



Grove City Area School District High School Renovations

Project No: 23-S43-01

Grove City Area School District
511 Highland Avenue, Grove City, PA 16127

ADDENDUM 2

3/07/2024

This Addendum forms part of the Contract Documents and modifies the original bidding documents dated 02/19/2024. Acknowledge receipt of this Addendum by inserting its number and date in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

This addendum consists of three (3) pages and the listed attachments (1 Section and 23 Drawings):

CHANGES TO PRIOR ADDENDA

Item 2.1 None

CHANGES TO PROJECT MANUAL

Item 2.2 **SECTION 00 1113 ADVERTISEMENT FOR BIDS**

Change the receipt of bids to Monday, March 25, 2024 at 2pm.

Item 2.3 **SECTION 01 5000 TEMPORARY FACILITIES AND CONTROLS**

Article 2.2 TEMPORARY FACILITIES

REMOVE subparagraph C.6 from this Article.

Article 3.4 PROJECT IDENTIFICATION AND INFORMATION SIGNAGE

REMOVE this article in its entirety, Project sign is not required.

Item 2.4 **SECTION 23 0900 INSTRUMENTATION AND CONTROL FOR HVAC**

Add the following Subparagraph to Article 1.16.A:

"2. Alternate Bid: Open Protocol JCI FX Tridium Niagra control system provided by Gardiner (Contact Joseph Genova at 1-440-248-3400) or O.Z. Enterprises, LLC (Contact Ryan Birtwell at 412-283-4649). Under this alternate the High School shall be provided with a new JACE and a Web-Supervisor Server. Under this alternate the control integrator shall integrate into the District's other two building's JCI NAE's into this

control system. Graphics and data bases shall be rebuilt for the other schools as required to provide single control platform for the District to operate.

Item 2.5 The specification sections listed below are attached to and part of this addendum. They replace previously issued specifications in the Contract Documents. Where they had not been previously issued, they are now added to the Contract Documents. The descriptive information is informational only and is not intended to further modify the Contract Documents.

Section	Paragraph	Comments
01 2300 Alternates		Section Modified

CHANGES TO DRAWINGS

Item 2.5: DRAWING PH100 LAYOUT AND LOGISTICS PLAN

CHANGE Note around fencing to read G.C. to provide, not H.C.

Item 2.6: The drawings listed below are attached to this addendum and replace previously issued drawings in the Contract Documents. The descriptive information is informational only and is not intended to further modify the Contract Documents.

Sheet	Detail	Comments
M100	Basement - New Work	Modified existing 3" piping to new 3" piping
M101	Area A 1st Flr - Ductwork New Work	Updated AHU-AO1 model and duct connections
M102	Area B 1st Flr - Ductwork New Work	Added reconfiguration plan for Unit Ventilator piping coverings in cafeteria units
M105	Area E 1st Flr - Ductwork New Work	Added note for platform modification by HC
M111	Area A 1st Flr - Piping New Work	Updated AHU-AO1 model, modified piping connections, and added new refrigerant piping
M112	Area B 1st Flr - Piping New Work	Modified existing 3" piping to new 3" piping and added reconfiguration plan for Unit Ventilator piping and piping coverings in cafeteria units
M115	Area E 1st Flr - Piping New Work	Added note for platform modification by HC
M116	Area F 1st Flr - Piping New Work	Corrected name of Horizontal Unit Ventilator
M301	Roof Plan - New Work	Added refrigerant piping to ACCU-01
M501	Details	Modified existing PRV details to show new adaptor curbs
M503	Details	Added additional PRV details for new Exhaust Fans
M601	Schedules	Updated DX Air Handler and Unit Ventilator schedules
M701	HW Flow Diagrams	Added primary pumps to boiler loops
MD100	Basement - Demo	Modified existing 3" piping to remain into existing 3" piping to be demoed
MD102	Area B 1st Flr - Ductwork Demo	Added reconfiguration plan for Unit Ventilator piping coverings in cafeteria units
MD106	Area F 1st Flr - Ductwork Demo	Modified louver note in RM 310
MD112	Area B 1st Flr - Piping Demo	Added reconfiguration plan for Unit Ventilator piping and piping coverings in cafeteria units
P101	Area A 1st Flr - Plumb New Work	Added condensate drain piping.
P102	Area B 1st Flr - Plumb New Work	Added condensate drain piping.
P103	Area C 1st Flr - Plumb New Work	Added condensate drain piping.

P108	Area B 2nd Flr - Plumb New Work	Added condensate drain piping.
P110	Area E 2nd Flr - Plumb New Work	Added condensate drain piping.
P112	Area G 2nd Flr - Plumb New Work	Added condensate drain piping.

SUPPLEMENTAL INFORMATION

The following are provided for bidders' information and are not considered changes to the Contract Documents.

- Construction Manager's RFI report dated 3/7/2024

END OF ADDENDUM 2

PRE-BID RFI REPORT

PROJECT: HIGH SCHOOL RENOVATIONS - GROVE
 ARCHITECT: DRAW COLLECTIVE
 23-S43-01
 DATE: 3/7/24 11:06 AM

BID DATE: 3/25/24 2PM

ID	Sender ID	Discipline	Received	Question	Issued to Bidders	Date Issued to Bidders	Answer
RB-01	Renick Bros.	HVAC	2/28/2024	Gravity roof vents (detail 9 on M501) does not show any motorized damper. Corridors and Unit Vents..... 9 sets @ existing GRV's. New Air Handlers19 sets @ existing GRV's. Control Sequences refer to controlling the dampers (AHU operations) or via space static (Corridors and Unit Vents). 1. Are dampers existing or are New Dampers to be installed?			
RB-02	Renick Bros.	HVAC	2/28/2024	Hot water piping detail on M701 does not show New Boiler circulating pumps. 1. Provide new piping layout for pumps. 2. Control sequence refers to boiler isolation valves - none shown on M701 piping. 3. Will 3-way system valve be required with new boiler sequencing? 4. Provide locations for remote HWS/HWR differential pressure sensors.	Add 2	3/7/2024	1. New layout will be provided in Addendum 2. 2. Boiler isolation valves in sequences will be deleted by addendum. 3. 3-way valve added for secondary loop temperature reset. 4. Locations for HWS&R differential pressure sensors have been provided under Addendum 1 on sheets M113, M119, & M120.
RB-03	Renick Bros.	HVAC	2/28/2024	Chilled water piping detail on M701 does not show chiller isolation valve. 1. Provide new piping layout for isolation valves. 2. Provide locations for remote CHWS/CHWR differential pressure sensors.			
RB-04	Renick Bros.	HVAC	2/28/2024	Please provide an explanation of alternate HC-04 as it relates to drawings M106, M116, MD106, MD116, M121, M122. It is confusing what is in the base bid versus the alternate as "base bid" drawings M121 and M122 have the same area clouded as alternate HC-04. Maybe a written explanation would work. I think maybe all the work outlined on M121 and M122 as alternate HC-04 might actually be in the base bid? I think the actual alternate is comparing the M121/M122 drawings to M106/M116 and the difference might be the alternate? The difference in these drawings would be adding HUH-01, adding HUV-08, deleting KVS-01/01 along with various demolition of EF-8 and fin tube radiation.			
RB-05	Renick Bros.	HVAC	2/28/2024	Is the project laydown fence as identified on PH100 to be by HC per the general note or by the GC per project specific note #2?	Add 1	2/29/2024	Temporary laydown area fencing, stone pad and reclamation after construction is to be by GC.
RB-06	Renick Bros.	HVAC	2/28/2024	Can you explain the purpose of the flush of the HVAC system twice per project specific note 7 on PH100?	Add 1	2/29/2024	The intent is to flush the system after major sections of piping is replaced to remove dirt and debris from the piping before the systems are turned back on so as to not damage the existing equipment until it gets replaced and new equipment as it gets installed. These can occur before the systems are put back into operation and do not need to specifically occur in August.
RB-07	Renick Bros.	HVAC	2/28/2024	Please confirm the GC owns the new chiller fence and concrete pad as the note on M102 makes it sound like it is by HVAC where the architectural drawings clearly state by GC.	Add 2	3/7/2024	Notes shall be clarified in Addendum 2. The GC shall own work on new chiller fence and concrete pad.
RB-08	Renick Bros.	HVAC	2/28/2024	Drawing MD106, planning room 310 has a note to patch the exterior wall after the UV louver is removed. Please confirm all exterior louver patching and cutting is by the GC and NOT the HC.	Add 2	3/7/2024	Note regarding the exterior wall louver is incorrect. The louver opening shall be modified as necessary to accommodate the new Unit Ventilator to be installed. Note will be updated in Addendum. It is confirmed that all exterior louver patching and cutting is by the GC.
RB-09	Renick Bros.	HVAC	2/28/2024	M100 drawing clearly shows the chilled water risers being 10" and 4". M112 shows the same risers as 8" and 4"?	Add 2	3/7/2024	M112 8" riser note will be corrected in Addendum 2.
RB-10	Renick Bros.	HVAC	2/28/2024	M114 is missing chilled water pipe to UV-09? Are the drops to UV-09 to be run exposed or enclosed in painted sheet metal chase or in a drywall chase? Pipe drops happen in several other locations (M112 cafeteria as another example) - exposed versus painted sheet metal enclosure versus drywall chase? If a chase is required, who owns the chase (GC or HVAC)? If pipe drop is exposed and no chase does the pipe require a PVC jacket?			
RB-11	Renick Bros.	HVAC	2/28/2024	Please update M702 (chilled water schematic) to match the plan view drawing on M100. Please also confirm buffer tanks are not required. Please update M701 (hot water schematic) to match the plan view drawing M100 – connections around air sep, etc.	Add 2	3/7/2024	Drawings M701 and M702 were updated in Addendum 1.
RB-12	Renick Bros.	HVAC	2/28/2024	Please confirm the PC owns reconnecting all HC equipment ac drains as I see some of the ac drains showing up on the plumbing drawings (P112)....both HVAC and PC drawings are missing AC drain pipe in many locations.	Add 1	2/29/2024	YES THE PLUMBING CONTRACTOR OWNS THE FINAL CONNECTIONS AND CONDENSATE LINES. MISSING AC DRAIN PIPE WILL BE ADDED BY FUTURE ADDENDUM.
RB-13	Renick Bros.	HVAC	2/28/2024	Please confirm who owns the sanitary tank for construction manager trailer as well as servicing this tank during construction.	Add 1	2/29/2024	HC owns the sanitary tank and servicing of the tank.
RB-14	Renick Bros.	HVAC	2/28/2024	Please confirm who is responsible for the rental cost of the construction managers trailer. 01 5000-5 states the GC cleans, maintains and services the trailer.	Add 1	2/29/2024	HC is responsible for the rental of the CM trailer. 01 5000-5 will be removed by addendum. Cleaning of the CM trailer is not required.
RB-15	Renick Bros.	HVAC	2/28/2024	Please confirm who owns project signs for this project as well as exit signs.	Add 2	3/7/2024	Project sign is not required. Please confirm what you mean by "exit signs".
RB-16	Renick Bros.	HVAC	2/28/2024	Please confirm who owns temporary job toilets.	Add 1	2/29/2024	HC owns temporary job toilets for all Contractors on site.
RB-17	Renick Bros.	HVAC	2/28/2024	Please confirm who owns the project sign.	Add 2	3/7/2024	Project sign is not needed. Will clarify by addendum.
RB-18	Renick Bros.	HVAC	2/28/2024	Please confirm who owns the garbage dumpsters.	Add 1	2/29/2024	The HC will own dumpsters for the entire project.

PRE-BID RFI REPORT

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ID	Sender ID	Discipline	Received	Question	Issued to Bidders	Date Issued to Bidders	Answer
RB-19	Renick Bros.	HVAC	2/28/2024	Please confirm who owns final building cleaning and what is required. Broom clean only?			
RB-20	Renick Bros.	HVAC	2/28/2024	Please address the phasing which states working the project during (2) Summers. Is working during the school year on second shift allowed?	Add 1	2/29/2024	Yes, working during the school year on second shift is allowed. Work within Phases 2, 3 and 4 which occur during the school year can be on first shift since they are isolated from the students.
RB-21	Renick Bros.	HVAC	2/28/2024	Can WAE balancing be used? Specification allows only Air Balancing Engineers.	Add 1	2/29/2024	Yes, Kahoe, WAE and Northstar Environmental have been added by Addendum 1.
RB-22	Renick Bros.	HVAC	2/28/2024	Please confirm if bypass bag filters are required per spec section 232113 par 2.8. If yes, please show these on the mechanical room schematic M701/M702.	Add 1	2/29/2024	Bypass bag filters are not required and have been deleted by Addendum 1.
RB-23	Renick Bros.	HVAC	2/28/2024	Please confirm ALL existing duct to remain is to get third party cleaned? Spec section 233113 par 3.14 mentions duct cleaning of existing.	Add 1	2/29/2024	That is confirmed.
RB-24	Renick Bros.	HVAC	2/28/2024	Schedule drawing M601 requires UV-06 based upon drawing M122 requiring (2), HUV-02 based upon drawing M122, CUH-FO1 based upon drawing M122. Please update as its states not required.	Add 2	3/7/2024	These units will be included in Addendum 2.
RB-25	Renick Bros.	HVAC	2/28/2024	Keynotes 1 and 2 on new pipe drawings (ex M111,112,113 ect) call for new ATC actuators on existing equipment (CUH,Conv, FTR,ect). Please confirm if this means an entire new ATC valve or just an actuator on the existing ATC valve. Are the control valves in the boiler plant also to get replaced (off the boilers and three way mixing). Do the existing cabinet heaters and prop heaters have control valves or just aquastats? There are discrepancies between the new pipe drawings and demolition drawings. One drawing might say a unit is a convector and then another says it is a cabinet heater. Maybe provide a detailed listing of the quantity of control valves that are required to be replaced on existing to remain equipment. JCI should have the existing valve schedule.			
RB-26	Renick Bros.	HVAC	2/28/2024	General note 3 on new duct drawings (ex M101,102,103, ect) call for existing cabinet heaters and fin tube to be cleaned. Can you elaborate on what you are looking for in more detail? What about the existing convectors to remain?	Add 2	3/7/2024	Existing fins and tubing, intake grilles, outlet grilles, and supply fans shall be cleaned of dust and debris, and wiped down exteriors. Existing convectors shall be included as well.
RB-27	Renick Bros.	HVAC	2/28/2024	Please confirm the refrigerant pipe to the 280 ton chillers is to be buried. Can this be run above grade? Chiller manufacturers are recommending we don't bury this pipe. If this pipe can be run above grade, can we also abandon the existing buried refrigerant pipe rather than demo and cut up existing concrete pad? Can the Engineer also confirm whether the interior barrel requires vent lines run to the exterior? If yes, how many and what size? The new chiller pad extension and fence are by the GC. HVAC drawing M404 has a general note stating the existing pad is to be removed. Please confirm the existing pad remains and maybe the existing buried refrigerant lines can be abandoned in place? If existing refrigerant pipe is to be removed and the new refrigerant pipe to be installed below grade, who takes care of cutting and patching the existing concrete slab? Hence, maybe run new pipe above grade and abandon the existing?			
RB-28	Renick Bros.	HVAC	2/28/2024	Please identify the existing roof type and if the roof has an existing warranty.	Add 1	2/29/2024	The School District contracted with David Maines and Associates this past year and the entire roof was replaced and restored with a Tremco roof system with the exception of the area over the kitchen. The roofing over the kitchen will be completed by David Maines and Associates once all of the new Contract work is completed. All roof work necessary under this contract (patching, curb flashings, etc.) that is not within the old roof area over the kitchen, must be completed by David Maines and Associates. Contact: Eric Weaver 717-437-5677 ; eweaver@davidmaines.com for pricing. Tremco Roofing Contact: Jim Burichin 804-229-2791 ; jburichin@tremco.com or Richard Kosuda 724-612-3011 ; rkosuda@tremcoinc.com.
RB-29	Renick Bros.	HVAC	2/28/2024	General note 2 on drawing M111 (as well as others) states "isolation valves should be installed at each pipe branch". Does this mean a branch in which we are only feeding say one terminal device or do you mean where feeding more than one terminal device as each terminal device would have shutoff valves at the unit. Maybe they want them at the corridor in addition to at the unit when only feeding one device? It would be cleaner if shutoff valves were clearly shown on the drawings. Drawing M122 has numerous major branch and sub branch lines as the pipes leave the boiler room below. I don't think the contractor should interpret where to put the shut off valves based upon a simple note on the drawing. Would it be possible to show them on the drawings where they are desired rather than the note? What if the branch pipe is existing to remain? Are we to assume a branch valve exists in these cases?	Add 2	3/7/2024	Under Addendum 1, isolation valves were located on the plans. Under Addendum 3, this general note will be modified to state the following, "ISOLATION VALVES SHALL BE INSTALLED WHERE SHOWN ON PLANS."
RB-30	Renick Bros.	HVAC	2/28/2024	Please address flexible pipe connectors. Spec section 230500-18 leads one to believe that flexible connectors are required on all rotating equipment. Please identify the equipment you want flexible connectors on as your pipe details on M502 do not show flexible connectors. Please address AHUs, Tall UVs, regular UVs, cabinet heaters, prop heaters, ect. Also, the plan drawing M100 shows new 3 HP in line pumps to each boiler. Do we need flexible connectors on these pumps? Please show these pumps on drawing M701.			
RB-31	Renick Bros.	HVAC	2/28/2024	Please reference drawings M100 and M112. M112 shows (2) new 3" hot water lines from the boiler room shaft to the cafeteria. These lines need updated and shown on drawing M100. M100 and MD100 drawings for boiler room shows existing 2.5" hot water to remain. I feel the 2.5" needs removed all the way back to the boiler room and a new 3" tee cut in. Please show this work on M100 detail.	Add 2	3/7/2024	This shall be corrected under Addendum 2 to show the correct piping connections.
RB-32	Renick Bros.	HVAC	2/28/2024	Please identify locations where expansion loops are required.			

PRE-BID RFI REPORT

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 23-S43-01
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BID DATE: 3/25/24 2PM

ID	Sender ID	Discipline	Received	Question	Issued to Bidders	Date Issued to Bidders	Answer
RB-33	Renick Bros.	HVAC	2/28/2024	230716.3.9.A requires "custom fitted sound covers" on "packaged air-cooled air conditioners" over the compressors (compressor blankets). What items are these custom compressor blankets required to be provided for? The split air cooled chiller? the split DX condenser associated with the split DX/HW admin air handler? Please confirm they are not required for the minisplits. Are these compressor blankets to be provided by the manufacturer or are they field fabricated by the insulator?	Add 1	2/29/2024	The split air cooled chiller. These are not required for the split DX condensing units. If the manufacturer has a sound reduction package, that would be the preferred means, however if not it would be field fabricated.
RB-34	Renick Bros.	HVAC	2/28/2024	230716.3.11.A (custom blankets) contradicts with 3.11.B (insulate per piping spec) which overlaps/contradicts with 3.11.D. please clarify for which systems and which valves/specialties the custom removable valve blankets are required.	Add 1	2/29/2024	For components identified in Specification 230719, utilize that section for the types of insulation. Anything not indicated in that section shall be insulated as specified in 230716.
RB-35	Renick Bros.	HVAC	2/28/2024	Please provide a specification for what is required for jacketing for exterior exposed refrigerant piping (split chiller piping outdoors, admin AHU exterior condenser piping, minisplit exterior piping)	Add 1	2/29/2024	Utilize the jacketing specified in Specification Section 230719 - HVAC PIPING INSULATION, Paragraph 2.4
RB-36	Renick Bros.	HVAC	2/28/2024	Are pre-insulated linesets with 1" thick insulation and UV resistant ez-pull coating acceptable for minisplit piping? They are named in the split fan coil spec 238126, but 230719 calls for 1-1/2" thick insulation for refrigerant piping	Add 1	2/29/2024	The pre-insulated linesets that have 1" insulation are acceptable. Should the insulation be needed to be field installed, the 1-1/2" should be used.
RB-37	Renick Bros.	HVAC	2/28/2024	Typically for standard split systems it is preferable for the liquid line to be uninsulated to allow it to sub-cool as much as possible. Is the liquid line required to be insulated indoors for the split chillers, and for the split admin air handler/condenser? Is the liquid line required to be insulated outdoors for the split chillers, and for the split admin air handler/condenser?			
RB-38	Renick Bros.	HVAC	2/28/2024	Reference A702,A703,A704,A705,A706 in relation to showing the ceiling mounted UVs. These drawings show a note saying location of ceiling mounted UV location. Does this note indicate the GC is adjusting ceilings for the UV or HVAC? Confused why this shows up on an architectural drawing if by HVAC.	Add 2	3/7/2024	The HC is responsible for adjusting, removal, and replacement of ceiling tiles for the ceiling-mounted UV locations and other HVAC work. A note clarifying this was included with Addendum 1 revisions.
RB-39	Renick Bros.	HVAC	2/28/2024	Drawing S125 and S126 has a note 2 indicating service catwalks for the air handlers in the gym and aux gym to be by the HVAC contractor. This does not show on the HVAC drawings. Are we sure these would not be better served by the GC seeing he owns all other structural steel? Otherwise, put a note on the HVAC drawings.	Add 2	3/7/2024	The HC is responsible for all service catwalk adjustments/modifications for the AHUs in the main gym and aux gym. A note regarding such was included with Addendum 1 revisions.
RB-40	Renick Bros.	HVAC	2/28/2024	Roof drawings M301 and MD301 indicate the majority of the roof fans to be replaced in kind with a PRV (power roof ventilator fan). To avoid roofing and patching in 30 plus locations, can curb adaptors be used in this application rather than new curbs? If new curbs are required are the details shown on dwg. M501 & M502 correct that the GC will own install of curbs, rails and pipe portals?	Add 2	3/7/2024	Curb adapters shall be used in lieu of installing new curbs where possible. Under Addendum 1 revisions, the details on M501 and M502 were updated to place the responsibility of new roof curb work onto the HC. The details on M501 and M502 shall be edited to reflect the use of curb adapters in lieu of installing new roof curbs.
RB-41	Renick Bros.	HVAC	2/28/2024	Does the GC own all duct openings/lintels for interior walls as applicable per detail 6 on A310?	Add 2	3/7/2024	Per Addendum 1, the HC is responsible for all duct openings and lintels for interior walls.
RB-42	Renick Bros.	HVAC	2/28/2024	Can the existing chiller water system be down for the duration of this project? If it can't be down for the duration, what months can the chiller system be down?			
RB-43	Renick Bros.	HVAC	2/28/2024	Can Nibco LD-2000 (lugged) or GD-4765 (grooved) valves be used for this project? They meet the specifications in all areas except the disc is aluminum bronze in lieu of stainless steel.	Add 1	2/29/2024	Please provide the specified materials for the purpose of bidding.
RB-44	Renick Bros.	HVAC	2/28/2024	Drawing PH100, project specific note 4 states the HVAC owns ¼" Masonite for corridor floor protection for the project duration. Once this is installed in Summer of 24, can the existing floor protection remain during the school year or will it be removed and reinstalled for the Summer of 25? ¼" Masonite is difficult to find, can .115" Masonite be used as this is more readily available? If .115" Masonite is unacceptable, can ¼" OSB be used?			
RB-45	Renick Bros.	HVAC	2/28/2024	Add Alternate PC-03A shows up on drawing P106, but not on the bid form – Please clarify?	Add 1	2/29/2024	Revised to Add Alternate PC-03 on Drawing P106 under Addendum 1.
RB-46	Renick Bros.	HVAC	2/28/2024	No CD piping is shown on drawing P106 for Alternates PC-03 & PC-03A? Please confirm if CD is by HC or PC and if by PC please provide piping for these alternates.	Add 1	2/29/2024	PLUMBING CONTRACTOR SHALL OWN THE CONDENSATE LINES AND THE FINAL CONNECTION TO THE HVAC UNIT. PIPING WILL BE PROVIDED UNDER FUTURE ADDENDUM.
RB-47	Renick Bros.	HVAC	2/28/2024	Please confirm all work for Add Alternate PC-04 is located in the District Garage E104?			
RB-48	Renick Bros.	HVAC	2/28/2024	On drawing M106 there are (2) duct silencers called out for TV Studio rm 167A please provide a schedule for requirements.			
RB-49	Renick Bros.	HVAC	2/29/2024	Could we get as-built sprinkler drawings?	Add 2	3/7/2024	In the "Available Project Information" folder that Printscape has made available is a portion of the 1997 drawing set containing the sprinkler drawings from that project. It will be the best that we can do. Neither we or the district have the actual shop drawings.
RB-50	Renick Bros.	HVAC	2/29/2024	What is the scope of work for deluge system located in the Auditorium? States to be relocated, where to?	Add 2	3/7/2024	It is being relocated into a new closet on the Auditorium Stage. Refer to drawings FD107 and F107.
RB-51	Renick Bros.	HVAC	2/29/2024	Please show or describe the scope of work for Alternates PC-04 and PC-04A.			
MI-01	Milcam, Inc.	GC	3/6/2024	A601 Door CR 302/1 is not listed in door schedule			

PRE-BID RFI REPORT

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ARCHITECT: DRAW COLLECTIVE

23-S43-01

BID DATE: 3/25/24 2PM

DATE: 3/7/24 11:06 AM

ID	Sender ID	Discipline	Received	Question	Issued to Bidders	Date Issued to Bidders	Answer
MI-02	Milcam, Inc.	GC	3/6/2024	A311 is concrete decking and railing on mezzanine part of the base bid or alternate?			
MI-03	Milcam, Inc.	GC	3/6/2024	A106 Is the floor leveling in Corridor CR702 in base bid or alternate?			
MI-04	Milcam, Inc.	GC	3/6/2024	A106 Do the new C3a walls go to the deck or the bottom of the mezzanine?			
MI-05	Milcam, Inc.	GC	3/6/2024	Alternate GC-04 What are the select spaces for new flooring?			
BN-01	Blackhawk Neff	EC	3/6/2024	Spec page 260519 - 2 says "Metal-Clad Cable (Type MC) may be installed in concealed locations for branch circuits of 30 amperes or less." Spec page 260519 - 4 says "Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN/THWN-2, in raceway." Is MC Cable permitted for concealed branch wiring as long as there are no horizontal runs within walls or partitions?	Add 2	3/7/2024	Concealed MC is acceptable vertically in walls and above ceilings. MC above ceilings must be neatly installed and properly supported.

