

PROJECT DESCRIPTION

1. THE INTENT OF THIS PROJECT IS TO UPGRADE EXISTING HVAC SYSTEMS IN THE BUILDING. THIS INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING

- RIGGING OF NEW EQUIPMENT ONTO ROOF OF
- NEW STRUCTURAL STEEL DUNNAGE (REFER TO STRUCTURAL PLANS)
- NEW GALVANIZED SHEET METAL DUCTWORK WHERE INDICATED
- NEW DUCT MOUNTED STEAM COIL WHERE INDICATED
- AIR TESTING AND BALANCING NEW DDC CONTROLS FOR ALL EQUIPMENT.
 EQUIPMENT STARTUP AND TESTING BY FACTORY AUTHORIZED REPRESENTATIVES.
- CLOSEOUT PACKAGE INCLUDING CUT SHEETS, AS BUILT DRAWINGS AND WARRANTY INFORMATION.

 - OWNER TRAINING ON NEW EQUIPMENT AND CONTROLS.

2. IN ADDITION TO EQUIPMENT SUBMITTALS CONTRACTOR SHALL ISSUE A 3/8" SCALE PIPING SHOP DRAWING TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL NOTE THAT EXISTING BAS HARDWARE IS MANUFACTURED BY ANDOVER. CONTRACTOR SHALL PROVIDE ALLOWANCE FOR HVAC CONTROLS AS INDICATED IN FRONT END SPECIFICATIONS.

ATC CONTRACTOR SHALL FURNISH AND INSTALL ALL HARDWARE AND WIRING REQUIRED FOR CONTROL AND MONITORING OF NEW HVAC EQUIPMENT. ATC CONTRACTOR SHALL DO ALL PROGRAMMING, BUILD ALL GRAPHICS FOR NEW EQUIPMENT AND UPDATE THERMAL FLOOR PLANS FOR NEW TEMPERATURE ZONES. ESTABLISH OCCUPANCY SCHEDULES WITH OWNER AND ROUTING OF ALARMS.

REFER TO CONTROLS DIAGRAM (SHEET M-102) FOR ADDITIONAL INFORMATION.

PROJECT NOTES:

1. ALL BIDDERS SHALL VISIT PROJECT SITE TO THOROUGHLY FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS. CLAIMS FOR EXTRA PAYMENTS FOR WORK, WHICH COULD HAVE BEEN IDENTIFIED VIA CAREFUL SITE INSPECTION, WILL NOT BE ACKNOWLEDGED.

2. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL PREPARE EQUIPMENT SUBMITTALS PER SPECIFICATIONS AND SUBMIT TO DESIGN ENGINEER FOR REVIEW/APPROVAL.

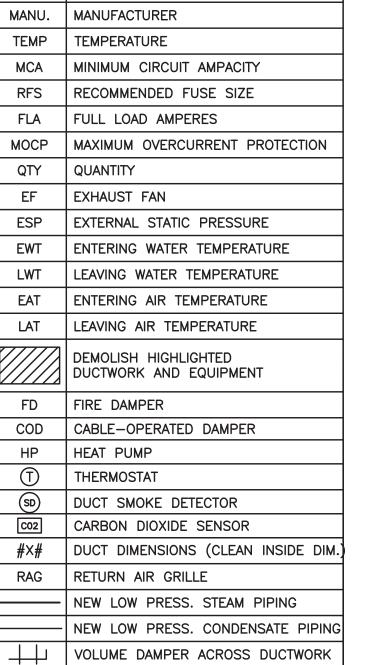
3. UPON COMPLETION OF WORK, CONTRACTOR SHALL SUBMIT AS-BUILTS DRAWINGS IN ACCORDANCE WITH SPECIFICATIONS.

4. PRIOR TO CLOSEOUT, CONTRACTOR SHALL SUBMIT OPERATION AND MAINTENANCE MANUAL TO ENGINEER FOR APPROVAL, FOLLOWING APPROVAL, CONTRACTOR SHALL DELIVER (1) HARD COPY AND (1) DIGITAL COPY ON THUMB DRIVE TO OWNER.



