHTING PROTECTION TO ACCOMMODATE THE RELOCATION OF EXISTING LIGHTS
41. RELOCATED OVERFLOW DRAIN. REF PLUMBING AND MECHANICAL FOR LOCATION. REF 21/A203 FOR FLASHING INFORMATION
42. EXISTING DOWNSPOUT AND SPLASH BLOCK ON WARE PAD TO REMAIN INTACT AND FUNCTIONAL
43. EXISTING VENT PIPE TO REMAIN. REF PLUMBING SHEETS
44. EXISTING ELECTRIC CONDUIT THROUGH EXISTING ROOF TO REMAIN. REF ELECTRIC
45. SURFACE MOUNTED DUCT THROUGH SIDE WALL PENETRATION. REF 23/A203 FOR FLASHING DETAIL AND REF MECHANICAL FOR DUCT INFORMATION. KEEP DUCT THRU-WALL CENTERED BETWEEN JOIST ABOVE. TYP
46. INDICATES STEEL FLUE SUPPORTS ATTACHED TO PARAPET. REF S/A101. TYP
47. NEW METAL FLUE. UP FROM BASEMENT BOILER ROOM. REF BASEMENT PLAN AND MECHANICAL. FLUE ARE STRUCTURALLY FASTENED TO EXISTING CMU WALL. REF S/A101. TYP
48. INDICATES STEEL PIPE VENTILATION BELOW AT BASEMENT LEVEL. REF BASEMENT PLAN AND MECHANICAL
49. NEW EXHAUST FAN. REF MECHANICAL FOR CURB AND EQUIPMENT INFORMATION. A201 FOR ROOF WARRANTY INFORMATION. AND REF 9/A203 FOR REINFORCING AND FLASHING DETAILS.
50. INDICATES NEW SIDE WALL VENT THRU EXTERIOR WALL. REF MECHANICAL FOR TYPE. SIZE AND EXACT LOCATION. REF 24/A203 FOR FLASHING AND INFILL.
51. REMOVE EXISTING SIDE WALL LOUVER AND THRU-WALL DUCT AND ASSOCIATED STEEL FRAMING DOWN TO EXISTING MASONRY. CLEAN AND PREP OPENING FOR NEW MASONRY INFILL. MATCH ALL EXISTING MATERIAL AND BRICK. REF 7/A103 FOR ADDITIONAL INFORMATION
52. NEW ELECTRIC CONDUIT THRU EXISTING SIDE WALL IN EXISTING MASONRY. APPLY WEATHER TIGHT. EXTERIOR GRADE SEALANT AT EXTERIOR PENETRATION AROUND ENTIRETY OF CONDUIT. INTERIOR PENETRATION BETWEEN THE CONDUIT AND MASONRY. APPLY (2) HOUR FIRE RATED SEALANT. AS PER FIRE RATED PENETRATION CHART ON SHEET A101. REF ELECTRIC FOR SIZE AND LOCATION. TYP

PLAN LEGEND

- INDICATES STEEL BEAM
- INDICATES TYPICAL STEEL JOIST
- WALKWAY PADS (EPDM) REF 15/A203
- RTU — ROOF TOP UNIT
- GAS — GAS LINE ON PIPE SUPPORT
- CONDUIT/PIPING ON PIPE SUPPORT
- XRD — EXISTING ROOF DRAIN
- XVP — EXISTING VENT PIPE
- VP — NEW VENT PIPE, REF 11/A203
- EXHAUST FAN UNIT, REF 9/A203
- 6X8 PC — PIPE CURB, REF 7/A203
- PIPE SUPPORT ON WARE PAD, (GAS AND CONDUIT LINES) REF ROOF WARRANTY LEGEND, THIS SHEET, FOR ROOF TYPE AND 13/A203 FOR ROOF DETAIL
- EXTERIOR ROOF DUCT SUPPORT ON WEAR PAD. REF MECHANICAL
- FIXED GAS LINE SUPPORT WITH FLASHING. REF 12/A203 AND MECHANICAL

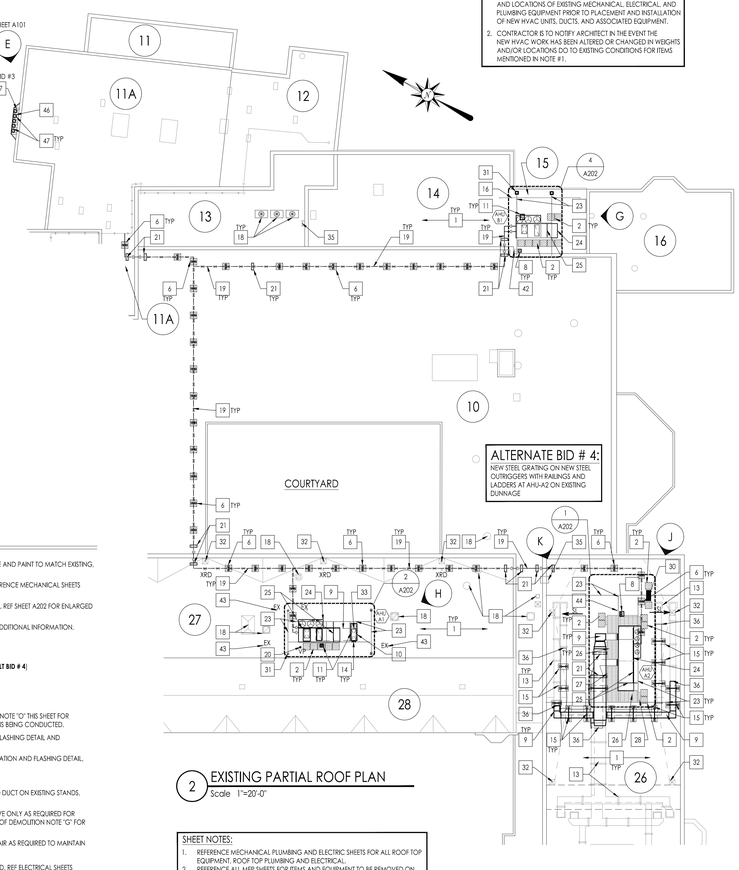
PLAN SYMBOLS

- A / AXX — FLASHING DETAIL AND DRAWING NUMBER
- # — CONSTRUCTION NOTE
- SL — DIRECTION OF ROOF SLOPE
- ¼" PER FOOT SLOPED TAPERED INSULATION CRICKETS
- # — INDICATES ROOF NUMBER. REF WARRANTY LEGEND
- # — INDICATES PHOTO OF EXISTING CONDITIONS. REF PHOTOS FOR EXISTING ROOF CONDITIONS ON SHEET A202

Princeton High School
151 Moore Street, Princeton, NJ 08540

PRINCETON HIGH SCHOOL ROOF WARRANTIES LEGEND

	PKG. #	AREA	MANUFACTURER/ WARRANTY #	ROOFING SYSTEM	DATE INSTALLED	WARRANTY EXPIRATION	RECOMMENDED REPLACEMENT YEAR
	N/A	9,000 S.F.+/-	CARLISLE / 1151803	EPDM	07/14/2014	12/14/2034	2034
	N/A	4,917 S.F.+/-	VERSICO / 1586388	EPDM	08/31/2022	12/29/2042	2042
	N/A	11,169 S.F.+/-	CARLISLE / 1589122	EPDM	11/14/2022	02/14/2043	2043
	N/A	11,370 S.F.+/- (MISC) 0+/-S.LOPE	UNKNOWN	SLATE	UNKNOWN	UNKNOWN	TBD
	N/A	76,536 S.F.+/-	GARLAND /2A4127-65	RESTORATION	2024 #	2044 #	2044 #
	N/A	68,315 S.F.+/-	CARLISLE # / 661653	EDPM	2024 #	2044 #	2044 #
	N/A	342 S.F.+/-	UNKNOWN	EDPM	UNKNOWN	UNKNOWN	TBD
	N/A	454 S.F.+/-	ATRIUM STYLE GLAZING	UNKNOWN	UNKNOWN	UNKNOWN	TBD
	N/A	3,837 S.F.+/-	UNKNOWN	ASPHALT SHINGLES	2021	2051 ?	TBD
	N/A	150 S.F.+/-	METAL	UNKNOWN	UNKNOWN	UNKNOWN	TBD
	N/A	2,995 S.F.+/- (MISC) 0+/-S.LOPE	UNKNOWN	SYNTHETIC SLATE	UNKNOWN	UNKNOWN	TBD
	N/A	3,175 S.F.+/- (MISC) 0+/-S.LOPE	UNKNOWN	ASPHALT SHINGLES	2004 #	2034 #	TBD



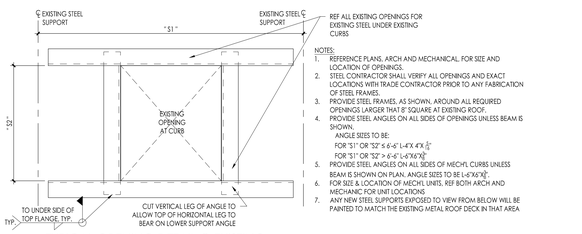
2 EXISTING PARTIAL ROOF PLAN
Scale 1"=20'-0"

SHEET NOTES:

1. REFERENCE MECHANICAL PLUMBING AND ELECTRIC SHEETS FOR ALL ROOF TOP EQUIPMENT. ROOF TOP PLUMBING AND ELECTRICAL.
2. REFERENCE ALL MEP SHEETS FOR ITEMS AND EQUIPMENT TO BE REMOVED ON ROOF.
3. REFERENCE A201 FOR ROOF WARRANTY INFORMATION AND ASSOCIATED ROOF DETAILS
4. REF SHEET A202 FOR ENLARGED DUNNAGE PLANS.

STRUCTURAL NOTES:

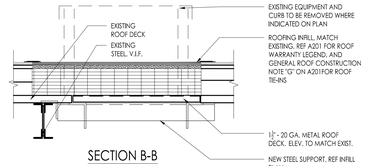
1. CONTRACTOR IS TO FIELD VERIFY THE EXISTING ROOF STRUCTURE AND LOCATIONS OF EXISTING MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT PRIOR TO PLACEMENT AND INSTALLATION OF NEW HVAC UNITS, DUCTS, AND ASSOCIATED EQUIPMENT.
2. CONTRACTOR IS TO NOTIFY ARCHITECT IN THE EVENT THE NEW HVAC WORK HAS BEEN ALTERED OR CHANGED IN WEIGHTS AND/OR LOCATIONS DO TO EXISTING CONDITIONS FOR ITEMS MENTIONED IN NOTE #1.



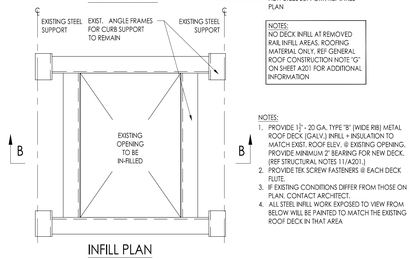
NOTES:
1. REFERENCE PLANS, ARCH AND MECHANICAL FOR SIZE AND LOCATION OF OPENINGS.
2. STEEL CONTRACTOR SHALL VERIFY ALL OPENINGS AND EXACT LOCATIONS WITH TRADE CONTRACTOR PRIOR TO ANY FABRICATION OF STEEL FRAMES.
3. PROVIDE STEEL FRAMES, AS SHOWN, AROUND ALL REQUIRED OPENINGS LARGER THAT 8" SQUARE AT EXISTING ROOF.
4. PROVIDE STEEL ANGLES ON ALL SIDES OF OPENINGS UNLESS BEAM IS SHOWN,
   ANGLE SIZES TO BE:
   FOR "S1" OR "S2" ≤ 6'-6" L-4"X 4"X ¼"
   FOR "S1" OR "S2" > 6'-6" L-6"X6"X ½"
5. PROVIDE STEEL ANGLES ON ALL SIDES OF MECH'L CURBS UNLESS BEAM IS SHOWN ON PLAN. ANGLE SIZES TO BE L-6"X6"X ½".
6. FOR SIZE & LOCATION OF MECH'L UNITS, REF BOTH ARCH AND MECHANIC FOR UNIT LOCATIONS
7. ANY NEW STEEL SUPPORTS EXPOSED TO VIEW FROM BELOW WILL BE PAINTED TO MATCH THE EXISTING METAL ROOF DECK IN THAT AREA

REF ALL EXISTING OPENINGS FOR EXISTING STEEL UNDER EXISTING CURBS

TYPICAL OPENING DETAIL @ EXISTING ROOF UNDER MECHANICAL CURB
4 1 1/2" = 1'-0"



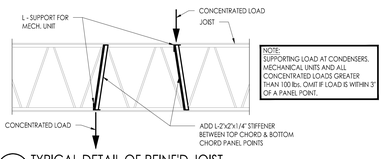
SECTION B-B



NOTES:
1. PROVIDE 1½" - 20 GA. TYPE "B" (WIDE RIB) METAL ROOF DECK (GALV.) INFILL + INSULATION TO MATCH EXIST. ROOF ELEV. @ EXISTING OPENING. PROVIDE MINIMUM 2" BEARING FOR NEW DECK. (REF STRUCTURAL NOTES 11/A201.)
2. PROVIDE TEK SCREW FASTENERS @ EACH DECK FLUTE.
3. IF EXISTING CONDITIONS DIFFER FROM THOSE ON PLAN, CONTACT ARCHITECT.
4. ALL STEEL INFILL WORK EXPOSED TO VIEW FROM BELOW WILL BE PAINTED TO MATCH THE EXISTING ROOF DECK IN THAT AREA

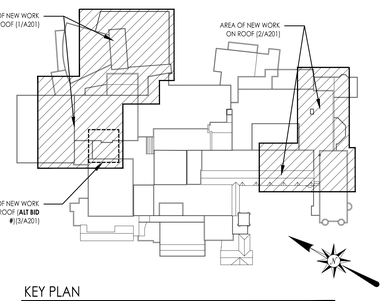
INFILL PLAN

5 DECK AND ROOF INFILL - STEEL DECK
1 1/2" = 1'-0"



NOTE:
SUPPORTING LOAD AT CONDENSERS, MECHANICAL UNITS AND ALL CONCENTRATED LOADS GREATER THAN 100 lbs. OMIT IF LOAD IS WITHIN 3" OF A PANEL POINT.

6 TYPICAL DETAIL OF REINF'D JOIST
N.T.S.



KEY PLAN
NTS

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21A01705600 | PA - RA012209
JASON J. DUBOWITCH, AIA
NJ - 21A01719000 | PA - RA-020209
STEPHEN W. SCHREYER JR., AIA, LEED AP BD+C
NJ - 21A02001050 | PA - RA412563
01/29/26
Date
Architect
FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C.
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
F V H D P C . C O M

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
W.D.H.

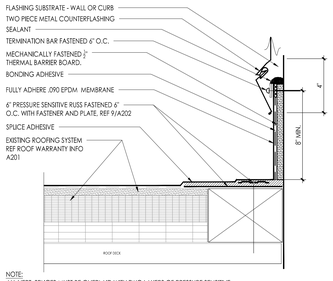
Drawn By
BO

Scale
AS NOTED

Drawing Name
EXISTING ROOF PLAN, ROOF WARRANTY LEGEND, AND NOTES

Revisions		
No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

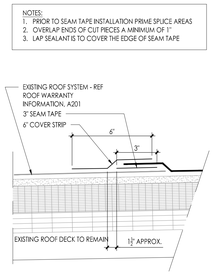
Drawing Number
A201



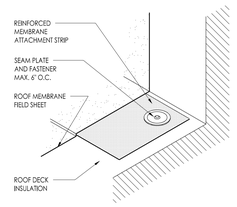
NOTE:
ALL VERT. SPLICES MUST BE OVERLAID WITH TWO LAYERS OF PRESSURE SENSITIVE ELASTOFORM FLASHING, 6" WIDE AT BOTTOM COVERED BY 12" WIDE. SEE MANUFACTURERS DETAILS AND GUIDELINES.

1 TYPICAL BASE FLASHING DETAIL
3" = 1'-0"

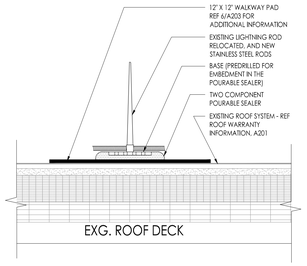
NOTES:
1. PRIOR TO SEAM TAPE INSTALLATION PRIME SPLICE AREAS
2. OVERLAP ENDS OF CUT PIECES A MINIMUM OF 1"
3. LAP SEALANT IS TO COVER THE EDGE OF SEAM TAPE



2 TYPICAL LAP SPLICE DETAIL
3" = 1'-0"

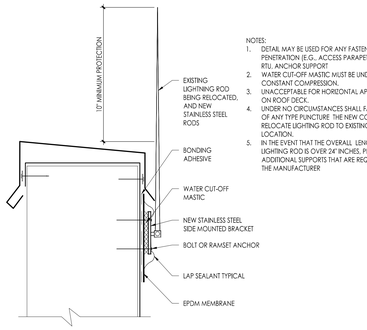


3 TYPICAL SECUREMENT STRIP DETAIL
3" = 1'-0"

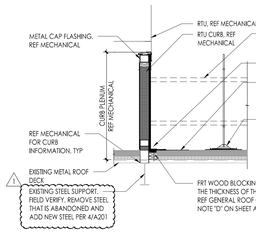


4 LIGHTNING PROTECTION RELOCATED
3" = 1'-0"

NOTES:
1. DETAIL MAY BE USED FOR ANY FASTENER PENETRATION (E.G., ACCESS PARAPET, LADDER, RTU, ANCHOR SUPPORT
2. WATER CUT-OFF MASTIC MUST BE UNDER CONSTANT COMPRESSION.
3. UNACCEPTABLE FOR HORIZONTAL APPLICATION ON ROOF DECK.
4. UNDER NO CIRCUMSTANCES SHALL FASTENERS OF ANY TYPE PUNCTURE THE NEW COPING. RELOCATE LIGHTING ROD TO EXISTING LOCATION.
5. IN THE EVENT THAT THE OVERALL LENGTH OF THE LIGHTING ROD IS OVER 24" INCHES. PROVIDE ADDITIONAL SUPPORTS THAT ARE REQUIRED BY THE MANUFACTURER



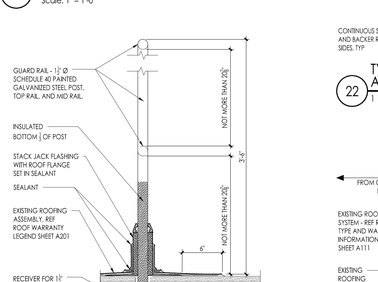
5 LIGHTNING PROTECTION DETAIL
3" = 1'-0"



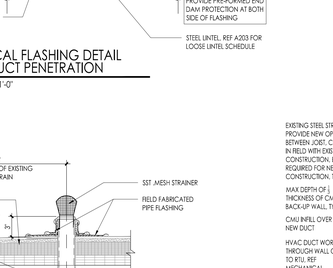
6 RTU PLENUM CURB DETAIL
1/2" = 1'-0"

7 TYPICAL PIPE CURB FLASHING
1-1/2" = 1'-0"

8 EQUIPMENT SUPPORT RAIL DETAIL
1-1/2" = 1'-0"

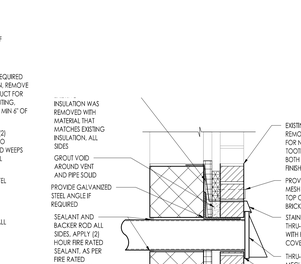


9 EQUIPMENT CURB DETAIL
1-1/2" = 1'-0"



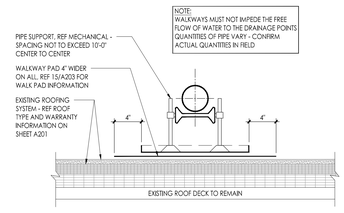
10 CURB FLASHING DETAIL
1-1/2" = 1'-0"

11 VENT PIPE DETAIL
1 1/2" = 1'-0"

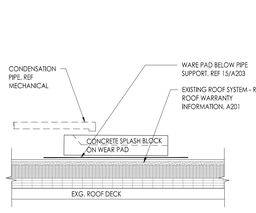


12 FIXED PIPE SUPPORT FLASHING DETAIL
1-1/2" = 1'-0"

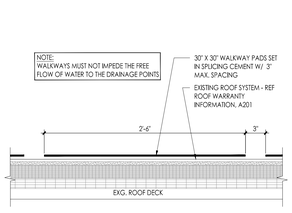
NOTE:
WALKWAYS MUST NOT IMPEDE THE FREE FLOW OF WATER TO THE DRAINAGE POINTS QUANTITIES OF PIPE VARY - CONFIRM ACTUAL QUANTITIES IN FIELD



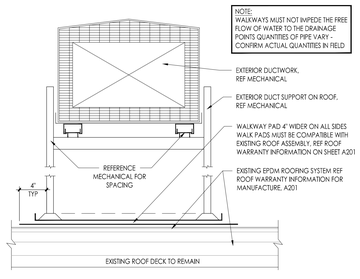
13 TYPICAL PIPE SUPPORT DETAIL
1-1/2" = 1'-0"



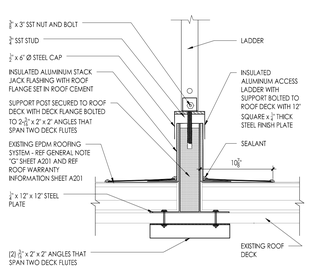
14 TYPICAL SPLASH BLOCK DETAIL
1-1/2" = 1'-0"



15 TYPICAL WALK WAY PAD DETAIL
1-1/2" = 1'-0"



16 DUCT SUPPORT ON WEAR PAD
1-1/2" = 1'-0"



17 TYPICAL LADDER SUPPORT STANCHION
1-1/2" = 1'-0"

NOTES:
UNLESS OTHERWISE SPECIFIED ON DRAWINGS PROVIDE & INSTALL LINTELS FOR ALL SQUARE HEAD MASONRY OPENINGS IN ALL MASONRY WALLS IN ACCORDANCE WITH THE FOLLOWING SCHEDULES & COMMENTS.

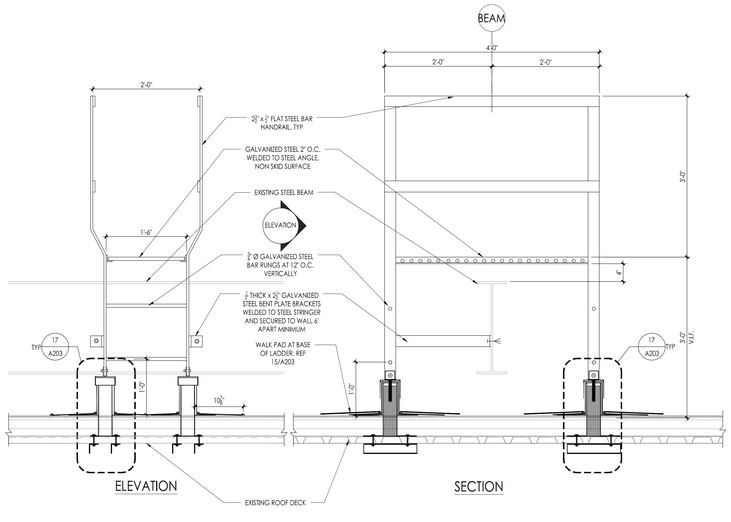
LOOSE LINTEL SCHEDULE
(FOR 4", 8", 12", & 16" WALLS)

MASONRY OPENING	LINTEL SIZE	REMARKS
UP TO 4'-0"	L - 3 1/2" x 3 1/2" x 1/4"	
4'-1" TO 6'-0"	L - 5" x 3 1/2" x 5/16"	
6'-1" TO 8'-0"	L - 6" x 3 1/2" x 5/16"	
OVER 8'-0"	W 8 x 18 + PLATE	

LOOSE LINTEL SCHEDULE
(FOR 6" WALLS)

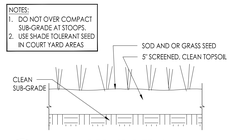
MASONRY OPENING	LINTEL SIZE	REMARKS
2'-0" TO 6'-0"	WT 7 x 11	
6'-1" TO 8'-0"	WT 8 x 13	

NOTES:
1. PROVIDE ONE (1) ANGLE FOR EACH 4" OF MASONRY WIDTH.
2. BEAR LINTELS 6" MINIMUM EACH SIDE OF OPENING.
3. ALL LINTELS IN EXTERIOR WALLS TO BE GALVANIZED.
4. WHERE OPENINGS LOCATED NEXT TO COLUMNS OR BEAMS,ATTACH TO STRUCTURAL STEEL. CONNECTION NOT TO PROTRUDE INTO OPENING.
5. CONSULT ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS FOR OPENING SIZE & LOCATION.



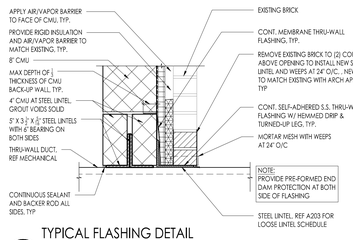
18 TYPICAL CROSSOVER LADDER DETAIL
1" = 1'-0"

NOTES:
1. DO NOT OVER COMPACT SUB-GRADE AT STOOPS.
2. USE SHADE TOLERANT SEED IN COURT YARD AREAS

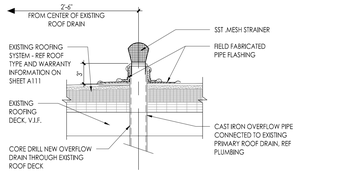


20 LAWN REPAIR DETAIL
Scale: 1" = 1'-0"

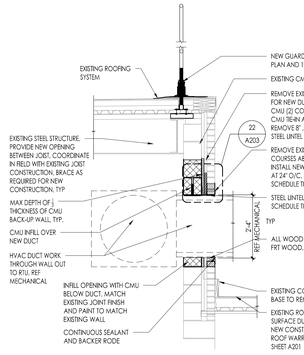
19 GUARD RAILING DETAIL
1-1/2" = 1'-0"



22 TYPICAL FLASHING DETAIL AT DUCT PENETRATION
1 1/2" = 1'-0"



21 OVERFLOW DRAIN DETAIL @ EX ROOF
1-1/2" = 1'-0"



23 TRU-WALL DUCT FLASHING
1/2" = 1'-0"

24 VENT PENETRATION FLASHING
1 1/2" = 1'-0"

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI01706000 | PA - RA012509
JASON J. DUBOWITCH, AIA
NJ - 21AI01719000 | PA - RA406209
STEPHEN W. SCHREYER JR., AIA, LEED AP BD+C
NJ - 21AI02051100 | PA - RA415653
Architect
01/29/26
Date
FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C.
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
FVHDPC.COM

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
W.D.H.