SECTION 01 2300 - ALTERNATES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

1.02 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.03 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

1.04 REQUIREMENTS

- A. Each Prime Contractor is responsible for securing and reviewing the related alternate bids for all of the other separate contracts for this project.
- B. Each Prime Contractor shall understand the extent of work added or deleted from all contracts and shall properly coordinate their work to provide a complete and workable system. Plans and specifications for all contracts are available for viewing or purchase as defined in "Instructions to Bidders."

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 Schedule of Alternates for
GENERAL CONSTRUCTION CONTRACT 23-S43-01-01

A. **ALTERNATE GC-01 – CUSTODIAL RECEIVING**

1. Base Bid: The Base Bid shall INCLUDE all general construction work associated with the CUSTODIAL RECEIVING renovations as detailed and described in the Documents as BASE BID. Including but not limited to:
 - a. Construction of the wall infill at the stage opening and associated work.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the CUSTODIAL RECEIVING renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. Removal of stage platform and associated work.
 - b. Construction of wall infill between Custodial 112 and Cafeteria 111 and associated work.
 - c. New exterior opening, overhead door and associated work.
 - d. New interior opening, double door into Corridor CR401
 - e. New exterior concrete slab and associated work.

B. **ALTERNATE GC-02 – LIBRARY AREA**

1. Base Bid: The Base Bid shall INCLUDE all general construction work associated with the LIBRARY AREA renovations as detailed and described in the Documents as BASE BID Including but not limited to:
 - a. Partitions in the work room to create Data Room 193A including finishes and associated work.
 - b. New exterior opening, door, frame, hardware and associated work.
 - c. New frost-free slab apron outside of new exterior door.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the LIBRARY AREA renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. Demolition of concrete floor risers in Classroom 189 and associated work.
 - b. New finishes in Classroom 189.
 - c. General construction work in Classroom 189 including new view windows into Library 191.
 - d. New exterior slab on grade and associated work.
 - e. General construction work in Media Storage Room 195 and Media Storage Room 193 and associated work.

C. **ALTERNATE GC-03 – VISUAL ARTS – SPATIAL REORGANIZATION**

1. Base Bid: The Base Bid shall INCLUDE all General construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. Removal of existing Data Room, door, frame wall and associated items.
 - b. Patching of existing wall, floor and ceiling finishes.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents. Work includes but is not limited to:

- a. Wall removal and construction as required for spatial reorganization.
- b. Doors, frames and hardware for new doors.
- c. Patching of existing floor wall and ceiling finishes.
- d. Limited ceiling modifications as required for lighting in Printing 171
- e. New ceiling and lighting in Visual Arts 167
- f. TV Studio 167A receives full upgrades including wall, ceiling and floor finishes.

D. **ALTERNATE GC-03A – VISUAL ARTS – FINISHES AND MILLWORK**

- 1. Base Bid: The Base Bid shall INCLUDE all General construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as BASE BID, including but not limited to:
 - a. Removal of existing Data Room, door, frame and associated items.
 - b. Patching of existing wall, floor and ceiling finishes.
- 2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. New wall, floor and ceiling finishes
 - b. New millwork and associated work.

E. **ALTERNATE GC-04 – ART, CERAMICS, TECH ED – SPATIAL REORGANIZATION**

- 1. Base Bid: The Base Bid shall INCLUDE all General construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. General construction related to the new dust collection system.
 - b. All General construction in Industrial Arts 312 including patching and painting of existing finishes.
- 2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. Wall removal and construction as required for spatial reorganization.
 - b. Doors, frames and hardware for new doors.
 - c. View window frames and glazing.
 - d. New Flooring in select spaces.
 - e. Patching of existing floor wall and ceiling finishes.
 - f. Limited ceiling modifications as required for lighting.

F. **ALTERNATE GC-04A – ART, CERAMICS, TECH ED – FINISHES AND MILLWORK**

- 1. Base Bid: The Base Bid shall INCLUDE all General construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. General construction related to the new dust collection system.
 - b. All General construction in Industrial Arts 312 including patching and painting of existing finishes.
- 2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. New wall, floor and ceiling finishes
 - b. New millwork and associated work.

G. **ALTERNATE GC-05 – WEIGHT TRAINING**

1. Base Bid: The Base Bid shall INCLUDE all General construction work associated with the WEIGHT TRAINING renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. Removal of existing floor and wall coverings in Weight Training 316
 - b. New wall and ceiling finishes in Weight Training 316 (Owner will provide flooring)
 - c. New doors into Weight Training 316 from Corridor CR316
 - d. New storage room 330 and associated work including doors, frames, hardware and finishes.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the WEIGHT TRAINING renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. New exterior door, frame, hardware in existing opening and associated work.
 - b. New windows in wall between Weight Training 316 Corridor CR316
 - c. New exterior slab on grade including frost free slab at new door opening.
 - d. New exterior fence and gate at slab on grade.

H. **ALTERNATE GC-06 – LGI**

1. Base Bid: The Base Bid shall INCLUDE all General construction work associated with the LGI renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. Floor infill
 - b. New partitions
 - c. New wall, floor and ceiling finishes
 - d. Vinyl wall graphics.
 - e. New doors, frames and hardware
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the LGI renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. Wall mounted visual display boards

I. **ALTERNATE GC-07 – AUDITORIUM**

1. Base Bid: The Base Bid shall INCLUDE all General construction work associated with the AUDITORIUM renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. Construction of the Fire Protection Closet 322A including walls, doors, frames, hardware and finishes.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all general construction work associated with the AUDITORIUM renovations as detailed and described in the Documents. Work includes but is not limited to:
 - a. Stage re-surfacing and removal of existing stage edge trim.

3.02 Schedule of Alternates for
HVAC CONSTRUCTION CONTRACT 23-S43-01-02

A. **ALTERNATE HC-03 – VISUAL ARTS – SPATIAL REORGANIZATION**

1. Base Bid: The Base Bid shall INCLUDE all HVAC construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. HVAC construction as indicated on partial VISUAL ARTS BASE BID plans.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all HVAC construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as ALTERNATE BID. Work includes but is not limited to:
 - a. HVAC construction as indicated on drawings M106 and M116. If there is a control cost difference in this alternate depending on whether Alternate HC-08 is accepted or not, the contractor shall include the higher control cost in this alternate amount. **ALTERNATE HC-04 – ART, CERAMICS, TECH ED– SPATIAL REORGANIZATION**
3. Base Bid: The Base Bid shall INCLUDE all HVAC construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. New dust collection system.
 - b. HVAC construction as indicated on partial ART, CERAMICS, TECH ED BASE BID plans.
4. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all HVAC construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as ALTERNATE BID. Work includes but is not limited to:
 - a. HVAC construction as indicated on drawings M106 and M116 **If there is a control cost difference in this alternate depending on whether Alternate HC-08 is accepted or not, the contractor shall include the higher control cost in this alternate amount.**

B. **ALTERNATE HC-08 – OPEN PROTOCOL BUILDING AUTOMATION SYSTEM.**

1. Base Bid: The Base Bid control system shall be JCI Metasys controls as provided by the Johnson Controls Inc. Factory Office in Youngstown Ohio.
2. **Alternate Bid: ADD or SUBTRACT:** State the amount to be ADDED or SUBTRACTED to the Base Bid to provide an open protocol JCI FX Tridium Niagra control system. Under this alternate the High School shall be provided with a new JACE and a Web-Supervisor Server. Under this alternate the control integrator shall integrate into the District's other two building's JCI NAE's into this control system. Graphics and data bases shall be rebuilt for the other schools as required to provide single control platform for the District to operate. The open protocol control system shall be provided by one of the following Control Integrators:
 - a. Gardiner (Contact Joseph Genova at 1-440-248-3400)
 - b. O.Z. Enterprises, LLC (Contact Ryan Birtwell at 412-283-4649)

3.03 Schedule of Alternates for
PLUMBING CONSTRUCTION CONTRACT 23-S43-01-03

A. **ALTERNATE PC-02 – LIBRARY AREA**

1. Base Bid: The Base Bid shall INCLUDE all Plumbing construction work associated with the LIBRARY AREA renovations as detailed and described in the Documents as BASE BID including but not limited to:

- a. Condensate piping for new HVAC equipment.
 - b. Sprinkler head replacement in Media Storage Room 193 and Data Room 193A.
- 2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Plumbing construction work associated with the LIBRARY AREA renovations as detailed and described in the Documents as **ALTERNATE BID**. Work includes but is not limited to:
 - a. Sprinkler head replacement in Classroom 189.
- B. **ALTERNATE PC-03 – VISUAL ARTS– SPATIAL REORGANIZATION**
 - 1. Base Bid: The Base Bid shall INCLUDE all Plumbing construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as **BASE BID** including but not limited to:
 - a. All work associated with new and existing sinks.
 - b. Condensate piping for new base bid HVAC equipment.
 - 2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Plumbing construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as **ALTERNATE BID**. Work includes but is not limited to:
 - a. Condensate piping for new alternate bid HVAC equipment.
- C. **ALTERNATE PC-04 – ART, CERAMICS, TECH ED– SPATIAL REORGANIZATION**
 - 1. Base Bid: The Base Bid shall INCLUDE all Plumbing construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as **BASE BID** including but not limited to:
 - a. All work on plumbing drawings except as noted under Alternate Bid PC-04 Add and except additional sprinklers above cloud ceilings.
 - 2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Plumbing construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as **ALTERNATE BID**. Work includes but is not limited to:
 - a. Air compressor relocation.
 - b. New compressed air lines associated with air compressor relocation.
 - c. New sprinklers
- D. **ALTERNATE PC-04A – ART, CERAMICS, TECH ED– FINISHES AND MILLWORK**
 - 1. Base Bid: The Base Bid shall INCLUDE all Plumbing construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as **BASE BID** including but not limited to:
 - a. All work on plumbing drawings except as noted under Alternate Bid PC-04 Add.
 - 2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Plumbing construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as **ALTERNATE BID**. Work includes but is not limited to:
 - a. Additional sprinklers above cloud ceilings added under alternate GC-04A.

3.04 **Schedule of Alternates for
ELECTRICAL CONSTRUCTION CONTRACT 23-S43-01-04**

A. **ALTERNATE EC-01 – CUSTODIAL RECEIVING**

1. Base Bid: The Base Bid shall INCLUDE all Electrical construction work associated with the CUSTODIAL RECEIVING renovations as detailed and described in the Documents As BASE BID including but not limited to:
 - a. Existing lighting, power and associated equipment to remain.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all Electrical construction work associated with the CUSTODIAL RECEIVING renovations as detailed and described in the Documents as ALTERNATE BID. Work includes but is not limited to:
 - a. Lower panelboard location for new floor elevation.
 - b. Provide new lighting, controls and receptacles as shown.
 - c. Provide new electrical connections to new overhead door.

B. ALTERNATE EC-02 – LIBRARY AREA

1. Base Bid: The Base Bid shall INCLUDE all Electrical construction work associated with the LIBRARY AREA renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. Power for new ceiling mounted motorized projection screen. Project screen will be provided by owner.
 - b. Electrical construction for Data Room 193A.
 - c. Lighting & receptacles for Patio Area.
 - d. Power for new HVAC equipment.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all Electrical construction work associated with the LIBRARY AREA renovations as detailed and described in the Documents as ALTERNATE BID. Work includes but is not limited to:
 - a. Electrical construction for Classroom 189
 - b. New USB/Receptacles in Library.

C. ALTERNATE EC-03 – VISUAL ARTS – SPATIAL REORGANIZATION

1. Base Bid: The Base Bid shall INCLUDE all Electrical construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. New wall mounted data cabinet and associated items.
 - b. Power for new Base Bid HVAC equipment.
2. **Alternate Bid: ADD:** State the amount to be ADDED to the Base Bid to provide all Electrical construction work associated with the VISUAL ARTS renovations as detailed and described in the Documents as ALTERNATE BID. Work includes but is not limited to:
 - a. Electrical construction for Printing 171.
 - b. Electrical construction for Visual Arts 167.
 - c. Electrical construction for TV Studio 167A.
 - d. Power for new Alternate Bid HVAC equipment.

D. ALTERNATE EC-04 – ART, CERAMICS, TECH ED – SPATIAL REORGANIZATION

1. Base Bid: The Base Bid shall INCLUDE all Electrical construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as BASE BID including but not limited to:
 - a. Power for new Base Bid HVAC equipment.

2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Electrical construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as **ALTERNATE BID**. Work includes but is not limited to:
- a. Electrical construction for Art 300.
 - b. Electrical construction for Ceramics 304.
 - c. Electrical construction for Clay Prep 309 / Kiln Room 309A
 - d. Electrical construction for Tech Ed 308.
 - e. Electrical construction for Planning 310.
 - f. Linear pendent lighting and controls in Ceramics 304 & Tech Ed 308.
 - g. Power for new Alternate Bid HVAC equipment.

E. **ALTERNATE EC-04A – ART, CERAMICS, TECH ED – FINISHES AND MILLWORK**

1. Base Bid: The Base Bid shall INCLUDE all Electrical construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as **BASE BID** including but not limited to:
- a. Power for new Base Bid HVAC equipment.
2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Electrical construction work associated with the ART, CERAMICS, TECH ED renovations as detailed and described in the Documents as **ALTERNATE BID**. Work includes but is not limited to:
- a. Electrical construction for Art 300.
 - b. Electrical construction for Ceramics 304.
 - c. Electrical construction for Clay Prep 309 / Kiln Room 309A
 - d. Electrical construction for Tech Ed 308.
 - e. Electrical construction for Planning 310.
 - f. Linear pendent lighting and controls in Ceramics 304 & Tech Ed 308.
 - g. Power for new Alternate Bid HVAC equipment.
 - h. Round pendent lighting and controls in Ceramics 304 & Tech Ed 308.

F. **ALTERNATE EC-07 – AUDITORIUM**

1. Base Bid: The Base Bid shall INCLUDE all Electrical construction work associated with the AUDITORIUM renovations as detailed and described in the Documents as **BASE BID** including but not limited to:
- a. Work Associated in the relocation of the fire protection equipment on stage.
 - b. Power for new HVAC equipment.
2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Electrical construction work associated with the AUDITORIUM renovations as detailed and described in the Documents as **ALTERNATE BID**. Work includes but is not limited to:
- a. A/V and theatrical lighting.

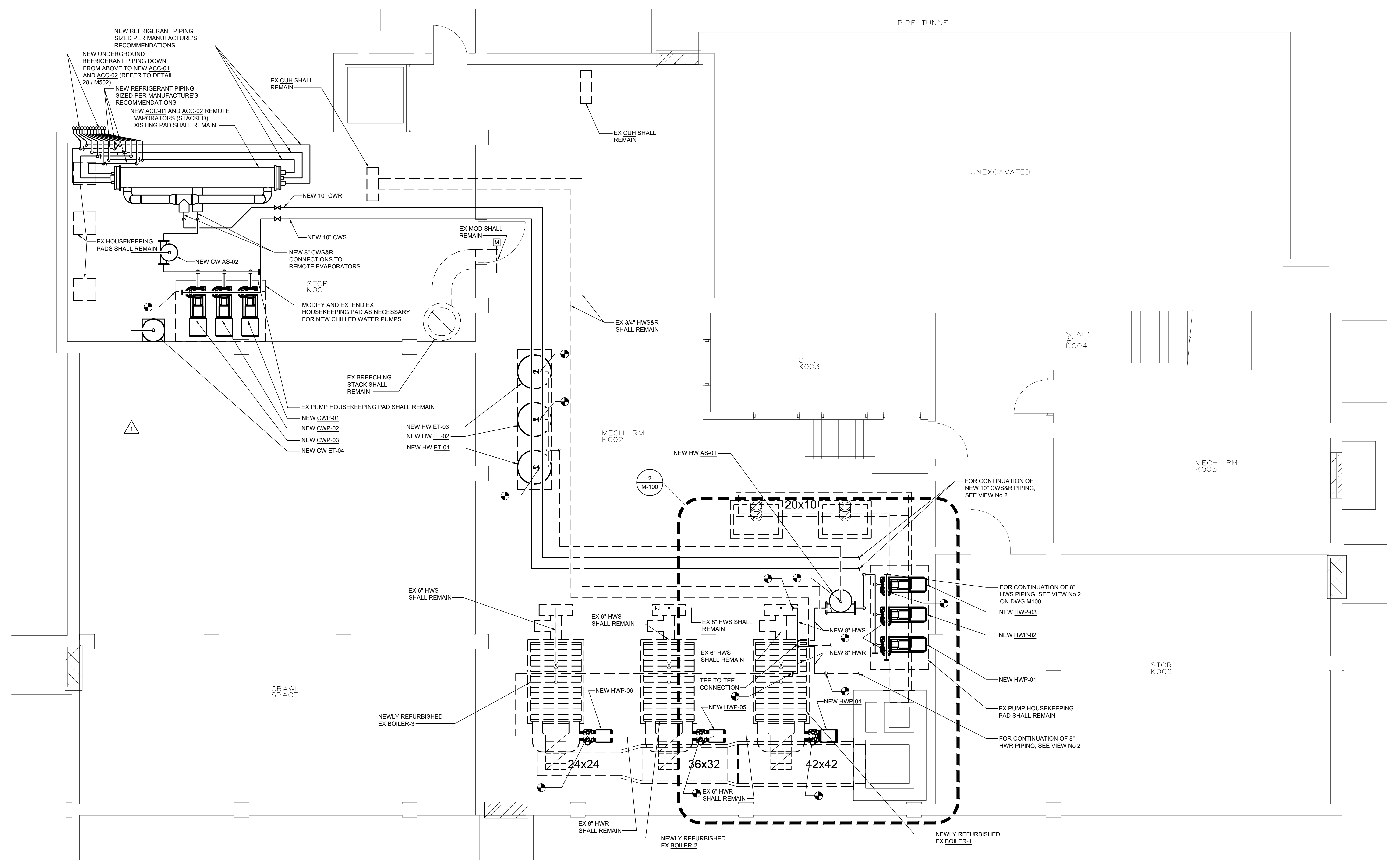
G. **ALTERNATE EC-08 – ELECTRICAL PANELS**

1. Base Bid: The Base Bid shall OMIT all Electrical Construction work associated with panel replacement.
2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Electrical construction work associated with the electrical panel replacement as detailed and described in the Documents. The circuit breaker replacement unit price included in the base bid shall be removed under this alternate.

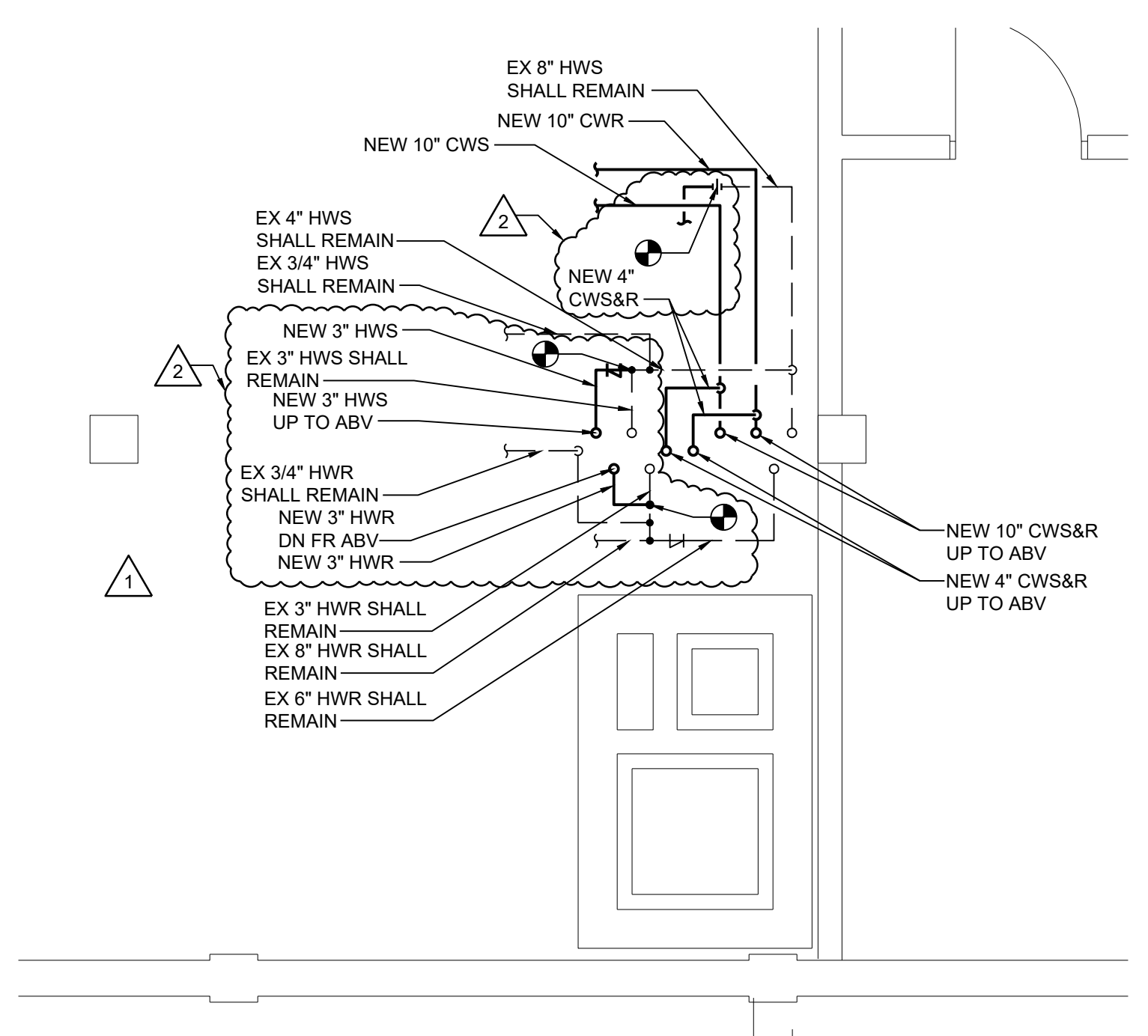
H. **ALTERNATE EC-09 – GENERATOR REPLACEMENT**

1. Base Bid: The Base Bid shall OMIT all Electrical Construction work associated with the generator replacement.
2. **Alternate Bid: ADD:** State the amount to be **ADDED to the Base Bid** to provide all Electrical construction work associated with the generator replacement as detailed and described in the Documents.

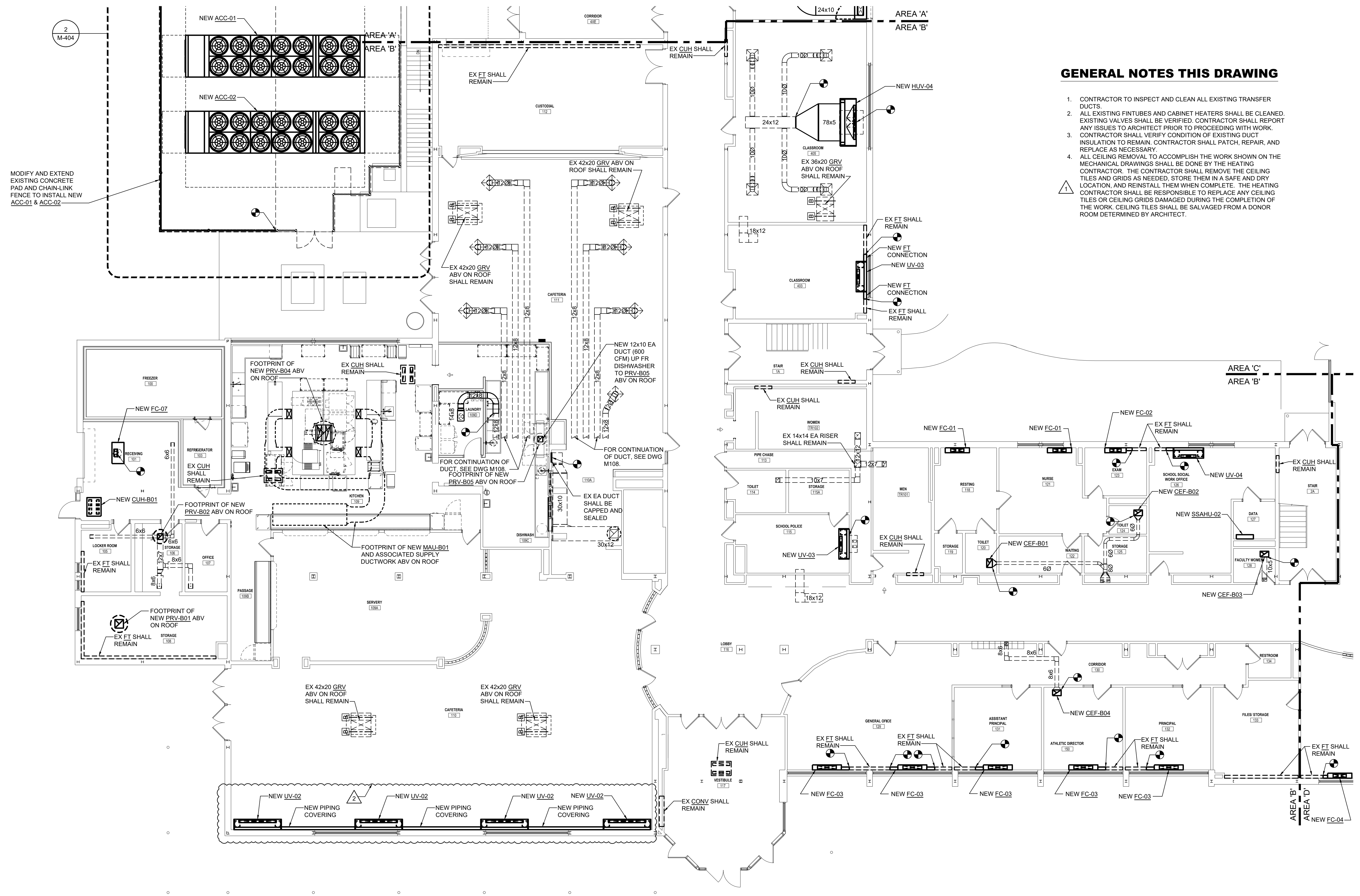
END OF SECTION 01 2300



1 BASEMENT FLOOR PLAN - AREA 'B' - MECHANICAL NEW WORK
Scale: 1/4" = 1'-0"
FIRST FLOOR ELEVATION 1252'-0"



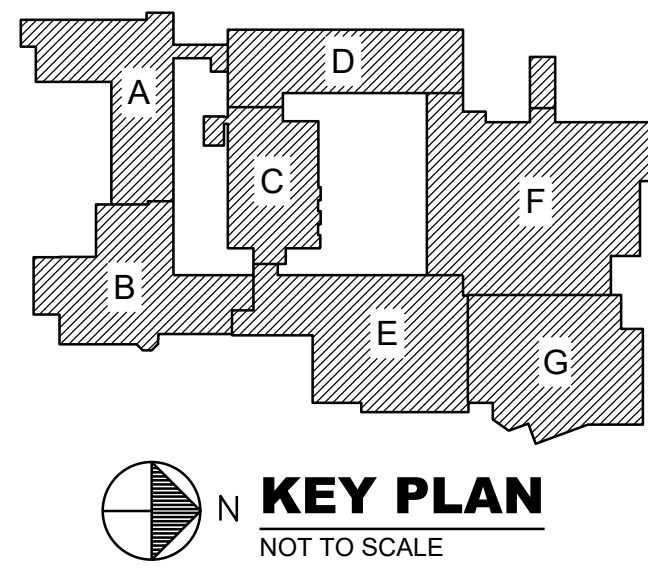
2 BASEMENT PARTIAL FLOOR PLAN - MECHANICAL PIPING NEW WORK
Scale: 1/4" = 1'-0"
FIRST FLOOR ELEVATION 1252'-0"



GENERAL NOTES THIS DRAWING

1. CONTRACTOR TO INSPECT AND CLEAN ALL EXISTING TRANSFER DUCTS.
2. ALL EXISTING FINITUBES AND CABINET HEATERS SHALL BE CLEANED. EXISTING VALVES SHALL BE VERIFIED. CONTRACTOR SHALL REPORT ANY ISSUES TO ARCHITECT PRIOR TO PROCEEDING WITH WORK.
3. CONTRACTOR SHALL VERIFY CONDITION OF EXISTING DUCT INSULATION TO REMAIN. CONTRACTOR SHALL PATCH, REPAIR, AND REPLACE AS NECESSARY.
4. ALL CEILING REMOVAL TO ACCOMPLISH THE WORK SHOWN ON THE MECHANICAL DRAWINGS SHALL BE DONE BY THE HEATING CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CEILING TILES AND GRIDS AS NEEDED, STORE THEM IN A SAFE AND DRY LOCATION, AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES OR CEILING GRIDS DAMAGED DURING THE COMPLETION OF THE WORK. CEILING TILES SHALL BE SALVAGED FROM A DONOR ROOM DETERMINED BY ARCHITECT.