S.E.D. CONTROL NUMBER: GREENVILLE ELEMENTARY SCHOOL 66-04-06-03-0-008-021 SEELY PLACE ELEMENTARY SCHOOL

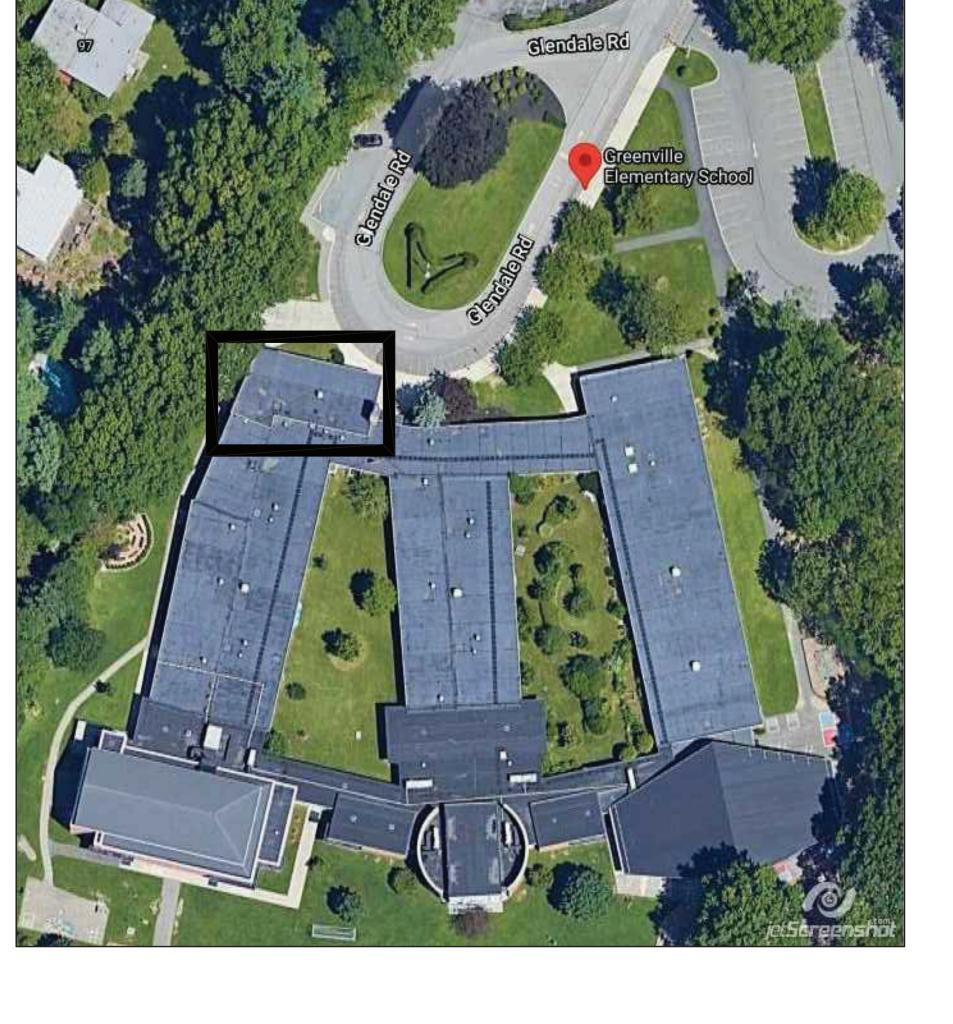
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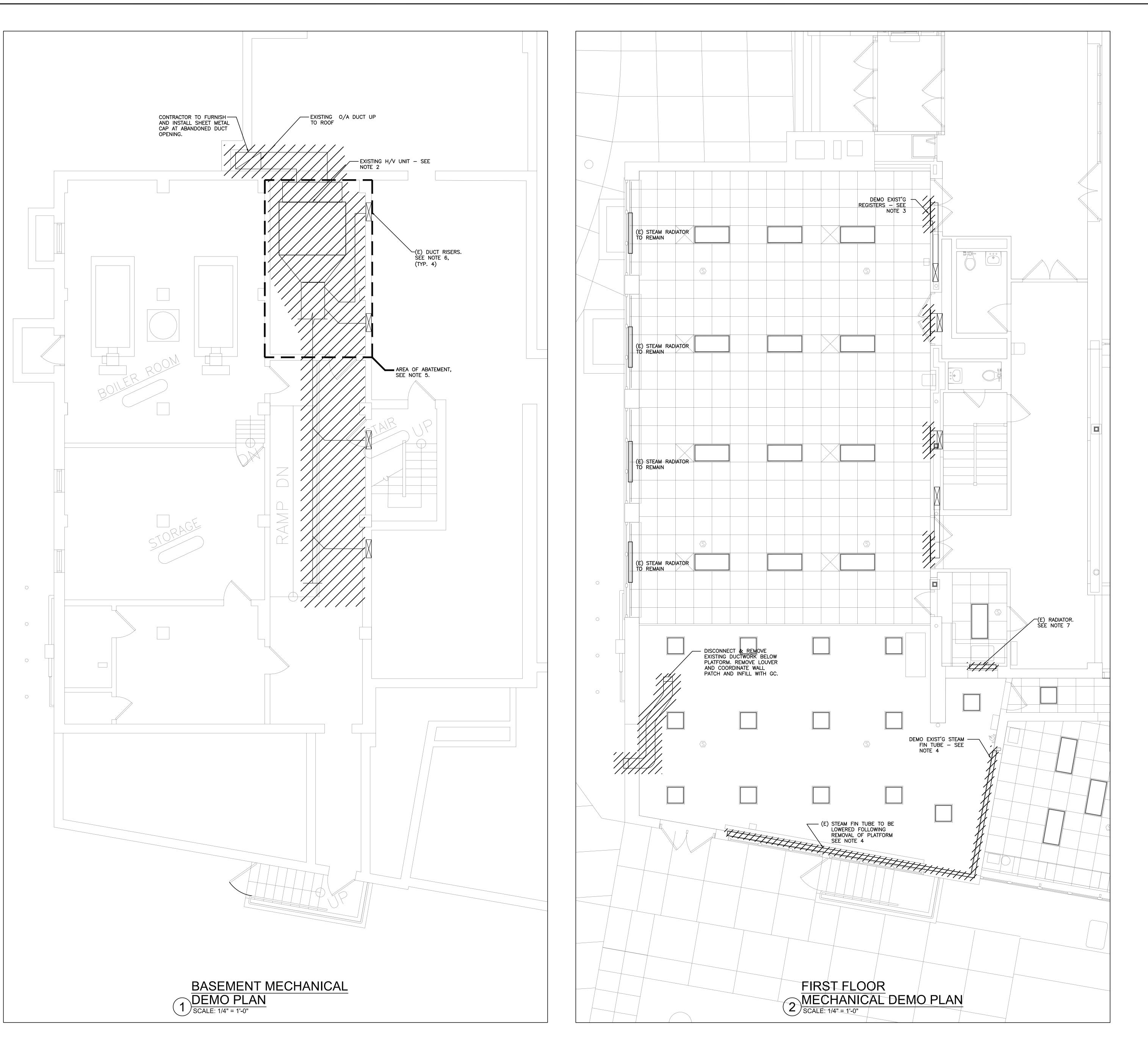


HP HEAT PUMP (T) THERMOSTAT

POINT OF CONNECTION, NEW WORK TO EXISTING

↑ SECTION LINE





NOTES:

- REFER TO WRITTEN (BOOK) SPECS FOR ADDITIONAL INFORMATION.
- DISCONNECT AND REMOVE EXISTING H/V UNIT AND ALL ASSOCIATED (EXPOSED DUCTWORK, PIPING AND HANGERS. CUT AND CAP STEAM AND CONDENSATE PIPING BACK TO MAINS. COORDINATE WITH ELECTRICIAN TO REMOVE POWER AND CONTROL WIRING.
- 3. DISCONNECT EXISTING HIGH SIDEWALL SUPPLY REGISTERS. DUCTWORK BURIED INSIDE WALLS SHALL BE ABANDONED. REFER TO ARCHITECTURAL PLANS AND COORDINATE WITH GC FOR PATCHING OF WALLS.
- 4. DEMO SECTION OF STEAM FIN TUBE SHOWN ON PLANS. RELOCATE STEAM CONDENSATE PIPE PENETRATION AND F&T TRAP BELOW FLOOR AS REQUIRED TO REFEED RELOCATED FIN TUBE TO REMAIN. FURNISH NEW INSULATED & LABELED STEAM PIPING BELOW FLOOR
- 5. CONTRACTOR SHALL NOTE THAT EXISTING PIPE AND DUCT INSULATION HAS TESTED POSITIVE AS CONTAINING ASBESTOS. ABATEMENT TO BE PERFORMED BY OTHERS AND CONTRACTOR SHALL COORDINATE TIMING OF THIS WORK WITH NEW MECHANICAL WORK TO AVOID ANY CONFLICTS.
- CONTRACTOR SHALL DICSONNECT ALL DUCTWORK SHOWN BUT NOT ABANDON VERTICAL RISER IN PLACE.
- CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING STEAM RADIATOR. CUT AND CAP STEAM AND CONDENSATE PIPING BELOW FLOOR.

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S.E.D. CONTROL NUMBER:

GREENVILLE ELEMENTARY SCHOOL
66-04-06-03-0-008-021
SEELY PLACE ELEMENTARY SCHOOL

66-04-06-03-0-001-019

SE 1 - HVAC & CAFETERIA

ING TITLE

CHANICAL DEMO PLANS

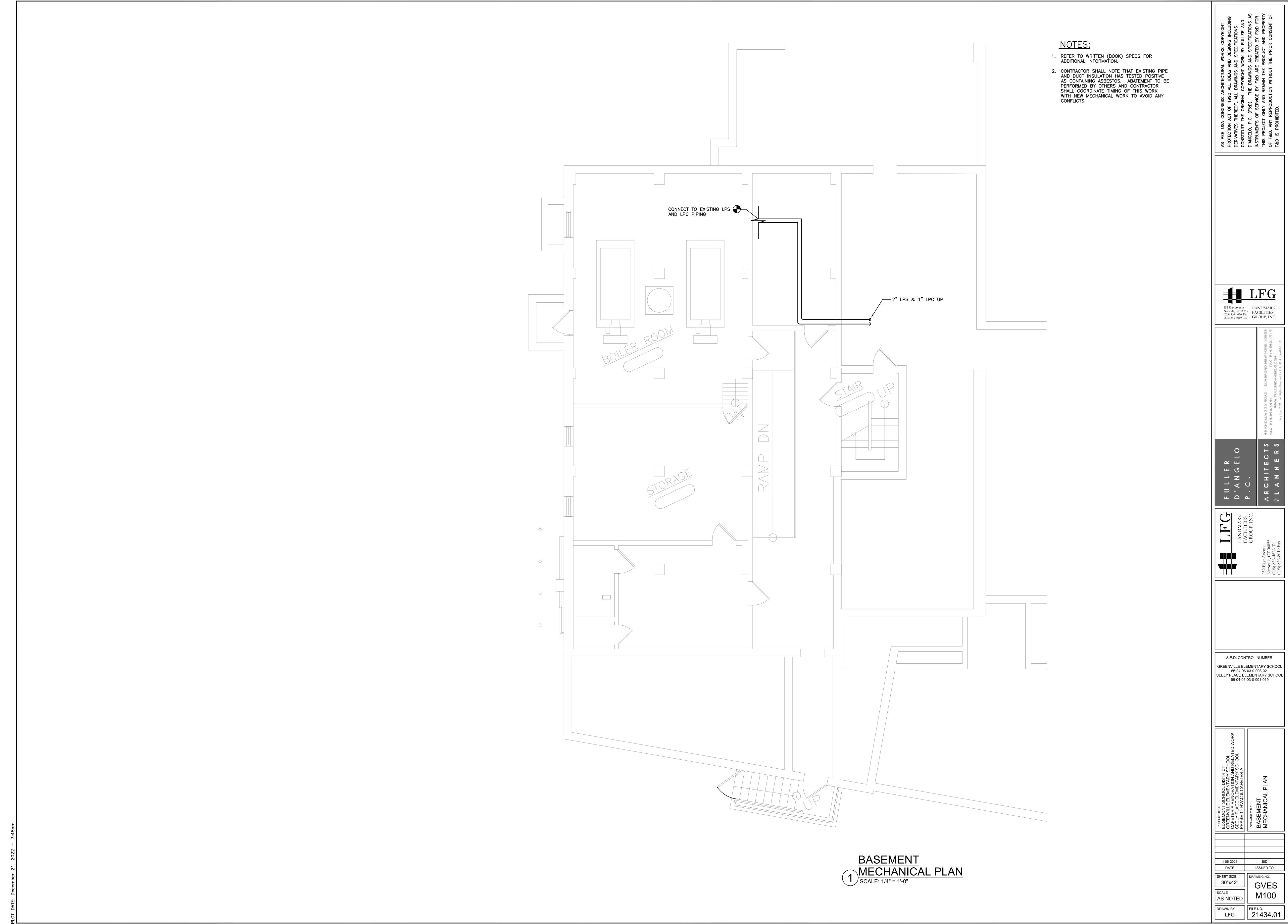
1-06-2023 BID
DATE ISSUED TO

SHEET SIZE
30"x42"