Drawn By
BO

Scale
AS NOTED

Drawing Name
ROOFING DETAILS, STRUCTURAL DETAILS, AND NOTES

Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
A203

HVAC LEGEND

PIPING SYMBOLS
- ISOLATION VALVE
- BALL VALVE
- GLOBE VALVE
- PLUG VALVE
- ANGLE VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- MOTORIZED GATE VALVE
- MOTORIZED BUTTERFLY VALVE
- 2-POSITION SOLENOID VALVE
- MOTORIZED 3-WAY VALVE
- CIRCUIT SETTER
- PNEUMATIC 2-POS TEMP CONTROL VALVE
- PNEUMATIC 2-POS TEMP CONTROL VALVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- F&T STEAM TRAP
- AUTOMATIC AIR VENT
- AUTOMATIC AIR VENT
- Y-STRAINER
- Y-STRAINER WITH BLOWDOWN
- PIPE DOWN
- PIPE UP
- PIPE UP (EXIST PIPE FLOOR PLANS)
- BOTTOM PIPE CONNECTION
- BLIND FLANGED VALVE
- PIPE SLOPE
- FLOW DIRECTION
- CONNECT TO EXISTING
- PIPE BREAK

PIPING SYMBOLS (CONT'D)
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- UNION
- FLEXIBLE CONNECTOR
- THERMOMETER
- PRESSURE GAUGE
- AQUASTAT
- FLOW METER
- PUMP

LINE SYMBOLS
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
G	NATURAL GAS
DR	DRAIN
LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
DW	DOMESTIC WATER
MU	MAKE-UP WATER
CA	COMPRESSED AIR
MPS	MEDIUM PRESSURE STEAM
CS	CLEAN STEAM

AIRFLOW SYMBOLS
1224CD-1 (110): ROUND NECK SIZE (IN); SQ. FACE SIZE (IN); AIR DEVICE TYPE; AIR FLOW RATE (CFM)

12x1224CD-1 (110): SQ. NECK SIZE (IN); SQ. FACE SIZE (IN); AIR DEVICE TYPE; AIR FLOW RATE (CFM)

16x8SR-1 (110): NOMINAL FACE SIZE (IN); AIR DEVICE TYPE; AIR FLOW RATE (CFM)

ABBREVIATIONS
CRU	CONDENSATE RECEIVER UNIT

AIRFLOW SYMBOLS
- SUPPLY AIR DIFFUSER
- RETURN AIR REGISTER
- DUCT BREAK
- AIRFLOW DIRECTION
- 45 DEGREE DUCT TAP
- SPIN COLLAR
- FLEXIBLE DUCT
- MOTORIZED DAMPER
- REDUCER
- MITERED ELBOW
- MITERED ELBOW WITH TURNING VANES
- RADIUS ELBOW
- SQUARE TO ROUND ADAPTER
- SUPPLY AIR DUCT UP
- RETURN AIR DUCT UP
- SUPPLY AIR DUCT DN
- RETURN AIR DUCT DN
- TT TEMPERATURE TRANSMITTER
- HT HUMIDITY TRANSMITTER
- TS TEMPERATURE SENSOR
- HS HUMIDITY SENSOR
- PT PRESSURE TRANSMITTER
- SP STATIC PRESSURE SENSOR
- SD SMOKE DETECTOR
- T THERMOSTAT
- CONNECT TO EXISTING
- FIRE DAMPER
- BALANCING DAMPER

PROPOSED PROJECT PHASING

THE PROJECT IS A MULT-YEAR PROJECT AND THE PROPOSAL SHALL REFLECT THE ADDITIONAL MOBILIZATION AND SUPERVISION. THE CONTRACTOR SHALL INCLUDE A SCHUDULE FOR THE PROJECT WITH THE PROPOSAL. A PROPOSAL WITHOUT A PROPOSED SCHEDULE SHALL NOT BE ACCEPTED.

PHASE 1 – REMOVAL & REPLACEMENT OF EXISTING MECHANICAL EQUIPMENT UTILIZING STEAM.

WORK SCOPE THAT CAN TO COMPLETED DURING SCHOOL IN SESSION
1. REMOVE AND INSTALL AIR HANDLERS AHU-CI AND AHU-C2. (ALTERNATE 2)
2. INSTALL NEW ROOF GAS PIPING FOR THE NEW ROOFTOP UNITS.
3. REMOVE AND INSTALL A NEW DOMESTIC HOT WATER HEATER LOCATED IN BOILER ROOM. (ALTERNATE 3)

WORK SCOPE THAT CAN TO COMPLETED ONLY WHEN SCHOOL IS NOT IN SESSION (JUNE 20 TO AUGUST 15)
1. INSTALL NEW SUPPORT STEEL FOR NEW ROOFTOP EQUIPMENT.
2. INSTALL NEW ROOFTOP EQUIPMENT AS NOTED IN MECHANICAL SCHEDULES & ON FLOOR PLANS.
3. REMOVE STEAM CONVECTORS AND INSTALL NEW FAN COIL UNITS.
4. EXPAND EXISTING BAS NETWORK SYSTEM AND INTERFACE WITH THE NEW MECHANICAL EQUIPMENT INTO THE EXISTING CONTROL SYSTEM.
5. INSTALL NEW SMOKE & CO DETECTORS AND INTERFACE WITH EXISTING FIRE ALARM SYSTEM.
6. TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.
7. STARTUP & COMMISSIONING OF NEW MECHANICAL EQUIPMENT.
8. WATER & AIRFLOW BALANCING OF NEW MECHANICAL EQUIPMENT.
9. PERSONNEL TRAINING ON NEW EQUIPMENT & CONTROLS.

ELECTRICAL SCOPE OF WORK
1. INSTALL AMPS METERS ON EXISTING SWITCH BOARDS & PANELBOARDS THAT WILL POWER THE NEW MECHANICAL & ELECTRICAL EQUIPMENT. THIS INCLUDES THE PANELS THAT WILL POWER EQUIPMENT IN PHASE 2.
2. NOTIFY UTILITY COMPANY OF INCREASE IN ELECTRIC LOAD. MAIN TRANSFORMERS AND MAIN SWITCHGEAR HAS SUFFICIENT CAPACITY TO ACCOMMODATE INCREASE IN LOAD.
3. REMOVE EXISTING POWER CIRCUITS, CONDUIT, ETC., THAT WILL NO LONGER POWER EXISTING EQUIPMENT AS NOTED ON FLOOR PLANS.
4. INSTALL NEW ELECTRICAL DISTRIBUTION EQUIPMENT (I.E. PANELBOARDS, TRANSFORMERS, ETC.) REQUIRED TO POWER NEW MECHANICAL EQUIPMENT & ELECTRIC HEAT EQUIPMENT.
5. INSTALL NEW BRANCH CIRCUITS & MODIFY EXISTING CIRCUITS THAT WILL POWER THE NEW MECHANICAL EQUIPMENT & ELECTRIC HEATING EQUIPMENT.
6. ELECTRICAL TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.
7. STARTUP & COMMISSIONING OF NEW ELECTRICAL EQUIPMENT.

PLUMBING SCOPE OF WORK
1. NOTIFY UTILITY COMPANY OF CHANGE IN NATURAL GAS LOAD.
2. CONNECT NEW GAS PIPING FROM MAINS TO ROOFTOP EQUIPMENT.
3. PIPE PRESSURE TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.

PHASE 2 – REMOVAL & REPLACEMENT OF EXISTING STEAM BOILERS
THE DEMOLITION AND REPLACEMENT OF THE STEAM BOILERS WITH HOT WATER BOILER SHALL BE COMPLETED AND COMISSIONED BY SEPTEMBER 15. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY BOILERS IF THIS DATE IS NOT MET. THE COST OF THE RENTAL AND INSTALLATION SHALL BE BORNE BY THE CONTRACTOR.

MECHANICAL SCOPE OF WORK
1. REMOVE EXISTING GAS-FIRED STEAM BOILERS & INSTALL NEW CONDENSING HOT WATER BOILERS.
2. INSTALL NEW PRIMARY HOT WATER PUMPS & ASSOCIATED VFDs.
3. INSTALL NEW COMBUSTION AIR INTAKE FLUES AND EXHAUST FLUE PIPING.
3. EXPAND EXISTING HONEYWELL JACE CONTROL SYSTEM AND INTERFACE NEW BOILERS & PUMPS INTO THE EXISTING CONTROL SYSTEM.
4. REMOVE AUTOMATED LOGIC PROGRAMMING & CONTROLS FROM THE BUILDING AUTOMATION SYSTEM THAT CONTROLS THE EXISTING BOILERS.
5. INSTALL NATURAL GAS LEL DETECTOR & CO DETECTOR AND INTERFACE WITH EXISTING FIRE ALARM SYSTEM.
6. TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.
7. STARTUP & COMMISSIONING OF NEW BOILERS & PRIMARY HOT WATER PUMPS.
8. WATER BALANCING OF NEW MECHANICAL EQUIPMENT.
9. PERSONNEL TRAINING ON NEW EQUIPMENT & CONTROLS.

ELECTRICAL SCOPE OF WORK
1. REMOVE EXISTING POWER CIRCUITS, CONDUIT, ETC., THAT WILL NO LONGER POWER EXISTING BOILER ROOM EQUIPMENT.
2. INSTALL NEW BRANCH CIRCUITS POWERING THE NEW BOILERS, PUMPS, ETC.
3. TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.
4. SUBMIT PROJECT REDLINES FOR INCORPORATION INTO DRAWINGS.

PLUMBING SCOPE OF WORK
1. MODIFY EXISTING GAS PIPING THAT WILL SERVE THE NEW BOILERS.
2. PIPE PRESSURE TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.

CLOSE OUT/TURNOVER AND COMMISSIONING DOCUMENTS
1. AIR AND WATER TAB REPORTS
2. TURNOVER PROJECT REDLINES MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, PLUMBING AND STRUCTURAL DRAWINGS.
3. TRENDING LOGS FOR ALL SYSTEMS TO PROVE OPERATION. TRENDING LOGS EVERY HOUR FOR 72 HOURS IN TABULAR FORM (TEMPERATURE, RELATIVE HUMIDITY, OUTSIDE AIR FLOWS, AND CO2.
4. PIPE PRESSURE TESTING, DUCT LEAKAGE TESTS,
5. ELECTRICAL AND LIGHTNING SYSTEM TESTING.
6. SMOKE DETECTOR AND CO TEST RESULTS.
7. POINT TO POINT CONTROL WIRING CHECKOUT
8. MANUFACTURER'S START-UP SHEETS FOR ALL EQUIPMENT.
9. SHOP DRAWINGS AND FOR RECORD SUBMITTALS.
10. SUBMIT PROJECT REDLINES FOR INCORPORATION INTO DRAWINGS.
11. COMMISSIONING DOCUMENT AND SUPPORTING TESTS HAVE BEEN COMPLETED AND DOCUMENTED.

UNIT PRICING

CONTRACTOR SHALL PROVIDE UNIT PRICING FOR THE FOLLOWING WORK SCOPE:

1. REMOVAL AND RELOCATION OF A SPRINKLER.
2. INSTALLATION OF A 16x12 MANUAL BALANCING DAMPER IN EXISTING DUCT.
3. INSTALLATION OF A 12"ø MANUAL BALANCING DAMPER IN EXISTING DUCT.
4. INSTALLATION OF A NEW STRAINER FOR A FAN COIL UNIT / UNIT VENTILATOR.

ADD / ALTERNATES

THE CONTRACTOR SHALL PROVIDE AN ADDED COST FOR EACH OF THE FOLLOWING WORK SCOPES. THE REQUIREMENTS HAVE BEEN INCLUDED IN THE DESIGN PACKAGE.

ADD/ALTERNATE #1 – PROVIDE AIR CONDITIONING FOR OLD GYM & TEAM ROOMS
1. REMOVAL OF ALL EXISTING DUCTWORK, AIR DEVICES, ETC., ABOVE THE STORAGE & TEAM ROOMS ASSOCIATED WITH EXISTING AIR HANDLER, AHU-E1.
2. INSTALL NEW SUPPORT STEEL FOR NEW ROOFTOP EQUIPMENT.
3. INSTALL NEW ROOFTOP HEAT RECOVERY UNIT (AHU-E1). THIS UNIT WILL BE ~~DEDICATED TO THE OLD GYM.~~
4. INSTALL NEW ROOFTOP HEAT RECOVERY UNIT (AHU-E2). THIS UNIT WILL BE DEDICATED TO THE TEAM ROMS, STORAGE ROOMS, CORRIDOR, ETC.
5. INSTALL ASSOCIATED CONTROLS FOR EACH NEW ROOFTOP UNIT & INTERFACE WITH EXISTING HONEYWELL JACE CONTROL SYSTEM. EXPAND CONTROL SYSTEM AS REQUIRED.
6. INSTALL POWER TO NEW ROOFTOP EQUIPMENT.
7. INSTALL NEW SMOKE DETECTORS & CO2 DETECTORS FOR EACH UNIT AND INTERFACE WITH EXISTING FIRE ALARM SYSTEM.
8. INSTALL NEW SUPPLY & RETURN AIR DUCTWORK AND AIR DEVICES AS SHOWN IN PROJECT DOCUMENTS.
9. REMOVE EXISTING RETURN AIR GRILLES IN GYMNASIUM (I.E. NO LONGER REQUIRED).
10. INSTALL NEW GAS PIPING TO NEW ROOFTOP UNITS.
11. TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.
12. STARTUP & COMMISSIONING OF NEW MECHANICAL EQUIPMENT.
13. AIRFLOW BALANCING OF NEW MECHANICAL EQUIPMENT & DISTRIBUTION DUCTWORK.
14. PERSONNEL TRAINING ON NEW EQUIPMENT & CONTROLS.
15. SUBMIT PROJECT REDLINES FOR INCORPORATION INTO DRAWINGS.

ADD/ALTERNATE #2 – REMOVAL & REPLACEMENT OF AHU-C1 AND C2
1. REMOVAL OF EXISTING AIR HANDLER (AHU-C2) & ASSOCIATED CONTROLS FROM EXISTING AUTOMATED LOGIC BUILDING CONTROL SYSTEM.
2. REMOVAL OF EXISTING RETURN AIR FAN, RF-C1.
3. REMOVE & CUT BACK EXISTING STEAM PIPING SERVING EXISTING AIR HANDLER.
4. INSTALL NEW AIR HANDLER, AHU-C2 & ASSOCIATED CONTROLS. EXPAND EXISTING HONEYWELL JACE CONTROL SYSTEM AND INTERFACE NEW EQUIPMENT.
5. INSTALL NEW SMOKE DETECTOR AND INTERFACE WITH EXISTING FIRE ALARM SYSTEM.
6. MODIFY EXISTING DUCTWORK AS SHOWN IN PROJECT DOCUMENTS.
7. MODIFY EXISTING PIPING (I.E. DUAL TEMP & CONDENSATE) AND CONNECT TO NEW AIR HANDLER.
8. TESTING AS NOTED IN PROJECT PROJECT DOCUMENTS.
9. STARTUP & COMMISSIONING OF NEW MECHANICAL EQUIPMENT.
10. WATER & AIRFLOW BALANCING OF NEW MECHANICAL EQUIPMENT.
11. PERSONNEL TRAINING ON NEW EQUIPMENT & CONTROLS.
12. SUBMIT PROJECT REDLINES FOR INCORPORATION INTO DRAWINGS.

ADD/ALTERNATE #3 – REMOVAL & REPLACEMENT OF THE DOMESTIC HOT WATER HEATER IN THE BOILER ROOM
1. REMOVAL OF EXISTING PVI DOMESTIC HOT WATER HEATER & ASSOCIATED CONTROLS.
2. INSTALL NEW DOMESTIC HOT WATER HEATER, RECIRCULATING PUMPS, FLUES, AIR INTAKE & ASSOCIATED CONTROLS.
3. EXPAND EXISTING HONEYWELL JACE CONTROL SYSTEM AND INTERFACE NEW EQUIPMENT.
4. STARTUP & COMMISSIONING OF NEW THE DHW HEATER.
5. WATER & AIRFLOW BALANCING OF NEW MECHANICAL EQUIPMENT.
6. PERSONNEL TRAINING ON THE NEW EQUIPMENT & CONTROLS.
7. SUBMIT PROJECT REDLINES FOR INCORPORATION INTO DRAWINGS.

ADD/ALTERNATE #4 – PROVIDE ACCESS PLATFORM AND RAILINGS FOR AHU-A2 (LIBRARY)
1. INSTALL STEEL, GRATING, ACCESS LADDERS AND RAILINGS

CODE COMPLIANCE

BELOW ARE THE BUILDING CODES UTILIZED IN THE ENGINEERING AND DESIGN FOR THIS PROJECT.
2021 INTERNATIONAL MECHANICAL CODE (IMC)
2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2021 INTERNATIONAL FUEL GAS CODE (IFGC)
2021 INTERNATIONAL FIRE CODE (IFC)
2020 NATIONAL ELECTRIC CODE (NEC)
2021 NATIONAL STANDARD PLUMBING CODE (NSPC)2021

GENERAL NEW WORK NOTES

1. CONTRACTORS SHALL PROVIDE DUCTWORK, PIPING, ELECTRICAL, STRUCTURAL, PLUMBING AND SUPPORT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER AND OWNER BEFORE COMMENCING WORK. REFER TO SPECIFICATION FOR DETAILS. SHOP DRAWINGS SHALL BE COORDINATED BETWEEN ALL THE TRADES ON THE PROJECT SUCH AS ELECTRICAL, FIRE PROTECTION, PLUMBING, MECHANICAL, STRUCTURAL AND GENERAL CONSTRUCTION. EACH CONTRACTOR SHALL SCAN EXISTING CONDITIONS AND GENERATE THREE DIMENSIONAL MODEL FOR THE BOILER SHOP DRAWINGS.

2. THE AIR FLOW CONTROL BOXES SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. THE ACTUATOR/CONTROLLER SHALL BE PROVIDED BY THE ATC CONTRACTOR. THE ACTUATORS SHALL BE SENT TO AIR FLOW CONTROL MANUFACTURER TO MOUNT.

3. PROVIDE STANDARD SPECIALTIES, VALVES AND GAGES FOR EACH HOT WATER COIL. SEE DETAIL.

4. CONTRACTORS SHOULD PLAN TO LIMIT WORKING FROM LADDERS WHENEVER POSSIBLE. ALLOWANCES FOR MAN LIFTS, SCAFFORDS, ETC. SHALL BE PROVIDED.

5. ALL CONTRACTORS SHALL STRICTLY ADHERE TO ALL OWNER SAFETY POLICIES AND REQUIREMENTS.

6. ALL CONTRACTORS WILL BE RESPONSIBLE FOR DISPOSAL OF ANY AND ALL DEBRIS AND MATERIAL GENERATED BY THEIR SCOPE OF WORK. DUMPSTERS SHALL BE PROVIDED BY THE CONTRACTOR.

7. ALL DUCT WORK SHALL BE FLANGED AND ALL JOINTS SEALED WITH HARDCAST. PROVIDE OWNER WITH MSDS OF SEALANT.

8. CONTRACTOR SHALL FIRE PROOF ALL OPENINGS IN FIRE RATED WALLS, FLOORS OR CEILINGS. SEE ARCHITECTURAL PLANS FOR FIRE RATED DESIGNATION.

9 ALL DIFFUSERS AND REGISTERS SHALL BE HARD DUCTED. FLEXIBLE DUCTWORK SHALL BE NO LONGER THAN 5 FT.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK INCLUDING SUBCONTRACTORS. THE CONTRACTOR SHALL ASSIGN A PROJECT MANAGER TO COORDINATE WORK WITH OWNER AND SUBCONTRACTORS.

11. CONTRACTOR SHALL PERFORM RIGGING OF ROOF EQUIPMENT WHEN THE BUILDING IS NOT OCCUPIED. CONTRACTOR SHALL PROVIDE A RIGGING PLAN AND DRAWING FOR APPROVAL BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL COORDINATE TIME AND DATE FOR RIGGING WITH OWNER. CONTRACTOR SHALL PREPARE RIGGING PLAN AND SAFETY PROTOCOLS FOR THE OWNER REVIEW BEFORE ANY WORK CAN BEGIN.

12. CONTRACTOR SHALL UTILIZE A BONDED ROOFER FOR ALL ROOFING WORK. CONTRACTOR SHALL OBTAIN OWNER APPROVAL OF ROOFING CONTRACTOR BEFORE WORK CAN BEGIN.

13. MAINTAIN SERVICE CLEARANCE AROUND MECHANICAL AND ELECTRICAL EQUIPMENT AS PER MANUFACTURER'S RECOMMENDATIONS.

14. THE TAB CONTRACTOR SHALL BE NATIONAL BALANCING BUREAU (NEBB) CERTIFIED FOR THE AIR AND WATER BALANCING FOR THE PROJECT. THE REPORT SHALL BE CONDUCTED IN ACCORDANCE WITH NEEB STANDARDS.

15. THE DAMPERS AND ACTUATORS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. THE ACTUATORS SHALL BE SIZED FOR THE TORQUE REQUIREMENTS OF THE DAMPERS. THE ACTUATORS SHALL BE COMPATIBLE WITH THE CONTROL SYSTEM.

16.. ANY RIGGING OF EQUIPMENT LOCATED ON THE ROOF SHALL BE PRICED ON PREMIUM TIME.

17. ALL VALVES THAT ARE EQUAL TO OR GREATER THAN 6' AFF SHALL HAVE CHAIN OPERATORS.

18. SMOKE DETECTOR AND SENSING TUBE ON THE RETURN AIR SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. SMOKE DETECTOR FOR EACH SYSTEM SHALL BE HARD WIRED TO THE FAN VFD/STARTER BY THE ELECTRICAL CONTRACTOR. FIRE ALARM CONTRACTOR SHALL WIRE SMOKE DETECTOR BACK TO FIRE ALARM PANEL.

19. CONTRACTOR SHALL FIRE PROOF ALL OPENINGS IN THE WALLS AND FLOORS SO THAT THE FIRE RATING IS MAINTAINED. SEE ARCHITECTURAL DRAWINGS. IF FIRE RATING IS NOT SHOWN USE 3HRS FOR PRICING.

20. CONTRACTOR SHALL REFER TO AIR HANDLER AND UNITARY ROOFTOP UNITS MANUFACTURERS REQUIREMENTS FOR SIZE AND NUMBER OF DRAIN PAN CONNECTIONS. CONDENSATE SHALL BE PIPED TO NEAREST ROOF AND/OR FLOOR DRAIN.

21. ALL WORK SHALL BE WARRANTED FOR TWO (2) FOR PARTS AND LABOR FROM THE TIME OF SUBSTANTIAL COMPLETION.

22. ALL EQUIPMENT SHALL BE START-UP AND COMMISSIONED BY THE MANUFACTURER'S REPRESENTATIVE. START-UP SHEETS SHALL BE FILLED OUT IN THEIR ENTIRETY. ITEMS NOT APPLICABLE SHALL BE MARKED N/A.

23. EQUIPMENT MANUFACTURER AND BAS CONTRACTOR SHALL COMPLETE THE UNIT CONFIGURATION TO ACHIEVE THE SEQUENCE OF OPERATION FOR THE SYSTEM. THEY SHALL ALSO WORK TOGETHER TO VERIFY THAT THE BACNET POINTS FROM THE UNIT ARE PRPERLY VIEWED AT THE BAS WORKSTATION.

24. EQUIPMENT CURBS SHALL BE FIELD VERIFIED FOR SLOPE, DUCT CONNECTION LOCATIONS, PLENUM WALL LOCATION, ETC. FIELD VERIFICATIONS AND SHOP DRAWINGS SHALL BE COMPLETED BEFORE DEVELOPING THE CURB SUBMITTAL.

25. THE CONTRACTOR SHALL PROVIDE PIPING SUPPORT AND SEISMIC RESTRAINTS DESIGN BASED ON APPROVED SHOP DRAWINGS. THE PIPING SUPPORT DESIGN AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A NJ PROFESSIONAL ENGINEER.

26. EXISTING INSULATION SHALL BE REPAIRED IN AREAS WHERE IT WAS DISTURBED OR REMOVED FOR THE NEW WORK.

27. MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE LABELED WITH BAKE-A-LITE LABELS, 2" HIGH WHITE LETTERS WITH BLACK BACKGROUND. ALL VALVES SHALL HAVE BRASS TAGS WIRED TO THE VALVE. PIPING LENGTH SHALL HAVE UTILITY LABELS AND DIRECTION OF FLOW INSTALLED EVERY 10'.

28. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL FAN COIL STRAINER, CONTROL VALVE, CIRCUIT SETTER, AND ISOLATION VALVES ON THE SUPPLY AND RETURN PIPING. BAS CONTRACTOR SHALL PROVIDE CONTROL AND COMMUNICATION WIRING FOR CONTROL VALVE, TEMPERATURE SENSOR, CO2 SENSOR, HUMIDITY SENSORS AND CONTROLLERS.

29. ALL CONTRACTORS SHALL MAINTAIN A DRAWING SET FOR THE PROJECT ON SITE TO BE USED TO GENERATE REDLINE DRAWINGS. THE CONTRACTORS SHALL MARK-UP THESE DRAWINGS BASED ON ANY FIELD CHANGES MADE DURING THE COURSE OF THE CONSTRUCTION. THE REDLINE DRAWINGS WILL BE TURNED OVER TO THE ENGINEER TO DEVELOP FOR RECORD DRAWINGS.

30. THE INFORMATION SHOWN ON THE DRAWINGS SUPERSEDES ANY INFORMATION IN THE BOOK SPECIFICATIONS.

31. INTERIOR DUCTWORK THAT IS EXPOSED SHALL BE GALVALUME PAINTABLE SHEETMETAL. COLOR SHALL BE DETERMINED BY THE ARCHITECT AND OWNER. SEE SCHEDULE.

32. WHERE SPECIFIED VIBRATION PADS SHALL BE SHALL BE MASON INDUCTRIES SUPER W WAFFLE PAD DURO 70. INSTALL AS PER UNIT MANUFACTURER LOCATIONS, SIZE AND UNIT WEIGHT.

33. PLUMBING CONTRACTORS SHALL PROVIDE CLEANING, FLUSHING AND DISINFECTION PROCEDURES FOR APPROVAL BEFORE WORK CAN COMMENCE.

34. MECHANICAL CONTRACTOR SHALL PROVIDE A SPLASH BLOCK ON THE ROOF WHERE COIL CONDENSATE PIPING ENDS. PROVIDE A 1/2" THICK WHITE RUBBER PAD BENEATH EACH SPLASH BLOCK.

35. THE EXISTING DUAL TEMPERATURE (DT) PIPING & EQUIPMENT SHALL BE COMPLETELY DRAINED OF EXISTING FLUID. THE EXISTING PIPING AND EQUIPMENT SHALL BE FLUSHED ACCORDING SPECIFICATIONS. THE SLIP STREAM FILTER (FLT-1) SHALL FIRST BE INSTALLED. THE SYSTEM SHALL THEN BE FILLED WITH FRESH WATER & CLEANING SOLUTION. THE CLEANING SOLUTION SHALL BE CIRCULATED WITH MAIN SYSTEM PUMPS AND FILTER IN OPERATION FOR A PERIOD OF 24 HOURS. ENERGIZE THE PRIMARY CHILLED WATER PUMPS AS WELL. DO NOT CIRCULATE WATER THROUGH THE NEW HOT WATER PIPING & EQUIPMENT. DRAIN SYSTEM REFILL WITH FRESH WATER AND CIRCULATE AGAIN WITH FILTER IN OPERATION FOR 12 HOURS (MIN). DRAIN & REFILL WITH A 30% PROPYLENE GLYCOL SOLUTION. THE CONTRACTOR SHALL BLEED THE AIR FROM THE PIPING SYSTEM AND ALL EQUIPMENT THROUGHOUT THE BUILDING. A REPORT SHALL BE PROVIDED TO THE ENGINEER INDICATING THE FINAL PROPYLENE GLYCOL CONCENTRATION IN THE SYSTEM.

[NOTE: THE CONTRACTOR SHALL PURCHASE A MINIMUM OF TEN (10) REPLACEMENT FILTER BAGS. THE FILTER BAGS SHALL BE CHANGED WHEN THE FILTER PRESSURE DIFFERENCE REACHES 25 PSI.]

36. ALL STRAINERS FOR THE MECHANICAL EQUIPMENT THROUGHOUT THE BUILDING, INCLUDING ALL FAN COIL UNITS AND ALL UNIT VENTILATORS, SHALL BE CLEANED.

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL DEVELOP DETAILED WRITTEN PLAN TO COORDINATE ALL DEMOLITION AND NmaEW WORK IN ORDER TO MINIMIZE DOWNTIME OF THE HVAC SYSTEMS. THIS PLAN SHALL BE COMPLETED AND APPROVED BY THE OWNER. THE PLAN SHALL BE COMPLETED AND SUBMITTED WITHIN 2 WEEKS OF CONTRACTOR SELECTION. OWNER APPROVAL IS REQUIRED BEFORE ANY WORK CAN COMMENCE. DEMOLITION ACTIVITITIES SHALL BE SCHEDULED ON A WEEKLY BASIS WITH THE OWNER'S REPRESENTATIVE.

2. THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION WITHOUT EXTRA PAYMENT, ANY OF THE OWNERS PROPERTY OR PROPERTY OR WORK BY/OF OTHER CONTRACTORS THAT SHALL BECOME DAMAGED DUE TO THE NEGLIGENCE OF EMPLOYEES OR AGENTS OF THE CONTRACTOR. SUCH REPAIRS SHALL MEET THE APPROVAL OF THE OWNER. PARTICULAR CARE SHALL BE EXERCISED TO PROTECT FIRE ALARM AND SECURITY WIRING.

3. WHERE EXSITING CONTROL VALVES ARE BEING REMOVED, CONTRACTOR SHALL REMOVE ALL CONTROLLING SENSORS, THERMOSTATS, CONTROL WIRING AND ASSOCIATED CONDUIT, SUPPORT, ETC. THE CONTROL POINTS SHALL BE REMOVED FROM THE BAS SYSTEM INCLUDING PROGRAMMING, GRAPHIS, ETC. WHERE WALL SENSORS AND/OR THERMOSTATS ARE REMOVED, THE WALL SHALL BE REPAIRED AND PAINTED. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.

4. CONTRACTOR SHALL TAKE PROPER CARE AND PROTECT ALL PORTIONS OF THE WORK UNTIL ITS ACCEPTANCE. ANY AND ALL PORTIONS OF THE WORK LIABLE TO DAMAGE UNDER THIS OR OTHER SECTIONS, BY FREEZING OR INCLEMENT WEATHER MUST BE THOROUGHLY AND COMPLETELY PROTECTED BY ANY SUBSTANTIAL MEANS UNTIL NOT FURTHER REQUIRED. TEMPORARY HEAT SHALL BE REMOVED FROM THE PREMISES ONLY WHEN ITS REMOVAL IS APPROVED BY THE ENGINEER.

5. THE CONTRACTOR SHALL HAVE A COMPETENT FOREMAN IN RESPONSIBLE CHARGE OF THE WORK WHO SHALL BE ON THE SITE DURING THE DEMOLITION OF THE SYSTEM. FOREMAN SHALL BE ON SITE AT ALL TIMES DURING WORK BY ALL TRADES. SUB CONTRACTORS WILL NOT BE PERMITTED TO WORK IF FORMAN IS NOT ONSITE.

6. SAFE OPEN ENDS OF DUCTWORK TO BE REUSED DURING DEMOLITION TO MINIMIZE DEBRIS FROM ENTERING DUCTS DURING DEMOLITION. CONTRACTOR SHALL BLANK-OFF THE EXISTING SUPPLY AIR AND RETURN AIR OPENINGS IN THE AIR SHAFT BEFORE DEMOLITION CAN BEGIN.

7. AT LEAST ONCE A DAY, OR AS REQUIRED BY THE OWNER, GATHER ALL RUBBISH, INCLUDING CARTONS, CRATES AND PACKAGING MATERIALS, DEBRIS AND OTHER WASTE MATERIALS. WASTE TO BE PLACED IN TRASH BIN/DUMPSTER PROVIDED BY CONTRACTOR. ALL DEBRIS TO BE REMOVED DURING OFF HOURS.

8. WHEN WORK IS PERFORMED IN OCCUPIED AREAS, TRASH REMOVAL SHOULD BE CONTINUOUS TO PREVENT HEALTH AND SAFETY ISSUES. NO MATERIAL REMOVED SHALL BE STORED IN THE BUILDING.

9. PROTECT ALL WORK AND EQUIPMENT AGAINST DAMAGE OR THEFT UNTIL FINAL INSPECTION, TESTED AND ACCEPTED. CAREFULLY STORE AND PROTECT MATERIALS AND EQUIPMENT RECEIVED ON SITE WHICH ARE NOT IMMEDIATELY INSTALLED. CLOSE OPEN ENDS OF WORK WITH TEMPORARY PLUGS OR COVERS DURING CONSTRUCTION TO PREVENT ENTRY DEBRIS.

10. PERFORM WORK IN EXISTING BUILDING WHEN AND AS DIRECTED. ALL WORK IS TO BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE OCCUPANTS.

11. SHIFT WORK AND STAGING WILL BE REQUIRED AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL PROVIDE SCHEDULE AND PREMIUM TIME FOR ALL DEMOLITION AND REMOVAL OF MATERIALS IN THEIR PROPOSAL. ALL DEMOLITION OF VAV BOXES, DUCTWORK AND PIPING WORK SHALL BE COMPLETED ON OFF HOURS. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH OWNER.

12. WHEN THE DEMOLITION OR INSTALLATION OF WORK REQUIRES THE SHUTDOWN OF AN EXISTING OPERATING SYSTEM, A MINIMUM OF 72 HOURS WRITTEN NOTICE SHALL BE GIVEN TO THE OWNER BEFORE WORK IS STARTED.

13. CONTRACTOR SHALL PHOTOGRAPH ALL EXISTING CONDITIONS FOR OWNER AND SUBMIT TO OWNER.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONS PERFORMING THE WORK OF THIS CONTRACT.

15. THIS CONTRACTOR SHALL OBTAIN AND READ ALL SITE, JOB AND CORPORATE SAFETY AND SECURITY RULES AND REGULATIONS FROM THE OWNER, AND SIGN OFF ON THEM IF REQUIRED. THIS CONTRACTOR SHALL ADEQUATELY INFORM AND INSTRUCT ALL EMPLOYEES, AND OTHERS PERFORMING WORK FOR HIM, OF SUCH RULES AND REGULATIONS. THESE INSTRUCTIONS ARE THE MINIMUM THAT WILL BE ACCEPTED ON THIS PROJECT. CONTRACTOR SHALL HAVE A SAFETY OFFICER TO SUPERVISE PERSONNEL ON A DAILY BASIS.

16. ALL OF THE ABOVE RULES AND REGULATIONS ARE NOT MEANT TO REPLACE OR ELIMINATE INDIVIDUAL CONTRACTORS SAFETY PROGRAMS OR CHANGE ANY LOCAL, STATE OR FEDERAL RULES AND REGULATIONS, BUT RATHER TO AUGMENT THEM AS REQUIRED FOR THE INDIVIDUAL PREMISES ON WHICH THIS WORK IS BEING PERFORMED

17. PIPING REMOVED THAT PENETRATES THE ROOF SHALL BE PATCHED AND SEALED BY A BONDED ROOFER IMMEDIATELY AFTER REMOVAL TO ENSURE THAT THE ROOF IS WATER PROOF.

18. CONTRACTOR SHALL TAKE CONCENTRATION READING OF THE GLYCOL/WATER DUAL TEMPERATURE LOOP BEFORE DRAINING THE SYSTEM. RESULTS OF THE TESTING SHALL BE FORWARDED TO THE ENGINEER. CONTRACTOR IS RESPONSIBLE FOR DRAINING THE SYSTEM TO COMPLETE THE MODIFICATIONS. THE GLYCOL/WATER REMOVED SHALL BE STORED IN A TANKER TRUCK. ONCE THE WORK IS COMPLETED, CONTRACTOR SHALL REFILL AND BLEED ALL THE AIR OUT OF THE SYSTEM. WATER BALANCING SHALL ONLY OCCUR ONCE ALL THE AIR IS OUT OF THE DUAL TEMPERATURE AND HOT WATER SYSTEMS.

19. STEAM PIPING TO BE PRESSURE TESTED FOR LEAKS AT ALL LOCATIONS WHERE STEAM AND CONDENSATE PIPING HAS BEEN REMOVED AND CAPPED.

20. CONTRACTOR SHALL HAVE THE NEBB CERTIFIED TAB CONTRACTOR OBTAIN THE DUAL TEMPERATURE WATER SECONDARY FLOW AND PUMP PERFORMANCE BEFORE DEMOLITION IS STARTED. THE RESULTS SHALL BE PROVIDED TO THE ENGINEER.

DRAWING LEGEND

DWG NO.	DRAWING TITLE	REV
C-000	COVER SHEET	0
MD-302	MECHANICAL – GROUND FLOOR SECTOR 'B' PIPING DEMOLITION PLAN	0
MD-303	MECHANICAL – GROUND FLOOR SECTOR 'C' PIPING DEMOLITION PLAN	0
MD-304	MECHANICAL – GROUND FLOOR SECTOR 'D' PIPING DEMOLITION PLAN	0
MD-305	MECHANICAL – GROUND FLOOR SECTOR 'E' & 'G' PIPING DEMOLITION PLAN	0
MD-306	MECHANICAL – GROUND FLOOR SECTOR 'F' PIPING DEMOLITION PLAN	0
MD-311	MECHANICAL – FIRST FLOOR SECTOR 'A' PIPING DEMOLITION PLAN	0
MD-312	MECHANICAL – FIRST FLOOR SECTOR 'B' PIPING DEMOLITION PLAN	0
MD-313	MECHANICAL – FIRST FLOOR SECTOR 'C' PIPING DEMOLITION PLAN	0
MD-314	MECHANICAL – FIRST FLOOR SECTOR 'D' PIPING DEMOLITION PLAN	0
MD-321	MECHANICAL – SECOND FLOOR SECTOR 'A' PIPING DEMOLITION PLAN	0
MD-322	MECHANICAL – SECOND FLOOR SECTOR 'B' PIPING DEMOLITION PLAN	0
MD-323	MECHANICAL – SECOND FLOOR SECTOR 'C' PIPING DEMOLITION PLAN	0
MD-324	MECHANICAL – SECOND FLOOR SECTOR 'D' PIPING DEMOLITION PLAN	0
MD-326	MECHANICAL – SECOND FLOOR SECTOR 'F' PIPING DEMOLITION PLAN	0
MD-431	MECHANICAL – ROOF SECTOR 'A' DEMOLITION PLAN	0
MD-432	MECHANICAL – ROOF SECTOR 'B' DEMOLITION PLAN	0
MD-435	MECHANICAL – ROOF SECTOR 'E' DEMOLITION PLAN	0
MD-436	MECHANICAL – ROOF SECTOR 'F' DEMOLITION PLAN	0
MD-501	MECHANICAL – BOILER ROOM DEMOLITION PLANS	0
MD-503	MECHANICAL – BSMT SECTOR 'H' & GROUND FLOOR SECTOR 'C' PARTIAL DEMO PLAN	0
MD-505	MECHANICAL – GROUND FLOOR SECTOR 'E' PARTIAL DEMOLITION PLAN (ALT #1)	0
M-301	MECHANICAL – GROUND FLOOR SECTOR 'A' PIPING DEMOLITION & NEW WORK PLAN	0
M-303	MECHANICAL – GROUND FLOOR SECTOR 'C' PIPING NEW WORK PLAN	0
M-311	MECHANICAL – FIRST FLOOR SECTOR 'A' PIPING NEW WORK PLAN	0
M-313	MECHANICAL – FIRST & SECOND FLOOR SECTOR 'C' PIPING NEW WORK PLAN	0
M-326	MECHANICAL – SECOND FLOOR SECTOR 'F' PIPING NEW WORK PLAN	0
M-431	MECHANICAL – ROOF SECTOR 'A' NEW WORK PLAN	0
M-432	MECHANICAL – ROOF SECTOR 'B' NEW WORK PLAN	0
M-435	MECHANICAL – ROOF SECTOR 'E' NEW WORK PLAN	0
M-435-1	MECHANICAL – ROOF SECTOR 'E' NEW WORK PLAN (ALT #1)	0
M-436	MECHANICAL – ROOF SECTOR 'F' NEW WORK PLAN	0
M-437	MECHANICAL – ROOF SECTOR 'G' DEMOLITION & NEW WORK PLAN	0
M-501	MECHANICAL – BOILER ROOM NEW WORK PLAN	0
M-502	MECHANICAL – BOILER ROOM SECTIONS & ELEVATIONS	0
M-503	MECHANICAL – GROUND FLOOR SECTOR 'C' PARTIAL NEW WORK PLANS	0
M-504	MECHANICAL – GROUND FLOOR SECTOR 'E' PARTIAL DEMO & NEW WORK PLANS	0
M-504-1	MECHANICAL – GROUND FLOOR SECTOR 'E' PARTIAL NEW WORK PLAN (ALT #1)	0
M-505	MECHANICAL – SECOND FLOOR SECTOR 'A' & 'C' PARTIAL DEMO & NEW WORK PLANS	0
M-600	MECHANICAL – NETWORK DIAGRAM	0
M-601	MECHANICAL – AHU A1 CONTROL & AIRFLOW DIAGRAM	0
M-602	MECHANICAL – AHU A2 CONTROL & AIRFLOW DIAGRAM	0
M-603	MECHANICAL – AHU B1 & AHU E1 CONTROL & AIRFLOW DIAGRAM	0
M-604	MECHANICAL – AHU C1 CONTROL & AIRFLOW DIAGRAM	0
M-605	MECHANICAL – AHU C2 CONTROL & AIRFLOW DIAGRAM	0
M-606	MECHANICAL – AHU F1 & AHU F2 CONTROL & AIRFLOW DIAGRAM	0
M-607	MECHANICAL – AHU F3 CONTROL & AIRFLOW DIAGRAM	0
M-608	MECHANICAL – AHU F4 & AHU F5 CONTROL & AIRFLOW DIAGRAM	0
M-609	MECHANICAL – AHU F6 & AHU G1 CONTROL & AIRFLOW DIAGRAM	0
M-610	MECHANICAL – AHU F7 CONTROL & AIRFLOW DIAGRAM	0
M-611	MECHANICAL – AHU F9 CONTROL & AIRFLOW DIAGRAM	0
M-612	MECHANICAL – AHU E1 & AHU E2 CONTROL & AIRFLOW DIAGRAM (ALTERNATE #1)	0
M-701	MECHANICAL – SCHEDULES, SHEET 1	0
M-702	MECHANICAL – SCHEDULES, SHEET 2	0
M-801	MECHANICAL – DETAILS	0
M-802	MECHANICAL – BOILER PIPING DIAGRAM DEMOLITION PLAN	0
M-803	MECHANICAL – BOILER PIPING DIAGRAM & CONTROLS NEW WORK PLAN	0
M-901	MECHANICAL – SPECIFICATIONS	0
ED-431	ELECTRICAL – ROOF SECTOR 'A' DEMOLITION PLAN	0
ED-432	ELECTRICAL – ROOF SECTOR 'B' DEMOLITION PLAN	0
ED-435	ELECTRICAL – ROOF SECTOR 'E' DEMOLITION PLAN	0
ED-436	ELECTRICAL – ROOF SECTOR 'F' DEMOLITION PLAN	0
ED-437	ELECTRICAL – ROOF SECTOR 'G' DEMOLITION PLAN	0
ED-501	ELECTRICAL – BASEMENT PARTIAL DEMOLITION PLANS	0
ED-502	ELECTRICAL – GROUND FLOOR PARTIAL DEMOLITION PLANS	0
ED-503	ELECTRICAL – FIRST FLOOR PARTIAL DEMOLITION PLANS	0
ED-504	ELECTRICAL – SECOND FLOOR PARTIAL DEMOLITION PLANS	0
ED-601	ELECTRICAL – PARTIAL SINGLE LINE DIAGRAM, DEMOLITION PLAN	0
E-431	ELECTRICAL – ROOF SECTOR 'A' NEW WORK PLAN	0
E-432	ELECTRICAL – ROOF SECTOR 'B' NEW WORK PLAN	0
E-435	ELECTRICAL – ROOF SECTOR 'E' NEW WORK PLAN	0
E-435-1	ELECTRICAL – ROOF SECTOR 'E' DEMOLITION NEW WORK PLAN (ALT #1)	0
E-436	ELECTRICAL – ROOF SECTOR 'F' NEW WORK PLAN	0
E-437	ELECTRICAL – ROOF SECTOR 'G' NEW WORK PLAN	0
E-501	ELECTRICAL – BASEMENT PARTIAL NEW WORK PLANS	0
E-502	ELECTRICAL – GROUND FLOOR PARTIAL NEW WORK PLANS, SHEET 1	0
E-503	ELECTRICAL – GROUND FLOOR PARTIAL NEW WORK PLANS, SHEET 2	0
E-504	ELECTRICAL – FIRST FLOOR PARTIAL NEW WORK PLANS, SHEET 1	0
E-505	ELECTRICAL – FIRST FLOOR PARTIAL NEW WORK PLANS, SHEET 2	0
E-506	ELECTRICAL – SECOND FLOOR PARTIAL NEW WORK PLANS, SHEET 1	0
E-507	ELECTRICAL – SECOND FLOOR PARTIAL NEW WORK PLANS, SHEET 2	0
E-601	ELECTRICAL – PARTIAL SINGLE LINE DIAGRAM, NEW WORK PLAN	0
E-701	ELECTRICAL – SCHEDULES & DETAILS	0
E-702	ELECTRICAL – PANEL SCHEDULES	0
E-901	ELECTRICAL – SPECIFICATIONS	0
P-430	PLUMBING – ROOF GAS PIPING NEW WORK PLAN	0
P-501	PLUMBING – GAS PIPING RISER DIAGRAMS	0
P-502	PLUMBING – GAS PIPING DETAILS & PARTIAL PLAN	0
P-901	PLUMBING – SPECIFICATIONS	0
FA-301	FIRE ALARM – BASEMENT & GROUND FLOOR NEW WORK PLAN	0
FA-302	FIRE ALARM – FIRST & SECOND FLOOR FLOOR NEW WORK PLAN	0
FA-303	FIRE ALARM – ROOF NEW WORK PLAN	0
FA-901	FIRE ALARM – SPECIFICATIONS	0
FP-301	FIRE PROTECTION – BASEMENT & GROUND FLOOR NEW WORK PLAN	0
FP-302	FIRE PROTECTION – 1ST & 2ND FLOOR NEW WORK PLAN	0
FP-901	FIRE PROTECTION – SPECIFICATIONS	0

CM ENGINEERS, LLC
385 ROUTE 24, SUITE 3-O, CHESTER, NJ 07930
TEL (908) 879-1801
WWW.CMENGINEERS.COM
NEW JERSEY STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION: 24GA28121800
PRINCIPAL IN CHARGE: JOSEPH T. MISTRETTA, PE
N.J. PROFESSIONAL ENGINEER LICENSE NUMBER: 24GE02823800

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI01706000 | PA - RA012520X
JASON J. DUBOWITCH, AIA
NJ - 21AI01979800 | PA - RA406009
STEPHEN W. SCHREYER JR., AIA, LEED AP BD+C
NJ - 21AI02003100 | PA - RA410435
Architect
Date 01/29/26

FVHD architects planners
EST 1918
Fraytak Veisz Hopkins Duthie P C
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
F V H D P C . C O M

Project Name	HVAC Renovations at Princeton High School
Project Owner Name	Princeton Public Schools
Project Location	151 Moore Street, Princeton, NJ 08540
Project Number	5516E
Project Date	01.29. 2026
Checked By	JTM
Drawn By	JD
Scale	AS NOTED
Drawing Name	COVER SHEET

Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number

C-000

ROOFTOP UNIT WITH HEAT RECOVERY SCHEDULE

UNIT NO.	MFR	MODEL	AREA SERVED	SUPPLY FAN SECTION: SUPPLY CFM	OA CFM	ESP (IN WG)	SPEED (RPM)	FANS (QTY)	MOTOR (BHP EA)	MOTOR (QTY/HP EA)	EXHAUST FAN SECTION: RETURN CFM	ESP (IN WG)	SPEED (RPM)	FANS (QTY)	MOTOR (BHP EA)	MOTOR (QTY/HP EA)
AHU-A1	AAON	RNA-016-C-A-3-HAB0A-CB1L0	CLASSROOMS	3580	3580	1.5	1448	1	4.9	7.5	4990	1.0	1435	1	4.1	10
AHU-A2	TRANE	OADG030F3-DAA1HBJ00-N1AJE1AE3	LIBRARY	8000	1600	2.75	2264	1	8.65	10	8000	1.25	1285	1	1.5	7.5
AHU-B1	AAON	RNA-030-C-A-3-HAB0C-CB3L0	CAFETERIA	7000	3875	3.0	1707	1	9.10	15	7000	1.5	1733	1	6.9	10
AHU-E1	AAON	RNA-026-D-A-3-00000	OLD GYM	12800	4700	1.5	1534	1	16.38	20	12800	1.5	1309	2	4.16	7.5
AHU-F1	AAON	RZA-075-A-0-3-HAB0A-DB3L0	AUDITORIUM	14980	5900	1.75	1749	1	7.26	10	14980	1.5	802	1	6.05	10
AHU-F3	AAON	RNA-030-C-A-3-HAB0C-CB1L0	MUSIC ROOMS	5905	2420	3.0	1674	1	11.62	15	5905	1.5	1548	1	5.04	7.5
AHU-G1	TRANE	OANG080C3-DAC1GBT00-T1BNG1BG3	NEW GYM	20000	7930	2.5	1921	2	16.3	20	20000	1.25	1814	2	2.5	3

UNIT NO.	HR COOLING CAPACITY: OA EAT DB/WB	SA LAT DB/WB	RA EAT DB/WB	EA EAT DB/WB	HR HEATING CAPACITY: OA EAT DB/WB	SA LAT DB/WB	RA EAT DB/WB	EA EAT DB/WB	HR FILTER SECTION: PRE-FILTER IN./MERV	OA/RA FILTER SECTION: PRE-FILTER IN./MERV	FINAL FILTER IN./MERV
AHU-A1	94/75	77/66	72/61.4	85/69.4	10/9	56.6/50.3	72/61.4	36.1/36	MESH	MERV8	MERV13
AHU-A2	94/75	76.6/64.9	72/61.4	89/72	10/9	57.7/51.8	72/61.4	25/24.8	MESH	MERV8	MERV13
AHU-B1	94/75	76/64.5	73/62.3	89/71.4	10/9	63.5/56	73/62.3	29.3/29.2	MESH	MERV8	MERV13
AHU-E1	94/75	73.5/62.7	76.2/64.9	89.6/72.1	10/9	63.5/58.3	59.1/52.4	24.6/24.5	MESH	MERV8	MERV13
AHU-F1	94/75	74/62.6	72/61.4	89/72	10/9	64.9/56.8	72/61.4	18.4/18.3	MESH	MERV8	MERV13
AHU-F3	94/75	74.5/63.5	72/61.4	88.8/71.6	10/9	64.2/56.3	72/61.4	26.7/26.6	MESH	MERV8	MERV13
AHU-G1	94/75	81.6/66.6	72/60	85/68.3	10/9	43.5/39.5	70/58	35.6/34.4	MESH	MERV8	MERV13

UNIT NO.	DX COOLING COIL: TOTAL CAP (MBH)	SENS CAP (MBH)	ROWS	FINS/IN	LAT (DB/WB)	FACE VEL. (FPM)	REFRIG TYPE	HGRH COIL: REHEAT CAP (MBH)	GAS HEATER SECTION: HEATING MEDIUM	INPUT (MBH)	OUTPUT (MBH)	EAT (DB)	LAT (DB)	TURNDOWN (RATIO)	OPER PRESS RANGE (IN-IN)	UNIT DIMENSIONS (LxWxH)	ELECTRICAL SECTION: FLA (AMPS)	MCA (AMPS)	MOP (AMPS)	POWER (V/PH/HZ)	WEIGHT (LBS)	NOTES
AHU-A1	180	116	6	12	49.8/49.7	199	R-454B	94.3	NAT. GAS	270	219	56.6	107	9:1	7-14"WC	110X59X59	55	62	80	460/3/60	3735	1, 6, 7, 8, 9
AHU-A2	352	229	6	12	47.4/46.5	460	R-454B	216	NAT. GAS	350	284	66.6	99.3	10:1	7-14"WC	183X95X68	78	83.5	100	460/3/60	4470	2, 6, 7
AHU-B1	301	202	6	12	49.3/49.1	352	R-454B	171	NAT. GAS	540	437	63.5	120	18:1	7-14"WC	157X59X59	91	97	110	460/3/60	4065	3, 6, 7
AHU-E1	–	–	–	–	–	–	–	–	NAT. GAS	600	486	67	101.9	10:1	7-14"WC	209X100X87	52	59	80	460/3/60	5258	6, 7, 10
AHU-F1	695	467	6	14	45/45	274	R-454B	344	NAT. GAS	1080	875	64.9	118	18:1	7-14"WC	538X100X104	185	193	225	460/3/60	19774	4, 6, 7, 8
AHU-F3	284	184	6	12	45.6/45.5	297	R-454B	168	NAT. GAS	270	219	64	98	9:1	7-14"WC	157X59X59	85	92	110	460/3/60	4070	4, 6, 7, 8
AHU-G1	798.8	587.8	6	14	48.6/48.1	584	R-454B	551.5	NAT. GAS	1000	810	59.5	98.6	20:1	7-14"WC	334X98X108	195.5	204	225	460/3/60	11820	5, 6, 7, 8

NOTES:
1. PROVIDE COMPRESSORS WITH HGBY ON LAST STAGE, SA AND EA FAN VFD, ECONOMIZER, ENERGY RECOVERY FILTERS, HGRH COIL, SINGLE POINT POWER CONNECTION WITH A NON-FUSED DISCONNECT SWITCH, PHASE PROTECTION, MAKEUP AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, ENERGY WHEEL ROTATION DETECTION, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, OA FLOW STATION AND SA AND EX FAN FLOW TRACKING, ENERGY RECOVERY SUPPLY AIR TEMPERATURE AND HUMIDITY SENSOR & DUCT MOUNTED SUPPLY AIR TEMP SENSOR.
2. PROVIDE VARIABLE SPEED COMPRESSORS, SA AND EX FAN VFD, ECONOMIZER, ENERGY RECOVERY WHEEL FILTERS, HGRH COIL, SINGLE POWER CONNECTION WITH A NON-FUSED DISCONNECT, PHASE PROTECTION, DISCHARGE AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, ENERGY WHEEL ROTATION DETECTION, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, SA, EA AND OA FLOW MEASUREMENT, CONDENSATE OVERFLOW SWITCH, SA AND EX FAN FLOW TRACKING, SPACE CO2 DEMAND CONTROL, SPACE TEMPERATURE AND HUMIDITY SENSOR.
3. PROVIDE COMPRESSORS WITH HGBY ON LAST STAGE, SA AND EA FAN VFD, ECONOMIZER, ENERGY RECOVERY FILTERS, HGRH COIL, SINGLE POINT POWER CONNECTION WITH A NON-FUSED DISCONNECT SWITCH, PHASE PROTECTION, MAKEUP AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, ENERGY WHEEL ROTATION DETECTION, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, OA FLOW STATION AND SA AND EX FAN FLOW TRACKING AND SPACE TEMPERATURE AND HUMIDITY SENSOR.
4. PROVIDE COMPRESSORS WITH HGBY ON LAST STAGE, SA AND EX FAN VFD, ECONOMIZER, ENERGY RECOVERY FILTERS, HGRH COIL, SINGLE POWER CONNECTION WITH A NON-FUSED DISCONNECT, PHASE PROTECTION, DISCHARGE AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, ENERGY WHEEL ROTATION DETECTION, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, SA, EA AND OA FLOW MEASUREMENT, CONDENSATE OVERFLOW SWITCH, SA AND EX FAN FLOW TRACKING, SPACE CO2 DEMAND CONTROL, SPACE TEMPERATURE AND HUMIDITY SENSOR.
5. PROVIDE COMPRESSORS WITH HGBY ON LAST STAGE, SA AND EX FANS WITH VFD, ECONOMIZER, ENERGY RECOVERY FILTERS, HGRH COIL, SINGLE POWER CONNECTION WITH A NON-FUSED DISCONNECT, PHASE PROTECTION, DISCHARGE AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH LOW AMBIENT HEAD PRESSURE CONTROL, CONVENIENT OUTLET, HAIL GUARD, CONDENSATE OVERFLOW SWITCH,
6. DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, SA, EA AND OA FLOW MEASUREMENT, CONDENSATE OVERFLOW SWITCH, SA AND EX FAN FLOW STATIONS FOR TRACKING, SPACE CO2 DEMAND CONTROL, SPACE TEMPERATURE AND HUMIDITY SENSOR.
7. PROVIDE A TWO (2) YEAR WARRANTY, PARTS & LABOR & EXTENDED 3 YEAR COMPRESSOR WARRANTY (PARTS ONLY) AND FACTORY START-UP.
8. WEIGHT OF UNIT DOES NOT INCLUDE WEIGHT OF SUPPORT CURB. SEE CURB SCHEDULE FOR WEIGHTS.
9. OUTSIDE AND EXHAUST HOODS SUPPLIED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.
10. PROVIDE SA AND EX FAN WITH VFD, ENERGY RECOVERY FILTER, SINGLE POWER CONNECTION WITH NON-FUSED DISCONNECT, PHASE PROTECTION, BACNET MSTP, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, OA FLOW MEASUREMENT, CONVENIENCE OUTLET, ECONOMIZER, TEMPERATURE SENSOR AND CO2 SENSOR.

