

CADDO PARISH SCHOOL BOARD

FOREST HILL ELEMENTARY SCHOOL
HVAC UPGRADE

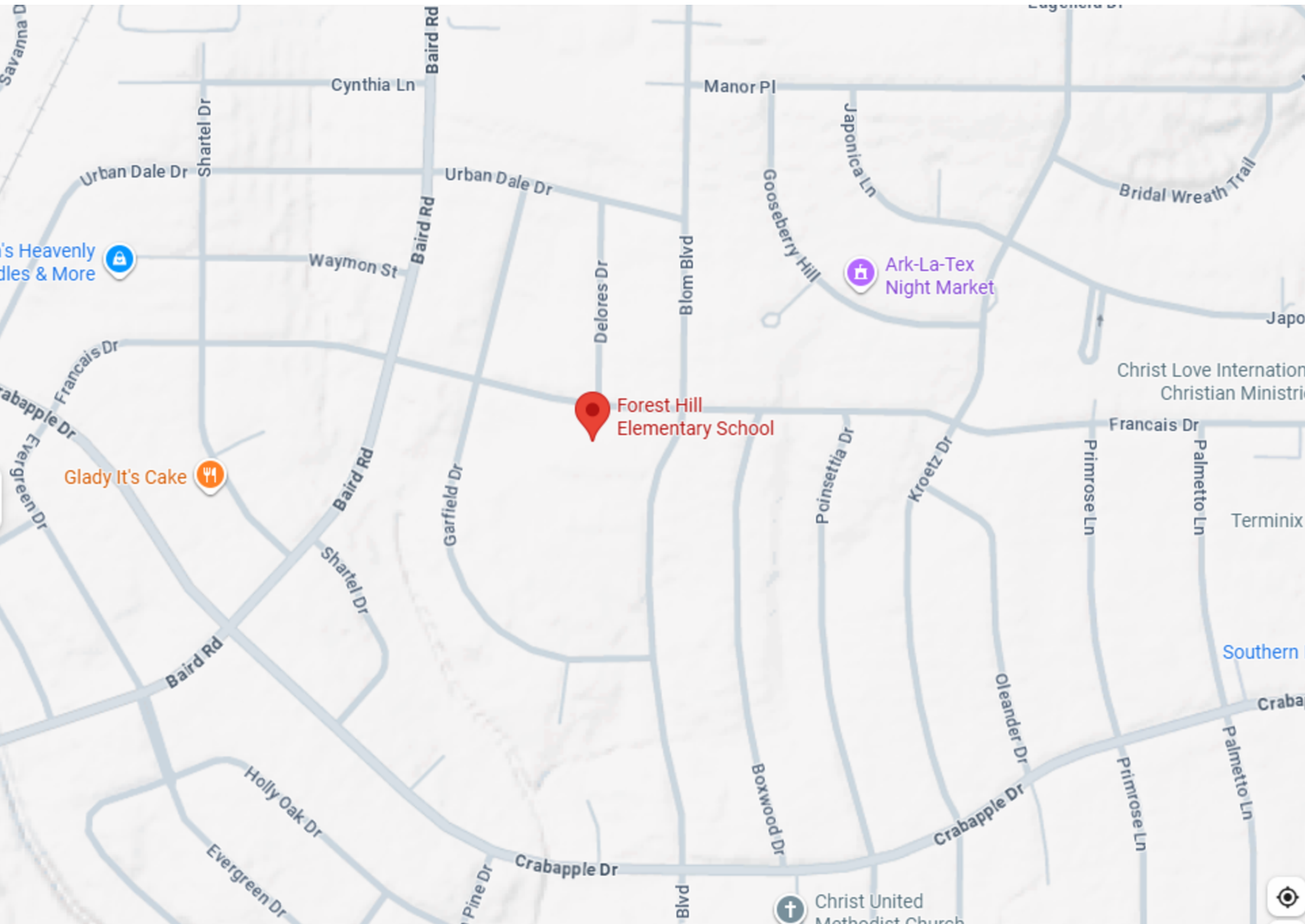
2005 FRANCAIS DR,
SHREVEPORT, LA. 71118

CPSB PROJECT NO. 2027-752

DECEMBER 31, 2025

DRAWING LIST:

- T1TITLE SHEET
- M0.1MECHANICAL & ELECTRICAL SCHEDULES
- M0.2MECHANICAL & ELECTRICAL SCHEDULES
- M0.3MECHANICAL & ELECTRICAL DETAILS
- M1.1PARTIAL FLOOR PLAN WINGS “B” & “D”
MECHANICAL & ELECTRICAL DEMOLITION
- M1.2PARTIAL FLOOR PLAN WINGS “A” & “C”
MECHANICAL & ELECTRICAL DEMOLITION
- M1.3PARTIAL FLOOR PLAN WING “E”
MECHANICAL & ELECTRICAL DEMOLITION
- M2.1PARTIAL FLOOR PLAN WINGS “B” & “D”
MECHANICAL & ELECTRICAL RENOVATION
- M2.2PARTIAL FLOOR PLAN WINGS “A” & “C”
MECHANICAL & ELECTRICAL RENOVATION
- M2.3PARTIAL FLOOR PLAN WING “E”
MECHANICAL & ELECTRICAL RENOVATION



CONSULTING ENGINEERS

3003 KNIGHT STREET, SUITE 120
SHREVEPORT, LOUISIANA 71105
phone: 318-425-7462 fax: 318-425-4622
www.AFJMc.com

ENGINEER:MICHAEL S. MIDDLETON, P.E.

LICENSE NO.27979

THESE DRAWINGS DO NOT INCLUDE NECESSARY
COMPONENTS FOR CONSTRUCTION SAFETY.