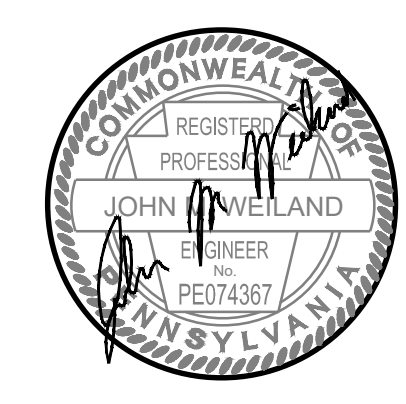
1 FIRST FLOOR PLAN - AREA 'B' - MECHANICAL EQUIPMENT & DUCTWORK NEW WORK
 Scale: 1/8" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"



REVISIONS

02/20/24	ADDENDUM NO. 1
03/07/24	ADDENDUM NO. 2

BID SET 02/19/24



REVISIONS

△	02/20/24	ADDENDUM NO. 1
△	03/07/24	ADDENDUM NO. 2

BID SET 02/19/24

HIGH SCHOOL RENOVATIONS
 511 HIGHLAND AVENUE, GROVE CITY, PA 16127
GROVE CITY AREA SCHOOL DISTRICT
FIRST FLOOR PLAN - AREA - E
MECHANICAL PIPING NEW WORK

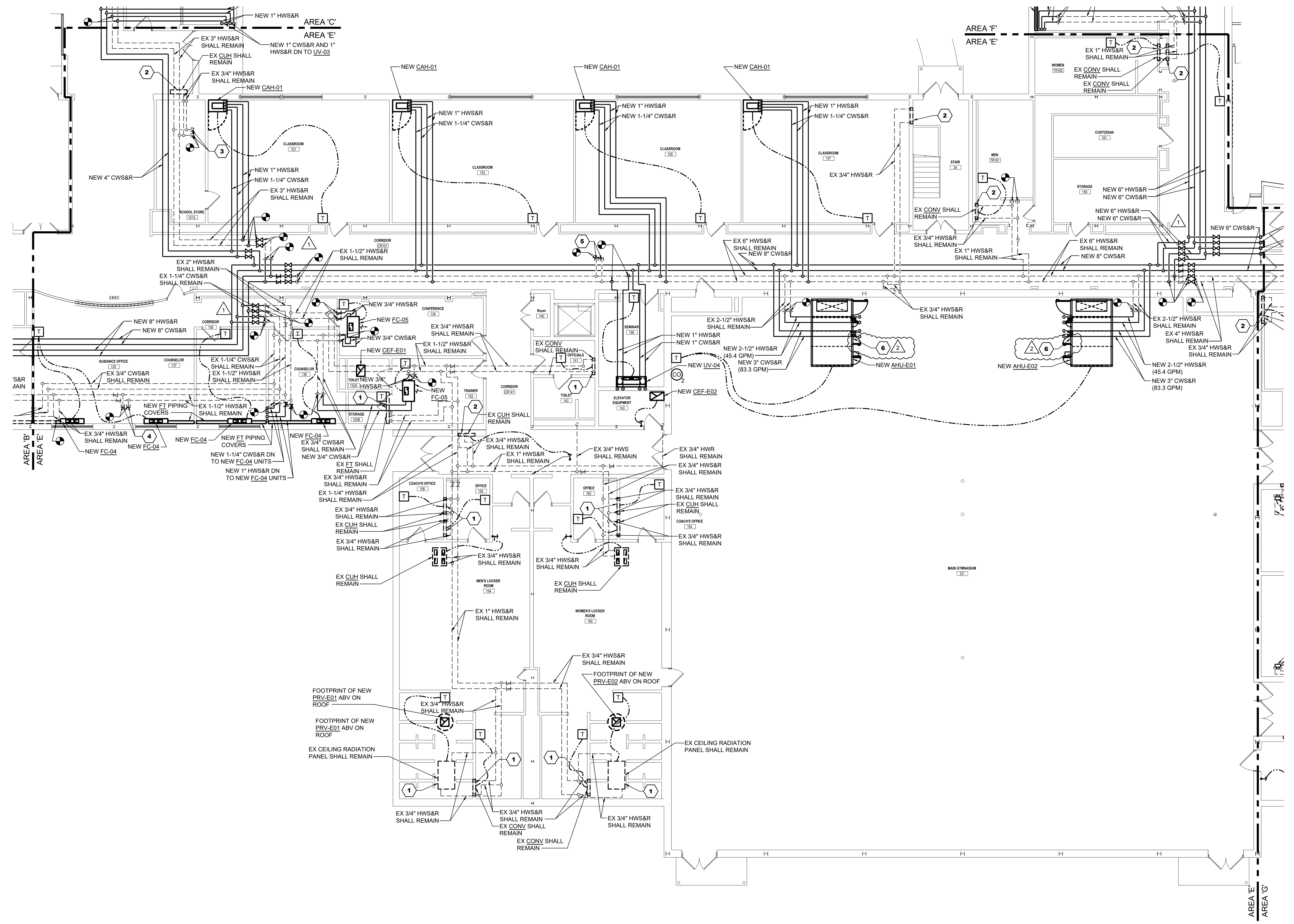
Proj No. 23-S43-01
 Issue Date 02/19/2024
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KEYNOTES THIS DRAWING

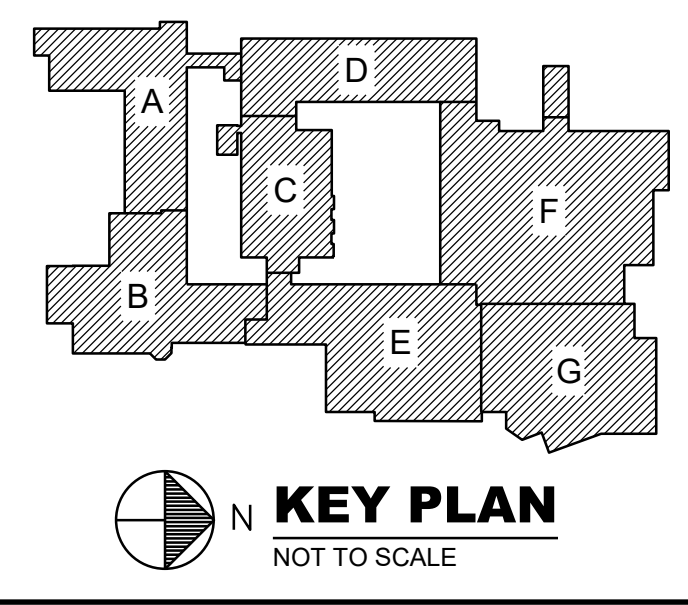
- 1 HC SHALL PROVIDE AND INSTALL NEW ELECTRONIC CONTROL VALVES.
- 2 HC SHALL PROVIDE AND INSTALL NEW ELECTRIC TEMPERATURE CONTROLS AND CONTROL VALVES.
- 3 CAP EX 1" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.
- 4 CAP EX 1-1/4" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.
- 5 CAP EX 2" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.
- 6 MECHANICAL AIR HANDLER UNIT SERVICE CATWALK MODIFICATIONS BY HC, APPROXIMATE SIZE AND LOCATION SHOWN ON PLAN. COORDINATE EXACT SIZE AND LOCATION WITH MECHANICAL DWGS AND MECHANICAL EQUIPMENT REQUIREMENTS. CATWALK SHALL BE DESIGNED FOR A UNIFORM LIVE LOAD OF 40 PSF. SUBMIT CALCULATIONS AND DRAWINGS STAMPED BY A REGISTERED PROFESSIONAL LICENSED IN PENNSYLVANIA FOR REVIEW. COORDINATE HANGER CONNECTION DETAIL WITH JOIST MANUFACTURER. MAXIMUM HANGER LOAD TO ROOF JOIST: 500 LB LIVE LOAD, 250 LB DEAD LOAD.

GENERAL NOTES THIS DRAWING

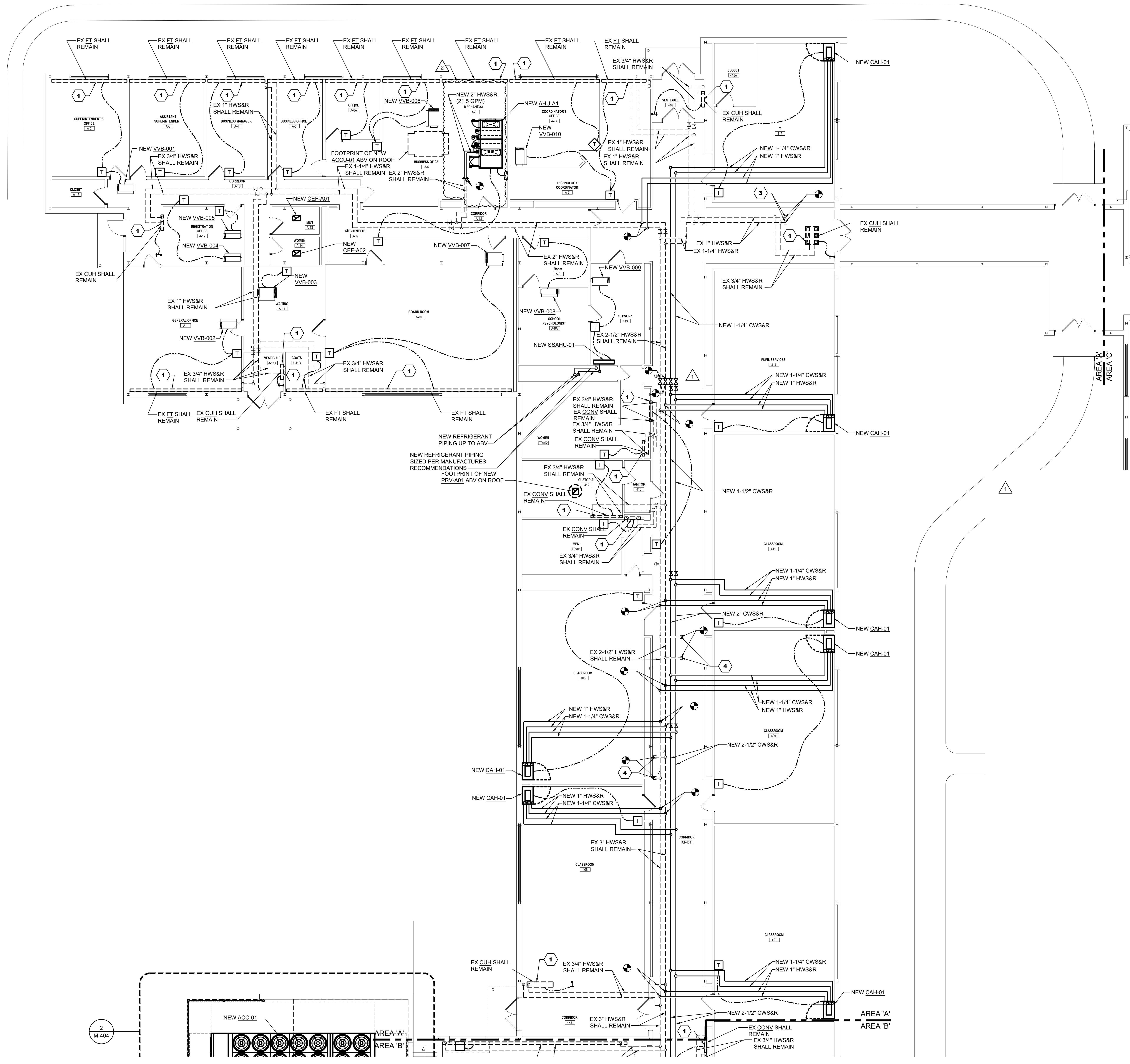
1. CONTRACTOR TO PATCH, REPAIR, REPLACE EXISTING PIPE INSULATION AT EACH NEW PIPE CONNECTIONS.
2. ISOLATION VALVES SHALL BE INSTALLED AT EACH PIPE BRANCH.
3. ALL CEILING REMOVAL TO ACCOMPLISH THE WORK SHOWN ON THE MECHANICAL DRAWINGS SHALL BE DONE BY THE HEATING CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CEILING TILES AND GRIDS AS NEEDED, STORE THEM IN A SAFE AND DRY LOCATION, AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES OR CEILING GRIDS DAMAGED DURING THE COMPLETION OF THE WORK. CEILING TILES SHALL BE SALVAGED FROM A DONOR ROOM DETERMINED BY ARCHITECT.



1 FIRST FLOOR PLAN - AREA 'E' - MECHANICAL PIPING NEW WORK
 Scale: 1/8" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"



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 JMcMann



1 FIRST FLOOR PLAN - AREA 'A' - MECHANICAL PIPING NEW WORK
 Scale: 1/8" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"

- KEYNOTES THIS DRAWING**
- 1 HC SHALL PROVIDE AND INSTALL NEW ELECTRONIC CONTROL VALVES.
 - 2 HC SHALL PROVIDE AND INSTALL NEW ELECTRIC TEMPERATURE CONTROLS AND CONTROL VALVES.
 - 3 CAP EX 1" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.
 - 4 CAP EX 1-1/2" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.

- GENERAL NOTES THIS DRAWING**
- 1. CONTRACTOR TO PATCH, REPAIR, REPLACE EXISTING PIPE INSULATION AT EACH NEW PIPE CONNECTIONS.
 - 2. ISOLATION VALVES SHALL BE INSTALLED AT EACH PIPE BRANCH.
 - 3. ALL CEILING REMOVAL TO ACCOMPLISH THE WORK SHOWN ON THE MECHANICAL DRAWINGS SHALL BE DONE BY THE HEATING CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CEILING TILES AND GRIDS AS NEEDED, STORE THEM IN A SAFE AND DRY LOCATION, AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES OR CEILING GRIDS DAMAGED DURING THE COMPLETION OF THE WORK. CEILING TILES SHALL BE SALVAGED FROM A DONOR ROOM DETERMINED BY ARCHITECT.



H.F. LENZ
 ENGINEERING
 1407 Schae Avenue
 Jonesboro, PA 15043-3329
 www.hflenz.com

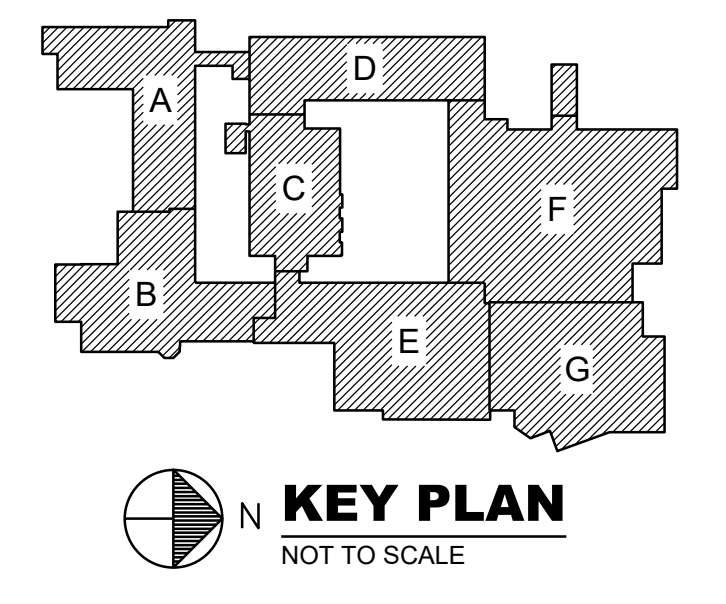
REVISIONS

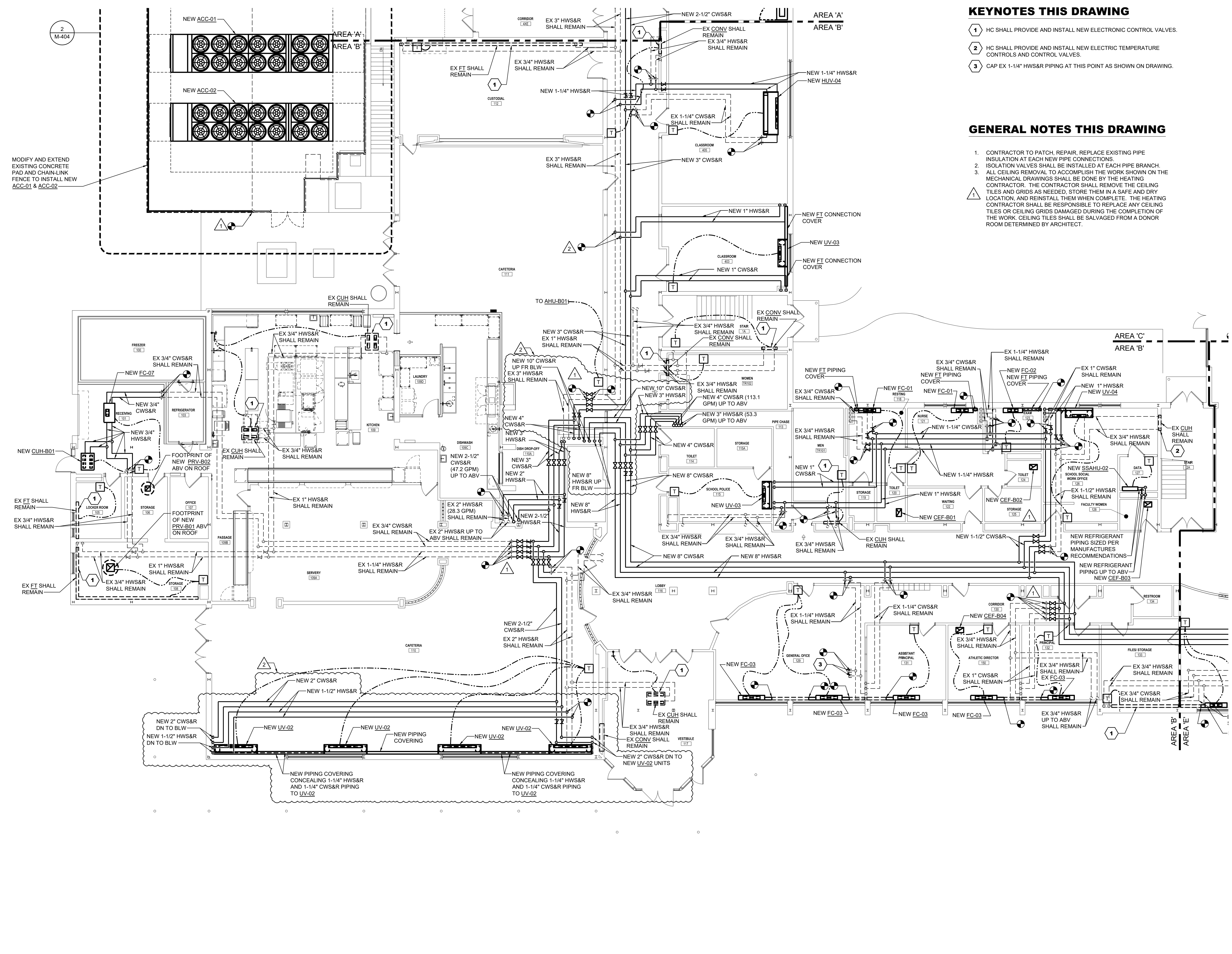
02/20/24	ADDENDUM NO. 1
03/07/24	ADDENDUM NO. 2

BID SET 02/19/24

HIGH SCHOOL RENOVATIONS
 511 HIGHLAND AVENUE, GROVE CITY, PA 16127
 GROVE CITY AREA SCHOOL DISTRICT
FIRST FLOOR PLAN - AREA - A
MECHANICAL PIPING NEW WORK

Proj No. 23-S43-01
 Issue Date 02/19/2024
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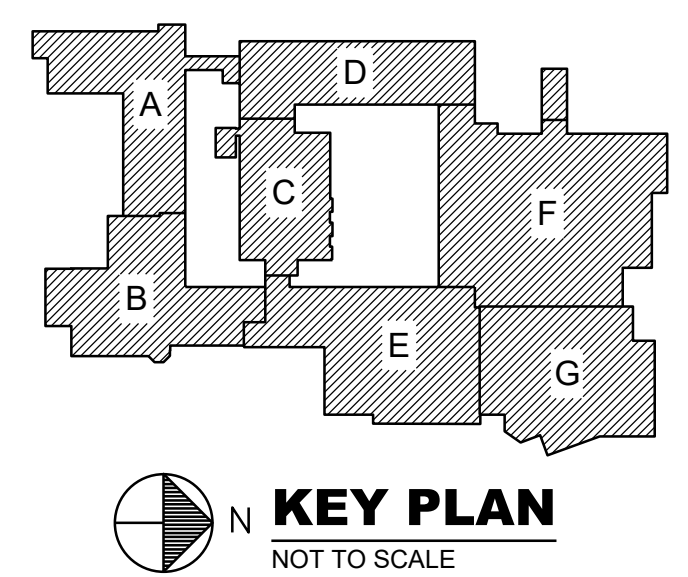


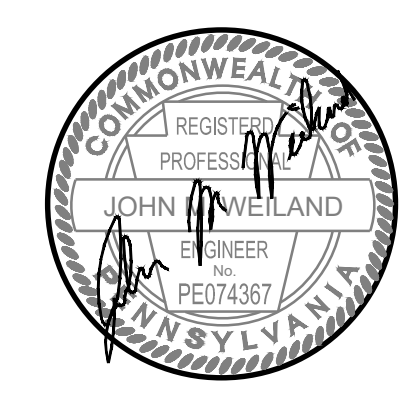


- KEYNOTES THIS DRAWING**
1. HC SHALL PROVIDE AND INSTALL NEW ELECTRONIC CONTROL VALVES.
 2. HC SHALL PROVIDE AND INSTALL NEW ELECTRIC TEMPERATURE CONTROLS AND CONTROL VALVES.
 3. CAP EX 1-1/4" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.

- GENERAL NOTES THIS DRAWING**
1. CONTRACTOR TO PATCH, REPAIR, REPLACE EXISTING PIPE INSULATION AT EACH NEW PIPE CONNECTIONS.
 2. ISOLATION VALVES SHALL BE INSTALLED AT EACH PIPE BRANCH.
 3. ALL CEILING REMOVAL TO ACCOMPLISH THE WORK SHOWN ON THE MECHANICAL DRAWINGS SHALL BE DONE BY THE HEATING CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CEILING TILES AND GRIDS AS NEEDED, STORE THEM IN A SAFE AND DRY LOCATION, AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES OR CEILING GRIDS DAMAGED DURING THE COMPLETION OF THE WORK. CEILING TILES SHALL BE SALVAGED FROM A DONOR ROOM DETERMINED BY ARCHITECT.