ROOFTOP UNIT SCHEDULE

UNIT NO.	MFR	MODEL	AREA SERVED	SUPPLY FAN SECTION: SUPPLY CFM	O.A. CFM	ESP (IN WG)	NO OF SA FANS	SPEED (RPM)	HP (EA)	EXHAUST FAN SECTION: RETURN CFM	ESP (IN WG)	NO OF EA FANS	SPEED (RPM)	HP (EA)	FILTER: PRE-FILTER IN./MERV
AHU-F2	TRANE	YCH330D4M-4D2G3DAB-D	STAGE	8000	1530	2.25	1	818	10	8000	.5	1	1140	1	4"/14
AHU-F4	AAON	RQA-004-A-A-3-GJB0A-A01NA	CORRIDOR	900	100	1.5	1	1752	1	900	.5	1	926	1	2"/8 4"/13
AHU-F5	TRANE	YCH360D4P-4D3R3DAD-D	MAIN LOBBY	8600	1250	2.25	1	836	15	8600	.5	1	1140	1	4"/14
AHU-F6	AAON	RNA-030-C-A-3-HAB0C-CB1L0	BLACK BOX THEATER	6000	1250	2.5	1	1537	10	6000	1.0	1	1348	5	2"/8 4"/13
AHU-F7	AAON	RNA-016-C-A-3-HAB0A-J0SR0	ADMIN	2725	1575	3.0	1	1463	7.5	625	N/A	N/A	N/A	N/A	2"/8 4"/13
AHU-F9	AAON	RQA-005-A-A-3-HJB0A-A02NB	PRACTICE ROOMS	1370	345	1.5	1	2105	2	1370	.5	1	1711	1	2"/8 4"/13

UNIT NO.	DX COOLING COIL: TOTAL CAP (MBH)	SENS CAP (MBH)	ROWS	FINS/IN	EAT (DB/WB)	LAT (DB/WB)	FACE VEL. (FPM)	REFRIG TYPE	HGRH COIL: OUTPUT (MBH)	GAS HEATER SECTION: HEATING MEDIUM	INPUT (MBH)	OUTPUT (MBH)	EAT (DB)	LAT (DB)	TURNDOWN (RATIO)	OPER PRESS RANGE (IN-IN)
AHU-F2	328	227	5	15	75.8/63.9	53.2/51	291	R-454B	164	NAT.GAS	350	284	50.4	90.4	10;1	7-14"WC
AHU-F4	43.3	28.5	6	12	75.7/64.0	46.2/46.2	180	R-454B	24.9	N/A	–	25.1	64	122	N/A	N/A
AHU-F5	373	256	5	15	77.3/65.2	50.8/50.7	300	R-454B	183	NAT.GAS	600	486	55	105	10;1	7-14"WC
AHU-F6	290	195	6	12	77.4/64.7	47.1/46.9	302	R-454B	160	NAT.GAS	270	219	59.8	93.1	9:1	7-14"WC
AHU-F7	179.7	113	6	12	89.7/72.2	50.2/50.2	137	R-454B	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AHU-F9	55.1	38.7	6	12	77.5/65.2	51.3/511	274	R-454B	30.5	ELECT	N/A	28.4	53.9	116	N/A	N/A

UNIT NO.	HOT WATER HEATER SECTION: CAPACITY (MBH)	EAT (DB)	LAT (DB)	EWT (F)	LWT (F)	WPD (FT)	FLOW (GPM)	UNIT DIMENSIONS (LxWxH)	ELECTRICAL: VOLTS	PHASE	HERTZ	FLA	MCA	MOCP	WEIGHT (LBS)	REMARKS
AHU-F2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	180X90X71	460	3	60	77.3	83	100	6000	1, 4, 5
AHU-F4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	82X44X50	460	3	60	30	35	35	835	2 4, 5
AHU-F5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	207X90X70	460	3	60	84.1	90	100	6200	1, 4, 5
AHU-F6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	110X59X59	460	3	60	74	81	100	3245	1, 4, 5
AHU-F7	228.8	25	93	140	120	1.2	25	110X59X59	460	3	60	44	51	70	2845	3, 4, 5, 6
AHU-F9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	82X44X50	460	3	60	44	52	60	965	2, 4, 5

NOTES:
1. PROVIDE VARIABLE SPEED COMPRESSORS, SA AND EX FAN VFD, ECONOMIZER, HGRH COIL, SINGLE POWER CONNECTION WITH A NON-FUSED DISCONNECT, PHASE PROTECTION, DISCHARGE AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, SA, EA AND OA FLOW MEASUREMENT, CONDENSATE OVERFLOW SWITCH, SA AND EX FAN FLOW TRACKING, SPACE CO2 DEMAND CONTROL, SPACE TEMPERATURE AND HUMIDITY SENSOR.
2. PROVIDE VARIABLE SPEED COMPRESSORS, HEAT PUMP WITH AUXILIARY ELECTRIC COIL 20KW, SA VFD, EX FAN WITH ECM MOTOR, ECONOMIZER, HGRH COIL, SINGLE POWER CONNECTION WITH A NON-FUSED DISCONNECT, PHASE PROTECTION, DISCHARGE AIR CONTROLLER, BACNET MSTP, ECM CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, SA AND EX FAN FLOW TRACKING, SPACE TEMPERATURE AND HUMIDITY SENSOR.
3. PROVIDE COMPRESSORS WITH HGBY ON LAST STAGE, SA FAN VFD, ECONOMIZER, HGRH COIL, SINGLE POINT POWER CONNECTION WITH A NON-FUSED DISCONNECT SWITCH, PHASE PROTECTION, VAV AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, OA FLOW STATION AND SA FAN FLOW TRACKING AND SPACE TEMPERATURE AND HUMIDITY SENSOR.
4. PROVIDE TWO (2) YEAR WARRANTY ON ALL PARTS AND LABOR AND 3 YEAR EXTENDED WARRANTY (PARTS ONLY) ON COMPRESSOR PARTS. PROVIDE START-UP AND COMMISSIONING BY MANUFACTURER REPRESENTATIVE. INCLUDE START-UP IN COOLING AND HEATING SEASONS. PROVIDE 16HRS OF TRAINING FOR OWNER.
5. WEIGHT OF UNIT DOES NOT INCLUDE WEIGHT OF SEISMIC SUPPORT CURB. SEE CURB SCHEDULE FOR WEIGHTS.
6. MANUFACTURER TO PROVIDE PIPING SPECIALTIES, STRAINER, CONTROL VALVE, ISOLATION VALVES, CIRCUIT SETTER. CONTRACTOR SHALL INSTALL AND THE BAS CONTRACTOR SHALL WIRE CONTROL VALVE.

EQUIPMENT CURB SCHEDULE

UNIT NO.	CURB MFR	MODEL	SEISMIC	VIBRATION ISOLATION	DESCRIPTION	WEIGHT (LBS)	REMARKS
AHU-A1	CURBPLUS	AAON CPC-3	NO	NO	20" CLEAR HEIGHT INSULATED RETURN AIR PLENUM	725	3
AHU-F1	CURBPLUS	AAON CPC-3	YES	YES	20" HIGH VIBRATION CURB	1525	3
AHU-F2	THYCURB	TRANE BAYCURB 035	YES	YES	14" VIBROCURB III UNINSULATED TOP DUCT SUPPORT	720	–
AHU-F3	CURBPLUS	AAON C-BOX CPISO-1	YES	YES	35" HIGH INSULATED SUPPLY AND RETURN AIR PLENUM	1005	3
AHU-F4	CURBPLUS	AAON CPC-3	YES	NO	24" HIGH INSULATED RETURN AIR PLENUM, DUCTED SUPPLY	275	3
AHU-F5	THYCURB	TRANE BAYCURB 036	YES	YES	VIBROCURB III INSULATED SUPPLY AND RETURN AIR PLENUM	876	1
AHU-F6	CURBPLUS	AAON CPC-3	YES	NO	40" HIGH 2" INSULATED SUPPLY AND RETURN AIR PLENUM	585	2
AHU-F7	CURBPLUS	AAON CPC-3	YES	NO	36" HIGH 2" INSULATED SUPPLY AND RETURN AIR PLENUM	485	2
AHU-F9	CURBPLUS	AAON CPC-3	YES	NO	24" HIGH INSULATED RETURN AIR PLENUM, DUCTED SUPPLY	275	3
AHU-G1	KCC	KCC-OANG-ER-CC1-FWP-30-KSRI	YES	YES	30" HIGH VIR INSULATED SUPPLY AND RETURN AIR PLENUM	1355	4
AHU-E1	CURBPLUS	AAON CPC-3	YES	NO	24"HIGH INSULATED RETURN AIR PLENUM, DUCTED SUPPLY	800	3

NOTES:
1. PLENUM INSIDE SHALL BE 24" CLEAR HEIGHT.
2. HORIZONTAL CONNECTIONS, 14GA GALV. CONSTRUCTION, HOLD DOWN CLIPS AND 2" DUCT-LINER.
3. 14GA GALV. CONSTRUCTION, 1 ½" 3# INSULATION AND HOLD DOWN CLIPS.
4, 12GA GALV. CURB 18GA PAN, 1 ½" 3# INSULATION AND HOLD DOWN CLIPS."
5. CONTRACTORS SHALL VERIFY SLOPE OF ROOF FOR EACH CURB TO ENSURE CURB ORDERED WITH THE CORRECT PITCH SO THAT THE UNIT WILL BE LEVEL. THE SLOPE SHOULD BE VERIFIED BEFORE ISSUEING SUBMITTAL FOR REVIEW.

HOT/CHILLED WATER FAN COIL UNIT SCHEDULE

UNIT NO.	MANUF.	MODEL	LOCATION	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	AIRFLOW (CFM)	HEATING: EAT (F)	LAT (F)	CAPACITY (MBH)	EWT (F)	LWT (F)	GPM	WATER PD (FT)
FCU-1	TRANE	FCBB-060	STAIRWELL S09	47.8	9.9	25.2	500	60	116	30.3	140	115	2.6	11.0
FCU-2	TRANE	FCBB-060	STAIRWELL S11	47.8	9.9	25.2	500	60	116	30.3	140	115	2.6	11.0
FCU-3	TRANE	FCBB-060	STAIRWELL S10	47.8	9.9	25.2	500	60	116	30.3	140	115	2.6	11.0
FCU-4	TRANE	FCBB-060	CORRIDOR C1	47.8	9.9	25.2	500	60	116	30.3	140	115	2.6	11.0
FCU-5	TRANE	FCBB-060	CORRIDOR 270	47.8	9.9	25.2	500	60	116	30.3	140	115	2.6	11.0

UNIT NO.	COOLING: EAT (DB/WB)	LAT (DB/WB)	CAPACITY (MBH)	EWT (F)	LWT (F)	GPM	WATER PD (FT)	ROWS	ELECTRIC: MOCP	VOLTS	PH	HZ	DRY WT (LBS)	REMARKS
FCU-1	80/67	60.2/59.6	11.9	45	55	2.6	11.0	4	15	120	1	60	139	SEE NOTES
FCU-2	80/67	60.2/59.6	11.9	45	55	2.6	11.0	4	15	120	1	60	139	SEE NOTES
FCU-3	80/67	60.2/59.6	11.9	45	55	2.6	11.0	4	15	120	1	60	139	SEE NOTES
FCU-4	80/67	60.2/59.6	11.9	45	55	2.6	11.0	4	15	120	1	60	139	SEE NOTES
FCU-5	80/67	60.2/59.6	11.9	45	55	2.6	11.0	4	15	120	1	60	139	SEE NOTES

NOTES:
1. CAPACITY BASED ON 30% PROPYLENE GLYCOL.
2. PROVIDE WITH FRONT RETURN GRILLE AT BASE AND TOP DISCHARGE AIR GRILLE.
3. PROVIDE WITH UNIT MOUNTED DISCONNECT SWITCH, ECM MOTOR, AND 1" MERV 8 THROW AWAY FILTERS.
4. MANUFACTURER SHALL PROVIDE WITH UNIT MOUNTED CONTROLLER BACNET MSTP PROTOCOL, REMOTE WALL TEMPERATURE SENSOR (SET AT 72F) WITH VARIABLE SPEED CONTROL, CONDENSATE OVERFLOW SENSOR, CHANGEOVER SENSOR. CONTROL VALVE AND FACTORY WIRED LOW LIMIT AIR TEMPERATURE SENSOR. PROVIDE DELUXE PIPING PACKAGE (I.E. ISOLATION VALVES, 2-WAY MODULATING CONTROL VALVE, AUTO FLOW VALVE, STRAINER & P/T PORTS) FOR FIELD INSTALLATION AND WIRING OF THE VALVE AND SENSORS.
5. CONTRACTOR TO VERIFY LEFT/RIGHT HAND PIPING CONNECTION.
6. MANUFACTURER SHALL PROVIDE THE NECESSARY CONTROL WIRING, PROGRAMMING, STARTUP AND TRAINING. BAS CONTRACTOR SHALL PROVIDE COMMUNICATION WIRING AND MAP BACNET POINTS BAS SYSTEM.
7. MANUFACTURER SHALL PROVIDE TWO YEAR WARRANTY ON PARTS AND LABOR.

ROOFTOP UNITS FOR OLD GYM AND TEAMS (ALTERNATE 1)

UNIT NO.	MFR	MODEL	AREA SERVED	SUPPLY FAN SECTION: SUPPLY CFM	OA CFM	ESP (IN WG)	SPEED (RPM)	FANS (QTY)	MOTOR (BHP EA)	MOTOR (QTY/HP EA)	EXHAUST FAN SECTION: RETURN CFM	ESP (IN WG)	SPEED (RPM)	FANS (QTY)	MOTOR (BHP EA)	MOTOR (QTY/HP EA)
AHU-E1	AAON	RNA-040-D-A-3-GAA0B-CB2L0	OLD GYM	12000	4050	3.0	1436	1	14.4	20	12000	1.5	1253	2	3.67	5
AHU-E2	AAON	RNA-007-A-A-3-HAB0A-CB2L0	TEAMS	1675	605	1.75	1721	1	1.38	2	1070	.55	677	1	.57	1.0

UNIT NO.	HR COOLING CAPACITY: OA EAT DB/WB	SA LAT DB/WB	RA EAT DB/WB	EA EAT DB/WB	HR HEATING CAPACITY: OA EAT DB/WB	SA LAT DB/WB	RA EAT DB/WB	EA EAT DB/WB	HR FILTER SECTION: PRE-FILTER IN./MERV	OA/RA FILTER SECTION: PRE-FILTER IN./MERV	FINAL FILTER IN./MERV
AHU-E1	94/75	78.9/64.5	72/62	90.9/72.1	10/9	60.0/52.7	72/61.4	25.1/25	MESH	MERV8	MERV13
AHU-E2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MERV8	MERV13

UNIT NO.	DX COOLING COIL: TOTAL CAP (MBH)	SENS CAP (MBH)	ROWS	FINS/IN	LAT (DB/WB)	FACE VEL. (FPM)	REFRIG TYPE	HGRH COIL: REHEAT CAP (MBH)	GAS HEATER SECTION: HEATING MEDIUM	INPUT (MBH)	OUTPUT (MBH)	EAT (DB)	LAT (DB)	TURNDOWN (RATIO)	OPER PRESS RANGE (IN-IN)	UNIT DIMENSIONS (LxWxH)	ELECTRICAL SECTION: FLA (AMPS)	MCA (AMPS)	MOP (AMPS)	POWER (V/PH/HZ)	WEIGHT (LBS)	NOTES
AHU-E1	495.2	359.6	4	14	48.7/48.3	267	R-454B	314.6	NAT. GAS	600	486	69.2	106	10:1	7-14"WC	209X100X102	117	124	150	460/3/60	7740	1, 3, 4, 5
AHU-E2	78.8	52.7	6	14	51.2/51.2	196.7	R-454B	37.0	NAT. GAS	150	121.5	47.4	114	8:1	7-14"WC	97X79X40	19	23	30	460/3/60	1330	2, 3, 4, 5

1. PROVIDE VARIABLE SPEED COMPRESSORS, SA AND EX FAN VFD, ECONOMIZER, ENERGY RECOVERY WHEEL FILTERS, HGRH COIL, SINGLE POWER CONNECTION WITH A NON-FUSED DISCONNECT, PHASE PROTECTION, DISCHARGE AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, ENERGY WHEEL ROTATION DETECTION, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, SA, EA AND OA FLOW MEASUREMENT, CONDENSATE OVERFLOW SWITCH, SA AND EX FAN FLOW TRACKING, SPACE CO2 DEMAND CONTROL, SPACE TEMPERATURE AND HUMIDITY SENSOR.
2. PROVIDE VARIABLE SPEED COMPRESSORS, SA AND EX FAN VFD, ECONOMIZER, HGRH COIL, SINGLE POWER CONNECTION WITH A NON-FUSED DISCONNECT, PHASE PROTECTION, DISCHARGE AIR CONTROLLER, BACNET MSTP, VFD CONDENSER FANS WITH HEAD PRESSURE CONTROL, CONVENIENT OUTLET, DOUBLE WALL CONSTRUCTION WITH ACCESS DOORS, SA, EA AND OA FLOW MEASUREMENT, CONDENSATE OVERFLOW SWITCH, SA AND EX FAN FLOW TRACKING, SPACE CO2 DEMAND CONTROL, SPACE TEMPERATURE AND HUMIDITY SENSOR.2.
3. PROVIDE A TWO (2) YEAR WARRANTY, PARTS & LABOR & EXTENDED 3 YEAR COMPRESSOR WARRANTY (PARTS ONLY) AND FACTORY START-UP.
4. WEIGHT OF UNIT DOES NOT INCLUDE WEIGHT OF SUPPORT CURB. SEE CURB SCHEDULE FOR WEIGHTS.
5. OUTSIDE AND EXHAUST HOODS SUPPLIED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.

AHU-E1 AND E2 CURB SCHEDULE (ALTERNATE 1)

UNIT NO.	CURB MFR	MODEL	SEISMIC	VIBRATION ISOLATION	DESCRIPTION	WEIGHT (LBS)	REMARKS
AHU-E1	CURBPLUS	AAON CPISO-2	YES	YES	24" CLEAR HGHT INSULATED RETURN AIR PLENUM, DUCTED SUPPLY	1425	1, 3
AHU-E2	CURBPLUS	AAON CPC-4	YES	NO	14" HIGH UNINSULATED CURB	175	2, 3

NOTES:
1. 14GA GALV. CONSTRUCTION, 12GA GALV. TOP RAIL, 2" DEFLECTION ISOLATORS, FLEX CONNECTORS AROUND PLENUMS, BASE CURB/RAIL FULLY INSULATED WITH 1 ½" 3# INSULATION AND HOLD DOWN CLIPS.
2. 14GA GALV. CONSTRUCTION, WOOD NAILER, UNINSULATED CURB.
3. CONTRACTORS SHALL VERIFY SLOPE OF ROOF FOR EACH CURB TO ENSURE CURB ORDERED WITH THE CORRECT PITCH SO THAT THE UNIT WILL BE LEVEL. THE SLOPE SHOULD BE VERIFIED BEFORE ISSUEING SUBMITTAL FOR REVIEW.

AIR HANDLER SCHEDULE- AHU-C1 AND AHU-C2 (ALTERNATE 2)

UNIT NO.	MFR	MODEL	AREA SERVED	SUPPLY FAN SECTION: SUPPLY CFM	O.A. CFM	ESP (IN WG)	NO OF SA FANS	SPEED (RPM)	HP (EA)	DUAL TEMP HOT WATER COIL PERFORMANCE: CAPACITY (MBH)	EAT (DB)	LAT (DB)	EWT (F)	LWT (F)	WPD (FT)	FLUID
AHU-C1	TRANE	CSAA008	STORAGE	3400	1700	2.0	1	2345	5	251	36	103	130	110	26	10.3
AHU-C2	TRANE	CSAA006	NURSE/ADMIN	1900	1900	1.5	1	2136	10	216	0	102	130	110	22.8	8.0

UNIT NO.	DUAL TEMP CHILLED WATER COIL PERFORMANCE: TOTAL CAPACITY (MBH)	SEN. CAPACITY (MBH)	EAT (DB/WB)	LAT (DB/WB)	EWT (F)	LWT (F)	WPD (FT)	FLOW (GPM)	ELEC REHEAT SECTION: CAPACITY (KW)	EAT (DB)	LAT (DB)	CONTROL	OA FILTER SECTION: PRE-FILTER IN./MERV	FINAL-FILTER IN./MERV	UNIT DIMENSIONS (LxWxH)	ELECTRICAL: VOLTS	PHASE	HERTZ	FLA	MCA	MOCP	WEIGHT (LBS)	REMARKS
AHU-C1	171.9	116.6	83/68.4	52/51.9	45	54	6.98	41.3	22	52	72.5	SCR	2"/8	2"/13	145X50.5X37.8	460	3	60	36	45	50	2020	1, 3
AHU-C2	149.3	90.8	94/75	52/51.9	45	54	7.5	36	12.5	52	72.3	SCR	2"/8	4"/13	155X44X35	460	3	60	24	30	35	1685	2, 3

NOTES:
1. UNIT SHALL BE SHIPPED IN FOUR (4) SEPARATE SECTIONS & ASSEMBLED IN THE FIELD. PROVIDE WITH SUPPLY AIR PLENUM FAN AND VFD WITH BYPASS, DUAL TEMPERATURE HEATING AND COOLING COIL, PERFORMANCE BASED ON 35%PG, DOUBLE WALL CONSTRUCTION WITH THERMAL BREAK AND R13 INSULATION, SS DRAIN PAN, SINGLE POINT CONNECTION WITH DISCONNECT, VARIABLE SPEED SUPPLY AIR FAN AND ELECTRIC REHEAT WITH SCR CONTROL. PROVIDE DDC OPTION WITH OUTSIDE AIR AND SUPPLY AIR FLOW STATIONS, WITH SENSORS AND DAMPER ACTUATORS PROVIDED BY MANUFACTUER. CONTROL CONTRACTOR TO PROVIDE WIRING, BACNET CONTROLLER AND START-UP.
2. UNIT SHALL BE SHIPPED IN THREE (3) SEPARATE SECTIONS & ASSEMBLED IN THE FIELD. PROVIDE WITH SUPPLY AIR IMPELLER FAN WITH ECM MOTOR, DUAL TEMPERATURE HEATING AND COOLING COIL, PERFORMANCE BASED ON 35%PG, DOUBLE WALL CONSTRUCTION WITH THERMAL BREAK AND R13 INSULATION, SS DRAIN PAN, SINGLE POINT CONNECTION WITH DISCONNECT, VARIABLE SPEED SUPPLY AIR FAN AND ELECTRIC REHEAT WITH SCR CONTROL. PROVIDE DDC OPTION WITH SUPPLY AIR FLOW STATION, SENSORS, OUTSIDE AIR TEMPERATURE AND HUMIDITY SENSOR AND DAMPER ACTUATORS PROVIDED BY MANUFACTUER. CONTROL CONTRACTOR TO PROVIDE WIRING, BACNET CONTROLLER AND START-UP.
3. PROVIDE TWO (2) YEAR WARRANTY ON ALL PARTS AND LABOR AND START-UP FOR MECHANICAL AND CONTROLS.

EXHAUST FAN SCHEDULE

UNIT NO.	MFR	MODEL	LOCATION	TYPE	AIRFLOW (CFM)	E.S.P. (IN W.G.)	FAN RPM	WHEEL TYPE	CLASS	ARRG'T	ROTATION	DISCH POSITION	ELECTRICAL: MCA	MOCP	VOLTS	PHASE	HERTZ	HP	WEIGHT (LBS)	REMARKS
EF-E1	GREENHECK	USF-18	ROOF	DIRECT DRIVE	4,150	1.5"	1,538	AF	I	4	CW	UB	6	15	480	3	60	3	313	NOTES 1, 2, 5, 6
EF-C4	GREENHECK	USF-18	MECH RM	DIRECT DRIVE	3,400	3.0"	1,710	AF	I	4	CW	UB	6	15	480	3	60	3	250	NOTES 1, 2, 5, 6
EF-E9 (ALT #1)	GREENHECK	G-099-VG	ROOF	DIRECT DRIVE	735	0.75"	1,523	BI	I	N/A	N/A	N/A	2	15	277	1	60	1/4	41	NOTES 3, 5, 6
EF-B10	GREENHECK	SQ-100-VG	BOILER RM	DIRECT DRIVE	860	0.4"	1,323	BI	I	N/A	N/A	N/A	3	15	277	1	60	1/4	52	NOTES 4-6

NOTES:
1. PROVIDE FAN WITH PERMA-LOCK CONSTRUCTION, STEEL SCROLL, ALUMINUM WHEEL, STEEL INLET CONE, ODP MOTOR, VFD RATED PREMIUM EFFICIENCY MOTOR (CLASS F INSULATION) WITH SHAFT GROUNDING PROTECTION, ISOLATION BASE WITH FACTORY MOUNTED ISOLATION SPRINGS, L-10 BEARINGS, POLISHED STEEL SHAFT, INLET & OUTLET PUNCHED FLANGES, MOTOR COVER, SHAFT GUARD.
2. FAN & ACCESSORIES SHALL HAVE A PERMATECTOR, CONCRETE GRAY COATING.
3. PROVIDE DIRECT DRIVE FAN WITH VARI-GREEN MOTOR, DIAL ON MOTOR FOR AIR BALANCING, WIRED DISCONNECT SWITCH, ALUMINUM WHEEL, GALVANIZED BIRD SCREEN & 14" HIGH ROOF CURB WITH DAMPER TRAY AND BACK DRAFT DAMPER.
4. PROVIDE DIRECT DRIVE FAN WITH VARI-GREEN MOTOR, PRE-WIRED DIAL ON FAN HOUSING FOR AIR BALANCING, ALUMINUM WHEEL & WIRED DISCONNECT SWITCH.
5. FAN MANUFACTURER SHALL PROVIDE PRE-INSPECTION, STARTUP, AND ASSISTANCE DURING THE BALANCING & COMMISSIONING PHASES OF THE PROJECT.
6. PROVIDE TWO (2) YEARS WARRANTY, PARTS & LABOR.

DUCT SERVICE SCHEDULE

SERVICE	DUCT MATERIAL	PRESSURE CLASS / CONNECTION	REMARKS
SUPPLY	GALVANIZED STEEL (SEE NOTE)	4" PRESSURE CLASS - FLANGED AND GASKETED FITTINGS	SEE NOTE 2
RETURN/EXHAUST	GALVANIZED STEEL (SEE NOTE)	4" PRESSURE CLASS - FLANGED AND GASKETED FITTINGS	SEE NOTE 2
ROUND SUPPLY & EXHAUST	GALVANIZED STEEL (SEE NOTE)	4" PRESSURE CLASS SPIRAL SEAM CONST. W/FLANGED AND GASKETED FITTINGS	SEE NOTE 2
SUPPLY & RETURN	DOUBLE-WALL GALVANIZED STEEL WITH 2" INTERNAL INSULATION	4" PRESSURE CLASS - FLANGED AND GASKETED FITTINGS	SEE NOTE 1

NOTES:
1. DOUBLE-WALL DUCT ONLY APPLIES TO SUPPLY & RETURN DUCTWORK FOR AHU-A1, AHU-B1, F6. R-VALUE OF INSTALLED CONDITION SHALL BE 12 (MIN).
2. ALL INTERIOR DUCTWORK THAT IS EXPOSED SHALL BE CONSTRUCTED OF PAINTED GALVALUME SHEETMETAL. REFER TO ARCHITECTURAL DRAWINGS FOR PAINTING SPECIFICATIONS AND COLOR.