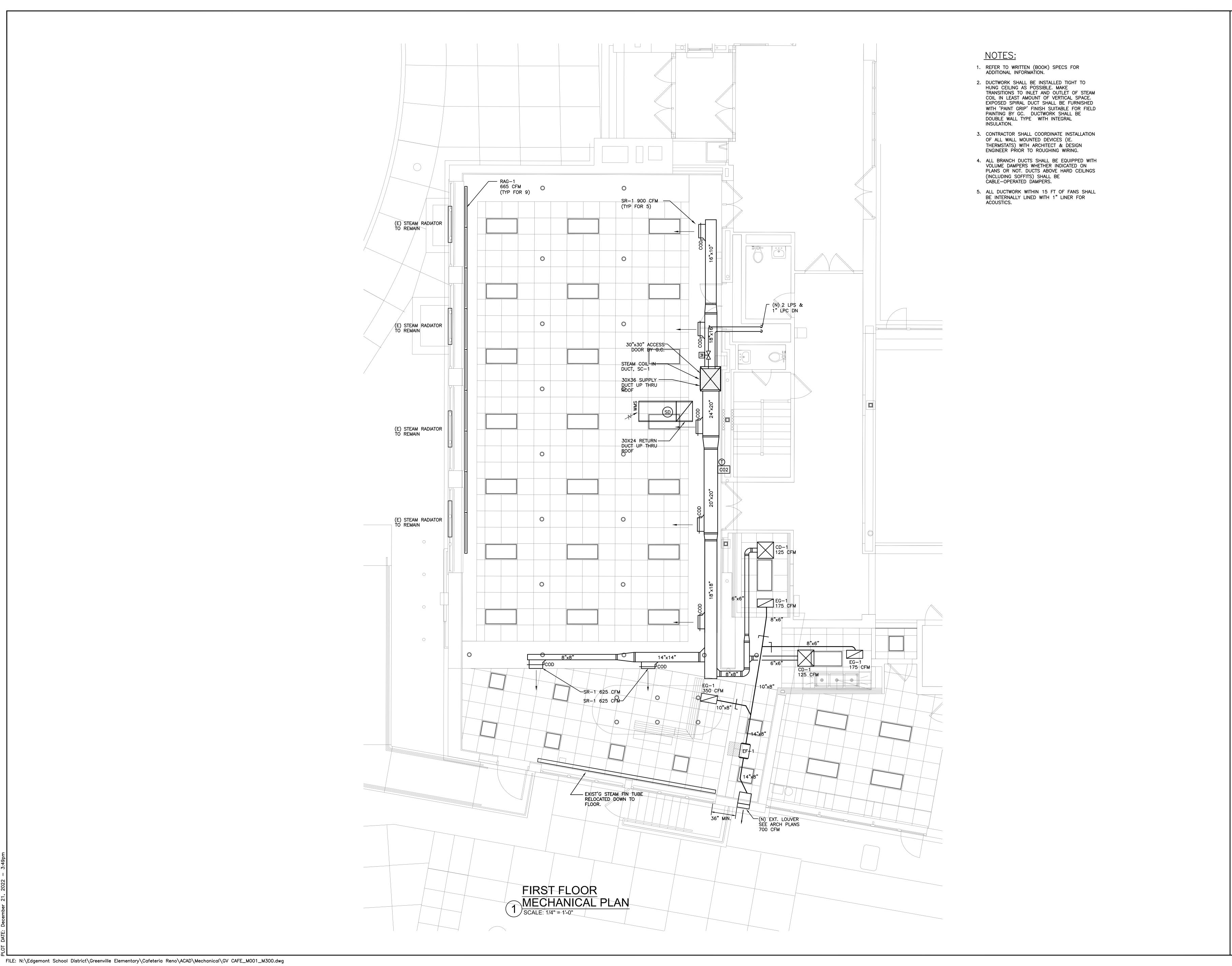
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MD100

FILE NO. 21434.01

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EMONT SCHOOL DISTRICT
ENVILLE ELEMENTARY SCHOOL
ETERIA RENOVATION AND RELATED WORK
Y PLACE ELEMENTARY SCHOOL
SE 1 - HVAC & CAFETERIA