25-171

DESIGNER	MICHAEL S. MIDDLETON, P.E.
LICENSE NO.	27979
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.	
JOB NO.	25-171

100 % OUTSIDE AIR PACKAGED ROOFTOP UNIT SCHEDULE		
MARK		OAU-1
LOCATION		E WING ROOF
SERVICE		OUTSIDE AIR
UNIT DISCHARGE		HORIZONTAL
FAN		
FAN TYPE		PLENUM
AIRFLOW	CFM	2500.000000
ESP	IN WG	.75"
DRIVE TYPE		DIRECT
FAN SPEED	RPM	2200.000000
MOTOR HP	HP	2.000000
FAN ENERGY INDEX (MINIMUM)	-	1.200000
VARIABLE FREQUENCY DRIVE		YES
COOLING		
AIRFLOW	CFM	2500.000000
EAT (DB / WB)	F	95.0 / 78.0
LAT (COIL) (DB / WB)	F	54.1 / 54.0
NET TOTAL CAPACITY	MBH	193.600000
NET SENSIBLE CAPACITY	MBH	103.6
OUTDOOR AIR AMBIENT TEMPERATURE	F	95.000000
CONDENSATE TRAP & DRAIN LINE SIZE	INCH	1 1/2"
REHEAT		
TYPE		MODULATING HOT GAS
AIRFLOW	CFM	2500.000000
LAT DB / WB	F	72.0 / 60.9
REHEAT CAPACITY	MBH	46.5
HEATING (FUEL FIRED - MODULATING 8:1 TURN DOWN)		
TYPE		GAS HEAT MODE
AIRFLOW	CFM	2500.000000
EATDB	F	20.0
LATDB	F	107.4
HEATING CAPACITY INPUT (REGULATOR CAPACITY)	MBH	295.0
HEATING CAPACITY OUTPUT	MBH	236.900000
AFUE - MINIMUM	%	80.3
REFRIGERANT SYSTEM		R-32 OR R-454B
NUMBER OF COMPRESSORS / TYPE		2 / SCROLL
MIN. EER @ OPERATING COND CONDITIONS	BTU/HW	12.1
ELECTRICAL		
SINGLE POINT CONNECTION		YES
VOLTS / PHASE		208 / 3
FLA	AMP	76.0
MCA	AMP	82.0
MOCP	AMP	100
SSCR	KAIC	10
UNIT APPROX DIMENSIONS (L X W X H)	FT	120" X 96" X 46"
UNNIT APPROX WEIGHT (WITHOUT CURB)	LBS	2250
MANUFACTURER - MODEL (BASIS OF DESIGN)		AAON RNA015
REMARKS		1 THRU 12

1. PROVIDE MANUFACTURER'S DDC CONTROLLER WITH BACNET INTERFACE.
2. PROVIDE OUTSIDE AIR AND DISCHARGE AIR TEMPERATURE/HUMIDITY SENSORS.
3. PROVIDE FACTORY INSTALLED AND CALIBRATED AIRFLOW MEASURING STATION WITH MULTI-LINE LCD DISPLAY.
4. PROVIDE INSULATED ROOF CURB WITH MINIMUM 24" HEIGHT.
5. PROVIDE SMOKE DETECTOR ON UNIT SUPPLY SIDE.
7. PROVIDE 2" PLEATED MERV 13 FILTERS WITH MAGNEHELIC GUAGE AND DOWNSTREAM SCREEN TO PREVENT FILTER COLLAPSE.
8. PROVIDE FUSED SAFETY SWITCH AND SURGE ARRESTER .
9. PROVIDE DIRTY FILTER SWITCH AND CONDENSATE OVERFLOW SWITCH.
10. REDUCE TO CONDENSATE DRAIN CONNECTION SIZE AT UNIT.
11. HORIZONTAL DRAIN CONNECTION.
12. PROVIDE IDENTIFICATION LABEL FOR EACH UNIT. PERMANENTLY AFFIX TO UNIT SO AS NOT TO INTERFERE WITH COILS, ACCESS PANELS, DOORS ETC. INCLUDE THE FOLLOWING INFORMATION ON EACH LABEL:
UNIT DESIGNATION OR MARK (FROM SCHEDULE)
ROOM OR SPACE SERVED (USE ROOM NAME FROM BUILDING SIGNAGE OR FLOOR PLANS)
VOLTAGE / PHASE (FROM UNIT NAMEPLATE)
MAX FUSE SIZE (FROM UNIT NAMEPLATE)
REFRIGERANT USED AND REFRERANT CHARGE (FROM NAMEPLATE)
INSTALLATION DATE (SUBSTANTIAL COMPLETION DATE)

PACKAGED ROOFTOP UNIT SCHEDULE FOREST HILL ELEMENTARY SCHOOL HVAC UPGRADE						
MARK	RTU NUMBERS	33, 34	11, 21, 22, 38, 40	1-8, 10, 12-20,23-26, 28-32	27, 35-37, 39, 41-45	K1
GENERAL						
NOMINAL COOLING CAP.	TONS	2	3	4	5	10
REFRIGERANT		R-454B OR R-32	R-454B OR R-32	R-454B OR R-32	R-454B OR R-32	R-454B OR R-32
NO OF COMPRESSORS / TYPE		1 / SCROLL	1 / SCROLL	1 / SCROLL	2 / SCROLL	2 / SCROLL
MINIMUM SEER2 / EER2		14.0 / 11.5	17.5 / 13.5	17.3 / 13.0	16.4 / 12.5	16.1 IEER / 12.1 EER
APPROXIMATE WEIGHT	LBS	900	900	900	900	1500
FAN						
AIRFLOW	CFM	1,050	1,050	1,400	1,750	3,600
ESP	IN WG	.8"	.8"	.8"	.8"	1.3
MIN OUTSIDE AIR	CFM	210	210	280	350	720
FAN SPEED	RPM	HIGH	HIGH	HIGH	HIGH	HIGH
TYPE DRIVE		DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MOTOR HP	HP	1.0	1.0	1.0	1.0	5.0
DX COOLING						
AMBIENT	F	95	95	95	95	—
ENTERING AIR TEMP. (DB / WB)	F	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
NET TOTAL CAPACITY	MBH	24.2	35.4	47.2	60.4	115.2
NET SENS CAPACITY	MBH	17.9	24.1	31.1	41.7	77.7
NO. OF STAGES		1	2	2	2	2
OPERATING TEMP. RANGE	F	0 - 120	0 - 120	0 - 120	0 - 120	0 - 120
CONDENSATE TRAP AND DRAIN LINE SIZE	INCH	1"	1"	1 1/4"	1 1/4"	1 1/2"
HOT GAS REHEAT DEHUM.		YES	YES	YES	YES	YES
GROSS SENSIBLE CAPACITY	MBH	10.3	12.0	10.8	15.2	38.3
GAS HEAT						
GAS INPUT (REG. CAPACITY)	MBH	65.0	65.0	108.0	130.0	180.0
HEAT OUTPUT	MBH	52.0	52.0	87.0	104.0	144.0
THERMAL EFFICIENCY	%	81.0	81.0		81.0	
NO. OF BURNERS / STAGES		1	2	2	2	2
ELECTRICAL						
SINGLE POINT CONNECTION		YES	YES	YES	YES	YES
VOLTS / PHASE		208/1	208/3	208/3	208/3	208/3
MCA	AMP	19.0	19.0	23.0	26.0	48.0
MOCP	AMP	25	25	30	35	60
SSCR	AMP	5K	5K	5K	5K	5K
MANUFACTURER		LENNOX	LENNOX	LENNOX	LENNOX	LENNOX
MODEL NO		LGX024SSE	LGT036H5E	LGT048H5E	LGT060H5E	LGT120H5E
REMARKS		1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8
REMARKS:						
1. PROVIDE BACNET DDC CONTROLLER IN UNIT FOR FUTURE CONNECTION TO BMCS BY OWNER. PROVIDE WALL MOUNTED THERMOSTAT BY UNIT MANUFACTURER TO ADJUST TEMPERATURE AND HUMIDITY SETPOINTS, TIME SCHEDULE AND MANUAL OVER-RIDE THROUGH THE UNIT MOUNTED DDC CONTROLLER. BACNET THERMOSTAT IS NOT PERMITTED IN LIEU OF UNIT MOUNTED CONTROLLER.						
2. PROVIDE SELF CLEANING AIR PURIFICATION SYSTEM.						
3. PROVIDE INSULATED CURB ADAPTOR FOR ALL UNITS WHERE NEW RTU DIMENSIONS DO NOT EXACTLY MATCH EXISTING CURB DIMENSIONS.						
4. PROVIDE 2" MERV 8 FILTERS.						
5. PROVIDE FUSED SAFETY SWITCH AND SURGE ARRESTER.						
6. PROVIDE ELECTRONICALLY COMMUTATED EVAPORATOR FAN MOTOR.						
7. PROVIDE FACTORY INSTALLED AND WIRED CONVENIENCE RECEPTACLE WITH TRANSFORMER AS REQUIRED.						
8. PROVIDE IDENTIFICATION LABEL FOR EACH UNIT. PERMANENTLY AFFIX TO UNIT SO AS NOT TO INTERFERE WITH COILS, ACCESS PANELS, DOORS ETC. INCLUDE THE FOLLOWING INFORMATION ON EACH LABEL: UNIT DESIGNATION OR MARK (FROM SCHEDULE) ROOM OR SPACE SERVED (USE ROOM NAME FROM BUILDING SIGNAGE OR FLOOR PLANS) VOLTAGE / PHASE (FROM UNIT NAMEPLATE) MAX FUSE SIZE (FROM UNIT NAMEPLATE) REFRIGERANT USED AND REFRERANT CHARGE (FROM NAMEPLATE) INSTALLATION DATE (SUBSTANTIAL COMPLETION DATE)						