DAMPER SCHEDULE

UNIT	TYPE	FUNCTION	MAUNFACTURER	MODEL	NOTES
VD-1	MANUAL VOLUME DAMPER	CONTROL	GREENHECK	VCD-23	1
VD-2	MANUAL VOLUME DAMPER	CONTROL	GREENHECK	VCDRM-53	2

NOTES:
1. PROVIDE WITH GALVANIZED CONSTRUCTION WITH TPE BLADE SEALS AND 304SS JAM SEALS. RECTANGULAR DAMPER SHALL BE RATED FOR 5" W.G.
2. PROVIDE WITH GALVANIZED CONSTRUCTION WITH BLADE AND JAM SEALS. ROUND DAMPER SHALL BE RATED FOR 5"W.G.

DUCT INSULATION

LOCATION	INSULATION MATERIAL	JACKET	REMARKS
SUPPLY & RETURN DUCTWORK INTERIOR - ABOVE CEILING	2" FIBERGLASS INSULATION - DUCT WRAP	FOIL AND PAPER JACKET WITH VAPOR BARRIER	NOTE 1
SUPPLY & RETURN DUCTWORK INTERIOR - EXPOSED	1-1/2" FIBERGLASS BOARD INSULATION	WITH VAPOR BARRIER AND METALLIC SURFACE	NOTE 2&3
SUPPLY & RETURN DUCTWORK EXTERIOR	2" BOARD COVERED BY FLEXCLAD 400	45 MILS ALUMINUM JACKET WITH EMBOSSED FINISH	NOTE 4

NOTES:
1. JOHNS MANVILLE MICROLITE FSK, TYPE 100 (1.0 PCF) OR EQUAL. R-VALUE OF INSTALLED CONDITION SHALL BE 6.0 (MIN).
2. JOHNS MANVILLE 800 SERIES SPIN-GLAS, TYPE 814 (3.0 PCF) OR EQUAL. R-VALUE OF INSTALLED CONDITION SHALL BE 6.0 (MIN). SECURE INSULATION USING 10 GA WELD PINS. ADHESIVE PINS ARE NOT ALLOWED.
3. DUCT BOARD SHALL BE INSTALLED ON DUCTS HAVING A WIDTH OR HEIGHT EQUAL TO 30" OR GREATER.
4. JOHNS MANVILLE XSPECT ISOFOAM APF BOARD (CLOSED CELL). R-VALUE OF INSTALLED CONDITION SHALL BE 12.0 (MIN). SECURE INSULATION USING 10 GA WELD PINS. ADHESIVE PINS ARE NOT ALLOWED.

CM ENGINEERS, LLC
385 ROUTE 24, SUITE 3-O, CHESTER, NJ 07930
TEL (908) 879-1801
WWW.CMENGINEERS.COM
NEW JERSEY STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION: 24GA28121800
PRINCIPAL IN CHARGE: JOSEPH T. MISTRETTA, PE
N.J. PROFESSIONAL ENGINEER LICENSE NUMBER: 24GE02823800

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI01706000 | PA - RA012520X
JASON J. DUBOWITCH, AIA
NJ - 21AI01979800 | PA - RA406009
STEPHEN W. SCHREYER JR., AIA, LEED AP BD+C
NJ - 21AI02003100 | PA - RA410435
Architect
Date 01/29/26

FVHD architects planners
Fraytak Veisz Hopkins Duthie PC
EST 1918
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
FVHDPC.COM

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
JTM

Drawn By
JD

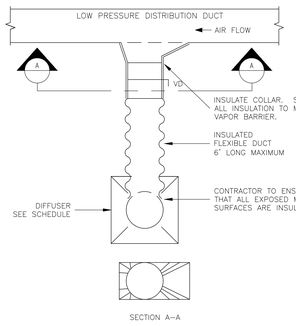
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Drawing Name
MECHANICAL - SCHEDULES SHEET 1

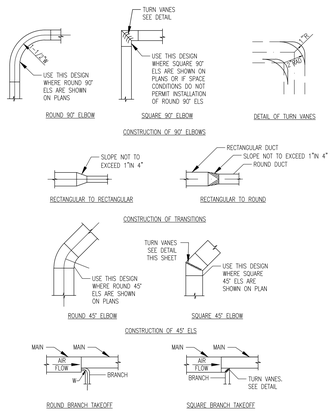
Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

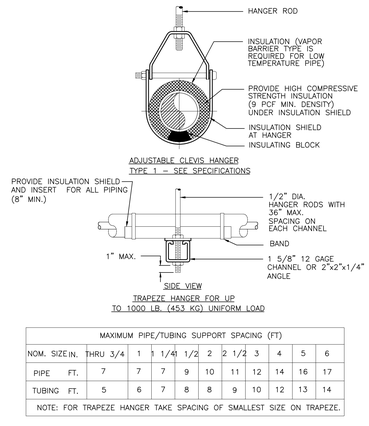
Drawing Number
M-701



1 CEILING DIFFUSER WITH FLEX DUCT DETAIL
SCALE: NONE

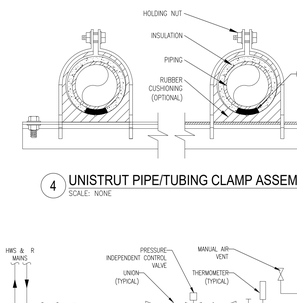


2 LOW PRESSURE DUCT DETAILS
Scale: NTS

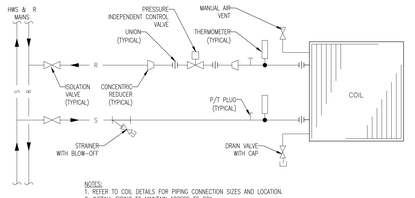


MAXIMUM PIPE/TUBING SUPPORT SPACING (FT)									
NOM. SIZE IN.	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6
PIPE FT.	7	7	7	9	10	11	12	14	16	17
TUBING FT.	5	6	7	8	8	9	10	12	13	14
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.										

3 TYPICAL PIPE HANGER DETAIL
Scale: NTS

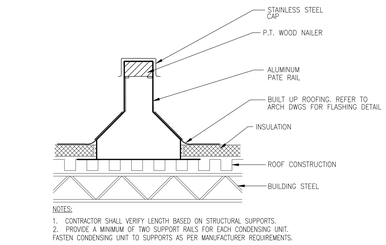


4 UNISTRUT PIPE/TUBING CLAMP ASSEMBLY
SCALE: NONE



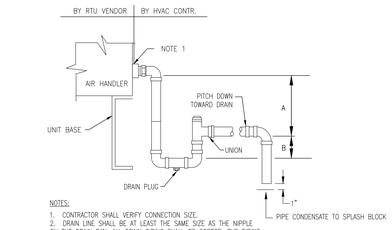
NOTES:
1. REFER TO COIL DETAILS FOR PIPING CONNECTION SIZES AND LOCATION.
2. INSTALL PIPING TO MAINTAIN ACCESS TO COIL.
3. CONTROL VALVE SHALL BE SIZED FOR A 3-5 PSI DROP AT THE DESIGN FLOW RATE.

5 TYPICAL HYDRONIC COIL PIPING DETAIL
Scale: NTS



NOTES:
1. CONTRACTOR SHALL VERIFY LENGTH BASED ON STRUCTURAL SUPPORTS.
2. PROVIDE A MINIMUM OF TWO SUPPORT RAILS FOR EACH CONDENSING UNIT. FASTEN CONDENSING UNIT TO SUPPORTS AS PER MANUFACTURER REQUIREMENTS.

6 CONDENSING UNIT SUPPORT RAIL DETAIL
Scale: NTS

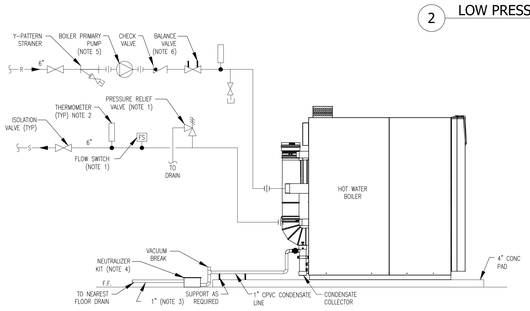


NOTES:
1. CONTRACTOR SHALL VERIFY CONNECTION SIZE.
2. DRAIN LINE SHALL BE AT LEAST THE SAME SIZE AS THE NIPPLE ON THE DRAIN PAN. ALL DRAIN PIPING SHALL BE COPPER. PVC PIPING IS NOT ALLOWED
3. INSTALL UNION WHERE SHOWN SO PIPING CAN BE PULLED APART AND CLEANED.

UNIT ID	A	B
AHU-A1	5"	2"
AHU-A2	5"	2"
AHU-B1	5"	2"
AHU-C2	5"	2"
AHU-C1	5"	2"
AHU-F1	5"	2"
AHU-F2	5"	2"

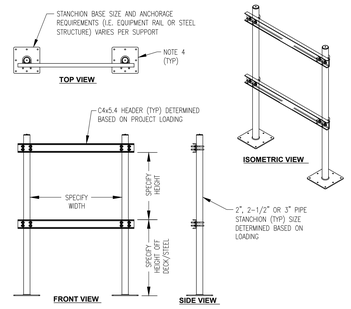
UNIT ID	A	B
AHU-F3	5"	2"
AHU-F4	5"	2"
AHU-F5	5"	2"
AHU-F6	5"	2"
AHU-F7	5"	2"
AHU-F9	5"	2"
AHU-G1	5"	2"
AHU-E1	5"	2"
AHU-E2	5"	2"

7 CONDENSATE TRAP DETAIL
Scale: NTS



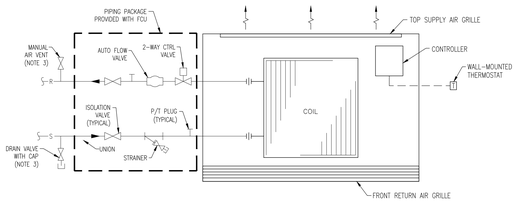
NOTES:
1. PRESSURE RELIEF VALVE & FLOW SWITCH SHALL BE PROVIDED BY BOILER MANUFACTURER AND INSTALLED BY CONTRACTOR.
2. INSTALL THERMOMETERS AS OUTLINED IN MECHANICAL SPECIFICATIONS.
3. SLOPE IN DIRECTION OF FLOW.
4. PROVIDE LOCHINVAR NEUTRALIZER KIT, MODEL CNKIT.
5. CALIBRATED BALANCE VALVE SHALL BE AS MANUFACTURED BY B&G MODEL: CB 6
6. BOILER HOT WATER PUMPS ARE BASED MOUNTED ON HOUSEKEEPING PAD. SEE SCHEDULE.

8 HOT WATER BOILER PIPING DETAIL
SCALE: NONE



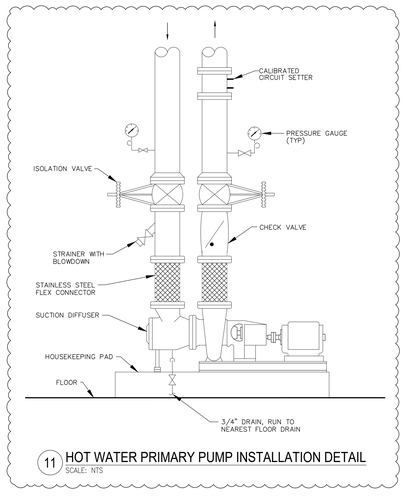
9 DUCT SUPPORT DETAIL
SCALE: NTS

NOTES:
1. BASIS OF DESIGN: MIRO INDUSTRIES, ENCLOSED DUCT SUPPORT MODEL: DS.
2. CONTRACTOR SHALL PROVIDE MIRO INDUSTRIES AN APPROVED DUCTWORK SHOP DRAWING FOR THEIR REVIEW AND DETERMINATION OF THE SPECIFIC DUCTWORK SUPPORT REQUIRED AT EACH LOCATION.
3. CONTRACTOR SHALL PROVIDE MIRO INDUSTRIES THE WIDTH & HEIGHTS NOTED IN THE DETAIL ABOVE.
4. INSTALL A RUBBER PAD BENEATH EACH NON PENETRATING BASE. COLOR OF PAD SHALL MATCH THAT OF ROOF. PAD SHALL EXTEND 4" (MIN) BEYOND EDGE OF SUPPORT. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL PAD INFORMATION.



10 FAN COIL UNIT PIPING DETAIL
SCALE: NTS

NOTES:
1. WIRING OF THERMOSTAT BY BAS CONTRACTOR.
2. PIPING PACKAGE COMES INSULATED FROM THE FACTORY. CONTRACTOR TO MAKE SURE PIPING & COMPONENTS ARE INSULATED.
3. CONTRACTOR SHALL INSTALL 3/4" MANUAL VENT & DRAIN.



11 HOT WATER PRIMARY PUMP INSTALLATION DETAIL
SCALE: NTS

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI17506000 | PA - RA012206
JASON J. DUBOWITCH, AIA
NJ - 21AI17999001 | PA - RA408209
STEPHEN W. SCHRETER JR., AIA, LEED AP BD+C
NJ - 21AI20035100 | PA - RA418565
01.29.26
Date
Architect
FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C.
ESTD 1981
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
FVHDPC.COM

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
JTM

Drawn By
JD

Scale
AS NOTED

Drawing Name
MECHANICAL - DETAILS

Revisions

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CM ENGINEERS, LLC
385 ROUTE 24, SUITE 3-O, CHESTER, NJ 07930
TEL (908) 879-1801
WWW.CMENGINEERS.COM
NEW JERSEY STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION: 24GA28121800
PRINCIPAL IN CHARGE: JOSEPH T. MISTRETTA, PE
N.J. PROFESSIONAL ENGINEER LICENSE NUMBER: 24GE03923800

Drawing Number
M-801

MECHANICAL SPECIFICATION

WORK INCLUDED

A. INCLUDE ALL LABOR, MATERIALS, APPLIANCES, TOOLS, TRANSPORTATION, STORAGE, CERTIFICATES, DRAWINGS, TEMPORARY WORK, CLEANING, START-UP, COMMISSIONING AND ALL OTHER CONTRACTOR SERVICES REQUIRED TO MAKE THE INSTALLATION COMPLETE IN EVERY RESPECT, GUARANTEED TO BE SAFE AND READY FOR USE AND OPERATION IN A MANNER SATISFACTORY TO THE OWNER AND ALL THE MECHANICAL WORK SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
B. WHERE THERE IS CONFLICT BETWEEN THE SPECIFICATIONS ON THE DRAWINGS AND THE ISSUED BOOK SPECIFICATIONS FOR THE PROJECT, THE SPECIFICATIONS ON THE DRAWINGS SHALL BE FOLLOWED BY THE CONTRACTOR.

LAWS AND ORDINANCES

A. ALL LOCAL AND STATE LAWS AND REGULATIONS AND RECOMMENDATIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND INTERNATIONAL BUILDING MECHANICAL CODE GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY MADE PART OF THESE SPECIFICATIONS. RESPONSIBILITY FOR COMPLIANCE TO THEIR PROVISIONS IS INCLUDED.

B. INFORM THE ENGINEER OF ANY WORK OR MATERIALS, WHICH OBVIOUSLY VIOLATES ANY OF THE APPLICABLE CODES AND REGULATIONS BEFORE PROCEEDING WITH THE WORK. FAILURE TO DO SO INDICATES ACCEPTANCE OF THE WORK AS SHOWN BY THE ENGINEER, AND RESPONSIBILITY FOR CORRECTING SUCH WORK SHALL BE MADE BY THE CONTRACTOR AT NO COST TO THE OWNER.

C. ALL WORK SHALL MEET OR EXCEED THE LATEST REQUIREMENTS OF ALL NATIONAL, STATE, COUNTY, LOCAL OR MUNICIPAL, AND OTHER RECOGNIZED AUTHORITIES EXERCISING OR ASSERTING JURISDICTION OVER THE CONSTRUCTION WORK AT THE PROJECT.

STANDARDS

A. MATERIALS SPECIFIED BY REFERENCE TO A SPECIFIC STANDARD SUCH AS THE AMERICAN SOCIETY OF TESTING MATERIALS, UNDERWRITERS LABORATORIES, AMERICAN NATIONAL STANDARDS INSTITUTE, FEDERAL SPECIFICATIONS, A TRADE STANDARD OR OTHER SIMILAR STANDARD SHALL COMPLY WITH THE LATEST REVISION THEREOF IN EFFECT AT THE TIME OF BIDDING, EXCEPT AS MODIFIED BY TYPE, CLASS OR GRADE OR MODIFIED BY SUCH REFERENCE.

B. WHERE COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED, AND THEY ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, THE MORE STRINGENT REQUIREMENTS WILL BE ENFORCED UNLESS THE CONTRACT DOCUMENTS INDICATE OTHERWISE.

C. REFER REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, AND UNCERTAINTIES AS TO WHICH QUALITY LEVEL IS MORE STRINGENT TO THE ENGINEER BEFORE PROCEEDING.

INTENT OF THE DRAWINGS AND SPECIFICATIONS

A. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE COMPLETE SYSTEMS IN GOOD WORKING ORDER, READY FOR OPERATION, INCLUDING ALL ACCESSORIES AND ITEMS REQUIRED FOR PROPER OPERATION.

B. IT SHALL BE UNDERSTOOD THAT THE MECHANICAL DRAWINGS SHOW THE GENERAL RUN OF PIPING, DUCTWORK AND THE APPROXIMATE LOCATION OF ALL EQUIPMENT. DO NOT SCALE THE DRAWINGS TO DETERMINE EXACT POSITIONS AND CLEARANCES. OBTAIN FROM THE ARCHITECT ANY DIMENSIONS NOT SHOWN.

C. METHODS OF CONSTRUCTION AND DETAILS OF WORKMANSHIP WHERE NOT SPECIFICALLY DESCRIBED HEREIN OR INDICATED ON THE DRAWINGS ARE SUBJECT TO THE OWNER'S APPROVAL.

D. MAKE A THOROUGH EXAMINATION OF ALL SURFACES RECEIVING THE WORK OF THIS SECTION, AND BEFORE STARTING THE INSTALLATION, NOTIFY THE ENGINEER IN WRITING OF ANY DEFECT WHICH WILL AFFECT THE SATISFACTORY COMPLETION OF ANY WORK.

E. CONTRACTOR SHALL CONFORM TO THE OWNER'S SITE STANDARDS FOR QUALITY, WORKMANSHIP, MATERIALS, EQUIPMENT, ETC. IF THERE IS A DISCREPANCY BETWEEN THE SITE STANDARD AND INFORMATION SHOWN ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE ENGINEER WILL CONFER WITH THE OWNER AND THE CONTRACTOR WILL BE INSTRUCTED ON HOW TO PROCEED.

PERMITS AND CERTIFICATES

A. THIS CONTRACTOR SHALL OBTAIN ALL NECESSARY NOTICES, FILE DRAWINGS AND SPECIFICATIONS WITH THE DEPARTMENTS OR AUTHORITIES ASSERTING OR HAVING JURISDICTION, OBTAIN PERMITS OR LICENSES NECESSARY TO CARRY OUT THE WORK. CONTRACTOR SHALL PAY FOR PERMIT FEES, SPECIAL TESTING, ETC AS REQUIRED BY THIS PROJECT.

B. THE CONTRACTOR SHALL ARRANGE FOR INSPECTIONS AND TESTS OF ANY OR PART OF THE WORK IF SO REQUIRED BY AUTHORITIES OR LOCAL UTILITY OR SERVICE COMPANIES HAVING JURISDICTION. NOTIFY OWNER AND ENGINEER 72 HOURS IN ADVANCE OF ALL INSPECTIONS.

C. THE CONTRACTOR SHALL OBTAIN ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS TO ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.

D. THE CONTRACTOR SHALL NOTIFY THE OWNER IN A TIMELY MANNER THAT INSPECTIONS ARE REQUIRED, SO AS NOT TO HOLD UP THE PROGRESS OF THE WORK.

RELATIONS WITH OTHER TRADES

A. CONFER WITH OTHERS ENGAGED IN THE CONSTRUCTION OF THE BUILDING WHOSE WORK MIGHT AFFECT THE INSTALLATION, AND ARRANGE ALL PARTS OF THE WORK AND EQUIPMENT IN PROPER RELATION TO THE WORK AND EQUIPMENT OF OTHERS, WITH THE BUILDING CONSTRUCTION AND WITH THE ARCHITECTURAL FINISH SO THAT IT WILL HARMONIZE IN SERVICE AND APPEARANCE. SPECIAL CARE SHALL BE TAKEN IN THE INSTALLATION OF EQUIPMENT AND PIPING WHERE CONCEALED TO ASSURE THAT IT DOES NOT PROJECT BEYOND FINISHED LINES OF FLOORS, CEILINGS, WALLS AND CABINETS.

B. WHERE, DUE TO UNION REGULATIONS OR OTHER TRADE AGREEMENTS, ANY OF THE WORK SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN IS CONSIDERED OTHER TRADES, SUBCONTRACT THE WORK IN QUESTION AND ASSUME FULL RESPONSIBILITY FOR THE COMPLETE INSTALLATION.

APPROVED MATERIALS

A. ALL MATERIAL AND EQUIPMENT SHALL BE NEW (EXCEPT WHERE FURNISHED OR DIRECTED FOR RE-USE BY OWNER),OF MAKES AND KINDS SPECIFIED HEREIN, OR AS INCLUDED IN THE DRAWINGS, WITHOUT EXCEPTION. WHERE ONE BRAND, MAKE OR DEVICE IS SHOWN OR SPECIFIED, THE PRODUCTS OF OTHER MANUFACTURERS SHALL BE REGARDED AS ACCEPTABLE WHEN, IN THE OPINION OF THE ENGINEER, IT IS A RECOGNIZED EQUAL CONSIDERING QUALITY, WORKMANSHIP, ECONOMY OF OPERATION AND SUITABILITY FOR THE PURPOSE INTENDED.

B. WHERE SUCH APPROVED SUBSTITUTION OR DEVIATION REQUIRES A DIFFERENT QUANTITY OR ARRANGEMENT OF PIPING, WIRING, SUPPORTS, FOUNDATIONS, DUCTWORK, AND ANY OTHER EQUIPMENT OR ACCESSORIES NORMAL TO THIS EQUIPMENT, FURNISH SAID CHANGES AND ADDITIONS, AND PAY ALL COSTS FOR ALL CHANGES TO THIS WORK AND THE WORK OF OTHER TRADES AFFECTED BY THE SUBSTITUTION OR DEVIATION.

SUBMITTALS, SCHEDULE AND SHOP DRAWINGS

A. EQUIPMENT AND MATERIALS MUST BE INACCORDANCE WITH DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTIONS ARE ALLOWED UNLESS DENOTED BY CONTRACTOR AND APPROVED BY ENGINEER. PROVIDE WITH AN INDEX OF SUBMITTALS. ALL SUBMITTALS MUST BE IDENTIFIED WITH THE SAME NAME USED ON THE DRAWINGS. PROVIDE ALL SUBMITTALS IN ELECTRONIC FORM.

B. PROVIDE A CONSTRUCTION SCHEDULE USING MICROSOFT PROJECT MANAGER INCLUDING LEAD TIMES FOR EQUIPMENT, PHASING, ETC. SUBMIT SCHEDULE WITHIN ONE WEEK OF CONTRACT AWARD. SCHEDULE SHALL BE UPDATED EVERY WEEK.

C. SUBMIT SHOP DRAWINGS AND OBTAIN WRITTEN APPROVAL OF SAME BEFORE ORDERING OR INSTALLING ANY OF THE EQUIPMENT OR MATERIAL. EQUIPMENT OR MATERIAL ORDERED OR INSTALLED WITHOUT WRITTEN APPROVAL WILL NOT BE ACCEPTED. SHOP DRAWINGS SHALL BE PRESENTED IN AUTOCAD VERSION 2004 OR LATER. SHOP DRAWING SCALE SHALL BE NO SMALLER THAN $\frac{1}{2}$ INCHES EQUALS 1 FOOT. IF THE ENGINEER'S DESIGN DRAWING IS SUBMITTED AS THE SHOP DRAWING, IT WILL BE RETURNED WITH NO COMMENTS.

D. THE CHECKING OF SHOP DRAWING AND SAMPLES AND THE USE OF THE APPROVAL STAMP WILL BE ONLY FOR CONFORMANCE WITH THE DESIGN CONCEPT. THE STAMP OF APPROVAL DOES NOT INDICATE APPROVAL OF EVERY DETAIL OF THE DRAWINGS NOR OF THE WORK AND METHODS INDICATED THEREON.

HANGER, SUPPORTS AND SEISMIC RESTRAINTS

A. CONTRACTOR TO OBTAIN THE DESIGN AND PREPARATION OF SHOP DRAWINGS FOR PIPE, DUCTWORK AND EQUIPMENT SUPPORTS AND SEISMIC RESTRAINTS AS SPECIFIED IN THE INTERNATIONAL BUILDING CODE FROM A QUALIFIED PROFESSIONAL ENGINEER. ALL DRAWINGS SHALL BE SEALED AND SIGNED BY A QUALIFIED PROFESSIONAL ENGINEER. UNLESS OTHERWISE SPECIFIED THE SEISMIC DESIGN CATEGORY IS B.

CUTTING AND PATCHING

A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE CUTTING, PATCHING AND FIRE STOPPING (FM APPROVED MATERIAL) OF ALL HOLES/HANGERS REQUIRED TO INSTALL MATERIALS AND EQUIPMENT THEY SUPPLY.

B. NO STRUCTURAL ELEMENTS SHALL BE CUT OR DRILLED.

RECORD DRAWINGS

FURNISH FOR RECORD DRAWINGS AS PART OF THIS WORK, CONSISTING OF A COMPLETE SET OF AUTOCAD VERSION 2004 COMPATIBLE DRAWINGS ON CD AND INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. THIS SHALL INCLUDE CHANGES AND ADDENDUM OF THIS SECTION WHICH EXISTS IN THE COMPLETED WORK. DURING CONSTRUCTION KEEP AN ACCURATE RECORD ON A SET OF CONTRACT DRAWINGS, ALL DEVIATIONS BETWEEN THE WORK SHOWN AND THE WORK INSTALLED. ELECTRONIC FILES SHALL BEAR THE NOTATION "RECORD DRAWINGS OF WORK AS-BUILT", AND MUST BE DELIVERED TO THE ENGINEER AT THE COMPLETION OF THE WORK. INCLUDE IN THE BID AND BEAR THE COST OF THESE ELECTRONIC FILES.

DEMOLITION NOTES:

1. THE EXISTING DUCTWORK, PIPING, EQUIPMENT ETC. SHALL BE DEMOLISHED AND REMOVED FROM THE SITE BY THE CONTRACTOR.

2. CONTRACTOR SHALL DEVELOP DETAILED WRITTEN PLAN TO COORDINATE ALL DEMOLITION AND NEW WORK IN ORDER TO MINIMIZE DOWNTIME OF THE AIR HANDLING SYSTEM. THIS PLAN SHALL BE COMPLETED AND APPROVED BY THE OWNER. THE PLAN SHALL BE COMPLETED AND SUBMITTED WITHIN 2 WEEKS OF CONTRACTOR SELECTION. OWNER APPROVAL IS REQUIRED BEFORE ANY WORK CAN COMMENCE.

3. THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION WITHOUT EXTRA PAYMENT, ANY OF THE OWNERS PROPERTY OR PROPERTY OR WORK BY OTHER CONTRACTORS THAT SHALL BECOME DAMAGED DUE TO THE NEGLIGENCE OF EMPLOYEES OR AGENTS OF THE CONTRACTOR. SUCH REPAIRS SHALL MEET THE APPROVAL OF THE OWNER. PARTICULAR CARE SHALL BE EXERCISED TO PROTECT FIRE ALARM WIRING.