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ST FLOOR

CHANICAL RCP

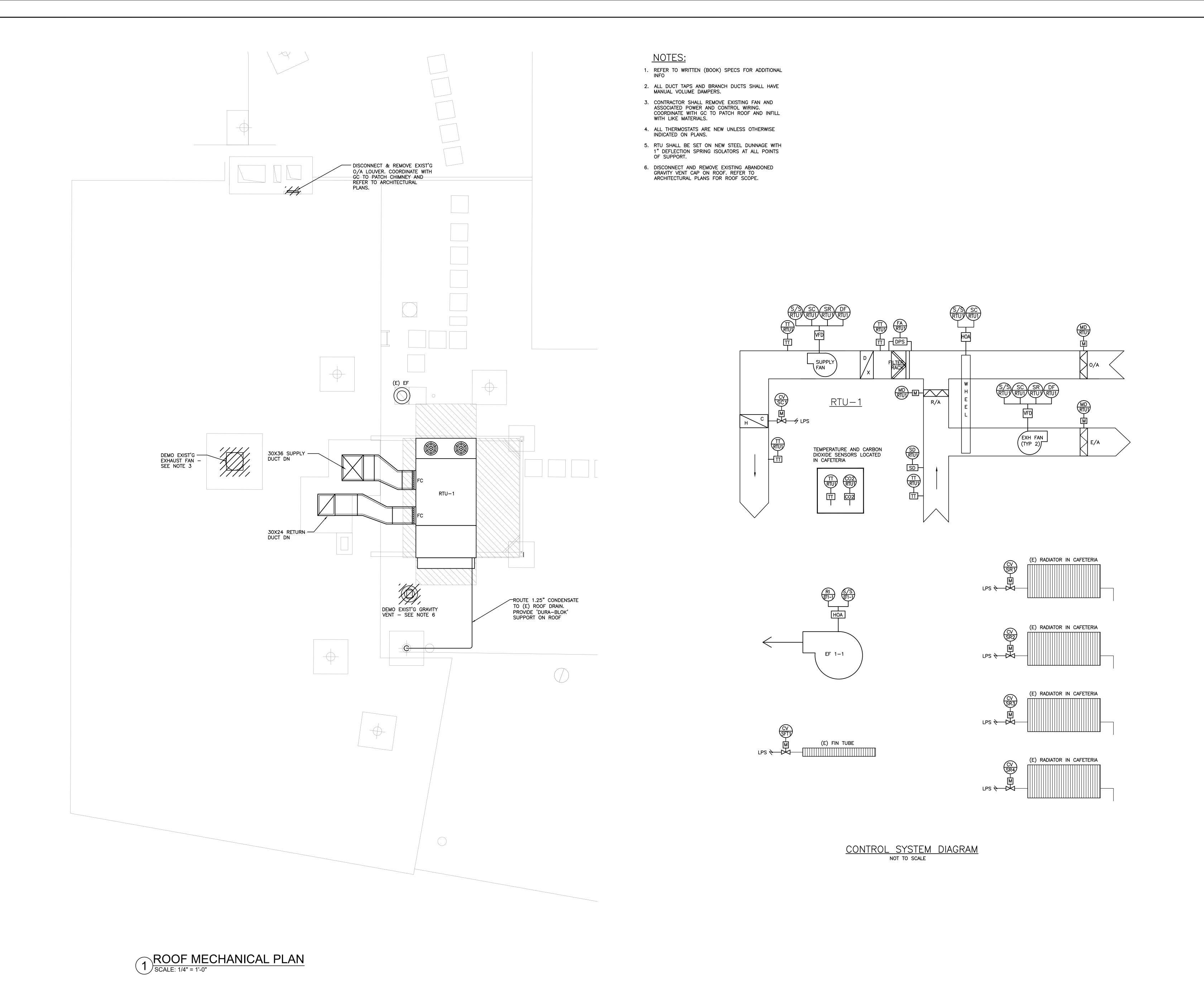
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SCALE
AS NOTED