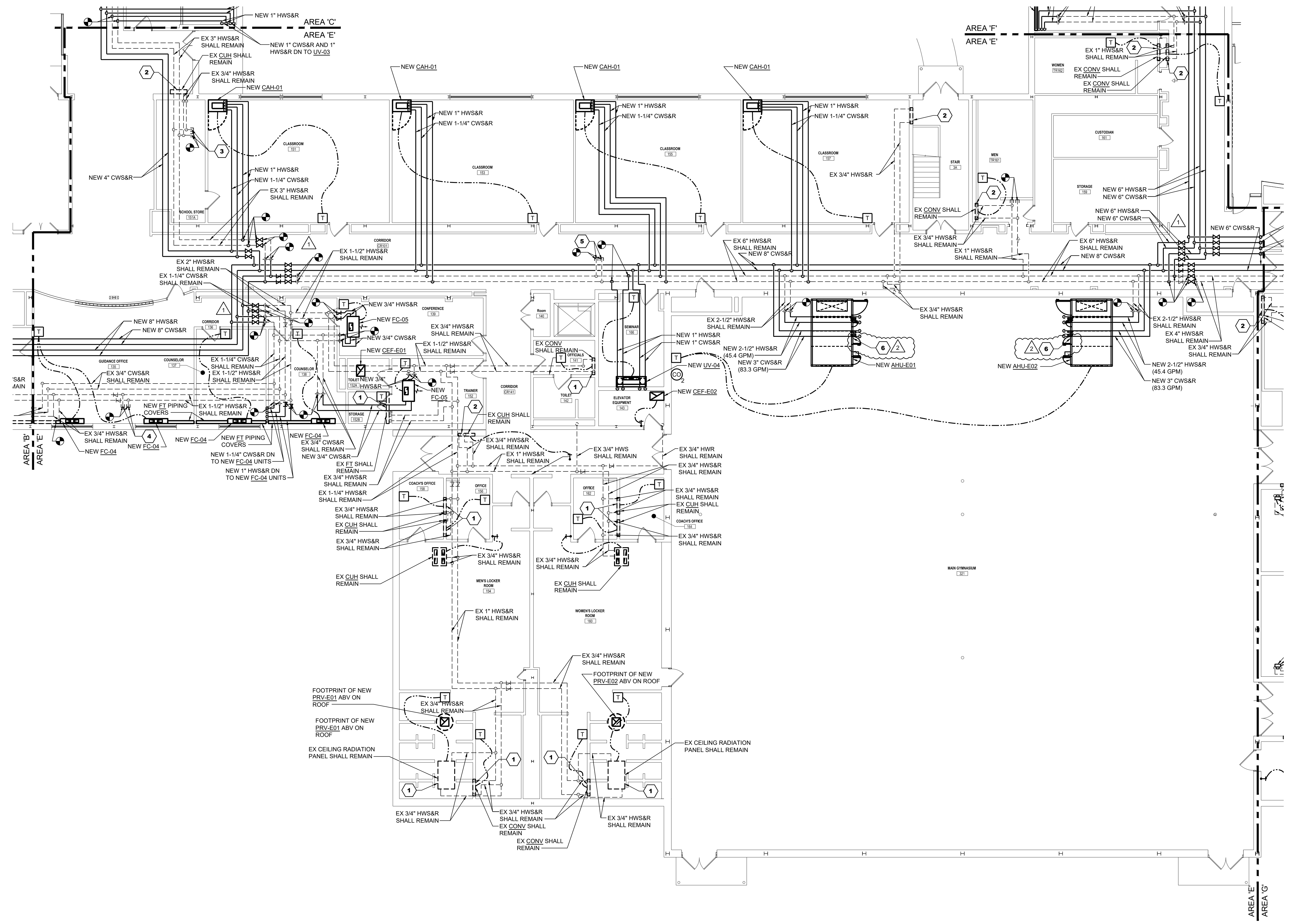
1 FIRST FLOOR PLAN - AREA 'B' - MECHANICAL PIPING NEW WORK
 Scale: 1/8" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"





- KEYNOTES THIS DRAWING**
- 1 HC SHALL PROVIDE AND INSTALL NEW ELECTRONIC CONTROL VALVES.
 - 2 HC SHALL PROVIDE AND INSTALL NEW ELECTRIC TEMPERATURE CONTROLS AND CONTROL VALVES.
 - 3 CAP EX 1" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.
 - 4 CAP EX 1-1/4" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.
 - 5 CAP EX 2" HWS&R PIPING AT THIS POINT AS SHOWN ON DRAWING.
 - 6 MECHANICAL AIR HANDLER UNIT SERVICE CATWALK MODIFICATIONS BY HC. APPROXIMATE SIZE AND LOCATION SHOWN ON PLAN. COORDINATE EXACT SIZE AND LOCATION WITH MECHANICAL DWGS AND MECHANICAL EQUIPMENT REQUIREMENTS. CATWALK SHALL BE DESIGNED FOR A UNIFORM LIVE LOAD OF 40 PSF. SUBMIT CALCULATIONS AND DRAWINGS STAMPED BY A REGISTERED PROFESSIONAL LICENSED IN PENNSYLVANIA FOR REVIEW. COORDINATE HANGER CONNECTION DETAIL WITH JOIST MANUFACTURER. MAXIMUM HANGER LOAD TO ROOF JOIST: 500 LB LIVE/LOAD, 250 LB DEAD/LOAD.

- GENERAL NOTES THIS DRAWING**
1. CONTRACTOR TO PATCH, REPAIR, REPLACE EXISTING PIPE INSULATION AT EACH NEW PIPE CONNECTIONS.
 2. ISOLATION VALVES SHALL BE INSTALLED AT EACH PIPE BRANCH.
 3. ALL CEILING REMOVAL TO ACCOMPLISH THE WORK SHOWN ON THE MECHANICAL DRAWINGS SHALL BE DONE BY THE HEATING CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CEILING TILES AND GRIDS AS NEEDED, STORE THEM IN A SAFE AND DRY LOCATION, AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES OR CEILING GRIDS DAMAGED DURING THE COMPLETION OF THE WORK. CEILING TILES SHALL BE SALVAGED FROM A DONOR ROOM DETERMINED BY ARCHITECT.



1 FIRST FLOOR PLAN - AREA 'E' - MECHANICAL PIPING NEW WORK
 Scale: 1/8" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"

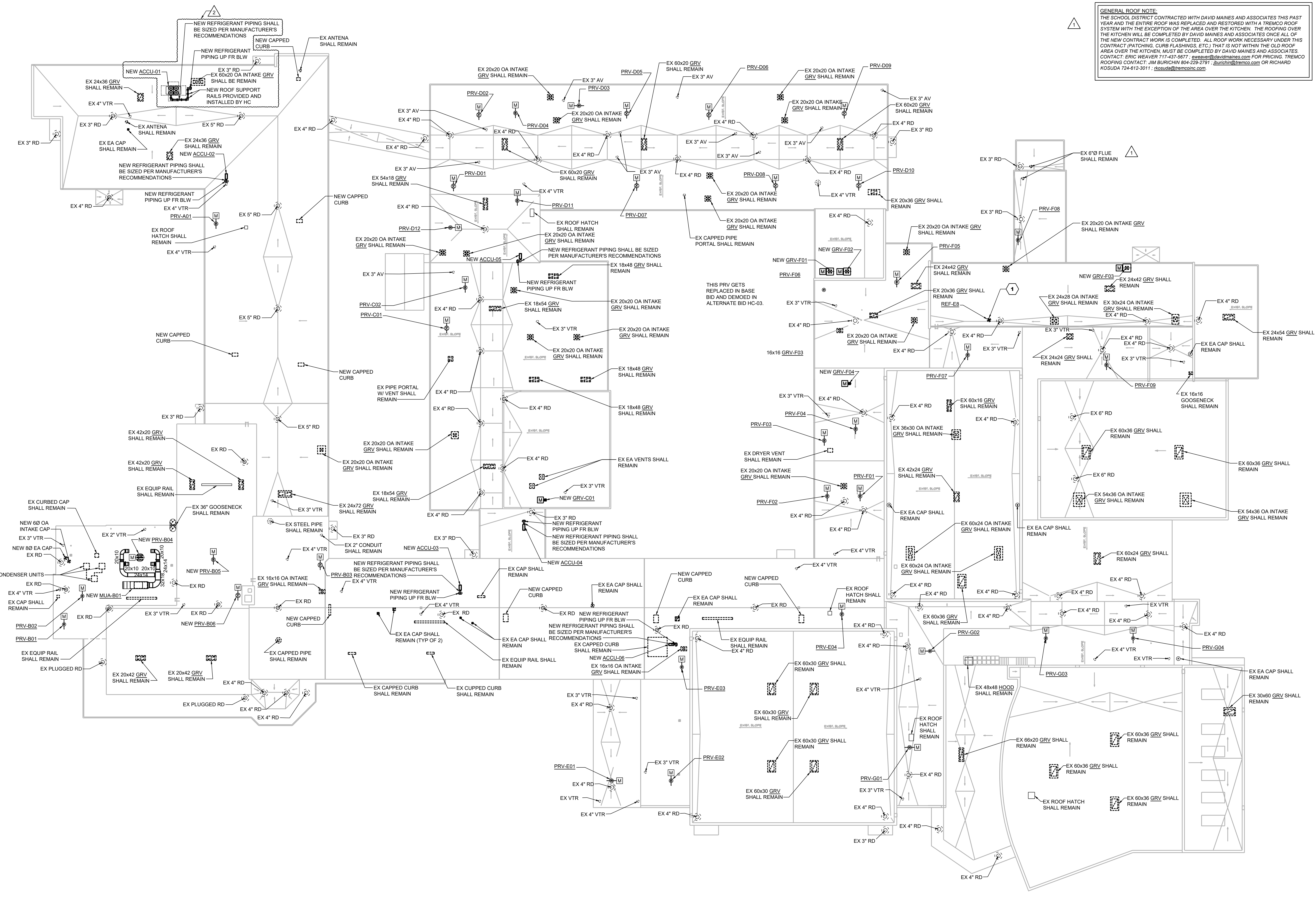
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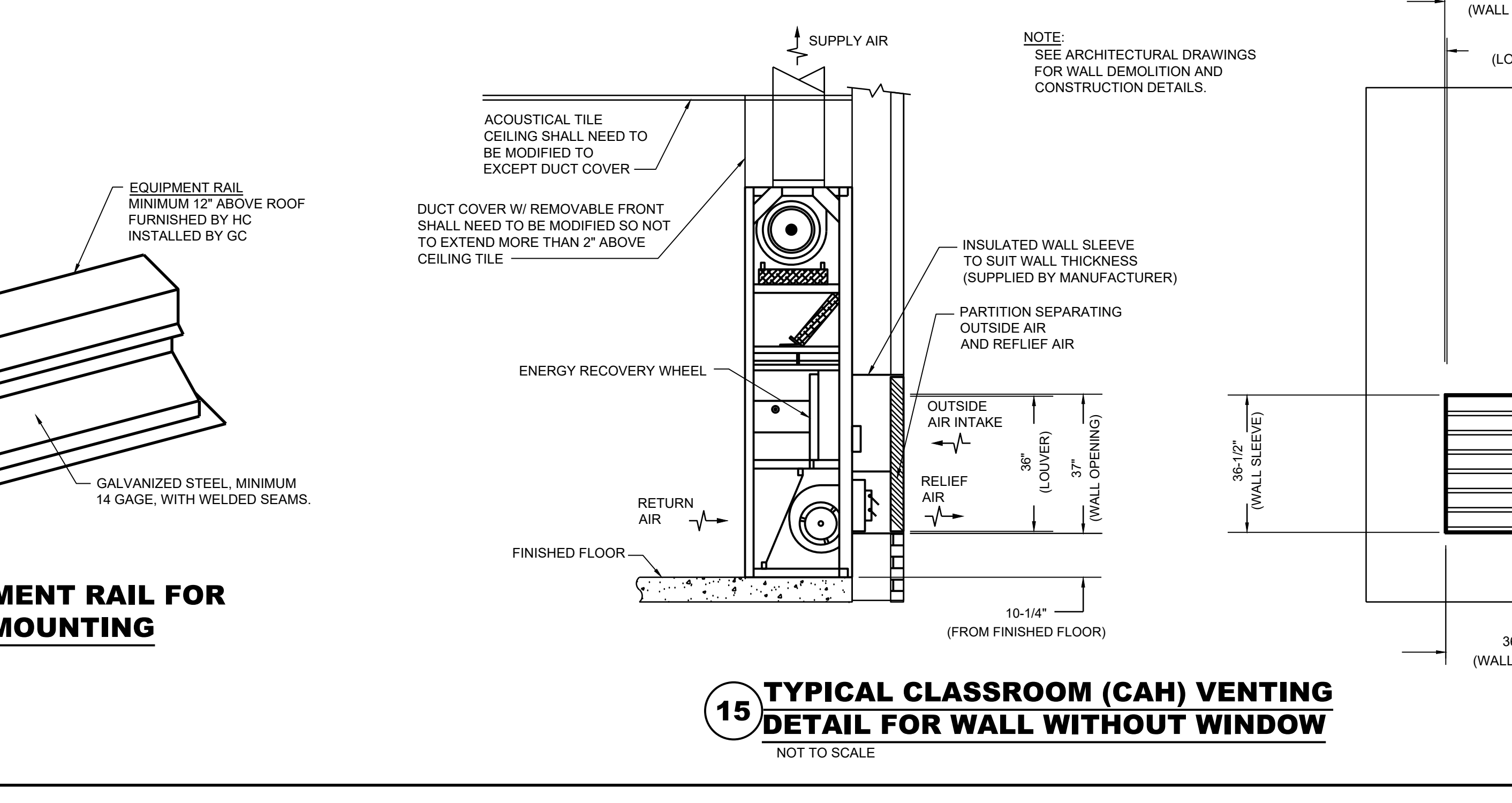
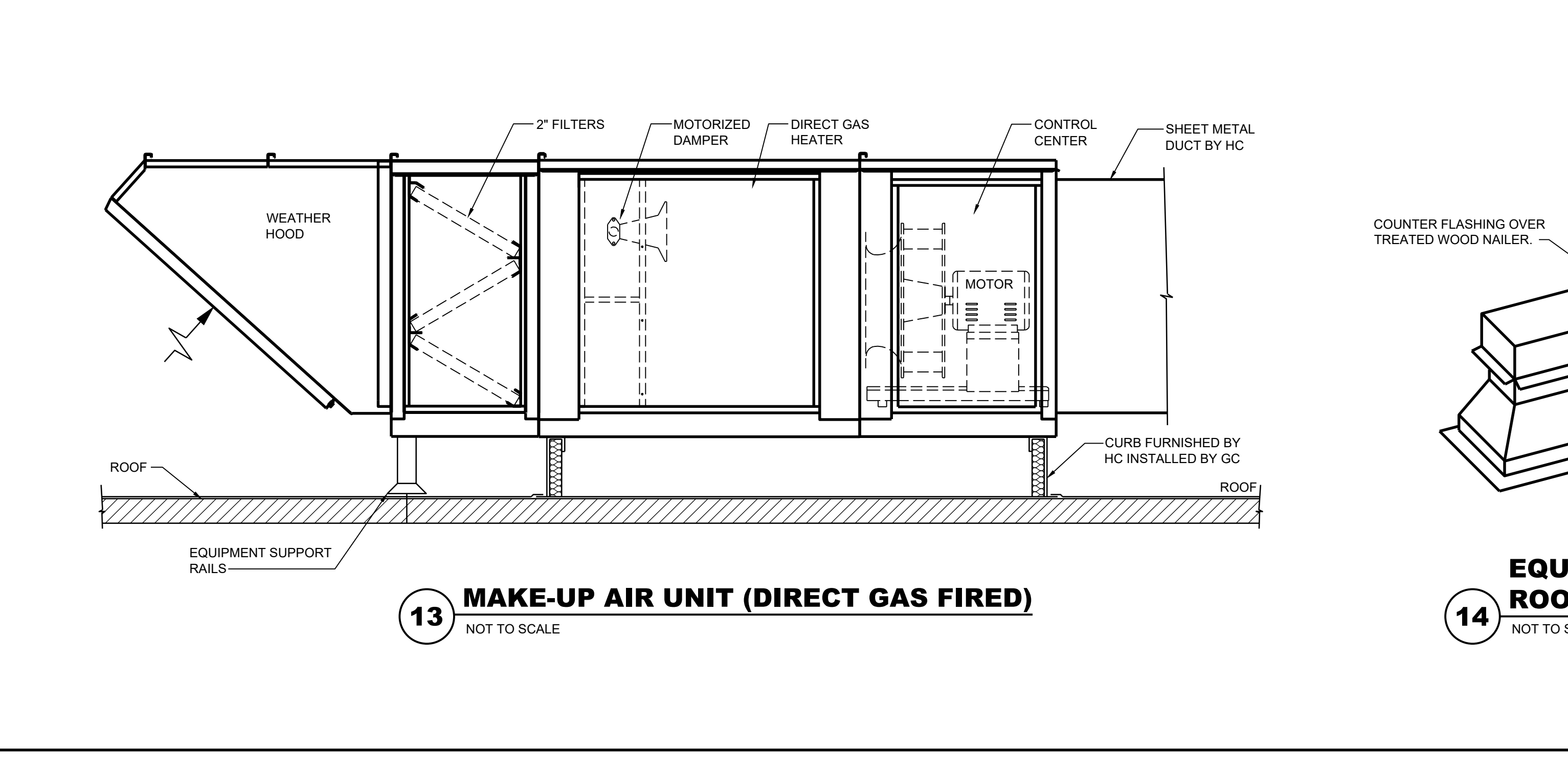
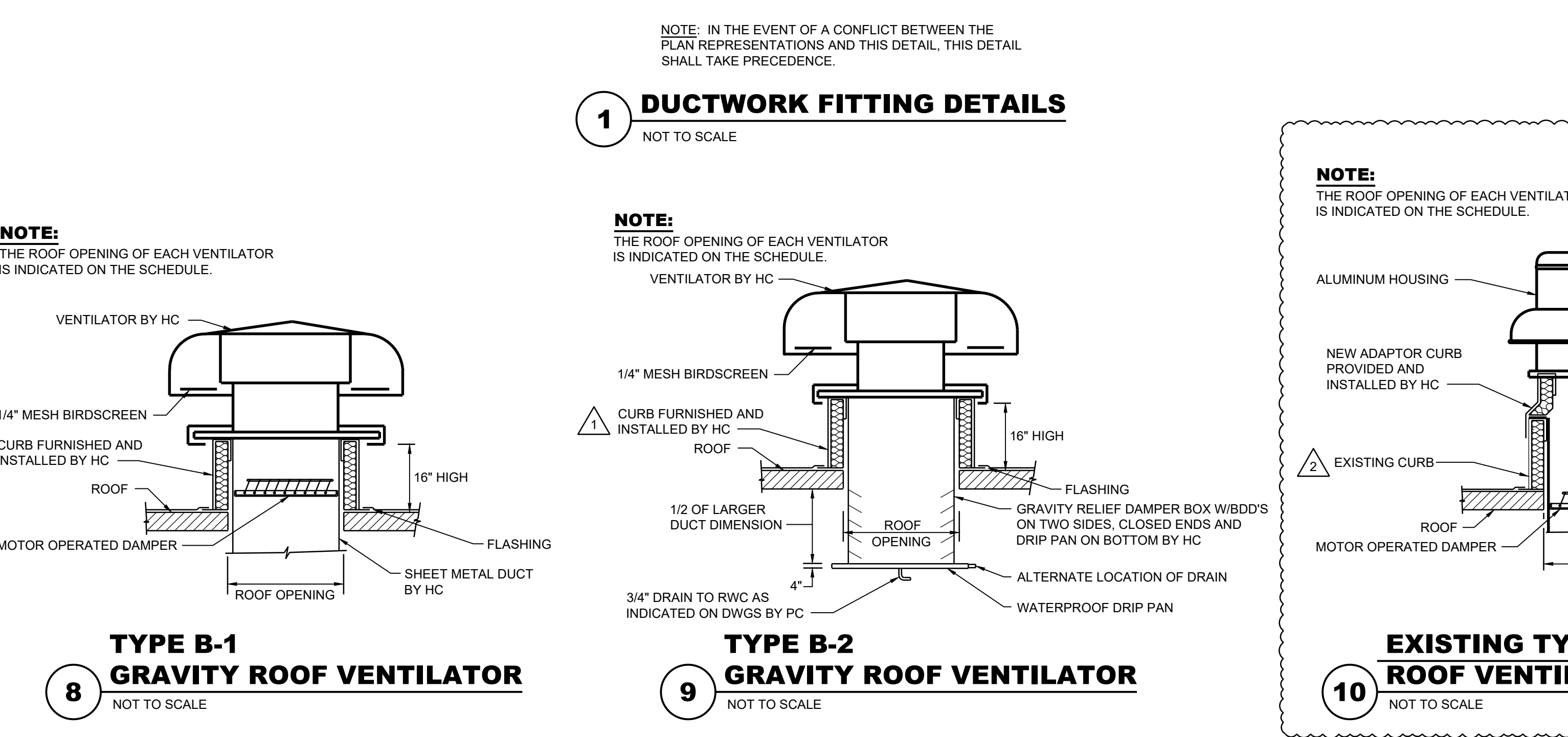
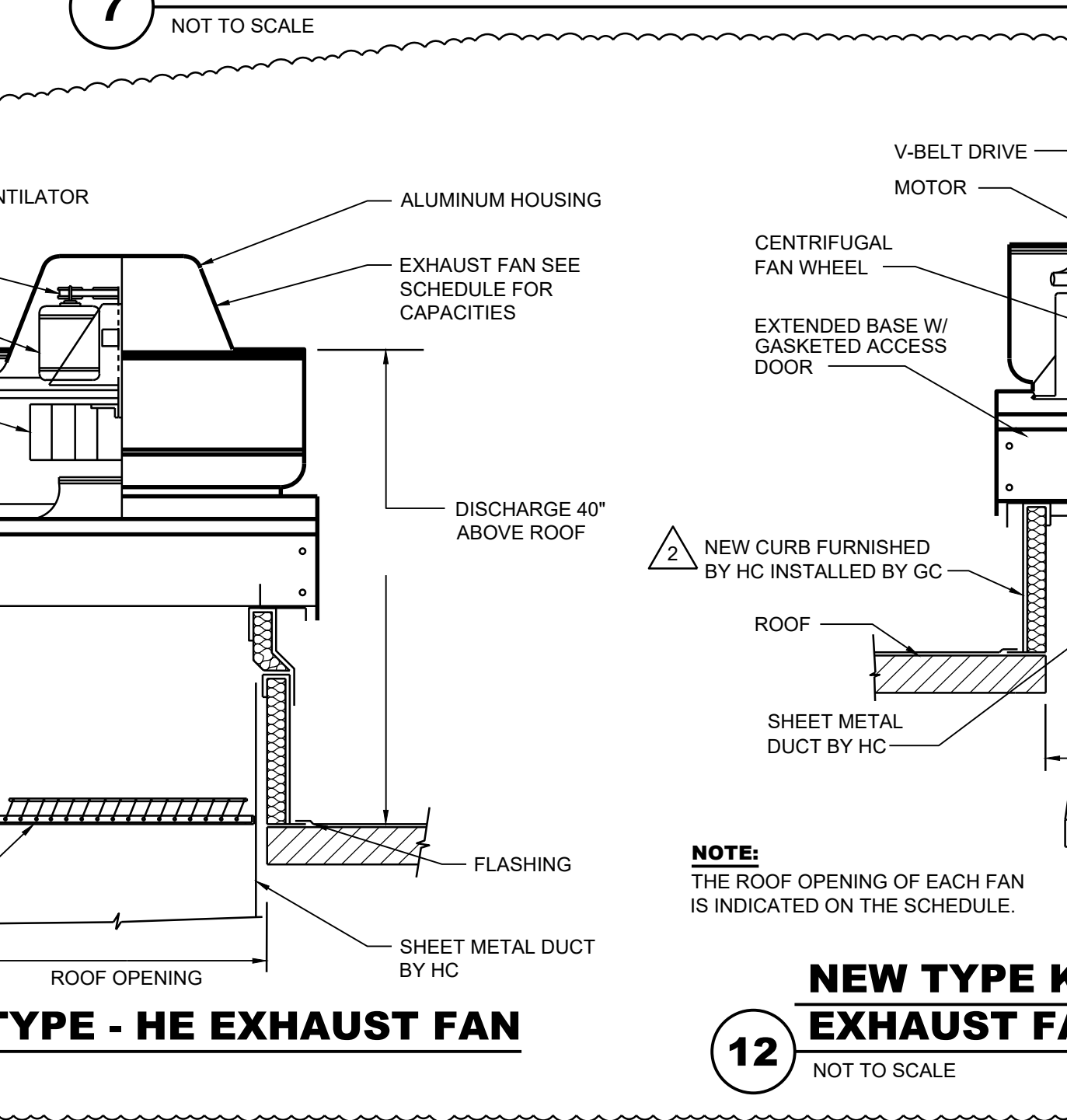
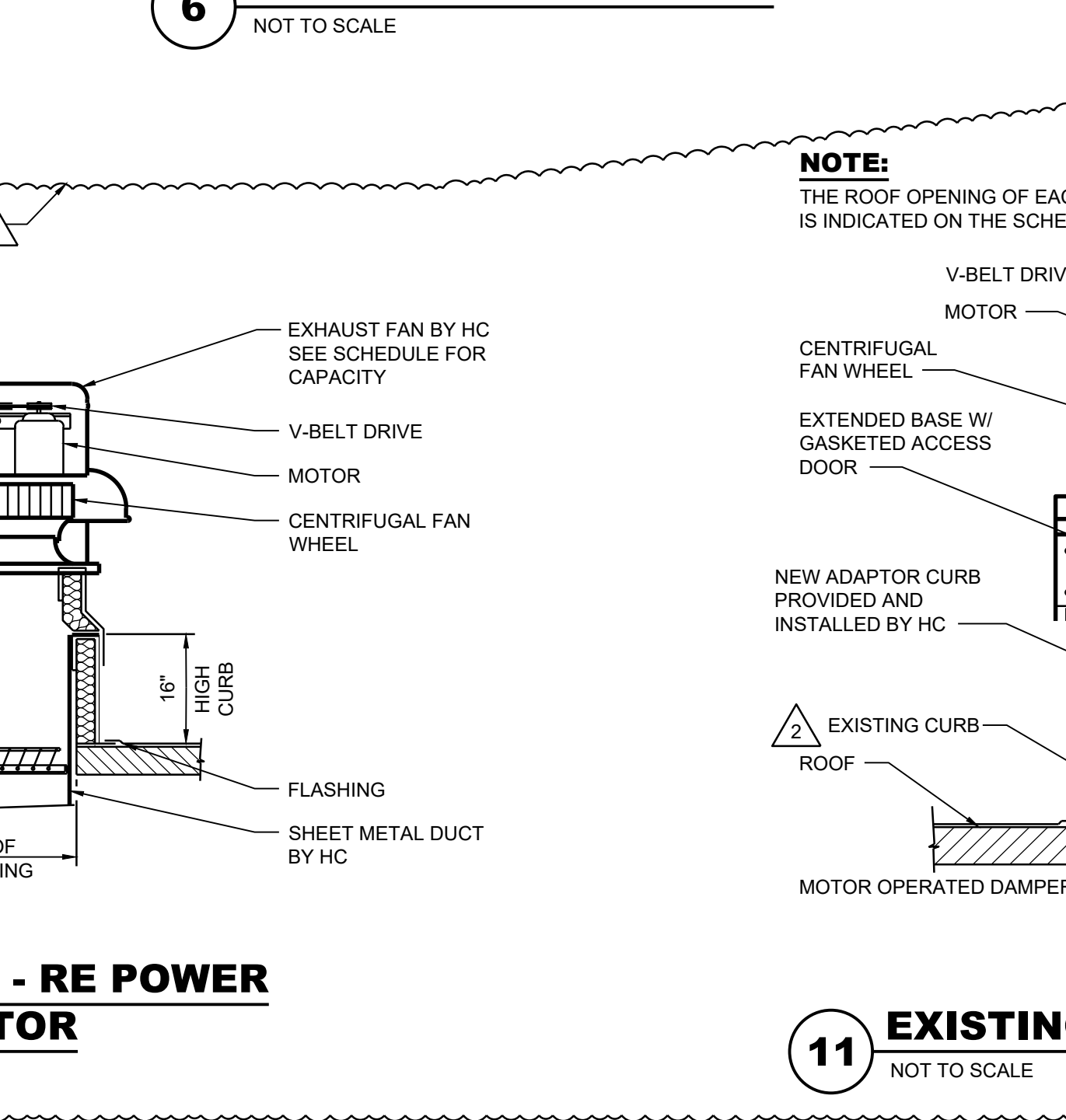
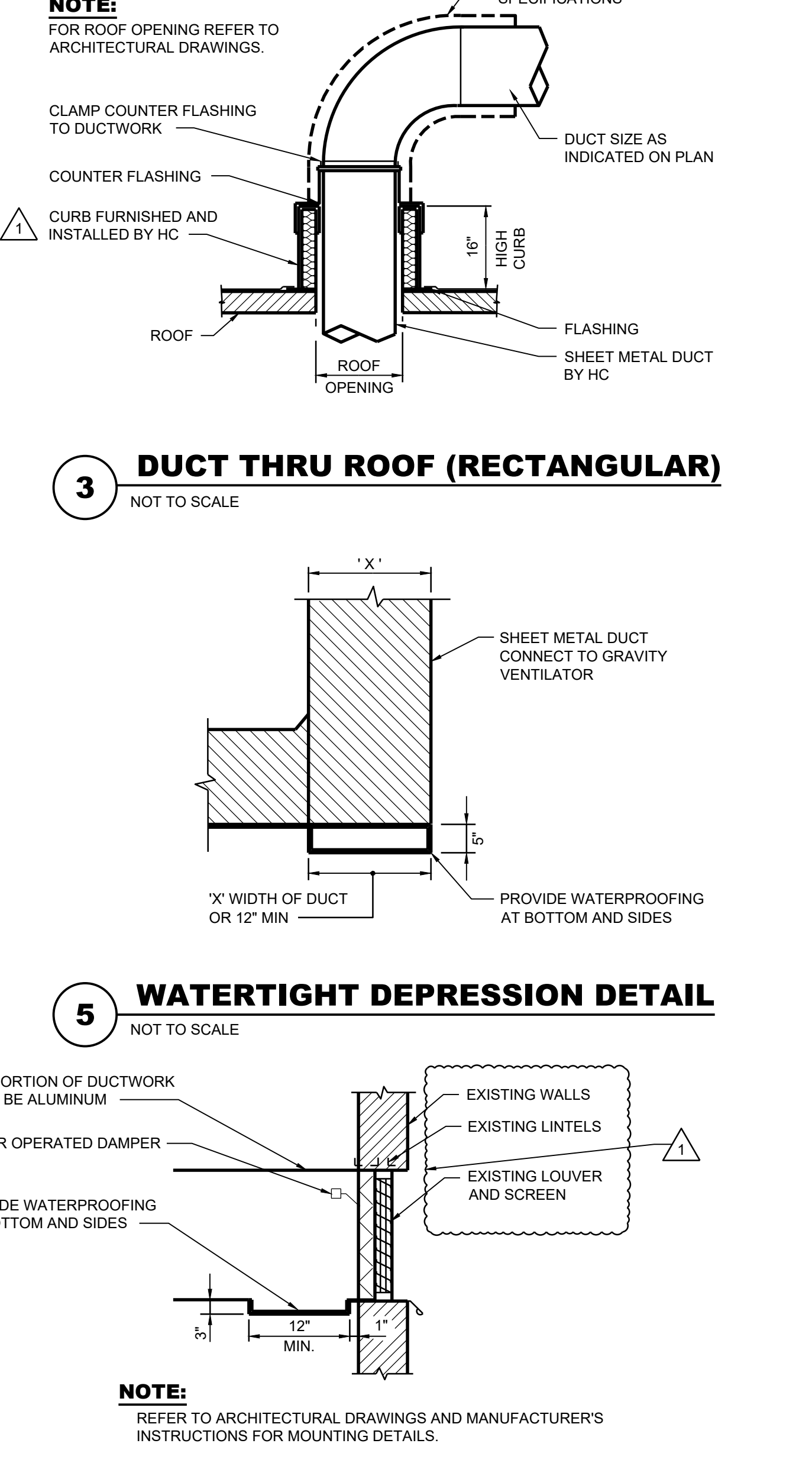
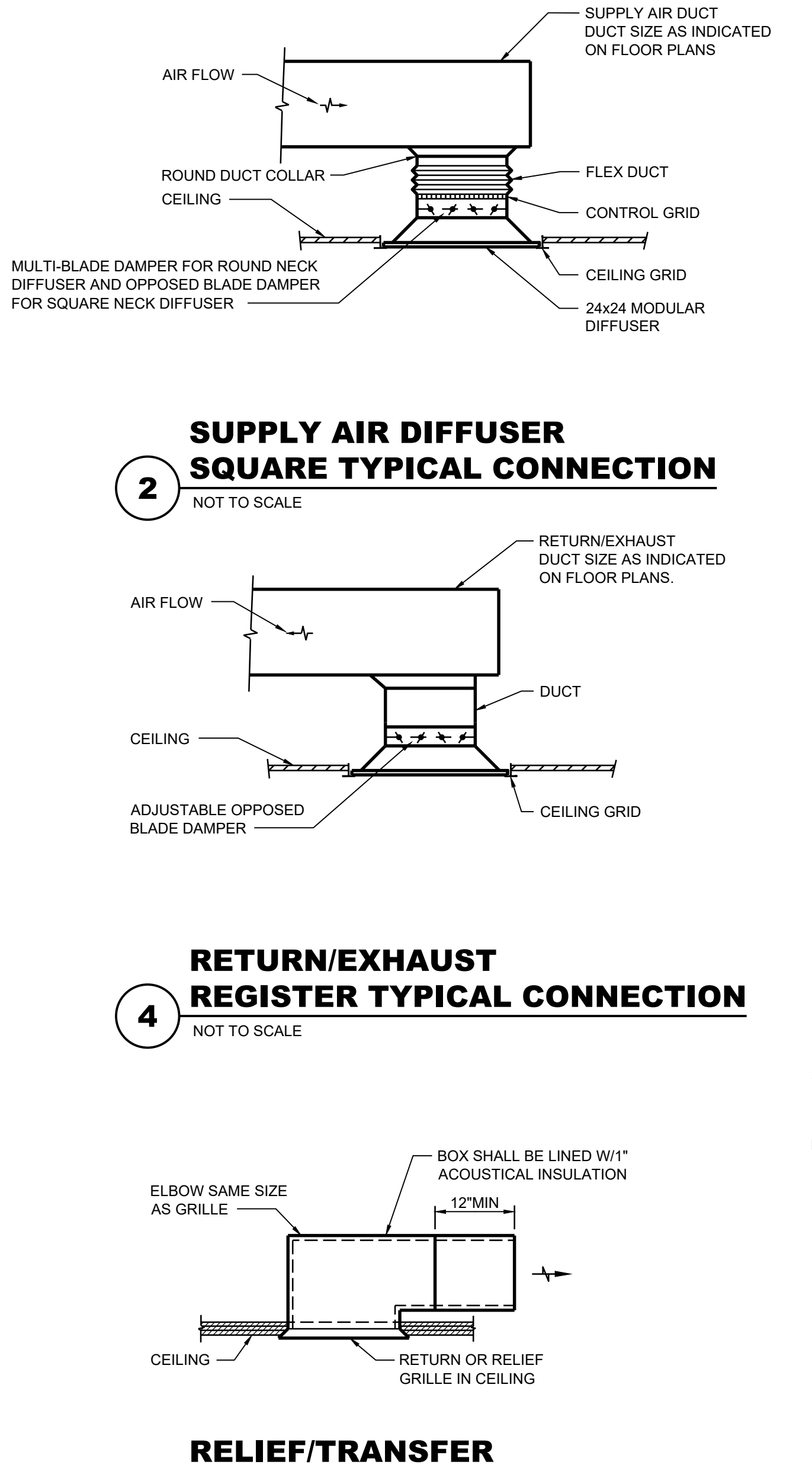
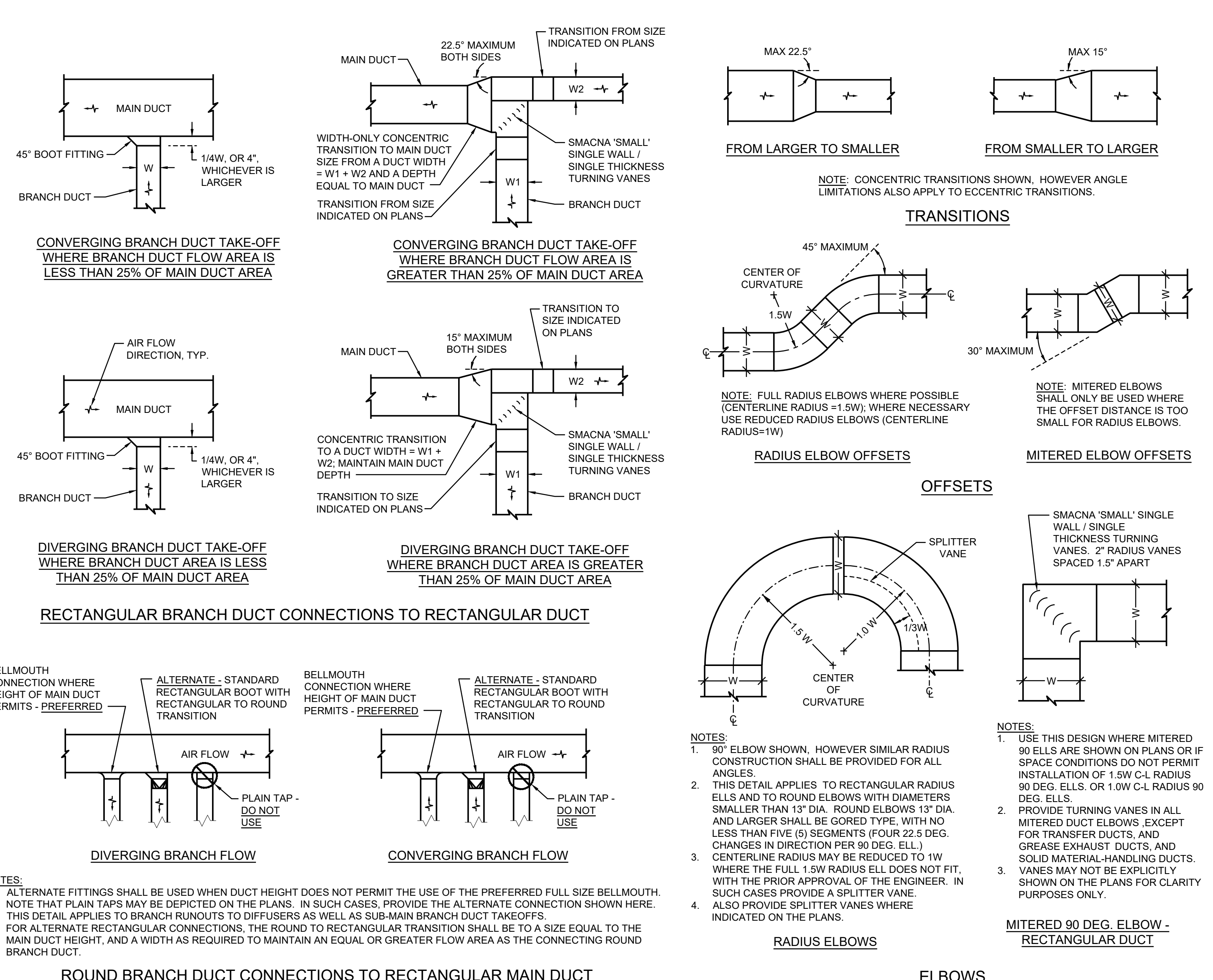
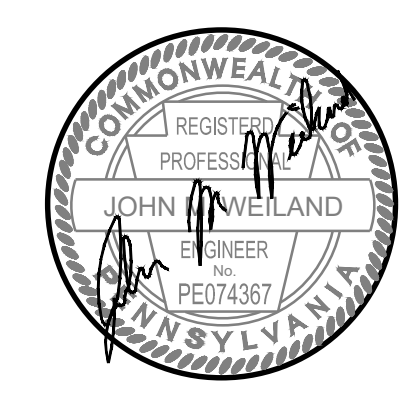
KEYNOTES THIS DRAWING