4. CONTRACTOR SHALL TAKE PROPER CARE AND PROTECT ALL PORTIONS OF THE WORK UNTIL ITS ACCEPTANCE. ANY AND ALL PORTIONS OF THE WORK LIABLE TO DAMAGE UNDER THIS OR OTHER SECTIONS, BY FREEZING OR INCLEMENT WEATHER MUST BE THOROUGHLY AND COMPLETELY PROTECTED BY ANY SUBSTANTIAL MEANS UNTIL IT IS REQUIRED. TEMPORARY HEAT SHALL BE REMOVED FROM THE PREMISES ONLY WHEN ITS REMOVAL IS APPROVED BY THE ENGINEER.

5. THE CONTRACTOR SHALL HAVE A COMPETENT FOREMAN IN RESPONSIBLE CHARGE OF THE WORK WHO SHALL BE ON THE SITE DURING THE DEMOLITION OF THE SYSTEM.

6. SAFE OPEN ENDS OF DUCTWORK TO BE REUSED DURING DEMOLITION TO MINIMIZE DEBRIS FROM ENTERING DUCTS DURING DEMOLITION. CONTRACTOR SHALL BLANK-OFF THE EXISTING SUPPLY AIR AND RETURN AIR OPENINGS IN THE AIR SHAFT BEFORE DEMOLITION CAN BEGIN.

7. PROTECT ALL WORK AND EQUIPMENT AGAINST DAMAGE OR THEFT UNTIL FINAL INSPECTION, TESTED AND ACCEPTED. CAREFULLY STORE AND PROTECT MATERIALS AND EQUIPMENT RECEIVED ON SITE WHICH ARE NOT IMMEDIATELY INSTALLED. CLOSE OPEN ENDS OF WORK WITH TEMPORARY PLUGS OR COVERS DURING CONSTRUCTION TO PREVENT ENTRY DEBRIS.

8. PERFORM WORK IN EXISTING BUILDING WHEN AND AS DIRECTED. ALL WORK IS TO BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE OCCUPANTS.

9. SHIFT WORK AND STAGING WILL BE REQUIRED AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL PROVIDE SCHEDULE AND PREMIUM TIME FOR ALL DEMOLITION AND REMOVAL OF MATERIALS IN THEIR PROPOSAL.

10. WHEN THE DEMOLITION OR INSTALLATION OF WORK REQUIRES THE SHUTDOWN OF AN EXISTING OPERATING SYSTEM, A MINIMUM OF 72 HOURS WRITTEN NOTICE SHALL BE GIVEN TO THE OWNER BEFORE WORK IS STARTED.

11. PROVIDE DETAILS OF DISPOSAL OF CLEANING AGENTS AND FLUSHING SOLUTIONS FOR OWNER APPROVAL.

12. CONTRACTOR SHALL MARK IN YELLOW PAINT ALL DEMO ITEMS AND SCHEDULE A WALK THRU WITH OWNER AND ARCHITECT/ENGINEER PRIOR TO ANY DEMOLITION WORK.

13. REPAIR DAMAGE TO WALLS, FLOORS AND CEILING LEFT FROM REMOVING EXISTING EQUIPMENT, HANGERS, SUPPORTS, ETC. TO MATCH ADJACENT AREAS IN MATERIAL, FIRE RATING (WITH FM APPROVED MATERIALS) AND FINISH.

DAMAGE TO PROPERTY

A. RESTORE TO ITS ORIGINAL CONDITION WITHOUT EXTRA PAYMENT, ANY OF THE OWNERS PROPERTY OR PROPERTY OR WORK BY/OF OTHER CONTRACTORS THAT SHALL BECOME DAMAGED DUE TO THE NEGLIGENCE OF EMPLOYEES OR AGENTS OF THE CONTRACTOR. SUCH REPAIRS SHALL MEET THE APPROVAL OF THE OWNER. PARTICULAR CARE SHALL BE EXERCISED WITHIN ROOMS OF SPECIAL CONSTRUCTION, SUCH AS CLEAN AND STERILE ROOMS, FROM SCRATCHING OR OTHER IMPERFECTIONS CAUSED BY INSTALLATION OF WORK UNDER THIS CONTRACT.

B. TAKE PROPER CARE AND PROTECT ALL PORTIONS OF THE WORK UNTIL ITS ACCEPTANCE. ANY AND ALL PORTIONS OF THE WORK LIABLE TO DAMAGE UNDER THIS OR OTHER SECTIONS, BY FREEZING OR INCLEMENT WEATHER MUST BE THOROUGHLY AND COMPLETELY PROTECTED BY ANY SUBSTANTIAL MEANS UNTIL NOT FURTHER REQUIRED. IT SHALL BE REMOVED FROM THE PREMISES ONLY WHEN ITS REMOVAL IS APPROVED BY THE ENGINEER.

C. PROTECT PLATED AND POLISHED MATERIAL AND TRIMMINGS AGAINST DAMAGE.

REPLACEMENT OF DEFECTIVE WORK

WHEN, IN THE OPINION OF THE OWNER OR CONSTRUCTION MANAGER ANY MATERIAL INSTALLED IS SUBSTANDARD IN APPEARANCE OR FUNCTION, OR DOES NOT MEET GENERALLY ACCEPTED STANDARDS OF WORKMANSHIP, ALL SUCH MATERIALS SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OWNER.

SUPERVISION

THE CONTRACTOR SHALL HAVE A COMPETENT FOREMAN IN RESPONSIBLE CHARGE OF THE WORK WHO SHALL BE ON THE SITE DURING THE INSTALLATION OF THE MATERIAL FURNISHED UNDER THIS SPECIFICATION, UNTIL SAME HAS BEEN PUT IN COMPLETE OPERATING CONDITION AND ACCEPTED BY THE OWNER.

DIVISION OF WORK

NO REASSIGNMENT OF THE DIVISION OF RESPONSIBILITY FOR ANY WORK HEREIN SPECIFIED FOR ANY RESPECTIVE TRADE SHALL BE MADE WITHOUT THE PRIOR WRITTEN ACCEPTANCE OF THE OWNER AND ENGINEER.

RUBBISH

A. AT LEAST ONCE A DAY, OR AS REQUIRED BY THE OWNER, GATHER ALL RUBBISH, INCLUDING CARTONS, CRATES AND PACKAGING MATERIALS, DEBRIS AND OTHER WASTE MATERIALS. WASTE TO BE PLACED IN TRASH BINS OR DUMPSTERS.

B. WHEN WORK IS PERFORMED IN OCCUPIED AREAS, TRASH REMOVAL SHOULD BE CONTINUOUS TO PREVENT HEALTH AND SAFETY ISSUES.

ASBESTOS
A. CONTRACTOR SHALL NOTIFY OWNER ANY SUSPECTED ASBESTOS IN AREA OF WORK.

B. OWNER SHALL BE RESPONSIBLE FOR ALL TESTING AND REMEDIATION PRIOR TO ANY WORK IN THAT AREA. WORK SHALL BE PERFORMED BY A LICENSED ASBESTOS ABATEMENT CONTRACTOR.

PROTECTION

PROTECT ALL WORK AND EQUIPMENT AGAINST DAMAGE OR THEFT UNTIL FINALLY INSPECTED, TESTED AND ACCEPTED. CAREFULLY STORE AND PROTECT MATERIALS AND EQUIPMENT RECEIVED ON SITE WHICH ARE NOT IMMEDIATELY INSTALLED. CLOSE OPEN ENDS OF WORK WITH TEMPORARY PLUGS OR COVERS DURING CONSTRUCTION TO PREVENT ENTRY DEBRIS.

GUARANTEES

A. ALL WORK SHALL BE GUARANTEED TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS.

B. DURING THE GUARANTEE PERIOD ANY DEFECTS IN WORKMANSHIP, MATERIAL OR EQUIPMENT WILL BE CORRECTED AT THE CONTRACTORS' EXPENSE. ANY DAMAGE OR LOSS, EXCLUSIVE OF BUILDING'S CONTENTS, DUE TO SUCH DEFECTS, WILL ALSO BE MADE GOOD AT CONTRACTOR'S EXPENSE. DEFECTS WILL BE REMEDIED WITHIN A REASONABLE TIME, AS SPECIFIED IN NOTICE FROM THE ENGINEER. AFTER THE SPECIFIED TIME, OWNER MAY HAVE DEFECTS AND DAMAGES REMEDIED AT THE CONTRACTOR'S EXPENSE.

C. GUARANTEE PERIOD SHALL BE TWO (2) YEARS AND AN ADDITIONAL FOUR (4) YEARS ON COMPRESSORS & COMPRESSOR PARTS.

D. GUARANTEE PERIOD SHALL START WHEN THE WORK INCLUDED IN CONTRACT DOCUMENTS IS ACCEPTED BY THE OWNER AND/OR RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

WORK IN EXISTING AREAS

A. PERFORM WORK IN EXISTING BUILDING WHEN AND AS DIRECTED. ALL WORK IS TO BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE OCCUPANTS.

B. SHIFT WORK AND STAGING WILL BE REQUIRED AT NO ADDITIONAL COST TO THE OWNER.

C. SCRAP AND DEBRIS, EXCEPT AS OTHERWISE SPECIFIED, SHALL BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF. WHEN REQUESTED BY OWNER, MOVE EQUIPMENT REMOVED TO A STORAGE PLACE ON THE PREMISES AND LEAVE AS PROPERTY OF THE OWNER.

D. WHEN INSTALLATION OF THE NEW WORK REQUIRES THE SHUTDOWN OF AN EXISTING OPERATING SYSTEM, A MINIMUM OF 72 HOURS WRITTEN NOTICE SHALL BE GIVEN TO THE OWNER BEFORE WORK IS STARTED.

CLEANING AND FLUSHING

A. REMOVE DEBRIS FROM INSIDE AND OUTSIDE OF PIPING AND EQUIPMENT.

B. FLUSH OUT PIPING AFTER INSTALLATION AND BEFORE FINAL CONNECTIONS ARE MADE, AT LEAST TWICE, IN A MANNER AS DIRECTED AND/OR ACCEPTED BY THE OWNER. MAKE ALL TEMPORARY CONNECTIONS AND PROVIDE ALL EQUIPMENT REQUIRED FOR THE CLEANING AT NO EXTRA EXPENSE TO THE OWNER.

C. FILL SYSTEM WITH FRESH WATER AND ADD LIQUID ALKALINE COMPOUND WITH EMULSIFYING AGENTS AND DETERGENTS (SUCH AS 1% TRISODIUM PHOSPHATE SOLUTION) TO REMOVE GREASE AND PETROLEUM PRODUCTS FROM PIPING. CIRCULATE SOLUTION FOR A MINIMUM OF 24HRS. DRAIN SYSTEM, FLUSH/CIRCULATE WITH CLEAN WATER FOR ANOTHER 12 HOURS, DRAIN, AND CLEAN STRAINER SCREENS. REFILL WITH 30% PROPYLENE GLYCOL SOLUTION.

D. PROVIDE DETAILS OF DISPOSAL OF CLEANING AGENTS AND FLUSHING SOLUTIONS.

E. PROVIDE FOOD GRADE PROPYLENE GLYCOL AFTER WATER CHEMISTRY IS WITHIN THE GUIDELINES PROVIDED BY THE GLYCOL MANUFACTURER. FILL SYSTEM TO ACHIEVE A PERCENT SOLUTION OF 30% FOOD GRADE PROPYLENE GLYCOL UNLESS OTHERWISE SPECIFIED.

METAL CASE LIQUID THERMOMETERS AND PRESSURE GAGES

A. PROVIDE TRERICE OR EQUAL CHROME-PLATED BRASS 9" LONG CASE WITH SATIN-FACED NONREFLECTIVE ALUMINUM WITH PERMANENTLY ETCHED SCALE MARKINGS TUBE WITH GLASS WINDOW. CONNECTOR SHALL BE ADJUSTABLE TYPE, 180° IN VERTICAL PLANE AND 360° IN HORIZONTAL PLANE. THE STEM SHALL BE BRASS FOR THERMOWELL INSTALLATION AND OF LENGTH TO SUIT INSTALLATION. THE ACCURACY SHALL BE +/-1% OF RANGE.

B. PROVIDE TRERICE OR EQUAL DIRECT-MOUNTING, DIAL TYPE PRESSURE GAGE. CASE SHALL BE DRY TYPE DRAWN STEEL 4.5" DIAMETER DIAL WITH BOURDON TUBE PRESSURE ELEMENT. DAIL SHALL BE SATIN-FACED NONREFLECTIVE ALUMINIUM WITH PERMANENTLY ETCHED SCALE MARKINGS WITH GLASS WINDOW. DESIGN PRESSURE OF GAGE SHALL BE TWO TIMES MAXIMUM OPERATING PRESSURE. THE ACCURACY SHALL BE GRADE A +/- 1% OF MIDDLE HALF. PRESSURE GAGE FITTINGS; VALVES NPS 1/4" BRASS NEEDLE TYPE, SYPHONS; NPS 1/4" COIL OF BRASS TUBING WITH THREADED ENDS, SNUBBERS; ASME B40.5, NPS 1/4" BRASS BUSHING WITH CORROSION-RESISTANT, POROUS-METAL DISC OF MATERIAL SUITABLE FOR THE SYSTEM FLUID AND WORKING PRESSURE.

SAFETY

A. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONS PERFORMING THE WORK OF THIS CONTRACT.

B. THIS CONTRACTOR SHALL OBTAIN AND READ ALL SITE, JOB AND CORPORATE SAFETY AND SECURITY RULES AND REGULATIONS FROM THE OWNER, AND SIGN OFF ON THEM IF REQUIRED. THIS CONTRACTOR SHALL ADEQUATELY INFORM AND INSTRUCT ALL EMPLOYEES, AND OTHERS PERFORMING WORK FOR HIM, OF SUCH RULES AND REGULATIONS. THESE INSTRUCTIONS ARE THE MINIMUM THAT WILL BE ACCEPTED ON THIS PROJECT.

C. ALL OF THE ABOVE RULES AND REGULATIONS ARE NOT MEANT TO REPLACE OR ELIMINATE INDIVIDUAL CONTRACTORS SAFETY PROGRAMS OR CHANGE ANY LOCAL, STATE OR FEDERAL RULES AND REGULATIONS, BUT RATHER TO AUGMENT THEM AS REQUIRED FOR THE INDIVIDUAL PREMISES ON WHICH THIS WORK IS BEING PERFORMED.

CONTROL WIRING

A. THE BAS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL, LOW VOLTAGE AND COMMUNICATION WIRING.

B. ALL CONTROL, LOW VOLTAGE AND COMMUNICATION WIRING SHALL BE INSTALLED IN EMT CONDUIT.

C. THE BAS CONTRACTOR SHALL PROVIDE THE POWER REQUIREMENTS TO ALL CONTROL PANELS. COORDINATE POWER SOURCE WITH ENGINEER.

DUCTWORK

A. FIRE DAMPERS: DUCTS OR RETURN AIR OPENINGS PENETRATING RATED PARTITIONS, FLOORS ETC. SHALL HAVE FIRE DAMPERS WITH ACCESS PROVISIONS. FIRE DAMPERS SHALL BE OUT OF THE AIR STREAM TYPE AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL PERIMETER CLEARANCE OPENINGS AT FIRE WALL PENETRATIONS SHALL BE THOROUGHLY FIRE STOPPED USING "THERMAFIBER" SAFING INSULATION OR APPROVED EQUAL. MINIMUM SIZE ACCESS DOOR IN DUCT FOR FIRE DAMPERS TO BE 12"X12", OR 2" LESS THAN DUCT WIDTH BY 12" LONG, WHICHEVER IS LARGER; ARCHITECTURAL ACCESS DOORS SHALL BE PROVIDED BY OTHERS WITHIN NON-ACCESSIBLE CEILING AS REQUIRED. FIRE DAMPERS SHALL BEAR THE LABEL OF AN APPROVED TESTING AGENCY, BE CLASSIFIED AND IDENTIFIED IN ACCORDANCE WITH UL 555 AND FM APPROVED.

B. DUCT CONSTRUCTION
SEE DRAWING SCHEDULES. ALL DUCTWORK SHALL BE FABRICATED IN ACCORDANCE WITH SMACNA STANDARDS FOR THE LISTED OR GREATER PRESSURE CLASS.

C. DUCT SEALING
ALL JOINTS AND SEAMS SHALL BE SEALED WITH HARDCAST PRESSURE SENSITIVE ADHESIVE TAPE OR WATER BASED DUCT SEALANT. SMACNA SEAL CLASS A. SEALANT MSD SHEETS SHALL BE PROVIDED TO THE OWNER FOR APPROVAL.

D. DUCT AIR LEAKAGE TESTING
ALL NEW DUCTWORK SHALL BE TESTED IN ACCORDANCE TO SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL. LEAKAGE CLASS 6 SHALL BE MET FOR RECTANGULAR METAL DUCTWORK. LEAKAGE CLASS 3 SHALL BE MET FOR ROUND AND OVAL METAL DUCTWORK.

E. MANUAL BALANCING DAMPERS MEETING THE FOLLOWING SPECIFICATIONS SHALL BE FURNISHED AND INSTALLED WHERE SHOWN ON PLANS AND/OR AS DESCRIBED IN SCHEDULES.

RECTANGULAR DAMPERS SHALL CONSIST OF:
A 16 GA. (1.5MM) GALVANIZED STEEL HAT CHANNEL FRAME WITH 5 IN. (127MM) DEPTH; TRIPLE V TYPE BLADES FABRICATED FROM 16 GA. (1.5MM) GALVANIZED STEEL; 1/2 IN. (12MM) DIA PLATED STEEL AXLES; EXTERNAL (OUT OF THE AIRSTREAM) BLADE-TO-BLADE LINKAGE. DAMPER MANUFACTURER'S PRINTED APPLICATION AND PERFORMANCE DATA INCLUDING PRESSURE, VELOCITY AND TEMPERATURE LIMITATIONS SHALL BE SUBMITTED FOR APPROVAL SHOWING DAMPER SUITABLE FOR PRESSURES TO 4.0 IN. W.G. (1 KPA), VELOCITIES TO 2000 FPM (10.2M/S) AND TEMPERATURES TO 180°F (82OC). TESTING AND RATINGS TO BE IN ACCORDANCE WITH AMCA STANDARD 500-D. 11/2 IN. (38MM) STANDOFF BRACKET IS STANDARD. IT IS USED TO EXTEND THE MANUAL QUADRANT AWAY FROM THE DUCTWORK TO ACCOMMODATE EXTERNAL INSULATION.

ROUND MANUAL BALANCING DAMPERS MEETING THE FOLLOWING SPECIFICATIONS: SHALL BE FURNISHED AND INSTALLED WHERE SHOWN ON PLANS AND/OR AS DESCRIBED IN SCHEDULES. DAMPERS SHALL CONSIST OF: A 20 GA. (1MM) GALVANIZED STEEL FRAME WITH 6 3/8 IN. (162MM) DEPTH; BLADES FABRICATED FROM 20 GA. (1MM) GALVANIZED STEEL; 3/8 IN. (10MM) SQUARE PLATED STEEL AXLES, ACETAL BEARINGS. DAMPER MANUFACTURER'S PRINTED APPLICATION AND PERFORMANCE DATA INCLUDING PRESSURE, VELOCITY AND TEMPERATURE LIMITATIONS SHALL BE SUBMITTED FOR APPROVAL SHOWING DAMPER SUITABLE FOR PRESSURES TO 1.0 IN. WG (.25 KPA), VELOCITIES TO 2000 FPM (10.2 M/S) AND TEMPERATURES TO 180°F (82OC). TESTING AND RATINGS TO BE IN ACCORDANCE WITH AMCA STANDARD 500-D. 11/2 IN. (38MM) STANDOFF BRACKET (WITH EXTENDED PIN) TO ACCOMMODATE FOR THE THICKNESS OF EXTERNAL DUCT INSULATION.

BASIS OF DESIGN IS GREENHECK MODEL MBD-15 FOR RECTANGULAR DUCTWORK AND MBDR-50 FOR ROUND DUCTWORK.

PROVIDE ACCESS DOOR FOR EACH DAMPER, TURNING VANE, REHEAT COIL, ETC. USE DUCTMATE SANDWICH MODEL DI(SIZE)GA FOR RECTANGULAR DUCT AND MODEL DRI(SIZE)GA FOR CIRCULAR DUCT OR EQUIVALENT MODELS. SIZE ACCESS DOOR TO DUCT SIZE.

DUCT INSULATION

A. DUCTWORK: SEE DRAWING SCHEDULE
1. INTERIOR DUCTWORK SUPPLY/RETURN CONCEALED TO BE FIBERGLASS WRAP, FSK 2" 1.5 PCF DENSITY, R-6 MINIMUM WITH VAPOR FACE TAPED AND WIRED TIED. SEAL ALL JOINTS WITH MATCHING VAPOR BARRIER TAPE.
2. INTERIOR DUCTWORK SUPPLY/RETURN EXPOSED TO BE 2" 6 PCF DENSITY, R-6 MINIMUM FIBERGLASS ASJ BOARD. SECURE INSULATION WITH WELD PINS & SEAL ALL JOINTS WITH MATCHING VAPOR BARRIER TAPE.
3. EXTERIOR DUCTWORK SUPPLY/RETURN TO BE 2" 6 PCF DENSITY, R-8 MINIMUM FIBERGLASS ASJ BOARD WITH VAPOR BARRIER TAPE. EXTERIOR SHALL BE DOUBLE WALL DUCT OR FLEXCLAD-400 45MILS THICK OR EQUAL. INSTALL TO MANUFACTURER'S REQUIREMENTS. FLEXCLAD SHALL BE PITCHED ON TOP OF DUCTS FOR DRAINAGE.

NATURAL GAS PIPING

A. NATURAL GAS PIPING SHALL BE SCH. 40 BLACK STEEL. MATERIALS SHALL COMPLY WITH A.S.T.M. A-53, A-105, A-47 AND ANSI B-16.9. ALL SIZES 2 1/2" AND LARGER SHALL BE BUTT-WELDED AND CONFORM TO A.S.M.E. CODE B31.9. ALL SIZES 2" AND SMALLER SHALL BE THREADED AND CONFORM TO A.NSI B1.20.1.

B. PROVIDE A GAS COCK, DIRT LEG AND UNION AT THE POINT OF CONNECTION TO EACH PIECE OF EQUIPMENT.

C. CONTRACTOR SHALL COORDINATE WITH EQUIPMENT MANUFACTURER AND PROVIDE APPROPRIATE PRESSURE REGULATOR IF REQUIRED.

D. TEST GAS PIPING IN ACCORDANCE WITH INTERNATIONAL GAS CODE AND PLUMBING INSPECTOR'S REQUIREMENTS BUT NOT LESS THAN 10 PSI. THE TEST DURATION SHALL BE $\frac{1}{2}$ HOUR PER 500CF OF SYSTEM VOLUME BUT NOT LESS THAN (2) HOURS WITHOUT DROP IN PRESSURE OR LEAKAGE. TESTING MEDIUM SHALL BE NITROGEN OR AN INERT GAS.

E. GAS PIPING INSTALLED ON THE ROOF OF A BUILDING SHALL BE SUPPORTED AS INDICATED IN BUILDING HVAC AND PLUMBING PLANS AND DETAILS. EXTERIOR GAS PIPING SHALL BE PAINTED "SAFETY YELLOW". PAINT SHALL BE BENJAMIN MOORE AND COMPANY INDUSTRIAL MAINTENANCE COATINGS M22 URETHANE ALKYD GLOSS ENAMEL.

F. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE INTERNATIONAL FUEL GAS CODE, THE NJ UNIFORM CONSTRUCTION CODE AND THE REQUIREMENTS OF THE LOCAL UTILITY AUTHORITY.

ACCESS PROVISIONS:

A. FURNISH ACCESS DOORS FOR ALL PIPE VALVES, DUCT DAMPERS, ETC. THAT ARE INSTALLED IN AREAS WHERE THEY WILL BE HIDDEN BY CONSTRUCTION. GENERAL CONTRACTOR SHALL INSTALL THESE ACCESS DOORS.

B. INSTALL PIPE AND DUCT EXPANSION JOINTS AT LOCATION OF ALL BUILDING EXPANSION JOINTS.

C. PROCESS AND UTILITY PIPING SHALL BE IDENTIFIED AS TO CONTENT AND FLOW DIRECTION USING APPROPRIATE MARKERS. LOCATIONS TO BE DETERMINED AT TIME OF INSTALLATION.

EQUIPMENT START-UP

ALL EQUIPMENT START-UP SHALL BE CONDUCTED BY MANUFACTURER'S REPRESENTATIVE. START-UP CHECKLISTS SHALL BE COMPLETED AND PROVIDED TO THE OWNER.

PIPING GENERAL NOTES:

PIPING SHALL BE SUPPORTED SO THAT NO STRESS IS TRANSFERRED TO EQUIPMENT CONNECTIONS AND CONSTRAINED TO PREVENT MOVEMENT DURING STARTING AND/OR SURGING CONDITIONS. MANUAL AIR VENTS AND DRAIN VALVES SHALL BE PROVIDED AT ALL HIGH AND LOW POINTS RESPECTIVELY. ALL PIPING TO BE BLOWN CLEAN OR FLUSHED AND LEAK TESTED UNDER SYSTEM OPERATING PRESSURES.

1. STEAM - SCHEDULE 40 BLACK STEEL, BUTTWELDED 2 $\frac{1}{2}$" AND LARGER, 2" AND SMALLER SHALL BE THREADED AND CONFORM TO ANSI B1.20.1.

2. CHILLED WATER, CONDENSER WATER, HOT WATER - 4" AND SMALLER - ALL COPPER TUBING SHALL BE OF WEIGHT AS REQUIRED FOR SERVICE SPECIFIED, IN CONFORMANCE WITH ASTM DESIGNATION B-88-47 FOR TYPES "L" TUBING AS MANUFACTURED BY CHASE, ANACONDA, REVERE OR APPROVED EQUAL. TUBING AND FITTINGS SHALL BE THOROUGHLY CLEANED WITH SAND CLOTH AND TREATED WITH AN APPROVED FLUX BEFORE SOLDER IS APPLIED.

3. CHILLED WATER, CONDENSER WATER, HOT WATER - LARGER THAN 4" -SCHEDULE 40 BLACK STEEL, BUTTWELDED

4. REFRIGERANT PIPING SHALL BE TYPE "L" ACR COPPER PIPING WITH TYPE "L" COPPER/BRONZE FITTINGS, BRAZED JOINTS

5. JOINING (REFER TO PIPING SCHEDULE)
A. SOLDERED JOINTS: MATERIALS SHALL COMPLY WITH ASTM A-53, A-105, A-47 AND A.N.S.I. B-16.9. COPPER TUBING JOINTS SHALL BE MADE UP WITH SILVER SOLDER OR 95-5 SOLDER.
B. BRAZED JOINTS: COPPER TO COPPER JOINTS SHALL BE BRAZED WITH A COPPER-PHOSPHOROUS BRAZING ALLOY CONTAINING A MINIMUM OF 15% SILVER AND CONFORMING TO AWS A5.8, BCuP5.
B. THREADED JOINTS: CONFORM TO A.N.S.I. B1.20.1, TAPERED PIPE THREADS FOR FIELD CUT THREADS.
C. WELDED JOINTS: COMPLY WITH THE REQUIREMENT IN ASME CODE B31.9 BUILDING SERVICES PIPING.
D. FLANGED JOINTS: ALIGN FLANGED SURFACES PARALLEL. ASSEMBLE JOINTS BY SEQUENCED BOLT TIGHTENING TO MAKE INITIAL CONTACT OF FLANGES AND GASKETS AS FLAT & PARALLEL AS POSSIBLE. USE SUITABLE LUBRICANTS ON BOLT THREADS. TIGHTEN BOLTS GRADUALLY AND UNIFORMLY USING TORQUE WRENCH.
E. PROPRESS: FITTINGS SHALL COMPLY WITH ASTM B16.18 OR ASME B16.22 AND PERFOMANCE CRITERIA OF IAPMO PS 117. SEALING ELEMENTS FOR PRESS FITTINGS SHALL BE EPDM. SEALING ELEMENTS SHALL BE FACTORY INSTALLED OR AN ALTERNATIVE SUPPLIED BY THE MANUFACTURER. USE TOOLS AND METHODS AS RECOMMENDED BY MANUFACTURER.