BRAWING NO.
GVES
M101

DRAWN BY LFG FILE NO. 21434.01



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SE 1 - HVAC & CAFETERIA
WING TITLE
OF MECHANICAL PLAN

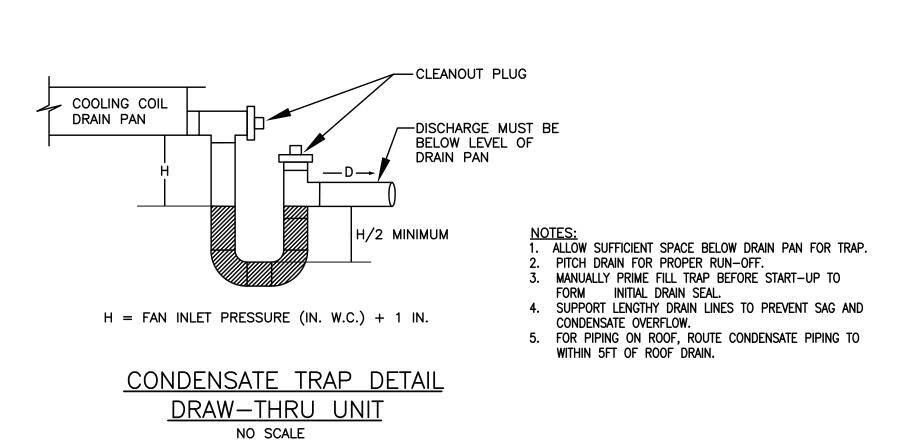
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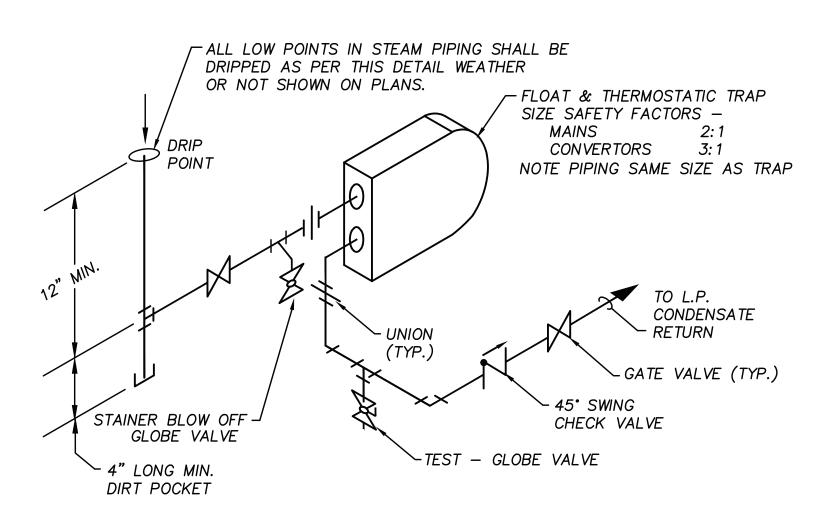
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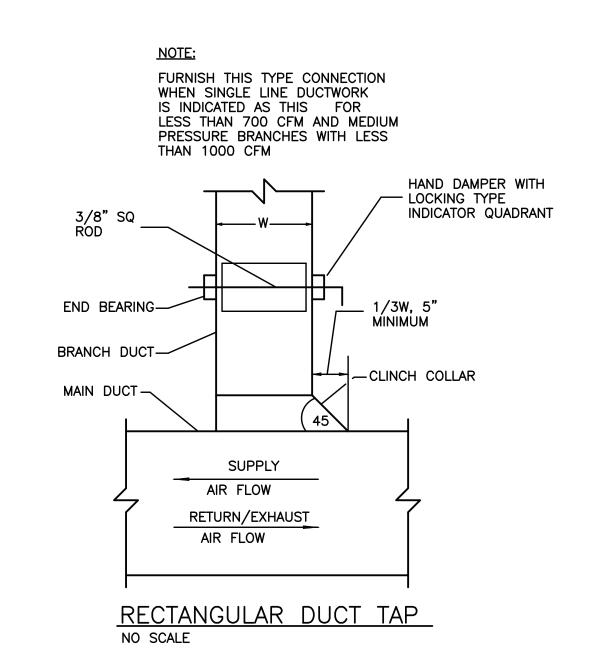
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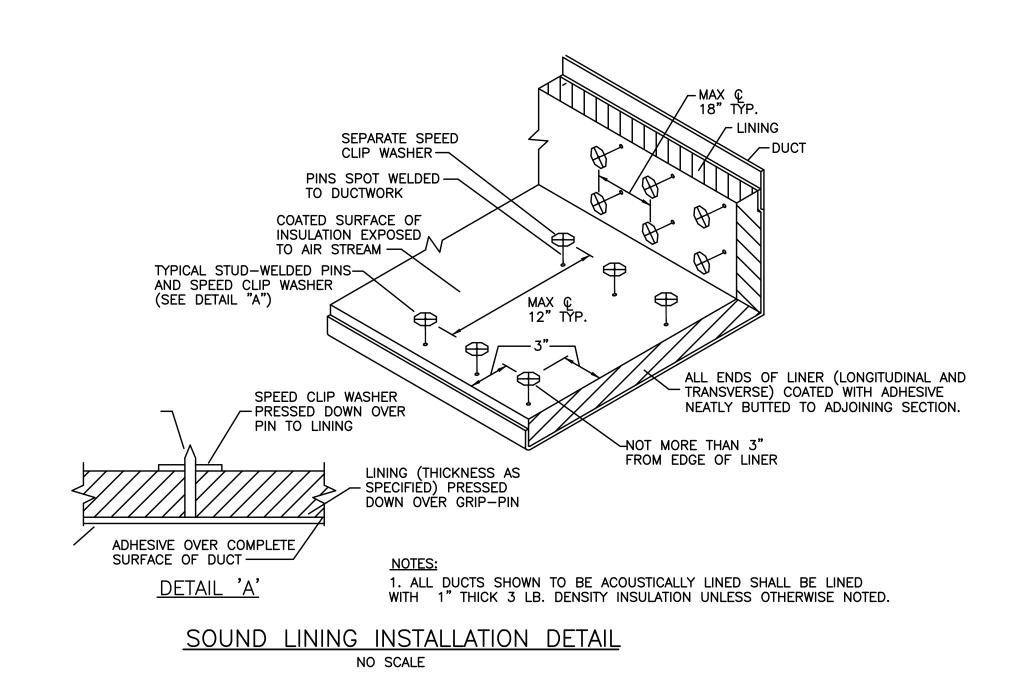
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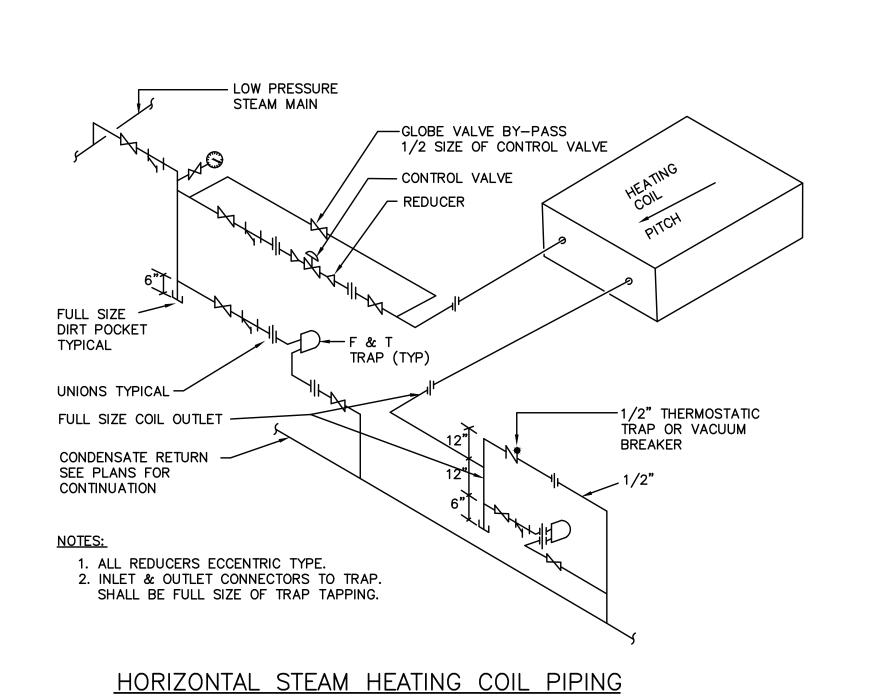


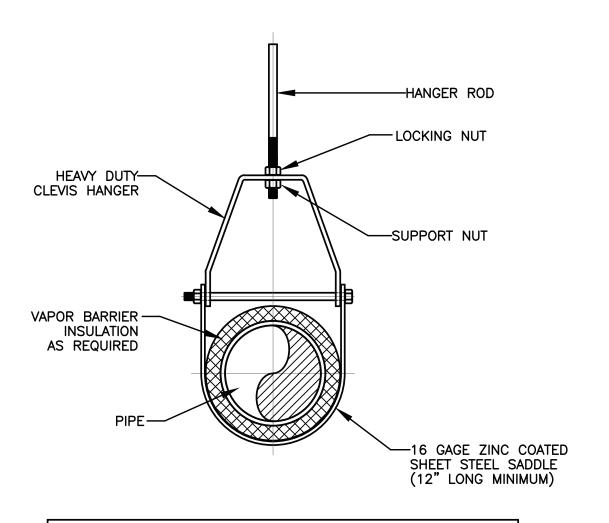


LOW PRESSURE STEAM MAIN DRIP DETAIL N.T.S.