FOREST HILL ELEMENTARY HEAT PUMP AIR CONDITIONING EQUIPMENT SCHEDULE																			
UNIT NO	EVAPORATOR FAN					COOLING (99° AMB)				HTG. (17° AMB)		AUX. HEATING		OUTDOOR UNIT				MIN. HPSF2	REMARKS
	CFM	EXT SP	FLA	MOTOR TYPE	DRIVE	TOT MBH	SEN MBH	EADB	EAWB	TOT MBH	EADB	KW	VOLTAGE	MCA	MOCP	VOLTAGE	MIN. SEER2 /EER2		
HP-1	775	.5"	4	ECM	DIRECT	22.8	17.5	80	67	14.1	65	6.0	208V-1ø	18	25	208V-1ø	19.0 / 12.6	8.0	1,2,3,4,5,6,7,8,9,10


- REMARKS:
1. BASIS OF DESIGN AHU: LENNOX CBK47UHET SERIES OR TRANE TEM SERIES. OUTDOOR UNIT LENNOX EL19KPV OR TRANE 5TWR SERIES.
2. PROVIDE INDOOR UNIT AND ELEC. HEATER WITH SINGLE POINT ELECTRICAL CONNECTION.
3. PROVIDE NEW THERMOSTAT AND NEW CONTROL WIRING.
4. PROVIDE AIR PURIFICATION SYSTEM.
5. PROVIDE VARIABLE OR TWO STAGE COOLING.
6. PROVIDE TWO STAGE HEAT PUMP HEATING.
7. PROVIDE ALL ACCESSORIES NECESSARY FOR COOLING OPERATION DOWN TO 0 DEGREES F (CRANKCASE HEATER, CONDENSER FAN HEAD PRESSURE CONTROL ETC.)
8. PROVIDE HARD START KIT AND COMPRESSOR ANTI-SHORT CYCLING RELAY.
9. PROVIDE MOTORIZED OUTSIDE AIR DAMPER (NORMALLY CLOSED). DAMPER SHALL OPEN WHEN WHEN OUTDOOR UNIT IS IN COOLING OR HEATING MODE.
10. PROVIDE IDENTIFICATION LABEL FOR EACH UNIT. PERMANENTLY AFFIX TO UNIT SO AS NOT TO INTERFERE WITH COILS, ACCESS PANELS, DOORS ETC. INCLUDE THE FOLLOWING INFORMATION ON EACH LABEL:
UNIT DESIGNATION OR MARK (FROM SCHEDULE)
ROOM OR SPACE SERVED (USE ROOM NAME FROM BUILDING SIGNAGE OR FLOOR PLANS)
VOLTAGE / PHASE (FROM UNIT NAMEPLATE)
MAX FUSE SIZE (FROM UNIT NAMEPLATE)
REFRIGERANT USED AND REFRERANT CHARGE (FROM NAMEPLATE)
INSTALLATION DATE (SUBSTANTIAL COMPLETION DATE)

PIPING AND FITTING MATERIAL SCHEDULE				
SERVICE	PIPE MATERIAL	JOINT TYPE	FITTING MATERIAL	REMARKS
GAS PIPING ABOVE GRADE	SCHEDULE 40 BLACKSTEEL ASTM A-53	SCREWED THRU 3/4" SIZE, WELDED FOR 1" AND LARGER	MALLEABLE SCREWED TYPE, BUTT WELDED STEEL WHERE REQUIRED	PAINT TWO COATS AS DIRECTED BY THE ARCHITECT/ENGINEER.
REFRIGERANT PIPING	REFRIGERANT SERVICE (SEALED) COPPER TYPE 1" HARD DRAWN ASTM B - 88	SIL-FOS, SILVER BRAZED	WROUGHT COPPER	INSULATE PER SPECIFICATIONS
CONDENSATE DRAIN PIPING ABOVE GROUND	COPPER TYPE 1" HARD DRAWN ASTM B - 88	95-5 SOLDER WITH INTERMEDIATELY CORROSIVE FLUX	WROUGHT COPPER	PROVIDE TEE WITH PLUG AT EACH CHANGE IN DIRECTION. INSULATE PER SPECIFICATIONS.
CONDENSATE DRAIN PIPING ON ROOF	SCHEDULE 80 PVC, ASTM D 1785, CS-207 (TYPE 1)	SOLVENT WELDED	SCHEDULE 80 PVC, ASTM D 1785, CS-207 (TYPE 1)	PROVIDE TEE WITH PLUG AT EACH CHANGE IN DIRECTION. PROVIDE PIPE SUPPORTS 4'-0" ON CENTER MAXIMUM AND AT EACH CHANGE IN DIRECTION.