6. REFER TO VALVE & PIPING SCHEDULE FOR SPECIFICATIONS. ALL VALVES SHALL BE CAPABLE OF LOCKING & TAGGING OUT.

7. ALL VALVES 6'-0" AFF SHALL HAVE CHAIN OPERATORS.

8. ALL VALVES SHALL HAVE EXTENDED OPERATORS ALLOWING FOR PIPE TO BE INSULATED.

PIPING INSULATION

A. PIPING: INSUATION THICKNESS SHALL CONFORM TO IECC. SEE DRAWING SCHEDULE:
1. INTERIOR PIPING SHALL BE JOHNS MANVILLE PRE-MOLDED FIBERGLASS PIPE COVERING WITH WHITE ALL SERVICE JACKET (ASJ). ALL FITTINGS INCLUDING UNIONS, FLANGES, SPECIALTIES, AND VALVES SHALL BE INSULATED WITH FIBERGLASS WRAP INSERTS COVERED WITH ZESTON 2000 PVC INSULATION COVERS INSTALLED TO MANUFACTURER'S REQUIREMENTS.
2. EXTERIOR PIPING SHALL BE JOHNS MANVILLE PRE-MOLDED FIBERGLASS PIPE COVERING WITH ASJ AND ALUMINUM JACKET FOR PIPING AND FITTINGS. ALUMINUM JACKET SHALL HAVE A MINIMUM OF .024" THICKNESS.
3. ANY FITTING OR VALVES THAT CANNOT BE COVERED BY PRE-MOLDED COVERING SHALL BE COVERED WITH INSULATION WRAPS AS MANUFACTURED BY THERMAXX OR EQUAL.
4. INSULATION TO BE FLAME RATED FOR 25 AND SMOKE RATED FOR 50.
5. REFRIGERANT PIPING SHALL BE AP ARMAFLEX INSULATION PLENUM RATED, UV PROTECTION. ALL FITTINGS TO BE INSULATED WITH PRE MOLDED REMOVABLE AND REPLACEABLE PVC FOR FITTINGS, FLANGES, SPECIALTIES, AND VALVES. EXTERIOR - AP ARMAFLEX SHALL HAVE ARMAFLEX WB FINISH APPLIED. INSTALL IN ACCORDANCE WITH "INSTALLATION OF ARMAFLEX INSULATIONS" BROCHURE.
6. ALL CHILLED WATER PUMPS SHALL BE COVERED WITH INSULATED BOX CONSTRUCTED OF 2" INSULATION WITH EMBOSSED 10 GAGE ALUMINUM SHELL. THE INSULATED BOX SHALL BE CAPABLE OF ALLOWING ACCESS TO PUMPS FOR MAINTENANCE. PROVIDE LATCHING MECHANISM TO SECURE BOX SECTIONS. FOR BELOW AMBIENT SERVICES INSTALL VAPOR BARRIER AT SEAMS, JOINTS AND PENETRATIONS. SEAL BETWEEN FLANGES WITH REPLACEABLE GASKET MATERIAL TO FORM VAPOR BARRIER.

PIPING SUPPORTS

A. PIPING ON WALL ABOVE THE FLOOR SHALL BE SUPPORTED BY MANUFACTURED SUPPORTS SIMILAR TO "UNISTRUT". OTHER SUPPORTS SHALL BE SUBMITTED BY CONTRACTOR FOR APPROVAL. ALL UNISTRUT OR OTHER APPROVED SUPPORTS SHALL HAVE PLASTIC END CAPS.
B. PIPE SUPPORTS ARE TO BE ATTACHED BY APPROPRIATE BEAM CLAMPS TO THE BOTTOM FLANGE OF BEAMS OR JOISTS. INTERMEDIATE SUPPORT SPACING PER SPECIFICATIONS. NO HANGING FROM THE ROOF DECK IS PERMITTED.
C. SEISMIC RESTRAINT SUPPORTS: PROVIDE SEISMIC RESTRAINTS FOR PIPING AND EQUIPMENT IN ACCORDANCE WITH SECTION 1600 OF THE INTERNATIONAL BUILDING.

PIPE, VALVE AND EQUIPMENT LABELING

PIPE, VALVE AND EQUIPMENT SHALL BE IDENTIFIED TO SITE STANDARDS AND OWNER INDENTIFICATION CONVENTION. FOLLOW SPECIFICATION BELOW AND ANSI A13.1 STANDARD IF THERE IS NO SITE STANDARD.

PIPE MARKER SHALL BE PLACED A MINIMUM OF EVERY 15' AND AT EVERY VALVE AND BRANCHLINE LOCATION.
A. GENERAL REQUIREMENTS FOR MANUFACTURED PIPE LABELS: PREPRINTED, COLOR-CODED, WITH LETTERING INDICATING SERVICE, AND SHOWING FLOW DIRECTION.
1. PRE-TENSIONED PIPE LABELS: PRECOILED, SEMIRIGID PLASTIC FORMED TO COVER FULL CIRCUMFERENCE OF PIPE AND TO ATTACH TO PIPE WITHOUT FASTENERS OR ADHESIVE. PIPE LABEL CONTENTS: INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS, PIPE SIZE, AND AN ARROW INDICATING FLOW DIRECTION.
B. FLOW-DIRECTION ARROWS: INTEGRAL WITH PIPING SYSTEM SERVICE LETTERING TO ACCOMODATE BOTH DIRECTIONS, OR AS SEPARATE UNIT ON EACH PIPE LABEL TO INDICATE FLOW DIRECTION.
1. LETTERING SIZE: REFER TO ANSI A13.1
2. COLOR SHALL BE AS DEFINED IN ANSI A13.1.
3. PROVIDE PIPE LABELS AT ALL VALVES AND BRANCH CONNECTIONS.

VALVES MARKER SHALL BE PLACED ON ALL VALVES
A. TAGS: 1-1/2" ROUND BRASS TAGS WITH EMBOSSED LABEL SHALL BE PROVIDED WITH SERVICE AND DESIGNATION. A VALVE SCHEDULE SHALL BE PROVIDED BY THE CONTRACTOR AND GIVEN TO THE OWNER

EQUIPMENT LABELS SHALL BE PLACED ON ALL NEW EQUIPMENT.
A. LABELS: 3" BLACK BAKALITE WITH PERMANENT ADHESIVE BACKING PLAQUES EMBOSSED WITH 2" HIGH WHITE LETTERS AND NUMBERS.

PIPE INSTALLATION

A. THE WORD "PIPING" IN THIS SPECIFICATION SHALL MEAN PIPE, FITTING, FLANGES, NIPPLES, AND VALVES.
B. CHECK THE DRAWINGS FOR SPACE LIMITATIONS PERMITTED FOR THE INSTALLATION OF PIPING SUCH AS SHAFTS, CHASES, AND FURRED CEILINGS.
C. INSTALL PIPING CLOSE AND PARALLEL TO THE STRUCTURAL MEMBERS AND TIGHT TO THE UNDERSIDE OF THE FLOOR CONSTRUCTION TO GIVE MAXIMUM HEADROOM AND CREATE THE LEAST POSSIBLE FURRING WHERE FURRED BEAMS OR CEILINGS ARE INDICATED.
D. INSTALL PIPING SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE, REPAIR, OR REPLACEMENT.
E. REAM OR FILE SCREWED PIPE OF TUBING TO ORIGINAL BORE AND REMOVE BURRS.
F. DILECTRIC UNIONS SHALL BE INSTALLED WHEN JOINING DISIMILIAR METALS. DILECTRIC UNIONS SHALL BE SUPPORTED AS PER MANUFACTURERS RECOMMENDATIONS

INSTALLATION OF HANGERS AND SUPPORTS

A. WHERE NO INSERTS HAVE BEEN PROVIDED, PIPES SHALL BE SUPPORTED FROM HEAVY DUTY ADHESIVE ANCHORS SIMILAR TO HILTI HVA, USING ONLY HAS RODS AND HFA INSERTS FOR PIPING OVER 2' IN SIZE AND HAS RODS FOR PIPING 2" AND SMALLER. ALLOW A MINIMUM OF ONE-HOUR SETTING TIME BEFORE DISTURBING THE INSERT IN ANY MANNER. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE STRICTLY ADHERED TO. FOR LIGHTWEIGHT PIPING AND WHERE APPROVED BY ENGINEER, ATTACH THE ROD AND HANGER TO A 2 INCH X 2-INCH ANGLE FASTENED TO THE SLAB BY TWO STAR NO 7000 DOUBLE EXPANSION SHIELDS NO SMALLER THAN 3/8" INCH SIZE. THE RODS ON ALL HANGERS SHALL BE OF ADEQUATE SIZE TO SUPPORT THE LOADS WHICH THEY CARRY.
B. REGARDLESS OF THE TYPE OF CONSTRUCTION (I.E., CONCRETE, CONCRETE-DECK-STEEL OR VARIATIONS THERETO), PARTICULAR CARE SHALL BE TAKEN TO SUPPORT ALL MAIN LINES AND ALL LARGE AND HEAVY PIPES IN A SATISFACTORY MANNER, INCLUDING THE FURNISHING AND INSTALLATION OF SUPPLEMENTARY STEEL, IF REQUIRED.
C. THIS SECTION SHALL COORDINATE WITH THE OTHER SECTIONS THAT USE COMMON MEANS OF SUPPORT. SUBMIT FOR APPROVAL ALL PERTINENT DESIGN DATA RELATING TO THE SUPPORT AS WELL AS VERIFICATION OF THE RESPONSIBILITY FOR THE SUPPORT.
D. DO NOT HANG PIPING FROM THE DUCTWORK OF OTHER PIPING. HANGER SHALL NOT BE FASTENED BY MEANS OF VERTICAL EXPANSION BOLTS.

PIPING TESTS

A. TESTS WILL BE REQUIRED TO DEMONSTRATE THE INTEGRITY OF THE NEWLY INSTALLED PIPING INFRASTRUCTURE. THE MECHANICAL CONTRACTOR WILL PERFORM ALL TESTS SPECIFIED AND/OR REQUIRED UNDER LAWS, RULES AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.
B. NOTIFY THE OWNER AND ENGINEER AT LEAST 72 HOURS IN ADVANCE OF ALL TESTS. FURNISH ALL NECESSARY INSTRUMENTS, GAUGES AND OTHER EQUIPMENT REQUIRED FOR THESE TESTS. IF TESTS CANNOT BE COMPLETED AS SCHEDULED, PAY ALL EXPENSES INCURRED BY THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVES REQUIRED TO BE PRESENT. EXPENSES SHALL INCLUDE THE COST OF TRAVELING, LODGING AND MEALS. TO AVOID SUCH OCCURRENCES, MAKE PRELIMINARY TESTS PRIOR TO GIVING NOTICE AND CONDUCTING FINAL TESTS.
C. REFRIGERANT PIPING: THE SYSTEM SHALL BE TESTED AT A PRESSURE NO LOWER THAN THE LOW SIDE DESIGN PRESSURE, OR AT THE SETTING OF THE PRESSURE RELEASE DEVICE. THE SYSTEM SHALL BE TESTED USING DRY NITROGEN. CONTRACTOR SHALL PERFORM TESTING BEFORE INSULATION, EVACUATION, AND CHARGING OF THE SYSTEM.
D. MECHANICAL PIPING SHALL BE TESTED TO 1.5 TIMES THE MAXIMUM SYSTEM OPERATING PRESSURE (E.G. PUMP SHUT-OFF PRESSURE) FOR ONE HOUR WITH NO DROP IN PRESSURE OR LEAKS. TESTING MEDIUM SHALL BE CLEAN WATER.
E. COMPRESSED AIR PIPING SHALL BE TESTED AT A PRESSURE OF 150 PSIG FOR A PERIOD OF FOUR HOURS WITH NO DROP OF PRESSURE PERMITTED.

A. CONTROL SYSTEM PERFORMANCE SPECIFICATION

DESIGN AND SUBMITTALS

THE BAS CONTRACTOR WILL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE MECHANICAL DDC CONTROL SYSTEM. BAS CONTRACTOR SHALL REVIEW EQUIPMENT SUBMITTALS TO ENSURE WHAT FUNCTIONS ARE CONTROLLED BY THE EQUIPMENT AND WHAT FUNCTIONS SHALL BE CONTROLLED BY THE TRIDUIM SYSTEM. THE BAS CONTRACTOR IN EITHER CASE WILL INTERGRATE ALL FUNCTION INTO THE TRIDIUM SYSTEM. BAS CONTRACTOR SHALL DEVELOP FLOW WIRING, SEQUENCE OF OPERATIONS, GRAPHICS, ALARM MATRIX, HISTORY LOGS, ETC. TO DEPICT THE SYSTEM FOR REVIEW PRIOR TO INSTALLATION. INCLUDE MANUFACTURER'S TECHNICAL LITERATURE FOR EACH CONTROL DEVICE. THE BAS CONTRACTOR SHALL MATCH SITE STANDARDS FOR PROGRAMMING, WORKSTATION GRAPHIC, HISTORICAL LOGS AND ALARMING. OWNER SHALL CHOOSE THE INFORMATION TO MAP FROM ALL COMMUNICATION PROTOCOLS SUCH AS BACNET MSTP, MODBUS, ETC. TO THE BAS SYSTEM.

SEQUENCE OF OPERATION
SEE M-600 THRU M-612.

BAS CONTRACTOR TESTS AND VERIFICATION
SEE BELOW IN COMMISSIONING SPECIFICATION

COMMISSIONING SPECIFICATION

GENERAL DEFINITION

COMMISSIONING IS THE ENGINEERED APPROACH TO THE DOCUMENTATION AND ADJUSTMENT OF MECHANICAL RELATED SYSTEMS, IN AN EFFORT TO ENSURE THAT THE SYSTEM MEETS THE OWNER'S REQUIREMENTS.

PARTIES IN RESPONSIBLE CHARGE

A. THE MECHANICAL CONTRACTOR
THE MECHANICAL CONTRACTOR SHALL DESIGNATE A SINGLE REPRESENTATIVE THAT WILL BE THE POINT OF CONTACT FOR THE OWNER AND ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE THE PLAN, COORDINATE ALL TESTS BY THE CONTRACTORS, EXECUTE THE FIELD INSTALLATION VERIFICATION WORK SHEETS, SUPERVISE/ EXECUTE AIR AND HYDRONIC BALANCING, EXECUTE OPERATIONAL PERFORMANCE TESTS (SUPERVISE OR EXECUTE START-UP), AND EXECUTE FUNCTIONAL PERFORMANCE TESTS, AND PROVIDE ALL DOCUMENTATION OF TEST RESULTS TO OWNER AND ENGINEER.

B. OWNER
THE OWNER SHALL COORDINATE WITH CONTRACTOR FOR SCHEDULING OF TESTS.

WRITTEN PLAN

PRIOR TO EXECUTION OF THE COMMISSIONING ASSIGNMENT, AN OUTLINE SHALL BE PREPARED AND SUBMITTED TO THE OWNER, WHICH DETAILS THE BASIC AND SPECIFIC TESTS OF THE COMMISSIONING ASSIGNMENT. THIS MUST INCLUDE THE APPROPRIATE METHODS OF EXECUTION, AND RESPONSIBILITIES OF EACH MEMBER OF THE MECHANICAL CONTRACTOR TEAM, INCLUDING REQUIRED SUPPORT FROM OTHER MEMBERS/ SUBCONTRACTORS NOT DIRECTLY UNDER THE MECHANICAL CONTRACTOR AUTHORITY'S SUPERVISION.

LEAKAGE TESTS

A. TESTS WILL BE REQUIRED TO DEMONSTRATE THE INTEGRITY OF THE NEWLY INSTALLED PIPING AND DUCTWORK INFRASTRUCTURE. THE MECHANICAL CONTRACTOR WILL PERFORM ALL TESTS SPECIFIED AND/OR REQUIRED UNDER LAWS, RULES AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.
B. NOTIFY THE OWNER AND ENGINEER AT LEAST 72 HOURS IN ADVANCE OF ALL TESTS. FURNISH ALL NECESSARY INSTRUMENTS, GAUGES AND OTHER EQUIPMENT REQUIRED FOR THESE TESTS. IF TESTS CANNOT BE COMPLETED AS SCHEDULED, PAY ALL EXPENSES INCURRED BY THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVES REQUIRED TO BE PRESENT. EXPENSES SHALL INCLUDE THE COST OF TRAVELING, LODGING AND MEALS. TO AVOID SUCH OCCURRENCES, MAKE PRELIMINARY TESTS PRIOR TO GIVING NOTICE AND CONDUCTING FINAL TESTS.
C. NEW AND ALTERED PIPING SHALL BE HYDROSTATICALLY TESTED TO POINT OF CONNECTION WITH EXISTING PIPING AT 1.5 TIMES THE SYSTEM MAXIMUM OPERATING PRESSURE FOR ONE HOUR WITH NO LEAKS PERMITTED. FOLLOW ASME B31.9 TESTING PROCEDURE.
D. NEW AND ALTERED PIPING AND DUCTWORK SHALL BE TESTED TO POINT OF CONNECTION WITH EXISTING PIPING AND OR EQUIPMENT.

AIR AND HYDRONIC BALANCING

A. AIR AND HYDRONIC BALANCING SHALL BE REQUIRED TO ENSURE THAT ALL NEW AND MODIFIED SYSTEMS ARE DELIVERING THE SPECIFIED DESIGN QUANTITIES WITHIN 10% (+/-). ALL PARTS OF THE WORK SHALL BE TESTED AND ADJUSTED TO WORK PROPERLY AND BE LEFT IN PROPER OPERATING CONDITION UPON COMPLETION OF THE WORK. CORRECT DEFECTS DISCLOSED BY THESE TESTS WITHOUT ADDITIONAL COST TO THE OWNER. REPEAT TESTS ON REPAIRED OR REPLACED WORK IF DEEMED NECESSARY BY THE ENGINEER.
B. ALL BALANCING ACTIVITIES SHALL BE PERFORMED BY AN NEBB CERTIFIED BALANCER. BALANCING SHALL BE PERFORMED AND DOCUMENTED ACCORDING TO THE PROCEDURAL STANDARDS OF THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB).

FIELD INSTALLATION VERIFICATION (FIV)

DOCUMENTATION WILL BE PROVIDED TO ENSURE THAT ALL MODIFIED OR NEW SYSTEMS AND THEIR COMPONENTS HAVE BEEN PROVIDED AND INSTALLED IN ACCORDANCE WITH ENGINEERING PLANS, SPECIFICATIONS, AND MANUFACTURER'S RECOMMENDATIONS.

OPERATIONAL PERFORMANCE TEST (OPT)

DOCUMENTATION WILL BE PROVIDED TO ENSURE THAT ALL MODIFIED OR NEW SYSTEMS AND THEIR COMPONENTS HAVE BEEN STARTED-UP PROPERLY. BY THE MANUFACTURER REPRESENTATIVE. ALL START-UP SHEETS SHALL BE FILLED OUT WITH NO EXCEPTIONS AND DOCUMENTATION PROVIDED TO THE OWNER AND ENGINEER ONCE SUCCESSFULLY COMPLETED.

TIONFUNCTIONAL PERFORMANCE TEST (FPT)

DOCUMENTATION WILL BE PROVIDED TO VERIFY THAT ALL MODIFIED OR NEW SYSTEMS AND THEIR COMPONENTS ARE CONFORMING TO PERFORMANCE DATA OUTLINED IN THE ENGINEERING PLANS AND SPECIFICATIONS AND ACCORDING TO THE SEQUENCE OF OPERATIONS. AND WORKSTATION GRAPHIC.

COMMISSIONING REPORT

A CONTRACTOR TO PROVIDE THREE (3) SETS OF (IOM) INSTALLATION, OPERATING, AND MAINTENANCE MANUALS FOR THE PROJECT. IOM SHALL ALSO BE SUBMITTED IN ELECTRONIC PDF FORMAT. SUBMIT IOM FOR APPROVAL BEFORE MAKING HARD COPIES OR ELECTRONIC FORMAT. FINAL REPORT WILL BE PROVIDED BY THE MECHANICAL CONTRACTOR THAT WILL INCLUDE ALL INFORMATION AS DESCRIBED ABOVE IN A NEAT AND ORGANIZED FORMAT. AT A MINIMUM, THIS FINAL REPORT WILL INCLUDE THE FOLLOWING SECTIONS:

A. COVER/ TITLE SHEET/ PROJECT NAME
B. TABLE OF CONTENTS/ INDEX
C. NAME AND ADDRESS OF CONTRACTOR
D. ENGINEERS AND ARCHITECT NAME AND ADDRESS
E. APPROVED SUBMITTALS AND IOM FOR ALL EQUIPMENT AND SYSTEMS
F. NEBB CERTIFIED AIR AND WATER BALANCING REPORTS
G. START-UP, TESTING AND CHECK-OUT SHEETS
H. PIPING AND DUCTWORK LEAK TESTING REPORTS
I. VERIFICATION OF SEQUENCE OF OPERATION FOR EACH SYSTEM BY BAS CONTRACTOR
J. SCREEN SHOT FOR ALL WORKSTATION GRAPHICS
K. CONTROL POINT TO POINT CHECK OUT SHEETS BY BAS CONTRACTOR
L. TESTING OF SMOKE DETECTORS AND REFRIGERANT DETECTION SYSTEMS
M. TESTING OF SPECIFIED ALARMS ON CONTROL SYSTEM BY BAS CONTRACTOR
N. 72 HOUR HISTORY LOGS OF OPERATION OF SYSTEMS BY BAS CONTRACTOR
O. PIPING AND DUCTWORK APPROVED SHOP DRAWINGS
P. RED-LINED DRAWINGS SHOWING FIELD CHANGES
Q. WARRANTY CERTIFICATES FOR ALL EQUIPMENT AND SYSTEMS
R. BAS CONFIGURATION OF ROOFTOP UNITS, AIR HANDLERS, FAN COIL UNITS, BOILERS, DOMESTIC HOT WATER HEATER, ETC.
S. FACTORY ACCEPTANCE TEST (FAT), IF APPLICABLE
T. ALIGNMENT RESULTS FOR PUMPS, FANS, ETC.
U. TRAINING LOG

INSTRUMENTATION

ALL INSTRUMENTATION USED DURING THE COMMISSIONING PROCESS SHALL HAVE DOCUMENTATION ATTESTING TO CALIBRATION WITHIN THE LAST YEAR. ALL FIELD INSTALLED INSTRUMENTATION SHALL BE PROVIDED WITH FACTORY CALIBRATION SHEETS.

TRAINING

CONTRACTOR TO PROVIDE NECESSARY TRAINING TO OWNER SO THAT OWNER MAY PROPERLY OPERATE AND MAINTAIN THE SYSTEMS PROVIDED. TRAINING SHALL BE PREFORMED USING A MANUFACTURER'S TRAINED REPRESENTATIVE. A TRANING AGENDA SHALL BE PREPARED FOR THE REVIEW BY OWNER BEFORE INSTRUCTION BEGINS.

CM ENGINEERS, LLC
385 ROUTE 24, SUITE 3-O, CHESTER, NJ 07930
TEL (908) 879-1801
WWW.CMENGINEERS.COM
NEW JERSEY STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION: 24GA28121800
PRINCIPAL IN CHARGE: JOSEPH T. MISTRETTA, PE
N.J. PROFESSIONAL ENGINEER LICENSE NUMBER: 24GE02823800

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21AI01706000 | PA - RA012520X
JASON J. DUBOWITCH, AIA
NJ - 21AI01979800 | PA - RA406009
STEPHEN W. SCHREYER JR., AIA, LEED AP BD+C
NJ - 21AI02003100 | PA - RA410435
Architect 01/29/26 Date
FVHD architects planners
EST 1918
Fraytak Veisz Hopkins Duthie P C
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
F V H D P C . C O M

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
JTM

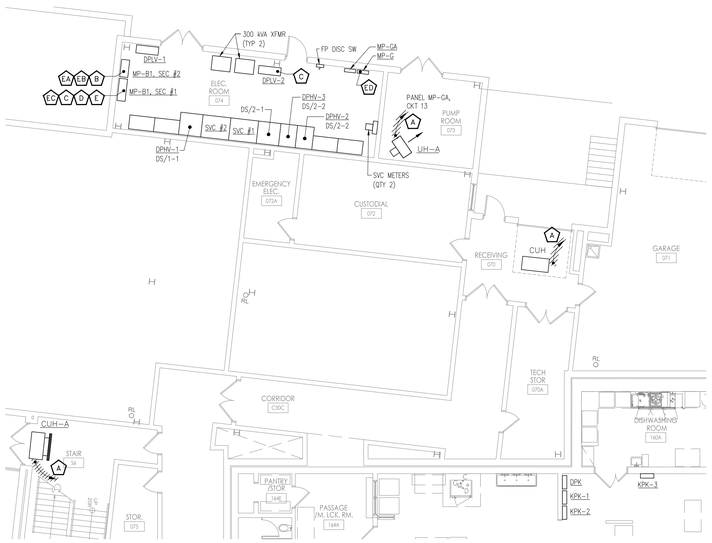
Drawn By
JD

Scale
AS NOTED

Drawing Name
MECHANICAL - SPECIFICATIONS

Revisions		
No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
M-901



1 ELECTRICAL - SECTOR 'B' GROUND FLOOR DEMOLITION PARTIAL PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES-BASE BID

A REMOVE POWER & DISCONNECT SWITCH FROM EXISTING EQUIPMENT BACK TO SOURCE. REMOVE CONDUCTORS FROM BREAKER AND LABEL AS "SPARE". UPDATE PANEL SCHEDULE ACCORDINGLY.

B REMOVE EXISTING 70A, 3-P BREAKER (CKTS 80-84) FOR EXISTING AHU-B1. SPACE SHALL BE REUSED TO POWER NEW AHU-B1.

C WITHIN 3 WEEKS OF CONTRACT AWARD, CONTRACTOR SHALL INSTALL A METER ON EXISTING INCOMING CONDUCTORS FOR A PERIOD OF ONE (1) WEEK TO RECORD AMPS READINGS AT 15 MINUTE INTERVALS. SUBMIT RESULTS TO ENGINEER IN GRAPHICAL FORMAT FOR REVIEW.

D REMOVE EXISTING CONDUCTORS FROM EXISTING 60A BREAKER (CKTS 19-23) FEEDING BOILER #1. LABEL BREAKER AS "SPARE".

E REMOVE EXISTING CONDUCTORS & EXISTING 60A BREAKER (CKTS 20-24) FEEDING BOILER #2. CIRCUITS SHALL BE REUSED FOR NEW BREAKER TO FEED NEW SUB-PANEL MP-BLR.

ELECTRICAL DEMOLITION NOTES-ADD/ALT #3

EA REMOVE EXISTING CONDUCTORS FROM EXISTING 15A BREAKER (CKTS 68-72) FEEDING DWCP-1. LABEL BREAKER AS "SPARE".

EB REMOVE EXISTING CONDUCTORS FROM EXISTING 15A BREAKER (CKTS 67-71) FEEDING DWCP-2. LABEL BREAKER AS "SPARE".

EC REMOVE EXISTING CONDUCTORS FROM EXISTING 15A BREAKER (CKTS 25-29) FEEDING DWH-1. LABEL BREAKER AS "SPARE".

ED REMOVE EXISTING CONDUCTORS FROM EXISTING 20A BREAKER (CKT 79) FEEDING CONTROL CIRCUIT FOR WATER HEATER (DWH) IN BOILER ROOM. LABEL BREAKER AS "SPARE".