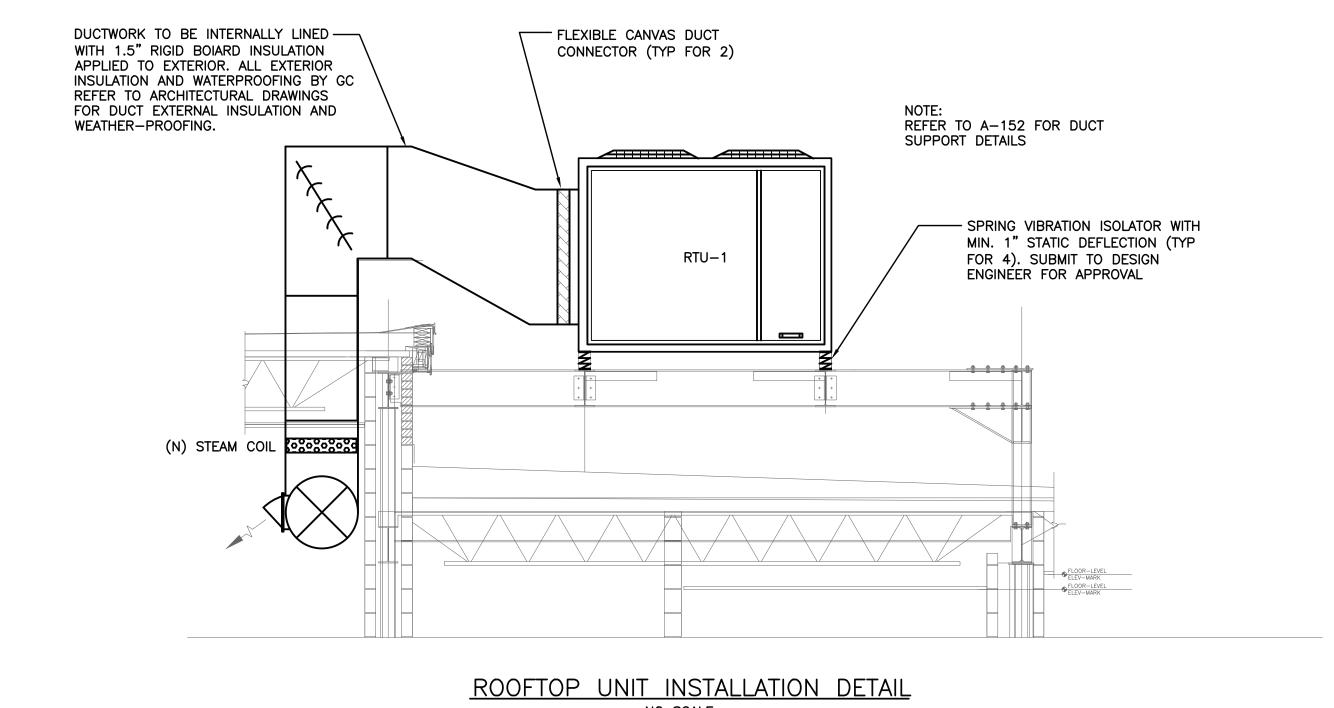


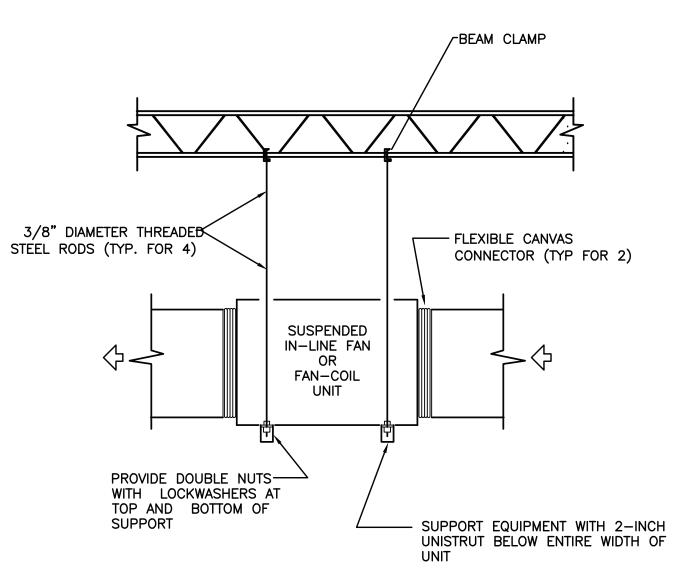




HANGER ROD SCHEDULE							
PIPE SIZE	ROD SIZE	PIPE SIZE	ROD SIZE				
UP TO 2"	3/8" DIA.	4" THRU 5"	5/8" DIA.				
2 1/2" THRU 3"	1/2" DIA.	6" THRU 12"	7/8" DIA.				

CLEVIS HANGER
HORIZONTAL RUNS





INLINE FAN SUPPORT DETAIL
TYPICAL FOR CEILING-MOUNTED FAN-COIL UNITS
AND EXHAUST FANS
NO SCALE

EDGEMONT SCHOOL DISTRICT GREENVILLE ELEMENTARY SCHOOL CAFETERIA RENOVATION AND RELATED WORK SEELY PLACE ELEMENTARY SCHOOL PHASE 1 - HVAC & CAFETERIA	DETAILS MECHANICAL DETAILS	
1-06-2023	BID	
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FILE NO. 21434.01