1 UNDER BASE BID, EX REF-E8 AND ASSOCIATED DUCTWORK SHALL REMAIN. UNDER ALTERNATE BID HC-04, EX REF-E8 AND ASSOCIATED DUCTWORK SHALL BE DEMOED.

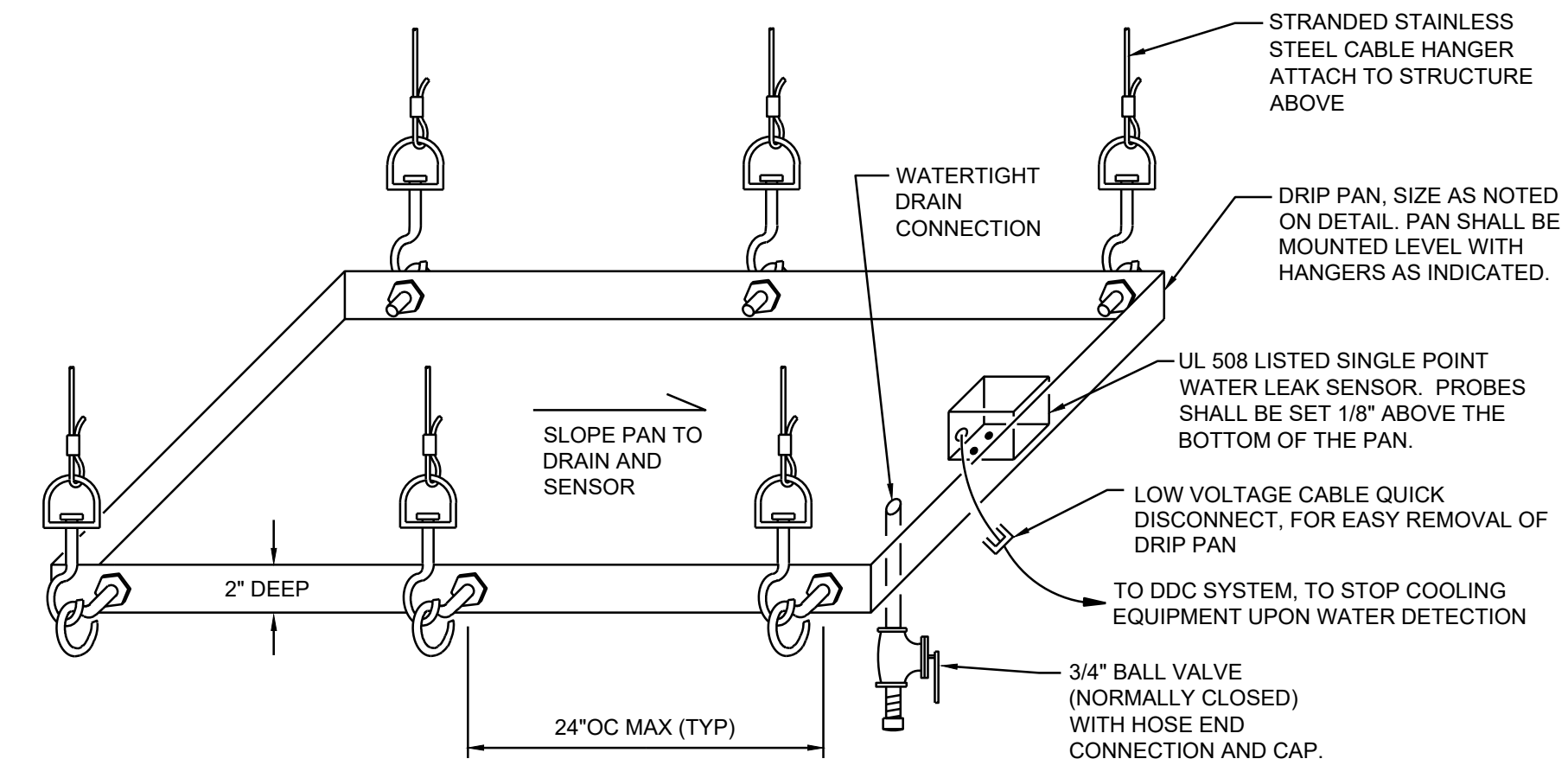
ROOF WARRANTY NOTE:
 ANY CUTTING, PATCHING OR MODIFICATIONS TO EXISTING ROOFING SYSTEM MEMBRANE SHALL MATCH EXISTING AND BE DONE BY THE MANUFACTURER APPROVED ROOFING CONTRACTOR SO NOT TO VOID REMAINING ROOF WARRANTY.

GENERAL ROOF NOTE:
 THE SCHOOL DISTRICT CONTRACTED WITH DAVID MAINES AND ASSOCIATES THIS PAST YEAR AND THE ENTIRE ROOF WAS REPLACED AND RESTORED WITH A TREMCO ROOF SYSTEM WITH THE EXCEPTION OF THE AREA OVER THE KITCHEN. THE ROOFING OVER THE KITCHEN WILL BE COMPLETED BY DAVID MAINES AND ASSOCIATES ONCE ALL OF THE NEW CONTRACT WORK IS COMPLETED. ALL ROOF WORK NECESSARY UNDER THIS CONTRACT (PATCHING, CURB FLASHINGS, ETC.) THAT IS NOT WITHIN THE OLD ROOF AREA OVER THE KITCHEN, MUST BE COMPLETED BY DAVID MAINES AND ASSOCIATES. CONTACT: ERIC WEAVER 717-437-5677; eweaver@davidmaines.com FOR PRICING. TREMCO ROOFING CONTACT: JIM BURCHIN 804-229-2791; jburchin@tremco.com OR RICHARD KOSUDA 724-612-3011; rkosuda@tremco.com



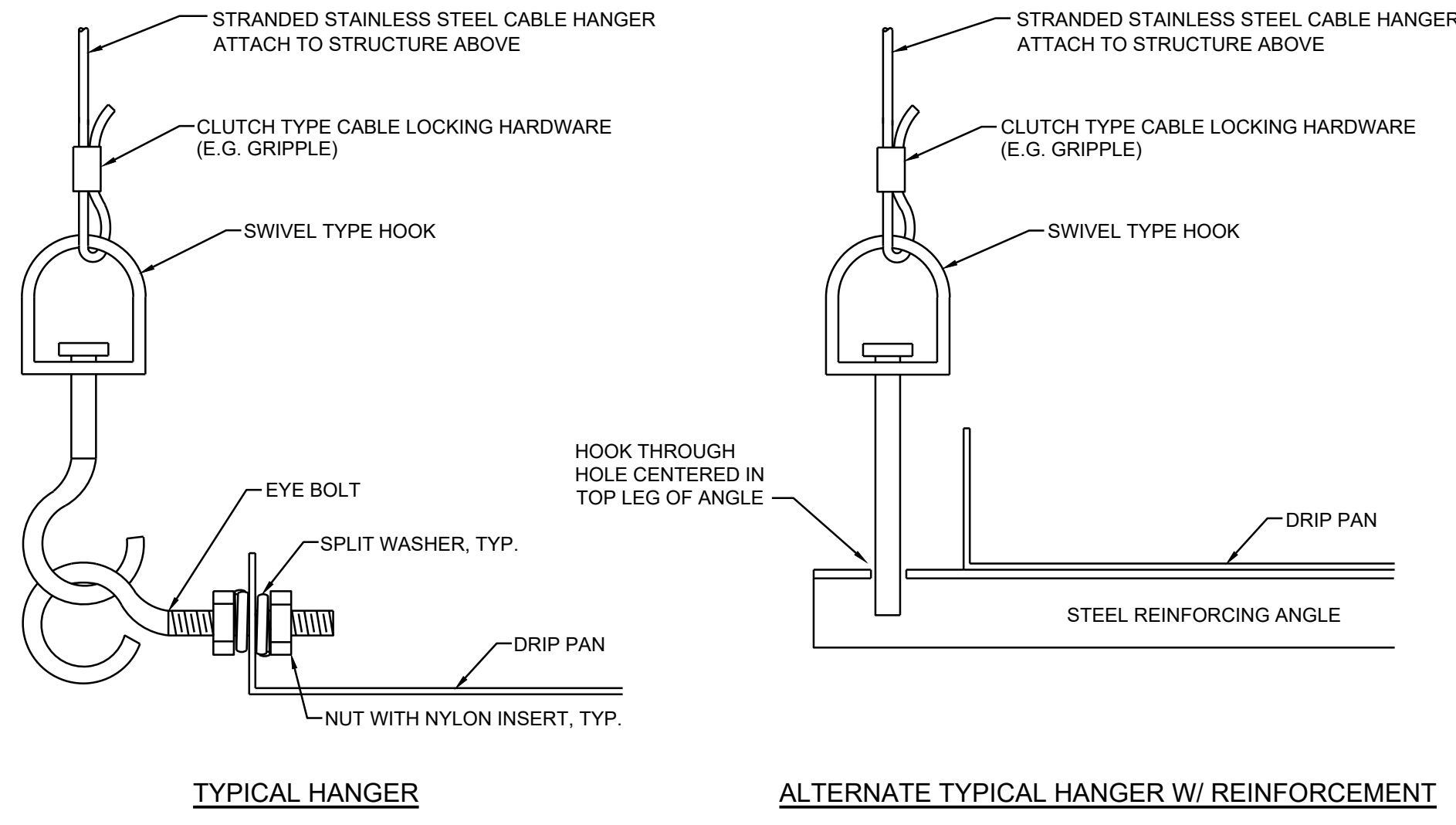


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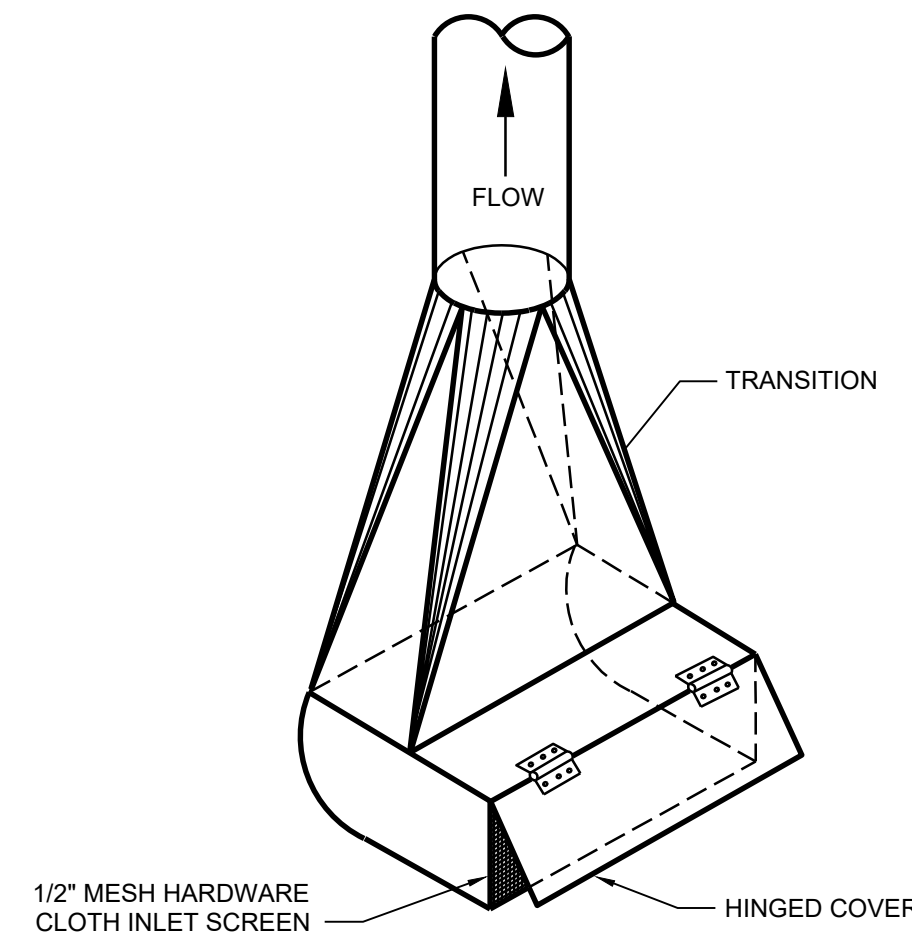


GENERAL NOTES:

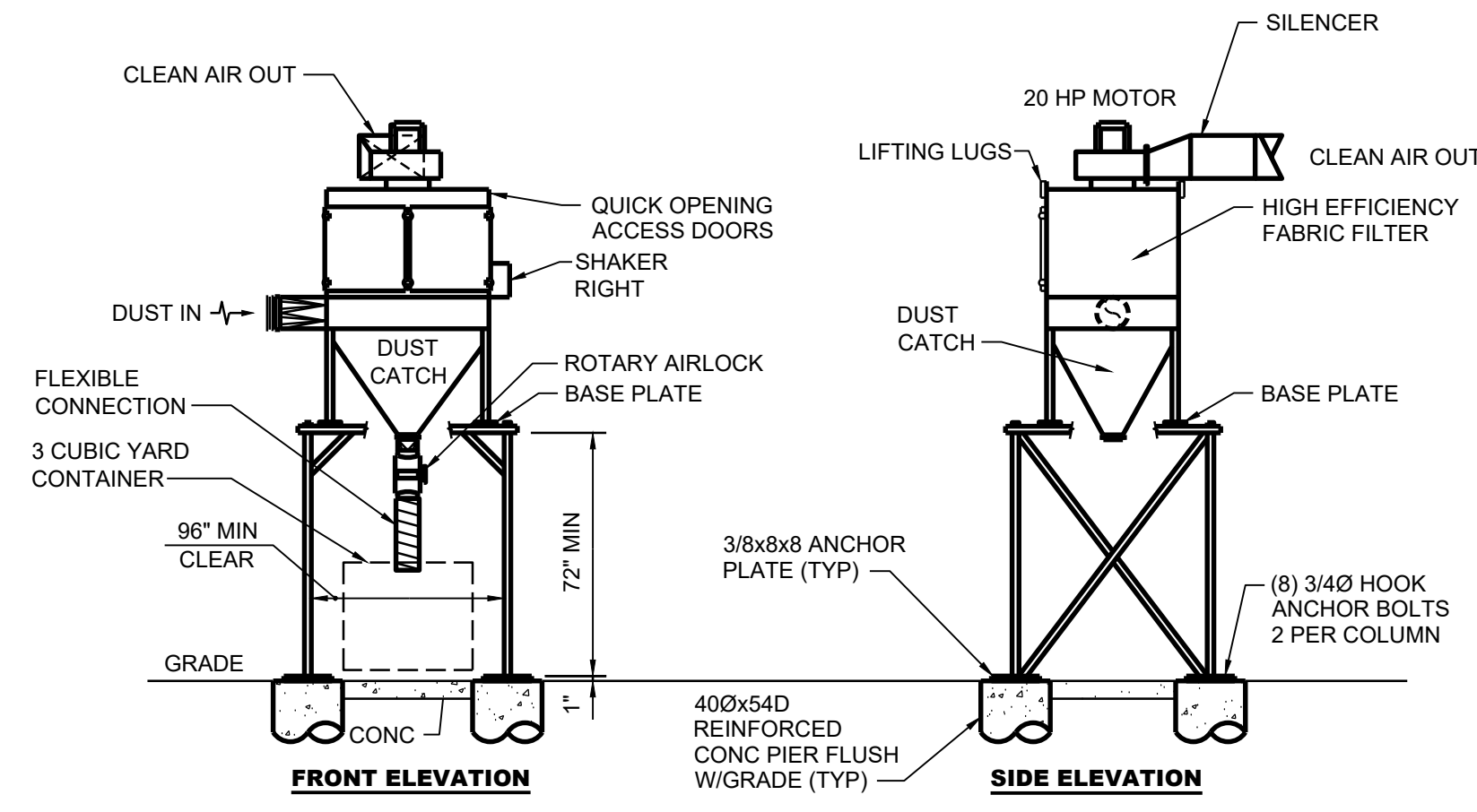
1. PROVIDE UNDER EACH SUSPENDED FAN COIL UNIT, UNIT VENTILATOR, AND AIR HANDLING UNIT.
2. PROVIDE A MINIMUM OF (4) FOUR HANGERS FOR EACH DRIP PAN.
3. PAN SHALL BE FORMED OF MIN. 16 GAUGE G90 GALVANIZED SHEET METAL. TOP EDGE OF RIM SHALL BE HEMMED, CORNERS LAPPED, AND ALL SEAMS SOLDERED OR WELDED LIQUID-TIGHT. REPAIR ZINC COATING WITH ZINC RICH PAINT. PROVIDE ANGLE REINFORCEMENTS SPOT WELDED AT 6" INTERVALS TO UNDERSIDE OF PAN TO PREVENT VERTICAL DEFLECTION OF PAN IN EXCESS OF 1/4" WHEN FULL OF WATER TO 1/2" DEPTH.
4. PAN SHALL EXTEND (HORIZONTALLY) NO LESS THAN 3" PAST THE SIDES OF THE ASSOCIATED EQUIPMENT. PAN SHALL ALSO BE EXTENDED UNDER THE CONDENSATE PUMP (WHERE APPLICABLE).