ELECTRICAL GENERAL DEMOLITION NOTES-BASE BID & ALT BIDS

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.
2. WHERE NEW POWER/CONTROL WIRING & CONDUITS ARE BEING REMOVED OR INSTALLED, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE & REPLACE ANY DAMAGED OR MARKED-UP CEILING TILES. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TILE SPECIFICATION. WHERE HARD CEILINGS EXIST, THE GENERAL CONTRACTOR SHALL REMOVE SECTION OF CEILING TO FACILITATE THE WORK & REPAIR THE CEILING AFTER THE INSTALLATION HAS BEEN COMPLETED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.



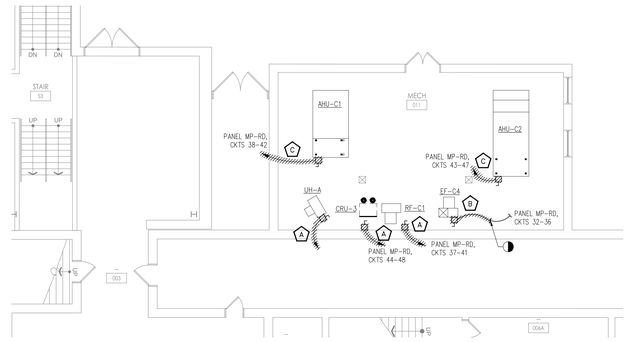
2 ELECTRICAL - SECTOR 'B' GROUND FLOOR DEMOLITION PARTIAL PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES

A REMOVE POWER & DISCONNECT SWITCH FROM EXISTING EQUIPMENT BACK TO SOURCE. REMOVE CONDUCTORS FROM BREAKER AND LABEL AS "SPARE". UPDATE PANEL SCHEDULE ACCORDINGLY.

ELECTRICAL GENERAL DEMOLITION NOTES

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.
2. WHERE NEW POWER/CONTROL WIRING & CONDUITS ARE BEING REMOVED OR INSTALLED, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE & REPLACE ANY DAMAGED OR MARKED-UP CEILING TILES. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TILE SPECIFICATION. WHERE HARD CEILINGS EXIST, THE GENERAL CONTRACTOR SHALL REMOVE SECTION OF CEILING TO FACILITATE THE WORK & REPAIR THE CEILING AFTER THE INSTALLATION HAS BEEN COMPLETED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.



3 ELECTRICAL - SECTOR 'C' GROUND FLOOR DEMOLITION PARTIAL PLAN - ADD/ALT #2
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES-ADD/ALT #2

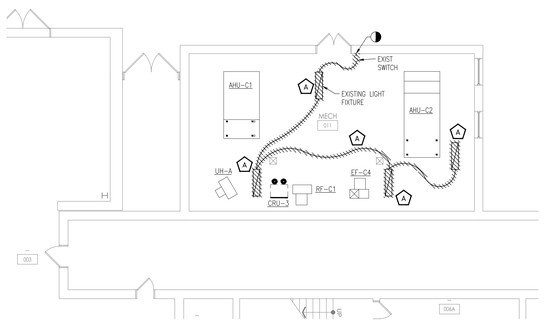
A REMOVE POWER & DISCONNECT SWITCH FROM EXISTING EQUIPMENT BACK TO SOURCE. REMOVE CONDUCTORS FROM BREAKER AND LABEL AS "SPARE". UPDATE PANEL SCHEDULE ACCORDINGLY.

B REMOVE EXISTING DISCONNECT SWITCH, CONDUIT & CONDUCTORS BACK TO A LOCATION THAT FACILITATES THE INSTALLATION OF A NEW J-BOX. SEE NEW WORK PLANS.

C REMOVE EXISTING DISCONNECT SWITCH, CONDUIT & CONDUCTORS BACK TO A LOCATION THAT FACILITATES THE INSTALLATION OF A NEW J-BOX AT UNDERSIDE OF DECK. THE EXISTING CONDUCTORS SHALL BE REMOVED BACK TO SOURCE & A NEW SET OF CONDUCTORS PULLED IN THE SAME CONDUIT. SEE NEW WORK PLANS.

GENERAL DEMOLITION NOTES-ADD/ALT #2

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.
2. WHERE NEW POWER/CONTROL WIRING & CONDUITS ARE BEING REMOVED OR INSTALLED, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE & REPLACE ANY DAMAGED OR MARKED-UP CEILING TILES. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TILE SPECIFICATION. WHERE HARD CEILINGS EXIST, THE GENERAL CONTRACTOR SHALL REMOVE SECTION OF CEILING TO FACILITATE THE WORK & REPAIR THE CEILING AFTER THE INSTALLATION HAS BEEN COMPLETED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL.



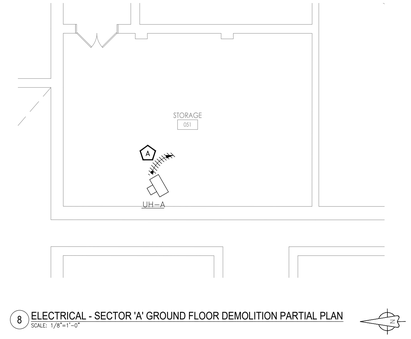
4 ELECTRICAL - SECTOR 'C' GROUND FLOOR LIGHTING DEMOLITION PARTIAL PLAN - ADD/ALT #2
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES

A REMOVE EXISTING LIGHT FIXTURES, CONDUIT, CONDUCTORS & EXISTING LIGHT SWITCH AS SHOWN.

GENERAL DEMOLITION NOTES

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.



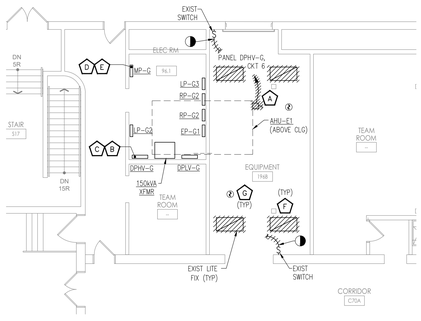
8 ELECTRICAL - SECTOR 'A' GROUND FLOOR DEMOLITION PARTIAL PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES

A REMOVE POWER & DISCONNECT SWITCH FROM EXISTING EQUIPMENT BACK TO SOURCE. REMOVE CONDUCTORS FROM BREAKER AND LABEL AS "SPARE". UPDATE PANEL SCHEDULE ACCORDINGLY.

ELECTRICAL GENERAL DEMOLITION NOTES

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.
2. WHERE NEW POWER/CONTROL WIRING & CONDUITS ARE BEING REMOVED OR INSTALLED, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE & REPLACE ANY DAMAGED OR MARKED-UP CEILING TILES. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TILE SPECIFICATION. WHERE HARD CEILINGS EXIST, THE GENERAL CONTRACTOR SHALL REMOVE SECTION OF CEILING TO FACILITATE THE WORK & REPAIR THE CEILING AFTER THE INSTALLATION HAS BEEN COMPLETED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.



5 ELECTRICAL - SECTOR 'E' GROUND FLOOR DEMOLITION PARTIAL PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES

A REMOVE POWER & DISCONNECT SWITCH FROM EXISTING EQUIPMENT BACK TO SOURCE. REMOVE CONDUCTORS BACK TO BREAKER.

B REMOVE EXISTING 40A, 3-P BREAKER (CKT #4) FOR EXISTING AHU-E1. SPACE WILL BE REUSED TO POWER THE NEW AHU-E1.

C REMOVE EXISTING 50 A, 3-P BREAKER (CKTS 9-13) POWERING THE VFD FOR AHU-G1. REMOVE CONDUCTORS FROM BREAKER AND LABEL AS "SPARE".

D REMOVE EXISTING 30 A, 3-P BREAKER (CKTS 37-41) POWERING THE VFD FOR AHU-G1. REMOVE CONDUCTORS FROM BREAKER AND LABEL AS "SPARE". IF ALT #1 IS ACCEPTED FOR THE INSTALLATION OF A NEW ROOFTOP UNIT FOR THE LOCKER ROOMS (AHU-E2), THE EXISTING 30A BREAKER SHALL REMAIN TO POWER THE NEW UNIT.

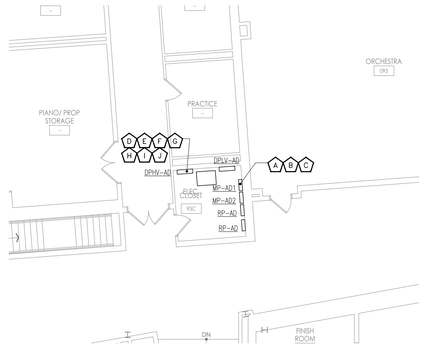
E THERE IS ANOTHER BREAKER SHOWN (CKTS 35-39) TO POWER AHU-G1. CONTRACTOR SHALL TRACE CIRCUIT AND SHALL REMOVE BREAKER, CONDUIT, POWER WIRING ETC., IF POWERING THE ROOFTOP UNIT.

F REMOVE EXISTING LITE FIXTURE AND POWER WIRING FROM SWITCH TO EACH LITE FIXTURE.

G REMOVE EXISTING SMOKE DETECTOR AND RETAIN FOR REINSTALLATION.

GENERAL DEMOLITION NOTES

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.
2. WHERE NEW POWER/CONTROL WIRING & CONDUITS ARE BEING REMOVED OR INSTALLED, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE & REPLACE ANY DAMAGED OR MARKED-UP CEILING TILES. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TILE SPECIFICATION. WHERE HARD CEILINGS EXIST, THE GENERAL CONTRACTOR SHALL REMOVE SECTION OF CEILING TO FACILITATE THE WORK & REPAIR THE CEILING AFTER THE INSTALLATION HAS BEEN COMPLETED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.



6 ELECTRICAL - SECTOR 'F' GROUND FLOOR DEMOLITION PARTIAL PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES

A REMOVE EXISTING 15A, 3-P BREAKER (CKTS 1-5) FOR EXISTING AHU-F4. LABEL BREAKER AS "SPARE".

B REMOVE EXISTING POWER WIRING & CONDUIT FROM EXISTING 15A, 3-P BREAKER (CKTS 13-17) SERVING AHU-F9. SPACE WILL BE REUSED TO POWER THE NEW AHU-F9.

C REMOVE EXISTING POWER WIRING & CONDUIT FROM EXISTING 40A, 3-P BREAKER (CKTS 2-6) SERVING AHU-F7. LABEL BREAKER AS "SPARE".

D REMOVE EXISTING 40A BREAKER FROM CKT #2. THIS CIRCUIT WILL BE REFED FROM THE NEW PANEL 'MP-2F'.

E REMOVE EXISTING 90A BREAKER FROM CKT #3 POWERING EXISTING AHU-F6. THIS CIRCUIT WILL BE REFED FROM THE NEW PANEL 'MP-2F'.

F REMOVE EXISTING 70A BREAKER FROM CKT #4 POWERING EXISTING AHU-F3. THIS CIRCUIT WILL BE REFED FROM THE NEW PANEL 'MP-2F'.

G REMOVE EXISTING 100A BREAKER FROM CKT #5 POWERING EXISTING PANEL 'LPAD'. THIS CIRCUIT WILL BE REFED FROM THE NEW PANEL 'MP-2F'.

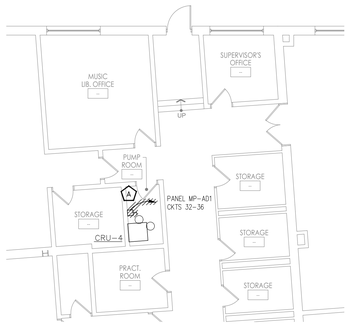
H REMOVE EXISTING 100A BREAKER FROM CKT #6 POWERING EXISTING AHU-F2. THIS CIRCUIT WILL BE REFED FROM THE NEW PANEL 'MP-2F'.

I REMOVE EXISTING 110A BREAKER FROM CKT #8 POWERING EXISTING AHU-F5. SPACE WILL BE REUSED TO POWER THE NEW AHU-F5.

J REMOVE EXISTING 150A BREAKER FROM CKT #9 POWERING EXISTING AHU-F1. SPACE WILL BE REUSED TO POWER THE NEW AHU-F3.

GENERAL DEMOLITION NOTES

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.
2. WHERE NEW POWER/CONTROL WIRING & CONDUITS ARE BEING REMOVED OR INSTALLED, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE & REPLACE ANY DAMAGED OR MARKED-UP CEILING TILES. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TILE SPECIFICATION. WHERE HARD CEILINGS EXIST, THE GENERAL CONTRACTOR SHALL REMOVE SECTION OF CEILING TO FACILITATE THE WORK & REPAIR THE CEILING AFTER THE INSTALLATION HAS BEEN COMPLETED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.



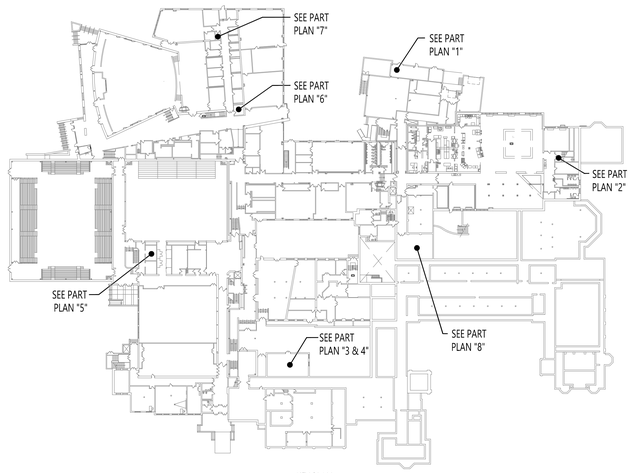
7 ELECTRICAL - SECTOR 'F' GROUND FLOOR DEMOLITION PARTIAL PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL DEMOLITION NOTES

A REMOVE POWER & DISCONNECT SWITCH FROM EXISTING EQUIPMENT BACK TO SOURCE. REMOVE CONDUCTORS FROM BREAKER AND LABEL AS "SPARE". UPDATE PANEL SCHEDULE ACCORDINGLY.

GENERAL DEMOLITION NOTES

1. WHERE EXISTING POWER AND CONTROL WIRING IS BEEN NOTED TO BE REMOVED, THE ASSOCIATED CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC. SHALL ALSO BE REMOVED. OPENINGS LEFT IN WALL SHALL BE REPAIRED & PAINTED WITH MATERIALS MATCHING EXISTING CONSTRUCTION & COLOR.
2. WHERE NEW POWER/CONTROL WIRING & CONDUITS ARE BEING REMOVED OR INSTALLED, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE & REPLACE ANY DAMAGED OR MARKED-UP CEILING TILES. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TILE SPECIFICATION. WHERE HARD CEILINGS EXIST, THE GENERAL CONTRACTOR SHALL REMOVE SECTION OF CEILING TO FACILITATE THE WORK & REPAIR THE CEILING AFTER THE INSTALLATION HAS BEEN COMPLETED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.



KEY PLAN

WILLIAM D. HOPKINS III, AIA, LEED AP
NJ - 21A01706000 | PA - RA012209
JASON J. DUBOWITCH, AIA
NJ - 21A01719900 | PA - RA408209
STEPHEN W. SCHRETER JR., AIA, LEED AP BD+C
NJ - 21A02003100 | PA - RA410643
01.29.26
Date
Architect
FVHD architects planners
Fraytak Veisz Hopkins Duthie P.C.
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
FVHDPC.COM

Project Name
HVAC Renovations at Princeton High School

Project Owner Name
Princeton Public Schools

Project Location
151 Moore Street, Princeton, NJ 08540

Project Number
5516E

Project Date
01.29. 2026

Checked By
JTM

Drawn By
JD

Scale
AS NOTED

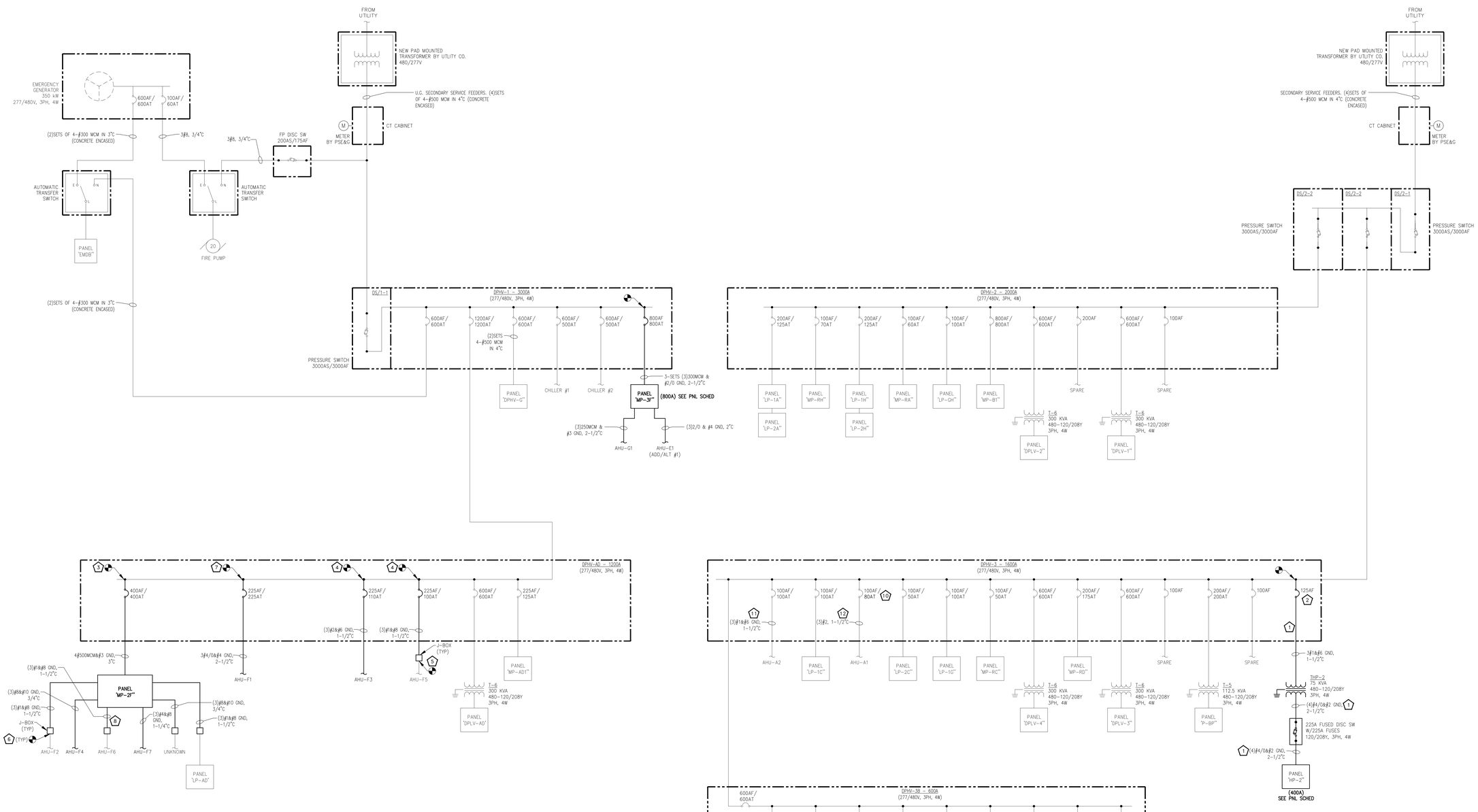
Drawing Name
ELECTRICAL - GROUND FLOOR PARTIAL DEMOLITION PLANS

Revisions

No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

CM ENGINEERS, LLC
385 ROUTE 24, SUITE 3-D, CHESTER, NJ 07930
TEL: (908) 879-1801
WWW.CMENGINEERS.COM
NEW JERSEY STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION:
24GA28121800
PRINCIPAL IN CHARGE: JOSEPH T. MISTRETTA, PE
N.J. PROFESSIONAL ENGINEER LICENSE NUMBER:
24GE02820800

Drawing Number
ED-502



BASE PROJECT	
ELECTRICAL LOAD SUMMARY - SERVICE #1	**ELECTRICAL LOAD SUMMARY - SERVICE #2**
METER #: 009217608	METER #: 009217616
EXISTING SERVICE – 3,000 AMPS (480V-3PH) 1. YEARLY MAXIMUM DEMAND: 474 KVA (426.2 KW) 2. ADD 25% (NEC 220.87): 119.0 KVA 3. EXISTING MAX SERVICE DEMAND: 593.0 KVA EXISTING LOADS BEING REMOVED 1. HVAC EQUIPMENT: 495 KVA NEW LOADS BEING ADDED 1. NEW HVAC EQUIPMENT: 728 KVA NEW LOAD ON EXISTING SERVICE: 826 KVA (994 AMPS)	EXISTING SERVICE – 3,000 AMPS (480V-3PH) 1. YEARLY MAXIMUM DEMAND: 495 KVA (445.7 KW) 2. ADD 25% (NEC 220.87): 124.0 KVA 3. EXISTING MAX SERVICE DEMAND: 619.0 KVA EXISTING LOADS BEING REMOVED 1. HVAC EQUIPMENT: 383 KVA NEW LOADS BEING ADDED 1. NEW HVAC EQUIPMENT: 380 KVA NEW LOAD ON EXISTING SERVICE: 616 KVA (741 AMPS)
NOTES 1. A POWER FACTOR OF 0.9 WAS USED TO DETERMINE KVA.	NOTES 1. A POWER FACTOR OF 0.9 WAS USED TO DETERMINE KVA.

PROJECT WITH ALTERNATES #1 & # 2 INCLUDED	
ELECTRICAL LOAD SUMMARY - SERVICE #1	**ELECTRICAL LOAD SUMMARY - SERVICE #2**
METER #: 009217608	METER #: 009217616
EXISTING SERVICE – 3,000 AMPS (480V-3PH) 1. YEARLY MAXIMUM DEMAND: 474 KVA (426.2 KW) 2. ADD 25% (NEC 220.87): 119.0 KVA 3. EXISTING MAX SERVICE DEMAND: 593.0 KVA EXISTING LOADS BEING REMOVED 1. HVAC EQUIPMENT: 495 KVA NEW LOADS BEING ADDED 1. NEW HVAC EQUIPMENT: 798 KVA NEW LOAD ON EXISTING SERVICE: 896 KVA (1078 AMPS)	EXISTING SERVICE – 3,000 AMPS (480V-3PH) 1. YEARLY MAXIMUM DEMAND: 495 KVA (445.7 KW) 2. ADD 25% (NEC 220.87): 124.0 KVA 3. EXISTING MAX SERVICE DEMAND: 619.0 KVA EXISTING LOADS BEING REMOVED 1. HVAC EQUIPMENT: 402 KVA NEW LOADS BEING ADDED 1. NEW HVAC EQUIPMENT: 430 KVA NEW LOAD ON EXISTING SERVICE: 647 KVA (778 AMPS)
NOTES 1. A POWER FACTOR OF 0.9 WAS USED TO DETERMINE KVA.	NOTES 1. A POWER FACTOR OF 0.9 WAS USED TO DETERMINE KVA.

1 ELECTRICAL - PARTIAL SINGLE LINE DIAGRAM, NEW WORK PLAN

SCALE: N.T.S.

ELECTRICAL NEW WORK NOTES

1. INSTALL NEW CONDUIT AND POWER WIRING FOR NEW TRANSFORMER, FUSED DISCONNECT SWITCH AND PANELBOARD.
2. INSTALL A NEW 125A, 480V, 3-P FUSED DISCONNECT.
3. MODIFY EXISTING PANELBOARD & INSTALL A NEW 400A, LSI STYLE BREAKER. SHORT CIRCUIT RATING SHALL BE 65kA. SEE FLOOR PLAN FOR ADDITIONAL INFORMATION.
4. INSTALL A NEW 480V, 3-P BREAKER IN EXISTING PANEL.
5. EXTEND EXISTING CONDUCTORS TO NEW BREAKER.
6. EXTEND EXISTING CONDUCTORS TO NEW PANELBOARD.
7. MODIFY EXISTING PANELBOARD & INSTALL A NEW 225A, LSI STYLE BREAKER. SHORT CIRCUIT RATING SHALL BE 65kA. SEE FLOOR PLAN FOR ADDITIONAL INFORMATION.
8. INSTALL NEW CONDUCTORS & GROUND WIRE IN EXISTING CONDUIT.
9. CONNECT NEW WIRING TO EXISTING 125A, 480V, 3-P BREAKER.

ELECTRICAL NEW WORK NOTES

10. REMOVE 100A FUSES AND INSTALL 80 AMP FUSES.
11. PULL NEW WIRE IN EXISTING CONDUIT.
12. EXISTING CONDUCTORS TO REMAIN.

75 kVA TRANSFORMER SPECIFICATION

TRANSFORMER SHALL BE AS MANUFACTURED BY SQUARE D, MODEL: EXN75T3IHNLP. TRANSFORMER SHALL BE RATED FOR 75 kVA. PRIMARY SHALL BE 480V, 3-PHASE DELTA. SECONDARY SHALL BE 208Y/120V. COIL MATERIAL SHALL BE ALUMINUM WITH A 150°C RISE. DOE EFFICIENCY SHALL BE 98.7% @ 35% LOAD FACTOR. MAXIMUM DIMENSIONS SHALL BE 30.1"(W) x 27.4"(D) x 33.5"(H).

ELECTRICAL COORDINATION & SHORT CIRCUIT ANALYSIS

1. ELECTRICAL CONTRACTOR SHALL PROVIDE A COORDINATION STUDY, INCLUDING BREAKER SETTINGS, & SHORT CIRCUIT ANALYSIS FOR ALL NEW ELECTRICAL PANELS AND EXISTING PANELS WHERE LOAD IS BEING MODIFIED. THE PARTIAL SINGLE LINE DRAWINGS INDICATE THE MODIFICATIONS TO THE MAIN ELECTRICAL GEAR & DOES NOT SHOW TO BRANCH CIRCUITS FOR ALL INDIVIDUAL EXISTING PANELS. REFER TO ELECTRICAL FLOOR PLANS FOR LOAD BEING ADDED TO EXISTING POWER PANELS.
2. ELECTRICAL CONTRACTOR SHALL OBTAIN THE FAULT CURRENT AVAILABLE AT THE UTILITY CONNECTION FROM THE UTILITY COMPANY.

GENERAL NEW WORK NOTES

1. REFER PLAN VIEW DRAWINGS & ROOF PLANS FOR ADDITIONAL INFORMATION.
2. VERIFY SIZE OF EXISTING FRAME PRIOR TO PURCHASING NEW BREAKERS.
3. FOR THE FULL SET OF SINGLE LINE DRAWINGS & PANEL SCHEDULES, CONTACT OWNER FOR A COPY OF THE 2003 BUILDING RENOVATIONS.

UTILITY NOTE

ELECTRICAL CONTRACTOR SHALL CONTACT THE UTILITY COMPANY AND NOTIFY THEM OF THE REVISED ELECTRIC LOAD WITH BASE BID AND/OR ALTERNATES CHOSEN. CONTRACTOR SHALL OBTAIN FAULT CURRENT AT UTILITY CONNECTION. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK REQUIRED BY THE UTILITY COMPANY FOR LOAD MODIFICATIONS TO THE ELECTRIC SERVICE.

CM ENGINEERS, LLC
365 ROUTE 24, SUITE 3-D, CHESTER, NJ 07930
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NJ - 21A017106000 | PA - RA012206
JASON J. DUBOWITCH, AIA
NJ - 21A017119100 | PA - RA408209
STEPHEN W. SCHRETER JR., AIA, LEED AP BD+C
NJ - 21A102301100 | PA - RA413643
01.29.26
Date
Architect

FVHD architects planners
ESTD 1981
Fraytak Veisz Hopkins Duthie P C
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08618
Pennsylvania: 820 Adams Ave., Suite 210 - Audubon - Pennsylvania 19403
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Scale
AS NOTED

Drawing Name
ELECTRICAL - PARTIAL SINGLE LINE DIAGRAM NEW WORK PLAN

Revisions		
No.	Date	Description
1	02.24.26	ADDENDUM NO. 01

Drawing Number
E-601