CONTRACTOR'S SCOPE OF WORK FOR CONTROLS (INCLUDED IN THIS CONTRACT)
PACKAGED AIR CONDITIONING UNITS AND SPLIT SYSTEM HEAT PUMPS 1. PROVIDE FACTORY INSTALLED BACNET DDC CONTROLLER IN UNIT. PROVIDE WALL MOUNTED THERMOSTAT TO ADJUST TEMPERATURE AND HUMIDITY SETPOINTS, TIME SCHEDULE AND OCCUPANT OVER-RIDE. 2. A BACNET THERMOSTAT IS NOT PERMITTED IN LIEU OF THE DDC CONTROLLER. 3. VERIFY PROPER STAND ALONE OPERATION OF ALL UNIT FUNCTIONS.
THE OWNER WILL PROVIDE A BACNET DIRECT DIGITAL CONTROL (DDC) BUILDING MANAGEMENT AND CONTROL SYSTEM (BMCS) FOR ALL NEW EQUIPMENT FURNISHED UNDER THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE EQUIPMENT AND MATERIAL SUBMITTALS, DELIVERY SCHEDULES AND INSTALLATION WITH THE OWNER'S BMCS CONTRACTOR.

MINI - SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE		
INDOOR UNIT MARK		MS-1
TYPE		WALL MOUNTED
REFRIGERANT		R-32
NOMINAL TONS		2
AIRFLOW H / M / L / SL	CFM	629 / 501 / 378 / 335
OUTSIDE AIR	CFM	
COOLING		
ENTERING AIR TEMPERATURE	F	80 / 67
TOTAL CAPACITY	BTUH	22,400
SENSIBLE CAPACITY	BTUH	16,660
HEATING (HEAT PUMP MODE)		
ENTERING TEMPERATURE DB / WB	F	70 / 60
HEATING CAPACITY	BTUH	24,000
ELECTRICAL		SEE REMARK 2
APPROX DIMENSIONS (L X H X D)	FT	3.3' X 1' X 1'
APPROXIMATE WEIGHT	LBS	30
MANUFACTURER / MODEL	"DAIKIN"	FTXF24BVJU9
OUTDOOR UNIT MARK		MCU-1
LOCATION		
COOLING AMBIENT TEMP. DB / WB	F	95 / 75
HEATING AMBIENT TEMP. DB / WB	F	47 / 43
NOMINAL TONS		2
SEER2 / EER2		21 / 12.0
HSPF2		9.5
ELECTRICAL		
VOLTS / PHASE		208 -230V / 1
MCA	AMP	21.6
OCPD	AMP	25
APPROX DIMENSIONS (L X W X H)	FT	3' X 1' X 2.5'
APPROXIMATE WEIGHT	LBS	120
MANUFACTURER / MODEL	"DAIKIN"	RXF24BVJU9
REMARKS		1 THRU 4

- REMARKS:
1. MANUFACTURER PROVIDED CONDENSATE PUMP AND DDC CONTROLS.
2. INDOOR UNIT ELECTRICALLY FED FROM OUTDOOR UNIT.
3. PROVIDE FUSED SAFETY SITCH AND SURGE ARRESTER.
4. PROVIDE WASHABLE LONG LIFE FILTER.



EST. 1960
AILLET, FENNER, JOLLY,
& MCCLELLAND INC.

CONSULTING ENGINEERS
3003 KNIGHT STREET, SUITE 120
SHREVEPORT, LA 71105

OFFICE: 338-425-7452
FAX: 338-425-4222
WWW.AFJMC.COM

FIRM
REGISTRATION
NUMBERS

E.F. 00000110 (Louisiana Engineer)
V.F. 00000003 (Louisiana Survey)
CA-2742-E (Alabama)
19370-0 (Arizona)
840 (Arkansas)
29781 (Florida)
5226 (Kentucky)
E-00000884 (Mississippi)
F-1502 (N Carolina)
1461PE (N Dakota)
05349 (Ohio)
CA 1943 PE (Oklahoma)
F-667 (Texas)

CADDO PARISH SCHOOL BOARD
FOREST HILL ELEMENTARY SCHOOL
HVAC UPGRADE

CPSB PROJECT NO. 2027-752

2005 FRANCAIS DR. SHREVEPORT, LA 71118

Revisions

Seal



ENGINEER MICHAEL S. MIDDLETON, P.E.

LICENSE NO. 27979


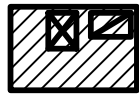

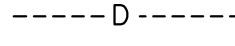
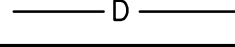
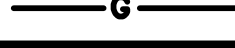
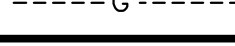



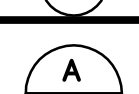

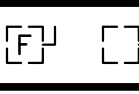
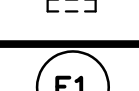

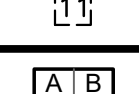

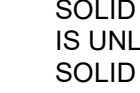


THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. COPYRIGHT NOTICE:
THIS ENGINEERING DRAWING SHALL BE USED ONLY PURSUANT TO THE AGREEMENT WITH AFJMC. NO OTHER USE, DISSEMINATION OR DUPLICATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF AFJMC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.