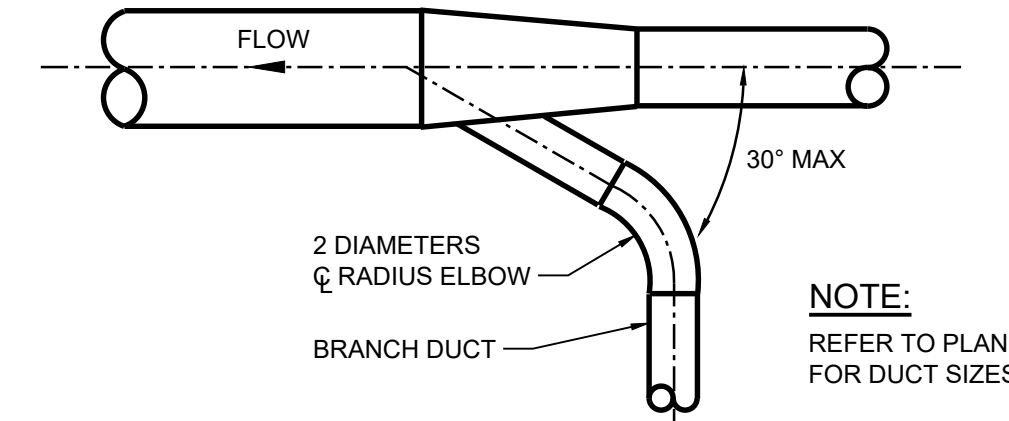
33 DEMOUNTABLE DRIP PAN DETAIL
NOT TO SCALE



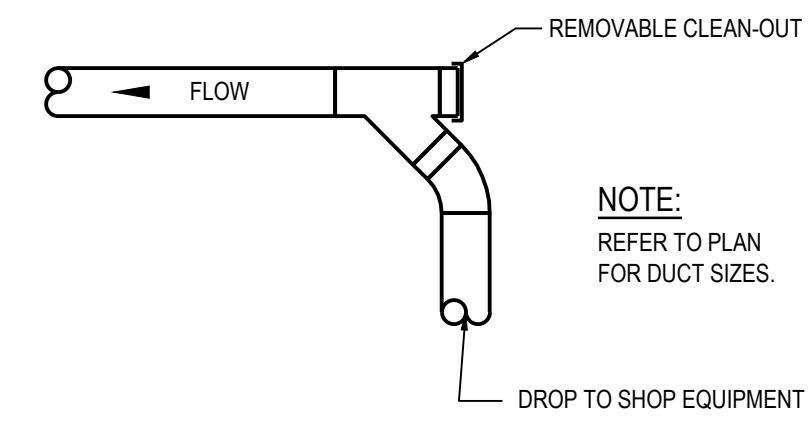
34 SAWDUST COLLECTION SYSTEM - FLOOR SWEEP
NOT TO SCALE



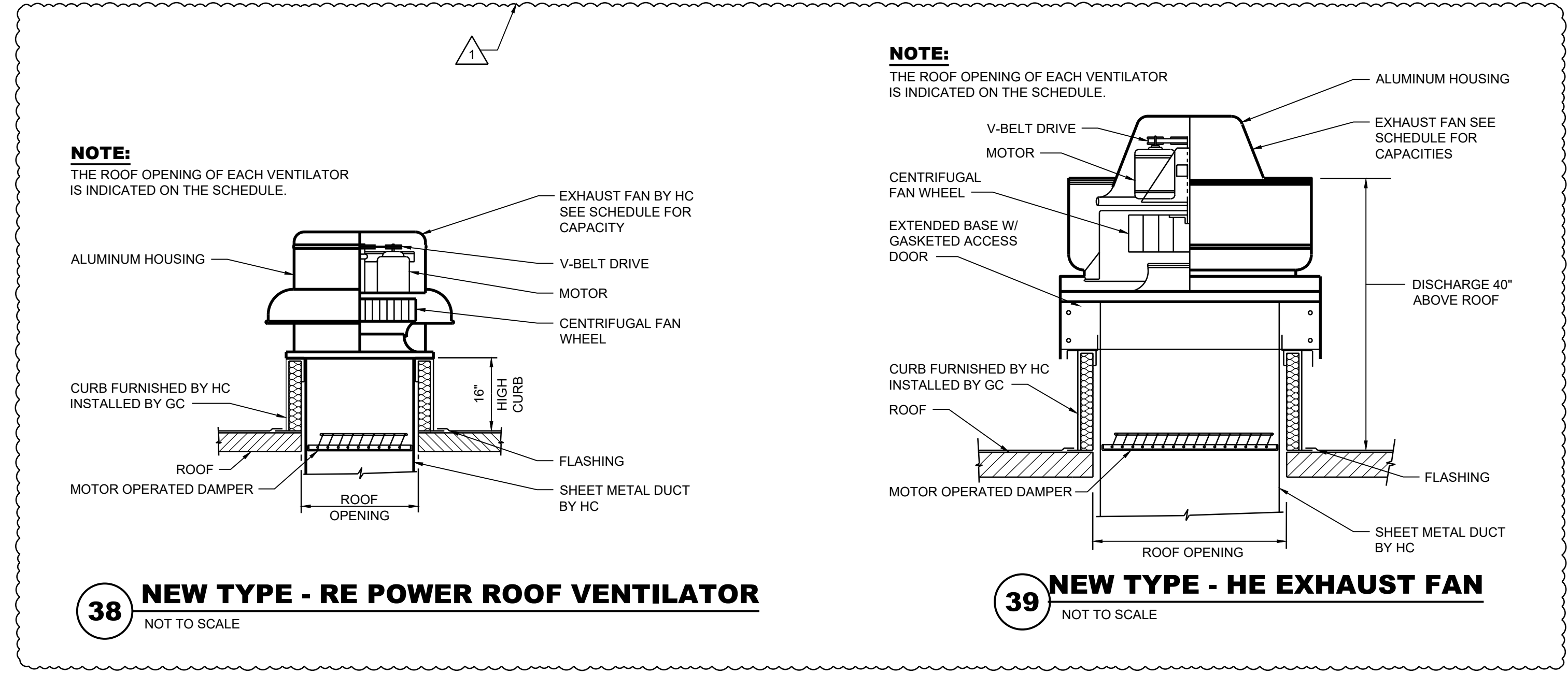
37 SAWDUST COLLECTION - RECIRCULATING TYPE
NOT TO SCALE



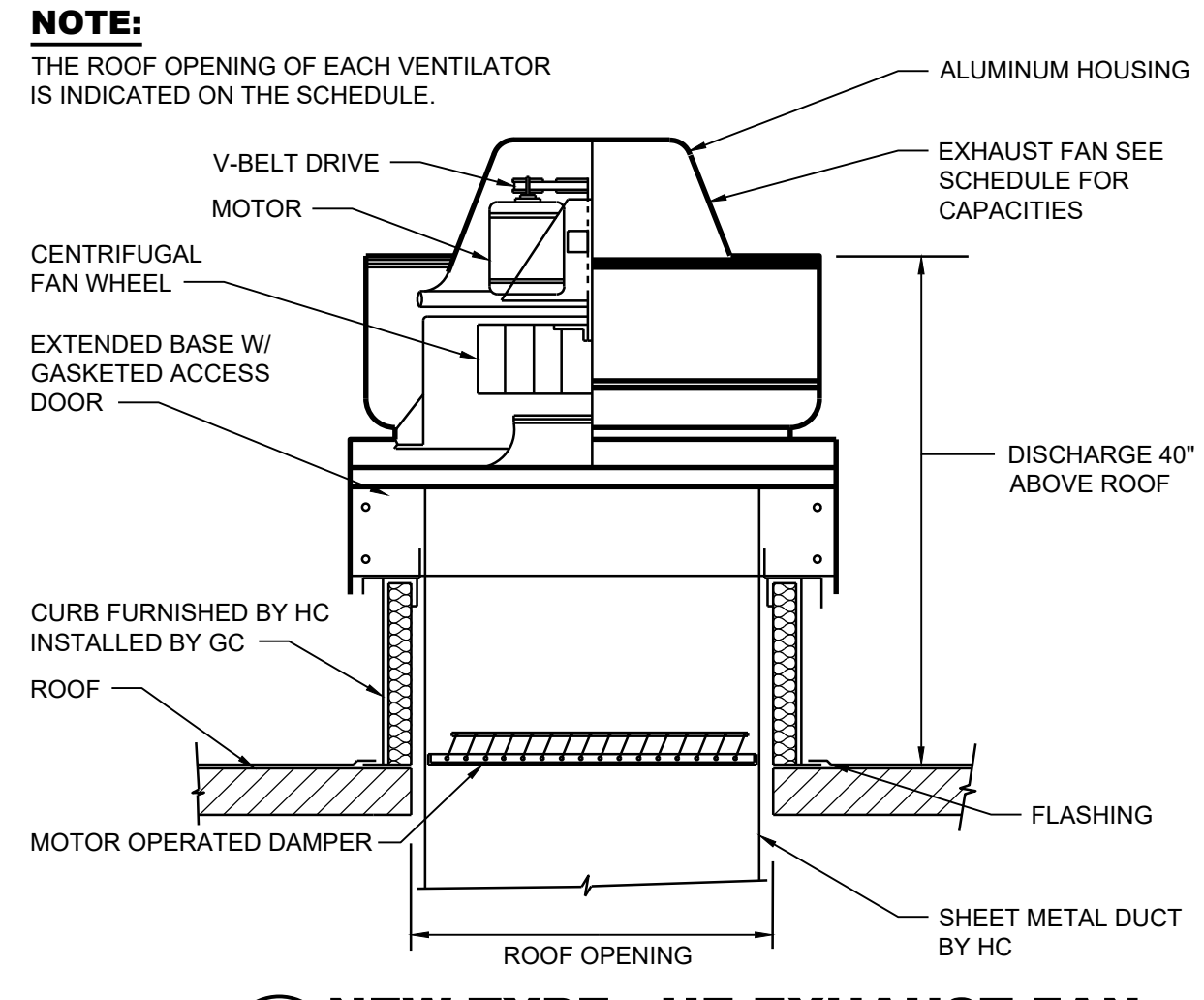
35 SAWDUST COLLECTION SYSTEM - BRANCH DUCT CONNECTION
NOT TO SCALE



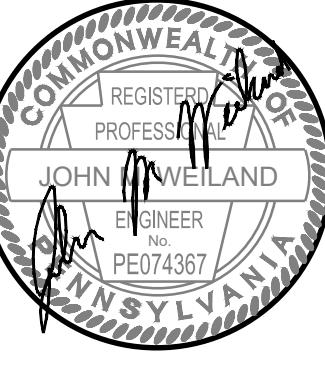
36 TYPICAL DROP TO SHOP EQUIPMENT
NOT TO SCALE



38 NEW TYPE - RE POWER ROOF VENTILATOR
NOT TO SCALE



39 NEW TYPE - RE EXHAUST FAN
NOT TO SCALE



AIR HANDLING UNIT SCHEDULE (CW/HW) table with columns for SYMBOL, SERVES, TOTAL CFM, OA CFM, EXT SP, QTY, CFM, DRIVE, TYPE, HP, BHP, TOT SP, FLA, MCA, MCOF, VFD, EAT 'F' DB, LAT 'F' WB, TOT MBH, SENS MBH, GPM, EWT 'F', LWT 'F', WPD, FACE VELOCITY, ROWS, FPI, ELEC CHAR, FLA, MCA, MOP, UNIT SIZE (LxWxH), UNIT WEIGHT, BASIS OF DESIGN.

NOTE: 1. VFD PROVIDED AND MOUNTED TO EXTERIOR OF UNIT BY MANUFACTURER

AIR HANDLING UNIT SCHEDULE (DX/HW) table with columns for SYMBOL, SERVES, TOTAL CFM, OA CFM, EXT SP, QTY, CFM, DRIVE, TYPE, HP, BHP, TOT SP, FLA, MCA, MCOF, VFD, EAT 'F' DB, LAT 'F' WB, TOT MBH, SENS MBH, GPM, EWT 'F', LWT 'F', WPD, % TYPE, MERV, SP INITIAL, SP FINAL, ELEC CHAR, FLA, MCA, MOP, UNIT SIZE (LxWxH), UNIT WEIGHT, BASIS OF DESIGN.

NOTE: 1. VFD PROVIDED AND MOUNTED TO EXTERIOR OF UNIT BY MANUFACTURER

CLASSROOM VERTICAL UNIT VENTILATORS SCHEDULE (CW/HW) table with columns for SYMBOL, SERVES, TOTAL CFM, MIN OA CFM, EXT SP, EXH CFM, SUPPLY FAN DATA, RELIEF FAN, CHILLED WATER COOLING COIL DATA, HOT WATER HEATING COIL DATA, ENERGY RECOVERY WHEEL - HEATING (WINTER), ENERGY RECOVERY WHEEL - COOLING (SUMMER), FILTER DATA, ELEC CHAR, MCA, MOP, UNIT SIZE (LxWxH), UNIT WEIGHT, BASIS OF DESIGN.

NOTE: 1. HC SHALL PROVIDE LOUVER TO GC. GC TO PROVIDE LINTEL AND INSTALL LINTEL AND LOUVER. 2. PROVIDE DUCT COVER WITH REMOVABLE FRONT SEE TWO DETAILS ONE ON M501 & ONE ON M502 (TYPICAL CLASSROOM (CAH) VENTING DETAIL. ONE FOR WALL WITHOUT WINDOW AND ONE FOR WALL WITH IN-FILLED WINDOW). 3. PROVIDE SHEET METAL CLOSE-OFF PANEL BETWEEN CAH AND IN-FILLED WINDOW SEE DETAIL ON DRAWING M501 (TYPICAL CLASSROOM (CAH) VENTING DETAIL FOR WALL WITH IN-FILLED WINDOW).

SPLIT AIR COOLED CHILLER SCHEDULE table with columns for SYMBOL, TYPE, NOMINAL TONS, # CIRCUITS, REFRIGERANT, REFRIG. CHARGE (LBS), EWT 'F', LWT 'F', GPM, MIN. FLOW RATE, MAX. FLOW RATE, WPD FT, TONS, OPERATING EER, AHRI IPLV EER, QTY, CIRCUIT 1 CONDENSOR FANS, CIRCUIT 2 CONDENSOR FANS, CIRCUIT 3 CONDENSOR FANS, MCA, MCOF, TOT COMP KW, TOT FAN KW, TOT KW, ELEC CHAR, UNIT WEIGHT, SOUND POWER LEVELS (DB) @ 100% LOAD, BASIS OF DESIGN.

NOTE: 1. UNIT SHALL BE PROVIDED WITH SINGLE POINT CONNECTION, ELECTRICAL DISCONNECT AND STARTERS. 2. CAPACITIES BASED ON 95°F AMBIENT. 3. UNIT SHALL BE PROVIDED WITH NOISE CONTROL BLANKET ON THE COMPRESSORS AND NOISE REDUCING FANS. 4. INDOOR EVAPORATOR HEAT EXCHANGER SHALL BE PLATE AND FRAME TYPE. 5. INSTALL REFRIGERANT PIPING BETWEEN OUTDOOR AND INDOOR UNIT PER MFG'S RECOMMENDATIONS.

UNIT VENTILATOR SCHEDULE (HW/CW) table with columns for SYMBOL, TOTAL CFM, OA CFM, EXT SP, QTY, CFM, DRIVE, HP, FLA, MCA, MCOF, VFD, EAT 'F' DB, LAT 'F' WB, TOT MBH, SENS MBH, GPM, EWT 'F', LWT 'F', WPD, FACE VELOCITY, ROWS, FPI, ELEC CHAR, WALLBOX (IN), MOUNTING, BASIS OF DESIGN.

NOTE: 1. FOR CEILING RECESSED UNITS, HVAC CONTRACTOR SHALL COORDINATE TYPE FOR PROPER INSTALLATION. HVAC CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING CEILING AND WALLS FOR PROPER INSTALLATION.

KITCHEN HOOD MAKE-UP AIR UNIT SCHEDULE table with columns for SYMBOL, SERVES, ROOF OPENING L x W, SUPPLY AIR, GAS FURNACE DATA, SOUND POWER LEVELS (DB) @ 100% LOAD, ELEC CHAR, MCA, MCOF, SCRR, UNIT WEIGHT, BASIS OF DESIGN.

NOTE: 1. FILTERS SHALL BE 1" WASHABLE TYPE.

PUMP SCHEDULE table with columns for PUMP No, TYPE FLR MTD/IN-LINE, SYSTEM, OPERATION DUTY/STAND-BY, FLUID TYPE, MOTOR HP, MAX RPM, DUTY-POINT RPM, MOTOR BHP, ELECTRICAL CHAR, EMERGENCY POWER, VARIABLE FREQ DRIVE, OPERATING CONDITIONS, IMPELLER SIZE, MAX IMPELLER SIZE, BASIS OF DESIGN.

NOTE: 1. VFD'S PROVIDED AND INSTALLED BY EC.

FAN COIL UNIT SCHEDULE (CW/HW) table with columns for SYMBOL, CFM, OA CFM, EXT SP (QTY), MOTOR DATA, CHILLED WATER COOLING COIL DATA, HOT WATER HEATING COIL DATA, ELEC CHAR, MCA, MCOF, SCRR, UNIT WEIGHT, BASIS OF DESIGN.

NOTE: 1. FOR CEILING RECESSED UNITS, HVAC CONTRACTOR SHALL COORDINATE TYPE FOR PROPER INSTALLATION. HVAC CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING CEILING AND WALLS FOR PROPER INSTALLATION.

BOILER SCHEDULE table with columns for SYMBOL, FIRE RATING, PRIMARY/FUTURE, INPUT MBH, GROSS OUTPUT MBH, BOILER HP, FUEL, NATURAL GAS PRESSURE, ELECTRICAL, MANUFACTURER & MODEL #, BURNER MANUFACTURER.

NOTE: 1. BOILER BURNER MUST BE WEISHAUP MODEL WM-G 202. ALTERNATE BURNER MANUFACTURERS WILL NOT BE ACCEPTED. 2. RELIEF VALVE SET PRESSURE 60 PSIG. 3. MINIMUM BOILER EFFICIENCY 83% WHEN FIRING NATURAL GAS AT HIGH FIRE AND 81.5% AT LOW FIRE.

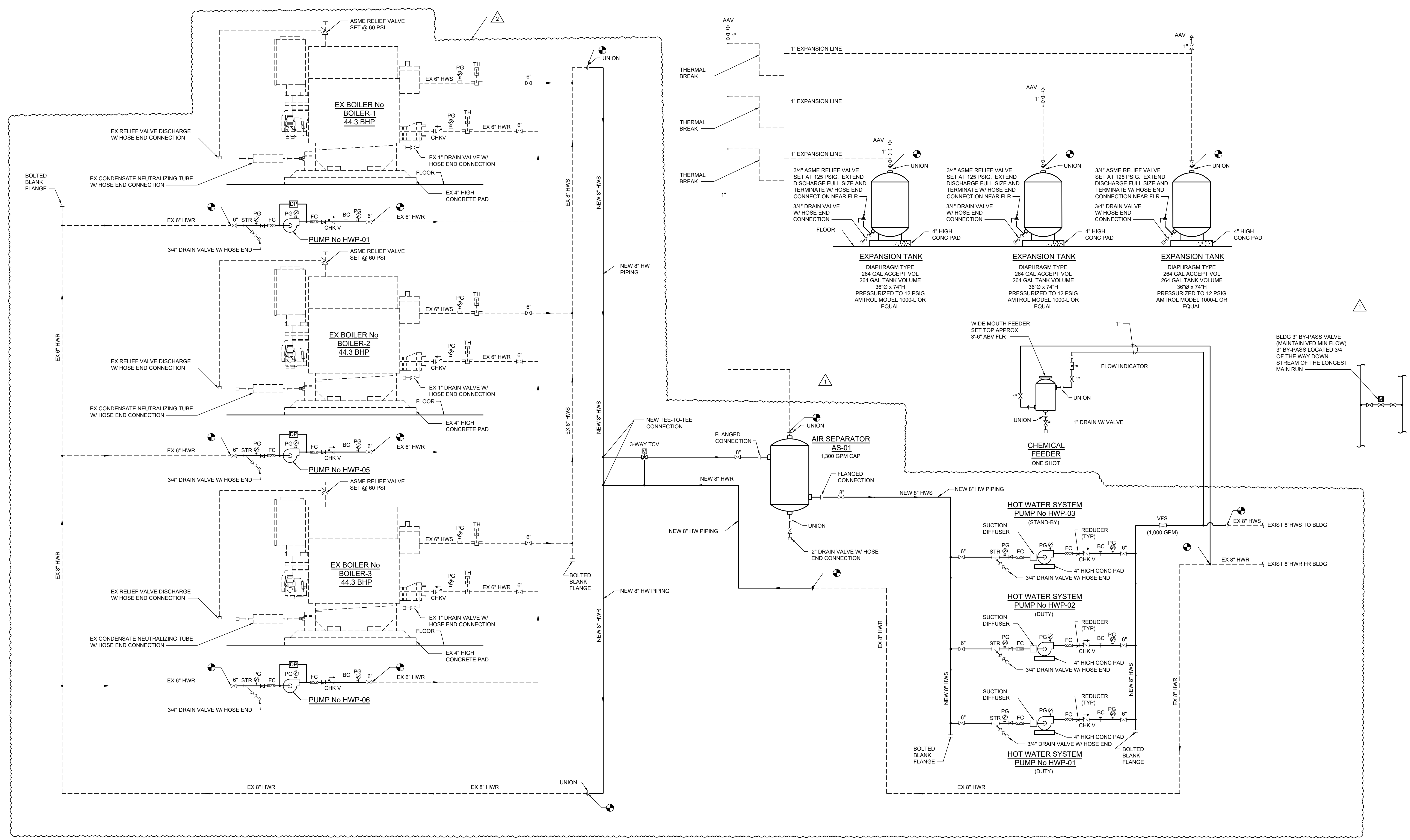


REVISIONS: 02/28/24 ADDENDUM NO. 1, 03/07/24 ADDENDUM NO. 2, BID SET 02/19/24

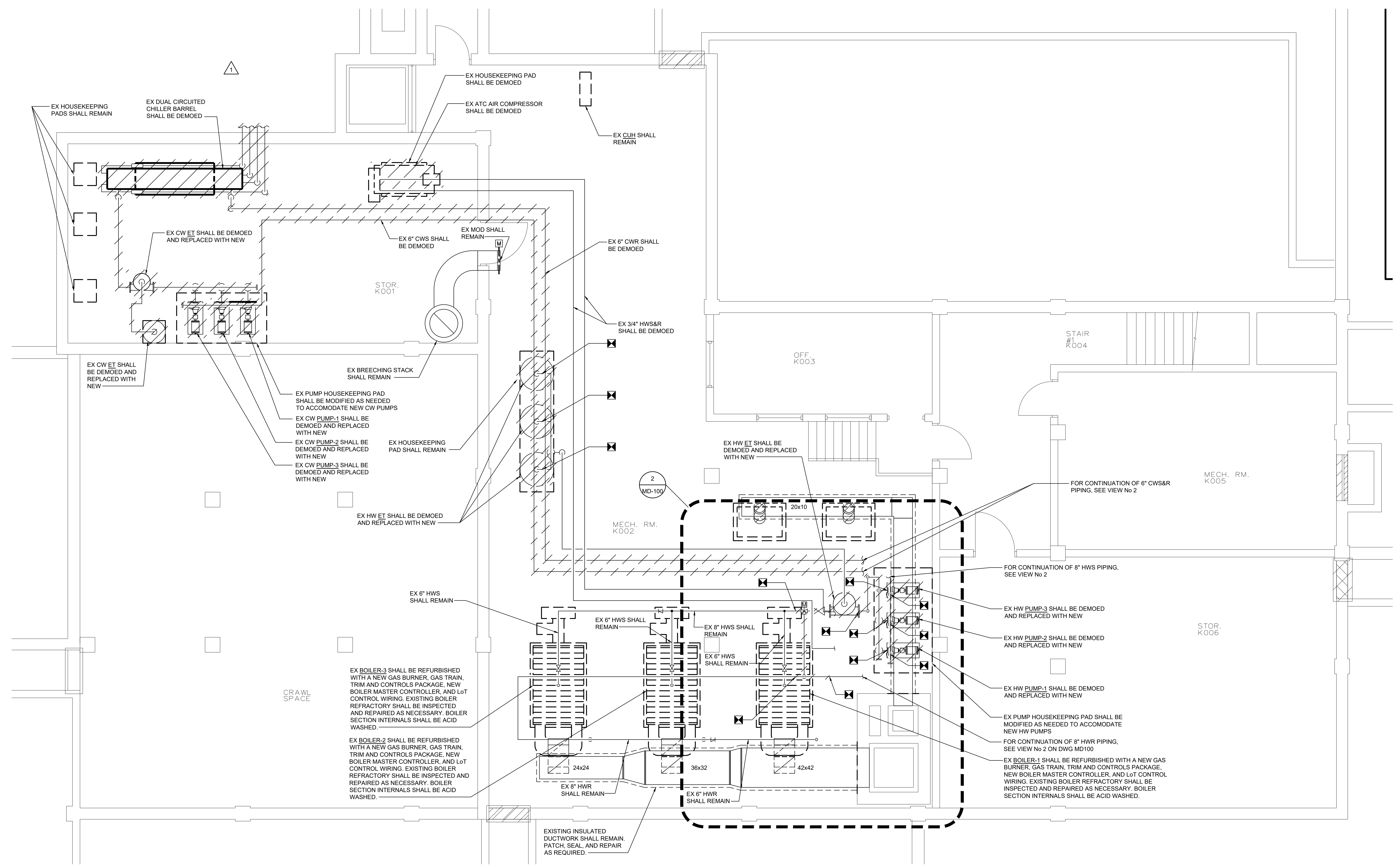
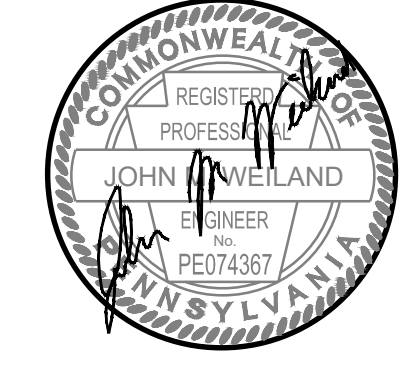
HIGH SCHOOL RENOVATIONS, 511 HIGHLAND AVENUE, GROVE CITY, PA 16127, GROVE CITY AREA SCHOOL DISTRICT, MECHANICAL SCHEDULES