AS NOTED

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	NEW PACKAGED ROOFTOP UNIT WITH ENERGY RECOVERY SCHEDULE																			
		MODEL NO.	AIR FLO	OW (CFM)	MOTOR	ESP			COOLI	NG				OUTSIDE	SUPPLY AIR				WEIGHT	
TAG	MFG		TOTAL	OUTDOOR	l	(IN. WC)	TOTAL	SENSIBLE		AIR	LEA\	/. AIR	EER	AIR TEMP	SUPPLY AIR TEMP (DB/WB)	VOLTAGE/PH	MCA	MOCP	(LBS)	NOTES
			101712	COTBOOK			(MBH)	(MBH)	DB	WB	DB	WB								
RTU-1	TRANE	THH180G3R0D	6065	2995	3.0	1.5	182.62	148.32	79.4	66.3	59.96	57.95	12.1	95.0	62.06/58.75	208/3	73.0	100.0	3141	1

UNIT SHALL BE EQUIPPED WITH ENERGY RECOVERY WHEEL
 PROVIDE WALL MOUNT CO2 SENSOR FOR DEMAND CONTROL VENTILATION.
 REFER TO RTU MOUNTING DETAIL FOR ADDITIONAL INFORMATION.
 UNIT SHALL BE FURNISHED WITH FACTORY BACNET CARD. COORDINATE WITH ATC VENDOR PRIOR TO ORDERING.

5. MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCE ON ALL SIDES.
6. UNIT SHALL BE FURNISHED WITH FACTORY GFI RECEPTACLE FOR SERVICE.

STEAM HEATING COIL SCHEDULE													
TAG	MFG	MODEL	TYPE	CFM	P.D. (IN. WC)	CAPACITY (MBH)	EAT DB	LAT DB	STEAM PRESS. (PSI)	AIR VELOCITY (FPM)	ROWS	FPI	AREA SERVED
SC-1	CAPITOL COIL	M8-3024-14A-HCA-R	HORIZONTAL	6000	0.69	233.2	50.6	86.5	2.0	1200	1	14	CAFETERIA

NOTES: 1. REFER TO STEAM COIL DETAIL FOR ADDITIONAL INFORMATION. 2. PROVIDE MOTORIZED MODULATING CONTROL VALVE AS MANUFACTRED BY BELIMO.

	EXHAUST FAN SCHEDULE										
TAG	TAG SERVICE LOCATION MFG MODEL AIR FLOW STATIC PRESS. RPM HP VOLTAGE FLA									FLA	
EF-1	EF-1 CAFETERIA CEILING COOK 100SQN17DEC 700 0.40 1725 1/4 115-1-60 5.8										
NOTES:											

1. PROVIDE FACTORY BACKDRAFT DAMPER.
2. PROVIDE VARIABLE SPEED ECM MOTOR WITH SPEED CONTROL.

3. FAN SHALL BE TIED TO BAS AND SCHEDULED TO RUN ONLY DURING SERVING TIMES (IE. 11:30A-1P).

EXTERIOR LOUVE	R SCHEDULE
TAG	EL-1
PRODUCT TYPE	DRAINABLE LOUVER
MANUFACTURER	AIROLITE
MODEL	K6744
AREA (IN. X IN.)	18 X 18
DEPTH (IN.)	4
FREE AREA (%)	56
NOTES: 1. LOUVER SHALL BE FURNISHED V 2. PROVIDE KYNAR FINISH & REFE FOR COLOR.	

	VENTILATION AIR REQUIREMENTS											
Project:												
HVAC ZONE	AREA SERVED	OCCUPANCY CLASSIFICATION		OCCUPANT LOAD Pz (Az)	REQUIRED VENTILATION Rp / Ra	ZONE AIR DIST. EFFECTIVENESS (Ez)	O.A/E.A. REQUIRED (CFM) Vbz	O.A/E.A. DESIGN (CFM)	REMARKS			
	[129] CAFETERIA	Cafeteria	-	161 (2547.94 SF)	7.5 CFM/PERSON 0.18 CFM/SF	0.8	2083	2085	1			
Zone 1	[C13.3] KITCHEN GALLEY	Kitchens	20	2 (71.18 SF)	7.5 CFM/PERSON 0.12 CFM/SF	0.8	29	30				
CALCULATED OUTSIDE/MAKEUP AIR FOR SYSTEM TOTAL 2112 2115												

1. OCCUPANCY DETERMINED BY EXPECTED NUMBER OF SEATS IN THE SPACE

AIR OUTLET SCHEDULE										
TAG	MFG	MODEL	AIRFLOW (CFM)	SIZE	NOTES					
SR-1	TITUS	DL	SEE DWGS	20X12						
CD-1	TITUS	OMNI	SEE DWGS	24X24						
RAG-1	TITUS	MLR-39	SEE DWGS	5FT LONG	(3) 1" SLOTS					
EG-1	TITUS	350RL	SEE DWGS	24X12						

18

BRANCH DUCT SCHEDULE AIR FLOW (CFM) ROUND DUCT SIZE (IN.) 0 -105 106-160 7 161-230 8 231-320 9 321-420 10 421-685 12 686-1025 14 1026-1450 16

1451-2000 1. WHETHER OR NOT INDICATED ON PLANS, CONTRACTOR SHALL FURNISH AND INSTALL MANUAL VOLUME DAMPERS IN ALL SUPPLY AND RETURN BRANCH DUCTS.

		AIR O	UTLET SCH	EDULE	
TAG	MFG	MODEL	AIRFLOW (CFM)	SIZE	NOTES
SR-1	TITUS	DL	SEE DWGS	20X12	
CD-1	TITUS	OMNI	SEE DWGS	24X24	
RAG-1	TITUS	MLR-39	SEE DWGS	5FT LONG	(3) 1" SLOTS
EG-1	TITUS	350RL	SEE DWGS	24X12	

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S.E.D. CONTROL NUMBER: GREENVILLE ELEMENTARY SCHOOL 66-04-06-03-0-008-021 SEELY PLACE ELEMENTARY SCHOOL 66-04-06-03-0-001-019

6-17-2022 ADDENDUM #2 1-10-2022 BID

DATE ISSUED TO 30"x42" **GVES** AS NOTED DRAWN BY FILE NO. 21434.01