Sheet Name

MECHANICAL & ELECTRICAL SCHEDULES	
Job number	25-171
Date	31 DECEMBER, 2025
Designed by	MSM
Drawn by	MLH

THERMAL INSULATION SCHEDULE (IECC - 2021)							
SERVICE	INSULATION	MINIMUM R-VALUE	CONDUCTIVITY RANGE	THICKNESS	FIELD APPLIED JACKET	VAPOR BARRIER	REMARKS
CONDENSATE DRAIN PIPING - BUILDING INTERIOR	FLEXIBLE ELASTOMERIC	-	0.21 - 0.27 @ 75 DEG F (MEAN TEMP.)	1/2"	-	YES	CLOSED CELL, SPONGE OR EXPANDED RUBBER MATERIAL WITH SMOOTH SKIN ON BOTH SIDES.
ROOF AND OVERFLOW DRAIN BODY	FLEXIBLE ELASTOMERIC	-	0.21 - 0.27 @ 75 DEG F (MEAN TEMP.)	3/4"	-	YES	CLOSED CELL, SPONGE OR EXPANDED RUBBER MATERIAL WITH SMOOTH SKIN ON BOTH SIDES.
REFRIGERANT SUCTION & VAPOR PIPING	FLEXIBLE ELASTOMERIC	-	0.20 - 0.26 @ 50 DEG F (MEAN TEMP.)	PIPE SIZE < 1" - 1/2" PIPE SIZES 1" TO 6" - 1"	SEE NOTE 1	YES	CLOSED CELL, SPONGE OR EXPANDED RUBBER MATERIAL WITH SMOOTH SKIN ON BOTH SIDES.
SUPPLY, RETURN AND OUTSIDE AIR DUCTS - CONCEALED INTERIOR	MINERAL FIBER - BLANKET	6.0	-	AS REQUIRED TO MEET MINIMUM R-VALUE	NO	YES	GLASS FIBERS BONDED WITH THERMOSETTING RESIN. COMPLY WITH ASTM C 553, TYPE II WITH ALL SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL AND VINYL FILM.
SUPPLY, RETURN AND OUTSIDE AIR DUCTS - EXPOSED INTERIOR	MINERAL FIBER - BOARD	6.0	-	AS REQUIRED TO MEET MINIMUM R-VALUE	YES - PVC	YES	GLASS FIBERS BONDED WITH THERMOSETTING RESIN. COMPLY WITH ASTM C 612, TYPE IB WITH ALL SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL AND VINYL FILM.
SUPPLY, RETURN AIR DUCTS - EXTERIOR	MINERAL FIBER - BOARD	8.0	-	AS REQUIRED TO MEET MINIMUM R-VALUE	YES - SELF ADHESIVE RUBBERIZED BITUMINOUS RESIN ON CROSS LAMINATED PE FILM WITH WHITE ALUM. FOIL FACING	YES	GLASS FIBERS BONDED WITH THERMOSETTING RESIN. COMPLY WITH ASTM C 612, TYPE IB WITH ALL SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL AND VINYL FILM. POLYETHYLENE FILM COVERED WITH WHITE ALUMINUM FOIL FACING.

NOTES:
1. PROVIDE ALUMINUM JACKET FOR ALL EXTERIOR PIPE AND FITTINGS.

MECHANICAL & ELECTRICAL SYMBOLS	
SYMBOL	DESCRIPTION
	ROOFTOP UNIT TO BE REMOVED
	NEW ROOFTOP UNIT
	CONDENSATE DRAIN LINE TO BE REMOVED
	EXISTING CONDENSATE DRAIN LINE TO REMAIN
	CONDENSATE DRAIN LINE
	GAS LINE TO BE REMOVED
	EXISTING GAS LINE TO REMAIN
	GAS LINE
	GATE VALVE
	ROOM THERMOSTAT OR TEMPERATURE SENSOR
	MECHANICAL NOTE REFERENCE
	DETAIL DESIGNATION
	SHEET WHERE DETAIL IS LOCATED
	ENCLOSED CIRCUIT BREAKER
	SAFETY SWITCH, FUSED AND NON-FUSED RESPECTIVELY
	EXISTING PANELBOARD TO REMAIN
	ELECTRICAL NOTE REFERENCE
	FIRE ALARM SYSTEM DUCT SMOKE DETECTOR
	FIRE ALARM SYSTEM ADDRESSABLE CONTROL MODULE AND AUXILIARY RELAY WHERE REQUIRED
	A-AIR DEVICE, B-NECK SIZE, C-AIRFLOW

NOTE: DASHED SYMBOLS REPRESENT EXISTING EQUIPMENT TO BE REMOVED UNLESS SPECIFICALLY NOTED OTHERWISE.
SOLID LIGHT SYMBOLS REPRESENT EXISTING EQUIPMENT TO REMAIN AS IS UNLESS SPECIFICALLY NOTED OTHERWISE.
SOLID HEAVY SYMBOLS REPRESENT NEW EQUIPMENT

EXISTING ELECTRICAL PANEL SCHEDULE				
MARK	CIRCUIT	BREAKER	CONDUCTORS	CIRCUIT DESCRIPTION *
"PA" 208Y/120-3 PH 400 MAX SQUARE D NQ SERIES	1,3,5	40A - 3P		CLASSROOM 10 RTU
	2,4,6	40A - 3P		CLASSROOM 12 RTU
	7,9,11	40A - 3P		CLASSROOM 14 RTU
	8,10,12	40A - 3P		CLASSROOM 16 RTU
SEE NOTES 1-4	13,15,17	40A - 3P		CLASSROOM 18 RTU
	14,16,18	40A - 3P		CLASSROOM 20 RTU
	19,21,23	40A - 3P		CLASSROOM 19 RTU
	20,22,24	40A - 3P		CLASSROOM 9 RTU
	25,27,29	40A - 3P		TEACHER'S LOUNGE RTU
	26,28,30	40A - 3P		CLASSROOM 13 RTU
	31,33,35	40A - 3P		CLASSROOM 15 RTU
	32,34,36	40A - 3P		CLASSROOM 17 RTU
	37	20A - 1P		TIMER CLOCK
	38	20A - 1P		GFI ON ROOF
	39	20A - 1P		SPARE
	40	20A - 1P		SPARE
	41	20A - 1P		SPARE
	42	20A - 1P		SPARE

NOTES:

- PRIOR TO ANY DEMOLITION THE CONTRACTOR SHALL VERIFY CIRCUIT FEEDING ALL EXISTING ROOFTOP UNITS. NOTE FOR LABELING NEW EQUIPMENT WITH NEW UNIT DESIGNATIONS.
- PROVIDE NEW HOLDER FOR PANEL DIRECTORY. ATTACH TO INSIDE OF PANEL DOOR.
- PROVIDE UPDATED TYPED PANEL DIRECTORY WITH NEW LOADS, EQUIPMENT DESIGNATIONS AND EXISTING LOADS AS REQUIRED.
- CONTRACTOR SHALL DETERMINE THE WIRE AND CONDUIT SIZE FOR ALL CONDUCTORS IN FEEDER AND ALL EXISTING BRANCH CIRCUITS AND NOTE FOR RECORD DRAWINGS.

* CIRCUITS WITH NO LABEL ARE EITHER NOT LABELED OR THE EXISTING LABEL IS NOT LEGIBLE.