Proj No: 23-S43-01, Issue Date: 02/19/2024, M601, Copyright 2024

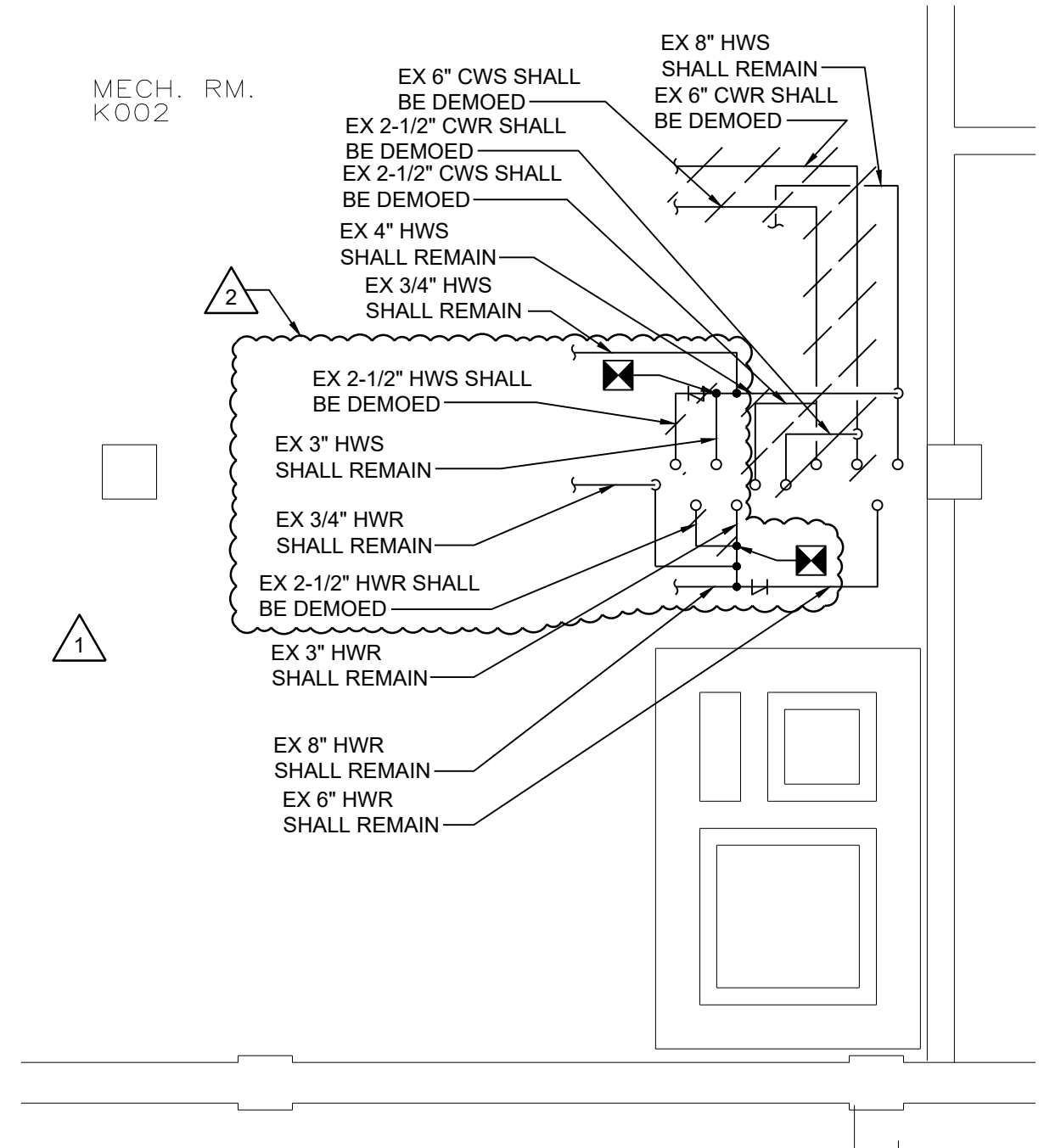
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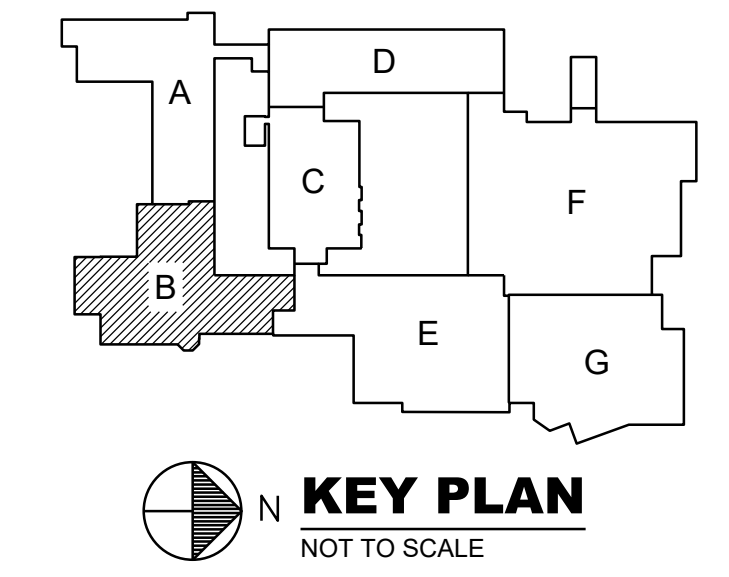
1 HOT WATER FLOW DIAGRAM
Scale: NTS

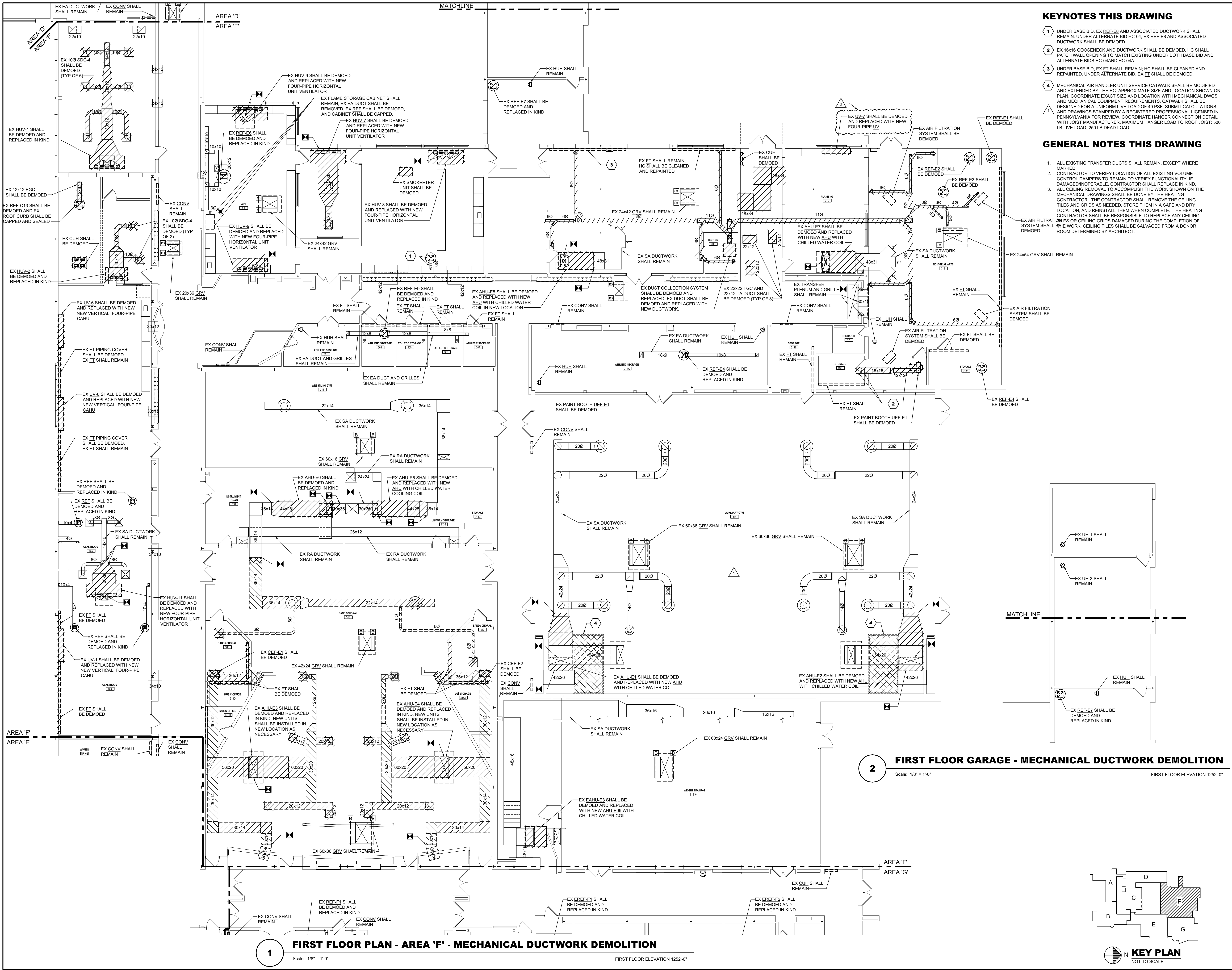


1 BASEMENT FLOOR PLAN - AREA 'B' - MECHANICAL DEMOLITION
 Scale: 1/4" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"



2 BASEMENT PARTIAL FLOOR PLAN - MECHANICAL PIPING DEMOLITION
 Scale: 1/4" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"



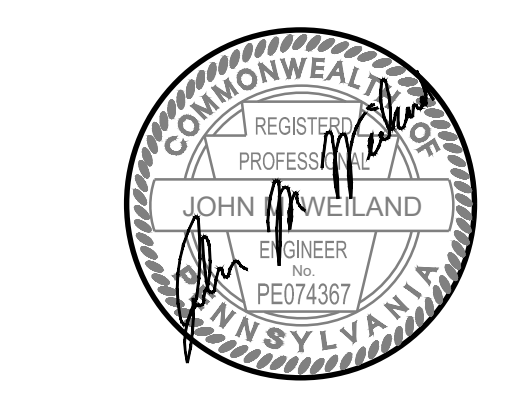


KEYNOTES THIS DRAWING

- 1 UNDER BASE BID, EX REF-E8 AND ASSOCIATED DUCTWORK SHALL REMAIN. UNDER ALTERNATE BID HC-04, EX REF-E8 AND ASSOCIATED DUCTWORK SHALL BE DEMOED.
- 2 EX 16x16 GOOSENECK AND DUCTWORK SHALL BE DEMOED. HC SHALL PATCH WALL OPENING TO MATCH EXISTING UNDER BOTH BASE BID AND ALTERNATE BIDS HC-30 AND HC-20A.
- 3 UNDER BASE BID, EX ET SHALL REMAIN; HC SHALL BE CLEANED AND REPAINTED. UNDER ALTERNATE BID, EX ET SHALL BE DEMOED.
- 4 MECHANICAL AIR HANDLER UNIT SERVICE CATWALK SHALL BE MODIFIED AND EXTENDED BY THE HC. APPROXIMATE SIZE AND LOCATION SHOWN ON PLAN. COORDINATE EXACT SIZE AND LOCATION WITH MECHANICAL DWGS AND MECHANICAL EQUIPMENT REQUIREMENTS. CATWALK SHALL BE DESIGNED FOR A UNIFORM LIVE LOAD OF 40 PSF. SUBMIT CALCULATIONS AND DRAWINGS STAMPED BY A REGISTERED PROFESSIONAL, LICENSED IN PENNSYLVANIA FOR REVIEW. COORDINATE HANGER CONNECTION DETAIL WITH JOIST MANUFACTURER. MAXIMUM HANGER LOAD TO ROOF JOIST: 500 LB LIVE LOAD, 250 LB DEAD LOAD.

GENERAL NOTES THIS DRAWING

1. ALL EXISTING TRANSFER DUCTS SHALL REMAIN, EXCEPT WHERE MARKED.
2. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING VOLUME CONTROL DAMPERS TO REMAIN TO VERIFY FUNCTIONALITY. IF DAMAGED/INOPERABLE, CONTRACTOR SHALL REPLACE IN KIND. ALL CEILING REMOVAL TO ACCOMPLISH THE WORK SHOWN ON THE MECHANICAL DRAWINGS SHALL BE DONE BY THE HEATING CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CEILING AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES AND GRIDS AS NEEDED. STORE THEM IN A SAFE AND DRY LOCATION, AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES AND GRIDS DAMAGED DURING THE COMPLETION OF SYSTEM SHALL BE WORK. CEILING TILES SHALL BE SALVAGED FROM A DONOR ROOM DETERMINED BY ARCHITECT.

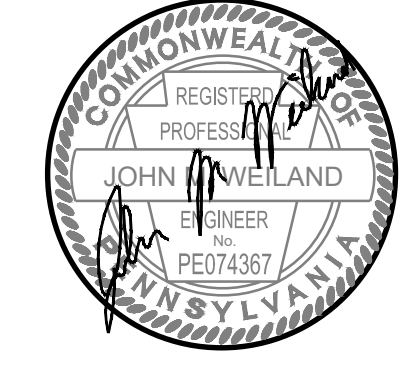


REVISIONS
 02/20/24 ADDENDUM NO. 1
 BID SET 02/19/24

HIGH SCHOOL RENOVATIONS
 511 HIGHLAND AVENUE, GROVE CITY, PA 16127
GROVE CITY AREA SCHOOL DISTRICT
FIRST FLOOR PLAN - AREA - F
MECHANICAL DUCTWORK DEMOLITION

Proj No. 23-S43-01
 Issue Date 02/19/2024
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REVISIONS
 A 02/20/24 ADDENDUM NO. 1
 B 03/07/24 ADDENDUM NO. 2
 BID SET 02/19/24

HIGH SCHOOL RENOVATIONS
 511 HIGHLAND AVENUE, GROVE CITY, PA 16127
GROVE CITY AREA SCHOOL DISTRICT
FIRST FLOOR PLAN - AREA - B
MECHANICAL PIPING DEMOLITION

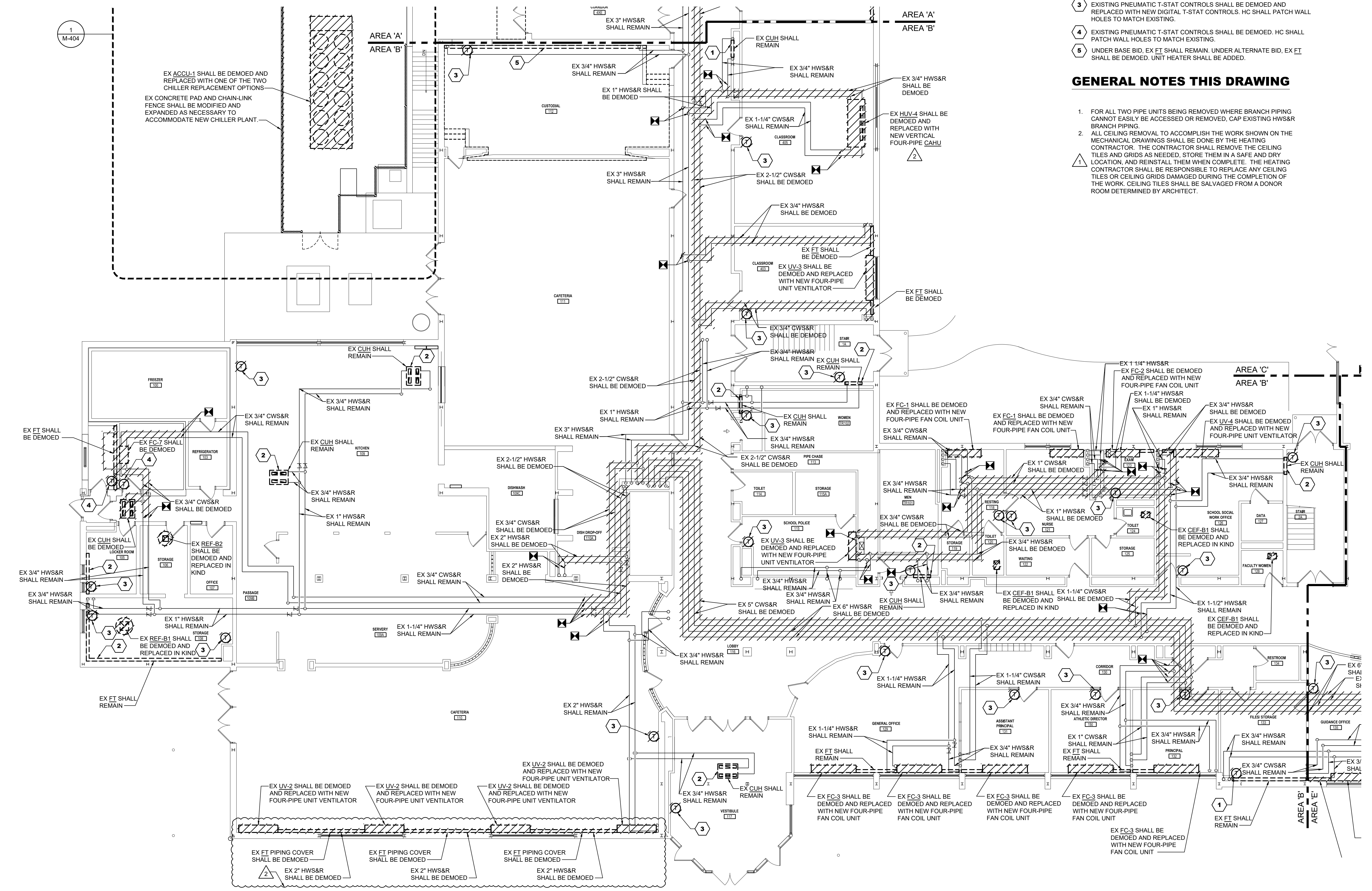
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MD112
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KEYNOTES THIS DRAWING

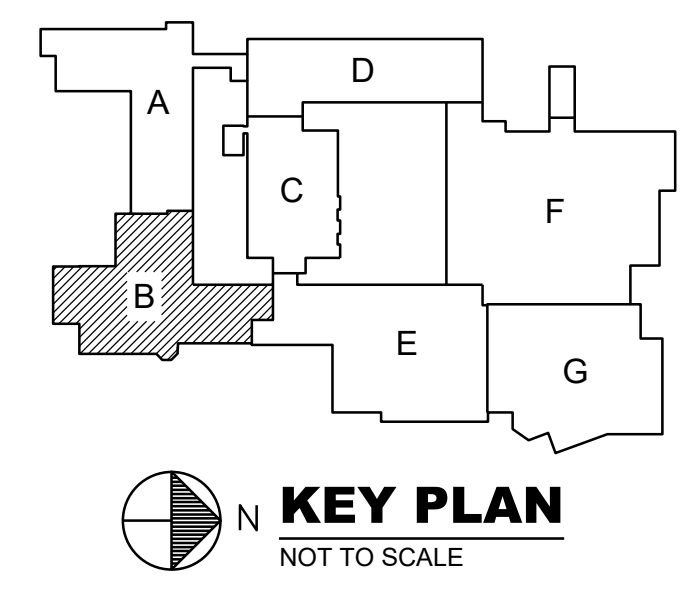
- EXISTING PNEUMATIC VALVE ACTUATORS, PNEUMATIC TEMPERATURE CONTROLS, ETC. SHALL BE DEMOED AND REPLACED WITH NEW DIGITAL CONTROLS AND ACTUATORS. HC SHALL PATCH WALL HOLES TO MATCH EXISTING.
- EXISTING PNEUMATIC VALVE ACTUATORS, ETC. SHALL BE DEMOED AND REPLACED WITH NEW DIGITAL CONTROLS AND ACTUATORS.
- EXISTING PNEUMATIC T-STAT CONTROLS SHALL BE DEMOED AND REPLACED WITH NEW DIGITAL T-STAT CONTROLS. HC SHALL PATCH WALL HOLES TO MATCH EXISTING.
- EXISTING PNEUMATIC T-STAT CONTROLS SHALL BE DEMOED. HC SHALL PATCH WALL HOLES TO MATCH EXISTING.
- UNDER BASE BID, EX ET SHALL REMAIN. UNDER ALTERNATE BID, EX ET SHALL BE DEMOED. UNIT HEATER SHALL BE ADDED.

GENERAL NOTES THIS DRAWING

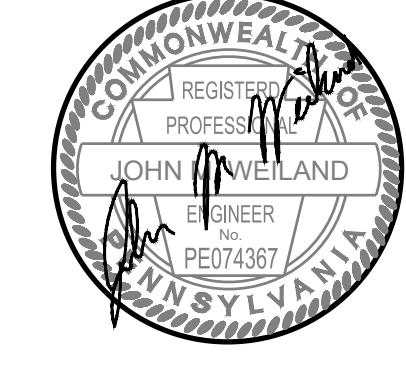
- FOR ALL TWO PIPE UNITS BEING REMOVED WHERE BRANCH PIPING CANNOT EASILY BE ACCESSED OR REMOVED, CAP EXISTING HWS&R BRANCH PIPING.
- ALL CEILING REMOVAL TO ACCOMPLISH THE WORK SHOWN ON THE MECHANICAL DRAWINGS SHALL BE DONE BY THE HEATING CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CEILING TILES AND GRIDS AS NEEDED. STORE THEM IN A SAFE AND DRY LOCATION, AND REINSTALL THEM WHEN COMPLETE. THE HEATING CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY CEILING TILES OR CEILING GRIDS DAMAGED DURING THE COMPLETION OF THE WORK. CEILING TILES SHALL BE SALVAGED FROM A DONOR ROOM DETERMINED BY ARCHITECT.