POWER VENTILATOR SCHEDULE											
MARK	SERVICE	CFM	SP	SONES (MAX)	MAX RPM	DRIVE	HP	VOLTAGE	MINIMUM FEI	WEIGHT (LBS)	REMARKS
EF-E1	BOY'S RESTROOM	650	.25"	5.0	1725	DIRECT	1/4	115V-1Ø	-	100	1,2,3
EF-E2	GIRL'S RESTOOM	650	.25"	5.0	1725	DIRECT	1/4	115V-1Ø	-	100	1,2,3
EF-E3	GIRL'S RESTOOM	650	.25"	5.0	1725	DIRECT	1/4	115V-1Ø	-	100	1,2,3
EF-E4	BOY'S RESTROOM	650	.25"	5.0	1725	DIRECT	1/4	115V-1Ø	-	100	1,2,3


REMARKS:

- CENTRUFUGAL ROOF EXHAUST FAN WITH CURB ON ROOF.
- PROVIDE ELECTRONICALLY COMMUTATED MOTOR (ECM), BACKDRAFT DAMPER, NEMA 1 DISCONNECT MOUNTED INSIDE FAN.
- PROVIDE CURRENT SENSING RELAY OR CURRENT TRANSDUCER AND ALL CONDUIT AND WIRING REQUIRED TO ENERGIZE FAN WHEN LIGHTS IN THE SERVED ROOM ARE "ON".

NEW ELECTRICAL PANEL SCHEDULE				
MARK	CIRCUIT	BREAKER	CONDUCTORS	CIRCUIT DESCRIPTION*
"PC" 208Y/120-3 PH 4 WIRE 400 MAX	1,3,5	50A - 3P	**	RTU # 28 - OFFICE
	2,4,6	40A - 3P	**	RTU # 27 - ENTRY HALL
	7,9,11	30A - 3P	**	RTU # 34 - CORRIDOR "B" WING
	8,10,12	30A - 3P	**	RTU # 33 - CORRIDOR "D" WING
SEE NOTES 1-3	13,15,17	40A - 3P	**	RTU # 29 - AUDITORIUM
	14,16,18	40A - 3P	**	RTU # 30 - AUDITORIUM
	19,21,23	40A - 3P	**	RTU # 31 - AUDITORIUM
	20,22,24	40A - 3P	**	RTU # 32 - AUDITORIUM
	25,27,29	40A - 3P	3#8+#10G	RTU # 45 - A.V. LECTURE (E-WING)
	26,28,30	100A-3P	3#1+#8G	OAU-1 - OUTSIDE AIR RTU (E-WING)
	31	20A - 1P	**	GFI ON ROOF
	32	20A - 1P	**	SPARE OR UNKNOWN
	33	20A - 1P	**	SPARE OR UNKNOWN
	34	20A - 1P	**	SPARE OR UNKNOWN
	35	20A - 1P	**	SPARE OR UNKNOWN
	36	20A - 1P	**	SPARE OR UNKNOWN
	37	20A - 1P	**	SPARE OR UNKNOWN
	38	20A - 1P	**	SPARE OR UNKNOWN
	39	20A - 1P	**	SPARE OR UNKNOWN
	40	20A - 1P	**	SPARE OR UNKNOWN
	41	20A - 1P	**	SPARE OR UNKNOWN
	42	20A - 1P	**	SPARE OR UNKNOWN
	43			PREPARED SPACE
	44			PREPARED SPACE
	45			PREPARED SPACE
	46			PREPARED SPACE
	47			PREPARED SPACE
	48			PREPARED SPACE

NOTES:

- PRIOR TO ANY DEMOLITION THE CONTRACTOR SHALL VERIFY CIRCUIT FEEDING ALL EXISTING ROOFTOP UNITS. NOTE FOR LABELING NEW EQUIPMENT WITH NEW UNIT DESIGNATIONS.
 - PROVIDE TYPED PANEL DIRECTORY WITH NEW LOADS, EQUIPMENT DESIGNATIONS AND EXISTING LOADS AS REQUIRED.
 - CONTRACTOR SHALL DETERMINE THE WIRE AND CONDUIT SIZE FOR ALL EXISTING BRANCH CIRCUITS AND NOTE FOR RECORD DRAWINGS.
- * CIRCUITS WITH NO DESCRIPTION ARE EITHER NOT LABELED OR THE EXITING LABEL IS NOT LEGIBLE.
- ** RECONNECT EXISTING BRANCH CIRCUIT.



EST. 1960
AILLET, FENNER, JOLLY,
& McCLELLAND INC.

CONSULTING ENGINEERS
3003 KNIGHT STREET, SUITE 120 OFFICE 338-425-7452
SHREVEPORT, LA 71105 FAX 338-425-7422
WWW.AFJMC.COM

FIRM
REGISTRATION
NUMBERS

E.F. 00000110 (Louisiana Engineer)
V.F. 00000003 (Louisiana Survey)
CA-2742-E (Alabama)
19370-0 (Arizona)
840 (Arkansas)
29781 (Florida)
5226 (Kentucky)
E-00009884 (Mississippi)
F-1502 (N. Carolina)
1461PE (N. Dakota)
05349 (Ohio)
CA 1943 PE (Oklahoma)
F-667 (Texas)


CADDO PARISH SCHOOL BOARD
FOREST HILL ELEMENTARY SCHOOL
HVAC UPGRADE

CPSB PROJECT NO. 2027-752

2005 FRANCAIS DR. SHREVEPORT, LA
71118

Revisions

Seal



ENGINEER MICHAEL S. MIDDLETON, P.E.
LICENSE NO. 27979

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. COPYRIGHT NOTICE.
THIS ENGINEERING DRAWING SHALL BE USED ONLY PURSUANT TO THE AGREEMENT WITH AFJMC. NO OTHER USE, DISSEMINATION OR DUPLICATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF AFJMC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.

Sheet Name

MECHANICAL & ELECTRICAL SCHEDULES

Job number 25-171

Date 31 DECEMBER, 2025

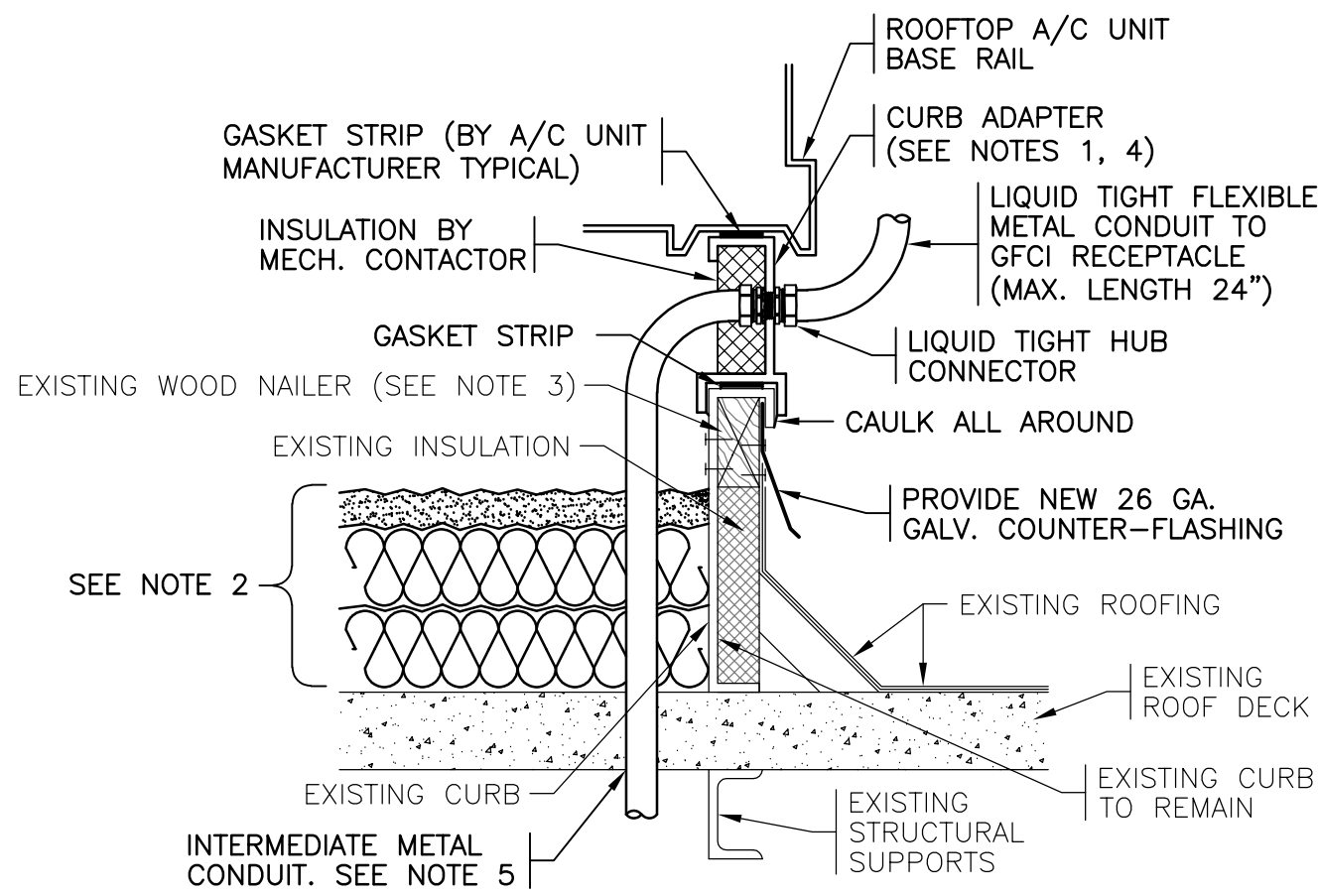
Designed by MSM

Drawn by MLH

M0.2

Scale AS SHOWN

IF SHEET IS LESS THAN (24"x36") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY.



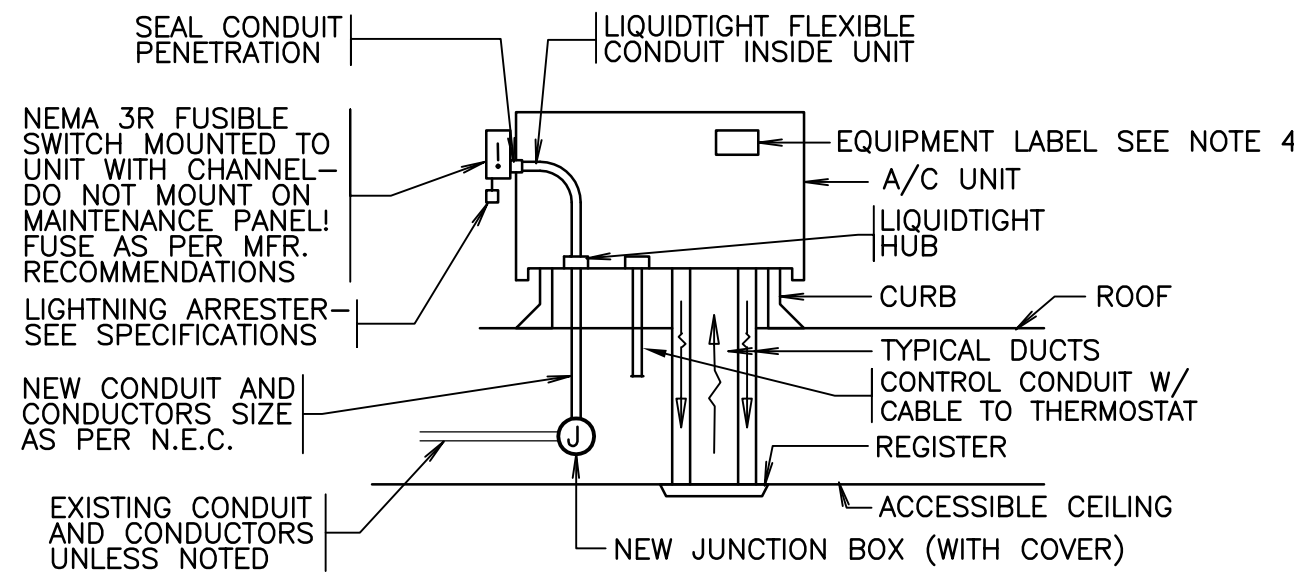
A DETAIL-ROOF MOUNTING FRAME NO SCALE

NOTES:

1. PROVIDE CURB ADAPTER AS REQUIRED FOR NEW ROOF TOP UNIT DIMENSIONS. PROVIDE MINIMUM 8" HIGH VERTICAL SECTION IN ADAPTER FOR CONDUIT PENETRATIONS.
2. PROVIDE TWO LAYERS OF 6" FIBERGLASS INSULATION AND 1 LB/SF LUMP MASS BARRIER SYSTEM SHALL BE ACOUSTICS FIRST CORP. BLOCKAID VSP, KINETICS NOISE CONTROL KNM-100AL OR APPROVED EQUAL AND SHALL HAVE THE FOLLOWING PERFORMANCE;