1 FIRST FLOOR PLAN - AREA 'B' - MECHANICAL PIPING DEMOLITION
 Scale: 1/8" = 1'-0" FIRST FLOOR ELEVATION 1252'-0"



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REVISIONS

△	03/12/24	ADDENDUM NO. 2
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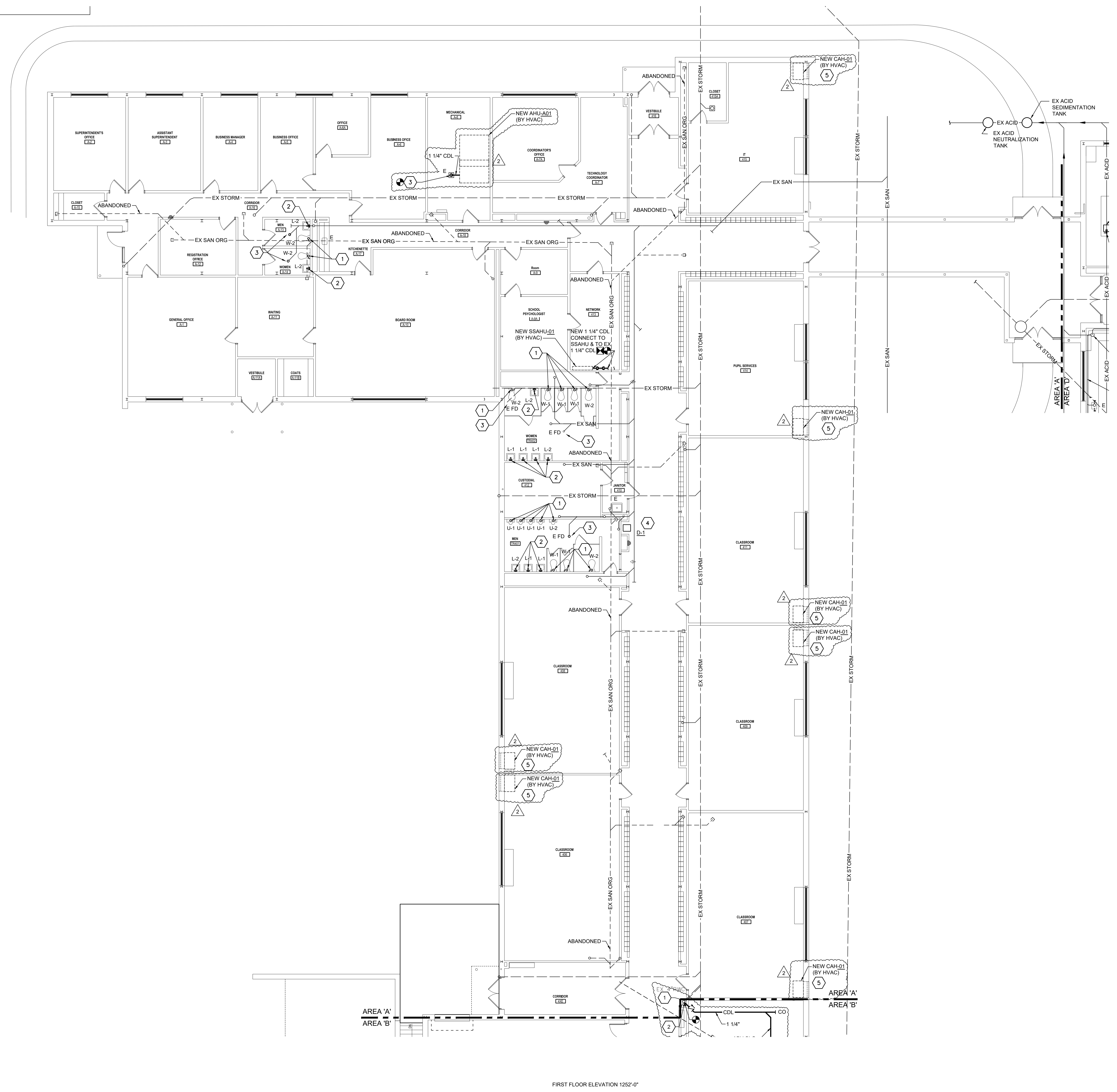
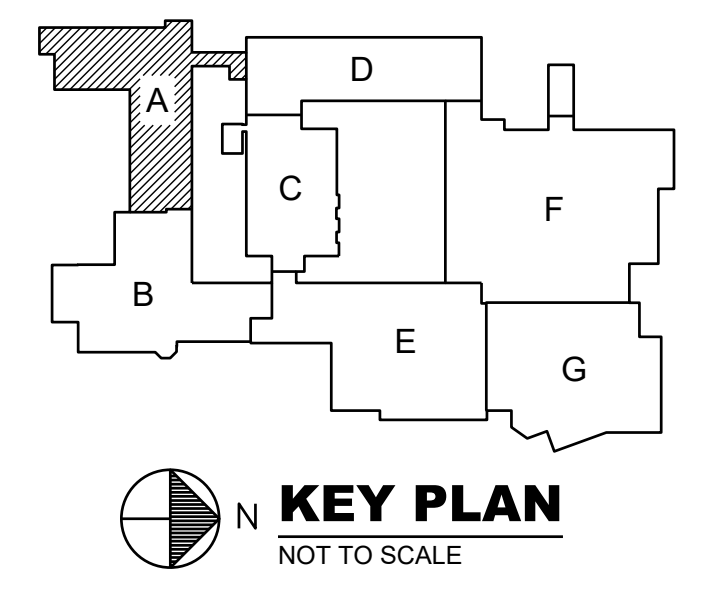
BID SET 02/19/24

HIGH SCHOOL RENOVATIONS
511 HIGHLAND AVENUE, GROVE CITY, PA 16127
GROVE CITY AREA SCHOOL DISTRICT
FIRST FLOOR PLAN - AREA - A
PLUMBING NEW WORK

Proj No. 23-S43-01
Issue Date 02/19/2024
P101
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PLUMBING KEY NOTES

- 1 PLUMBING CONTRACTOR TO PROVIDE AND INSTALL HARD WIRED FLUSH VALVE (EX) WATER CLOSETS - SLOAN SENSOR OPERATED FLUSH VALVE Pecos 111-1.6/1.1-HW. (EX) URINALS - SLOAN SENSOR OPERATED FLUSH VALVE ECOS 186-HW-0.125.
- 2 PLUMBING CONTRACTOR TO PROVIDE AND INSTALL LAVATORY ELECTRONIC AUTOMATIC FAUCET AND MIXING VALVE.
- 3 PLUMBING CONTRACTOR INSTALL A NEW TRAP GUARD IN EXISTING FLOOR DRAIN.
- 4 PLUMBING CONTRACTOR TO PROVIDE AND INSTALL DRINKING FOUNTAIN WITH BOTTLE FILLER.
- 5 REFER TO HVAC DWG'S FOR CDL.

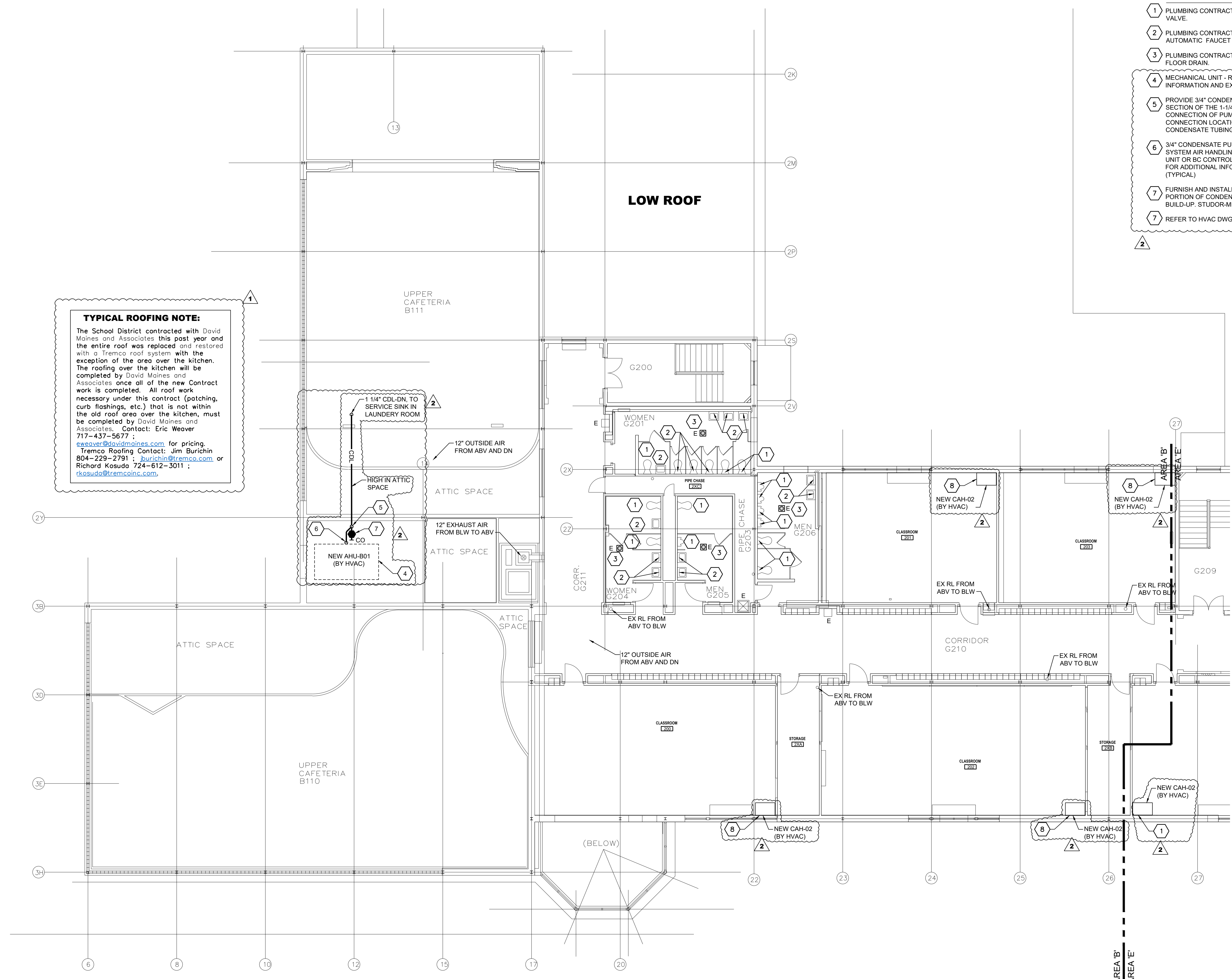


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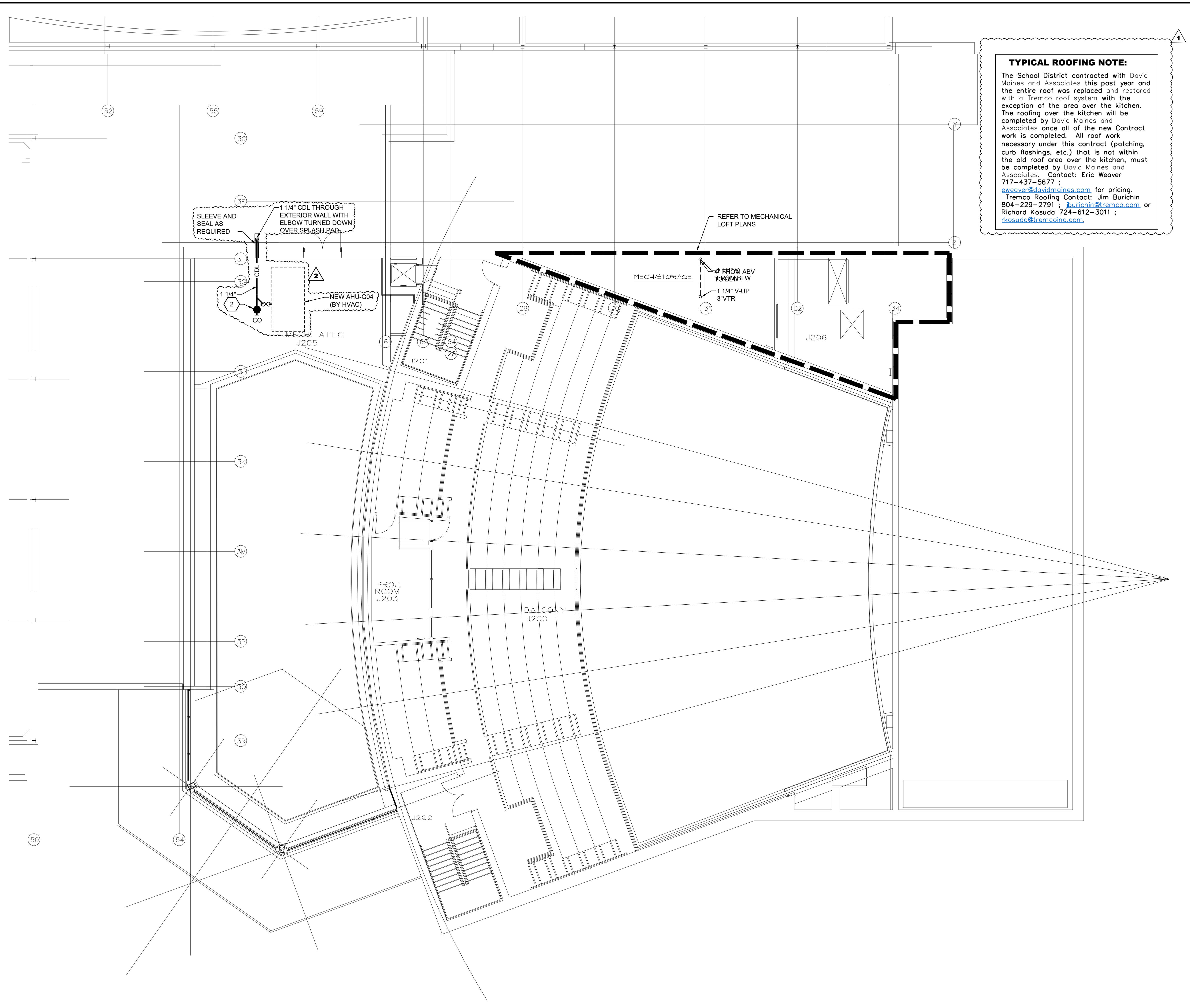
PLUMBING KEY NOTES

- 1 PLUMBING CONTRACTOR TO PROVIDE AND INSTALL HARD WIRED FLUSH VALVE.
- 2 PLUMBING CONTRACTOR TO PROVIDE AND INSTALL LAVATORY ELECTRONIC AUTOMATIC FAUCET AND MIXING VALVE.
- 3 PLUMBING CONTRACTOR TO INSTALL A NEW TRAP GUARD IN EXISTING FLOOR DRAIN.
- 4 MECHANICAL UNIT - REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND EXACT LOCATION(S) OF HVAC EQUIPMENT. (TYPICAL)
- 5 PROVIDE 3/4" CONDENSATE DRAIN CONNECTION FITTING AT THE TOP SECTION OF THE 1-1/4" CONDENSATE GRAVITY DRAIN LINE FOR THE CONNECTION OF PUMP DISCHARGE TUBING. COORDINATE THE POINT OF CONNECTION LOCATION WITH THE HVAC EQUIPMENT AND HC. 3/4" CONDENSATE TUBING EXTENDED AND CONNECTED BY HC. (TYPICAL)
- 6 3/4" CONDENSATE PUMP DISCHARGE TUBING FROM THE HVAC SPLIT SYSTEM AIR HANDLING UNIT OR HEAT PUMP UNIT OR AIR HANDLING UNIT OR BC CONTROLLER - BY HC REFERS TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND LOCATION(S) OF HVAC EQUIPMENT. (TYPICAL)
- 7 FURNISH AND INSTALL A 1-1/4" AIR ADMITTANCE VALVE (AAV) AT TOP PORTION OF CONDENSATE DRAIN LINE TO PREVENT AIR LOCK PRESSURE BUILD-UP. STUDDOR-MINI-VENT OR APPROVED EQUAL. (TYPICAL)
- 8 REFER TO HVAC DWGS FOR CDL.

TYPICAL ROOFING NOTE:
 The School District contracted with David Maines and Associates this past year and the entire roof was replaced and restored with a Tremco roof system with the exception of the area over the kitchen. The roofing over the kitchen will be completed by David Maines and Associates once all of the new Contract work is completed. All roof work necessary under this contract (patching, curb flashings, etc.) that is not within the old roof area over the kitchen, must be completed by David Maines and Associates. Contact: Eric Weaver 717-437-5677 ; eweaver@davidmaines.com for pricing. Tremco Roofing Contact: Jim Burichin 804-229-2791 ; burichin@tremco.com or Richard Kosuda 724-612-3011 ; rkosuda@remcoinc.com.



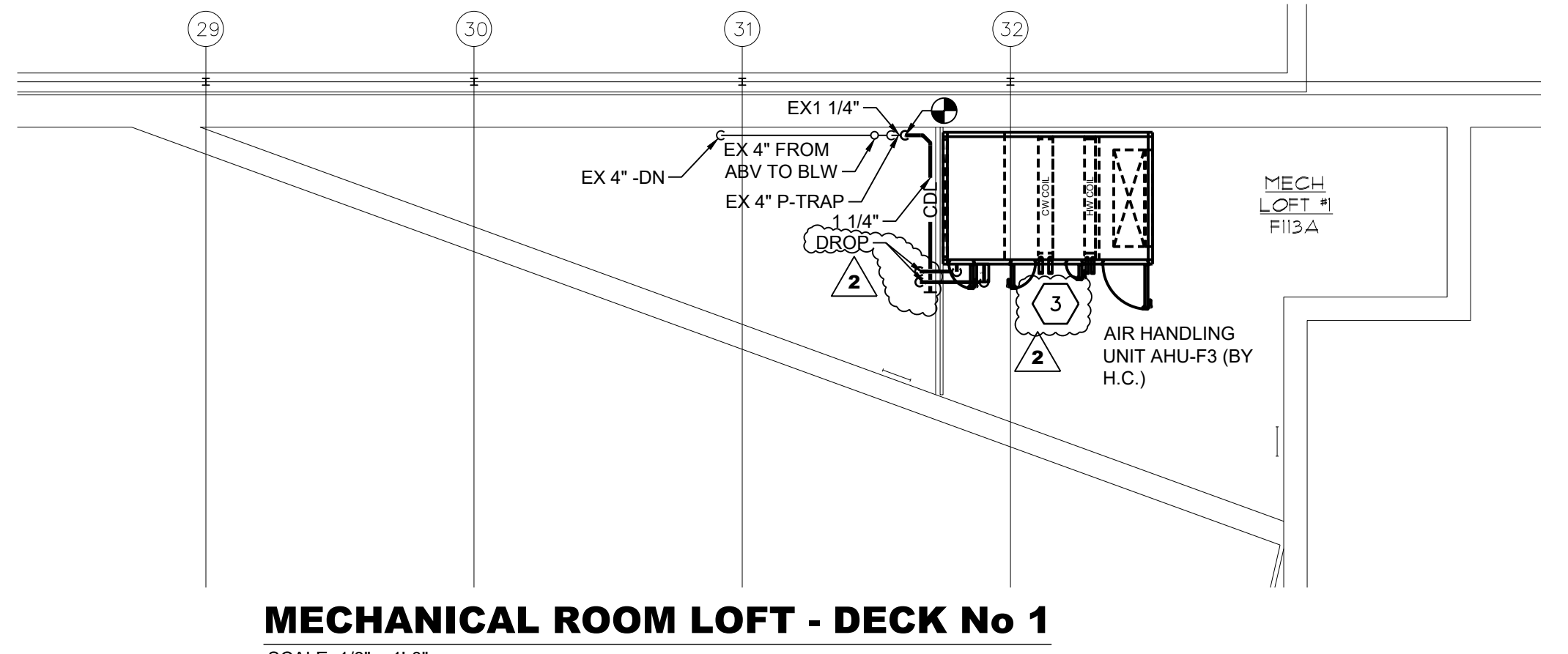
1 SECOND FLOOR PLAN - AREA 'B' - PLUMBING NEW WORK
 Scale: 1/8" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"



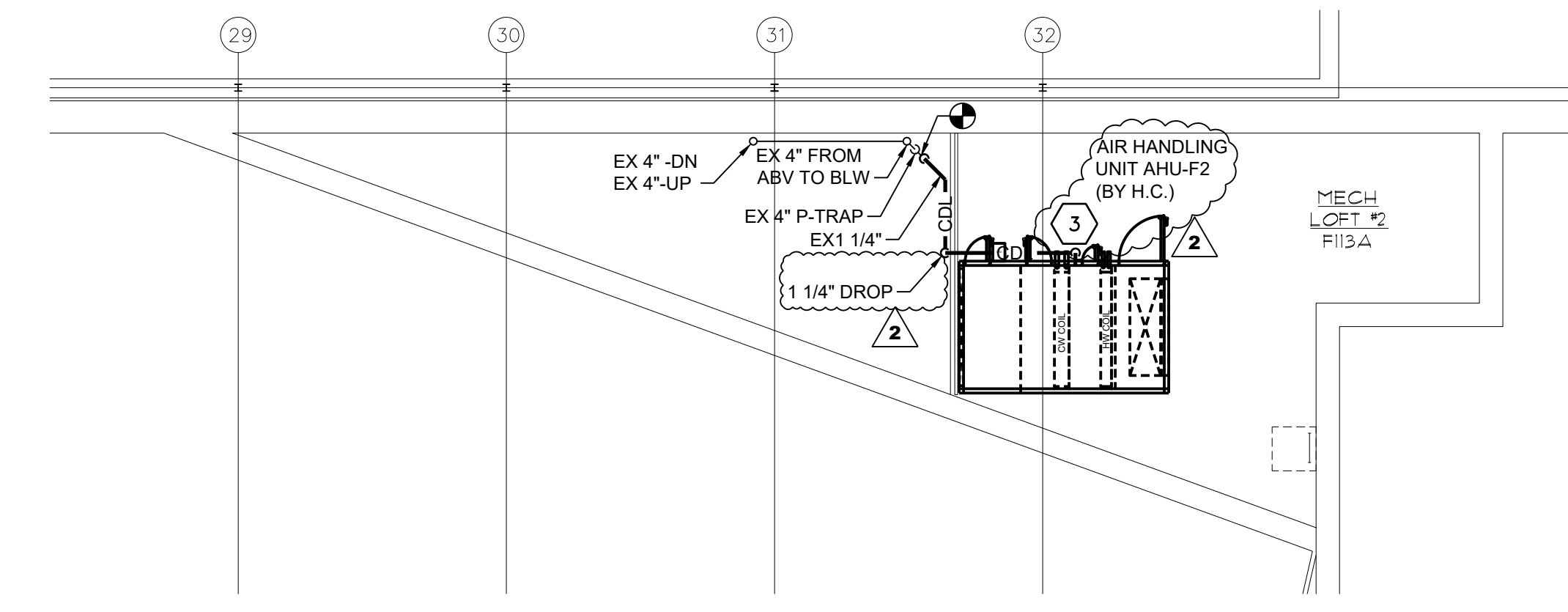
1 SECOND FLOOR PLAN - AREA 'G' - PLUMBING NEW WORK
 Scale: 1/8" = 1'-0"
 FIRST FLOOR ELEVATION 1252'-0"

TYPICAL ROOFING NOTE:
 The School District contracted with David Maires and Associates this past year and the entire roof was replaced and restored with a Tremco roof system with the exception of the area over the kitchen. The roofing over the kitchen will be completed by David Maires and Associates once all of the new Contract work is completed. All roof work necessary under this contract (patching, curb flashings, etc.) that is not within the old roof area over the kitchen, must be completed by David Maires and Associates. Contact: Eric Weaver 717-437-5677 ; eweaver@davidmaires.com for pricing.
 Tremco Roofing Contact: Jim Burchin 804-229-2791 ; burchin@tremco.com or Richard Kosuda 724-612-3011 ; rkosuda@tremcoinc.com.

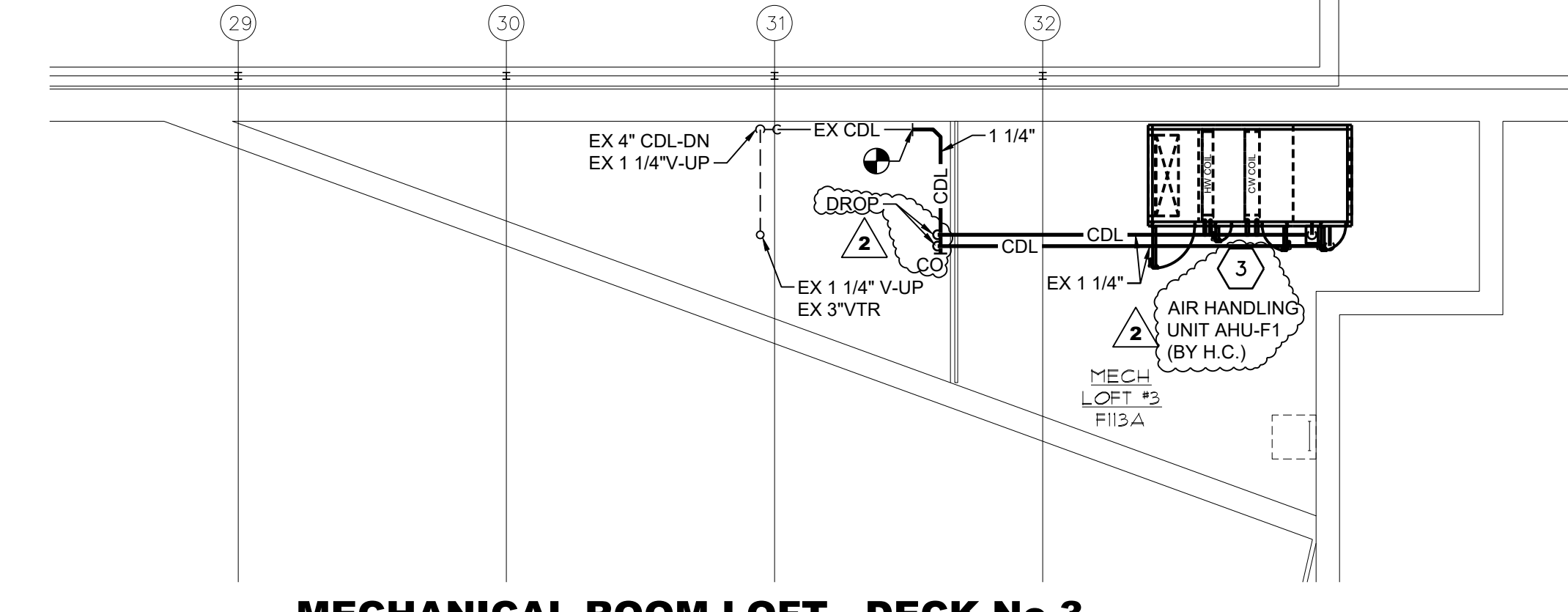
- PLUMBING KEY NOTES**
- 1 REFER TO HVAC DWGS FOR CDL.
 - 2 FURNISH AND INSTALL A 1-1/4" AIR ADMITTANCE VALVE (AAV) AT TOP PORTION OF CONDENSATE DRAIN LINE TO PREVENT AIR LOCK PRESSURE BUILD-UP. STUDDOR-MINVENT OR APPROVED EQUAL (TYPICAL).
 - 3 PLUMBING CONTRACTOR TO CONNECT AND COORDINATE W/ H.C. AND RECONNECT CONDENSATE DRAIN LINE AND TIE INTO EX DRAIN STACK AS REQUIRED.



MECHANICAL ROOM LOFT - DECK No 1
 SCALE: 1/8" = 1'-0"



MECHANICAL ROOM LOFT - DECK No 2
 SCALE: 1/8" = 1'-0"



MECHANICAL ROOM LOFT - DECK No 3
 SCALE: 1/8" = 1'-0"