MINIMUM SOUND TRANSMISSION LOSS BY OCTAVE BAND					
125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ
13	17	21	28	33	37

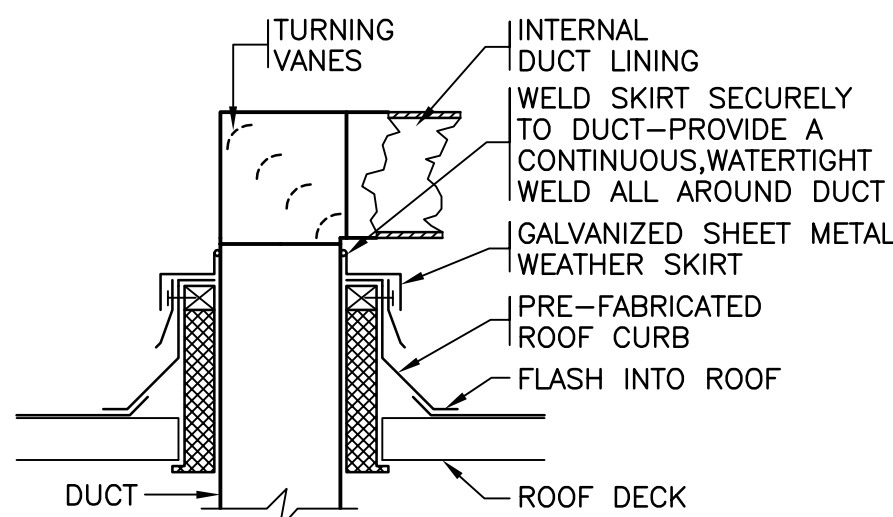
3. REPLACE ALL ROTTEN OR DAMAGED WOOD NAILERS. MATCH SIZE AND TYPE OF EXISTING.
4. PROVIDE LIQUID TIGHT HUB CONNECTOR AT PENETRATION THROUGH CURB ADAPTER WHERE REQUIRED FOR UNIT OR RECEPTACLE POWER. REMOVE INSULATION AS REQUIRED TO INSTALL HUB. PATCH INSULATION AROUND HUB INSIDE CURB ADAPTER.
5. ROUTE CONDUIT THROUGH NEW OPENING IN ROOF DECK. PROVIDE JUNCTION BOX AND EXTEND CONDUIT AS INDICATED. SECURE CONDUIT TO BUILDING STRUCTURE.



E DETAIL-POWER CONNECTION TO ROOFTOP A/C UNIT FED FROM BELOW NO SCALE

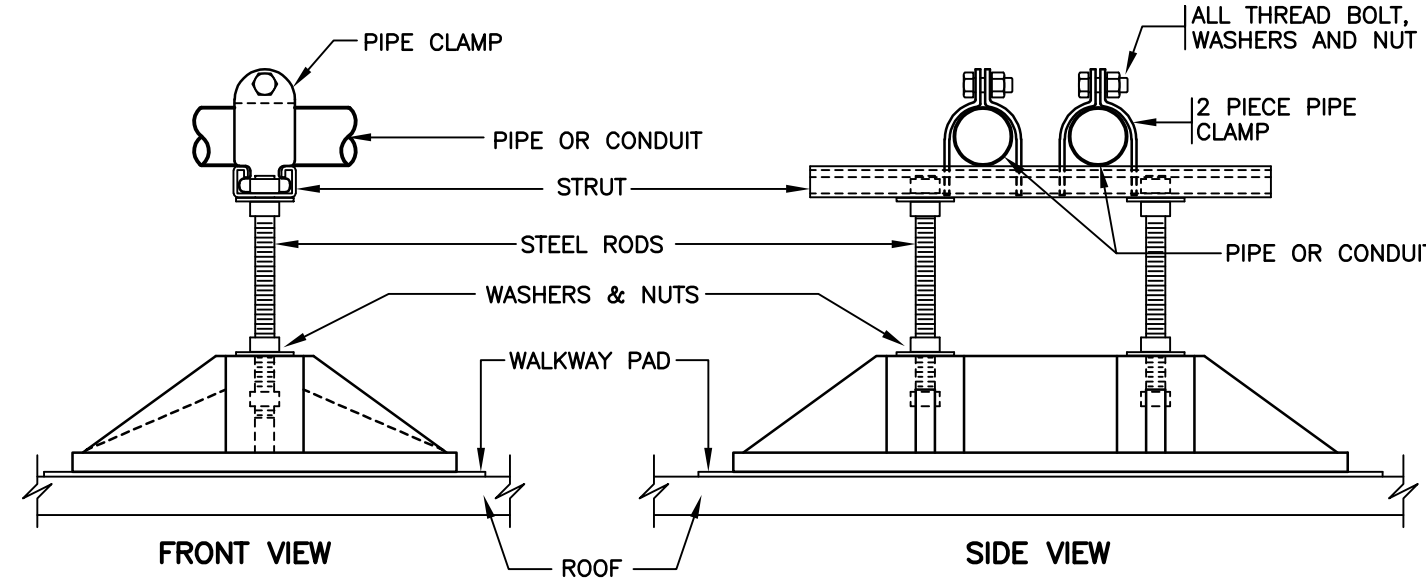
NOTES:

1. EQUIPMENT AND WIRING SHALL BE INSTALLED SO THAT IT DOES NOT INTERFERE WITH EQUIPMENT OPERATION OR ANY REQUIRED MAINTENANCE FUNCTION.
2. CONTROL CONDUITS SHALL ENTER UNIT IN THE SAME MANNER AS SHOWN FOR POWER CONDUITS.
3. WHERE SWITCH IS NOT MOUNTED ON UNIT, PROVIDE LIQUIDTIGHT HUB ON OUTSIDE OF UNIT AND EXTEND IN RIGID OR LIQUIDTIGHT CONDUIT TO DISCONNECT SWITCH.
4. PROVIDE PERMANENT EQUIPMENT LABEL AFFIXED TO UNIT. DO NOT OBSTRUCT DOORS ACCESS PANELS, COILS ETC. LABEL SHALL INCLUDE THE FOLLOWING:
UNIT MARK OR DESIGNATION (FROM DRAWINGS)
ROOM NAME OF SPACE SERVED (FROM DRAWINGS OR BUILDING SIGNAGE)
VOLTAGE/PHASE (FROM EQUIPMENT NAME PLATE)
MAX FUSE SIZE (FROM EQUIPMENT NAME PLATE)
REFRIGERANT AND CHARGE (FROM EQUIPMENT NAMEPLATE)
INSTALL DATE



K DETAIL-DUCT PENETRATION THRU ROOF NO SCALE

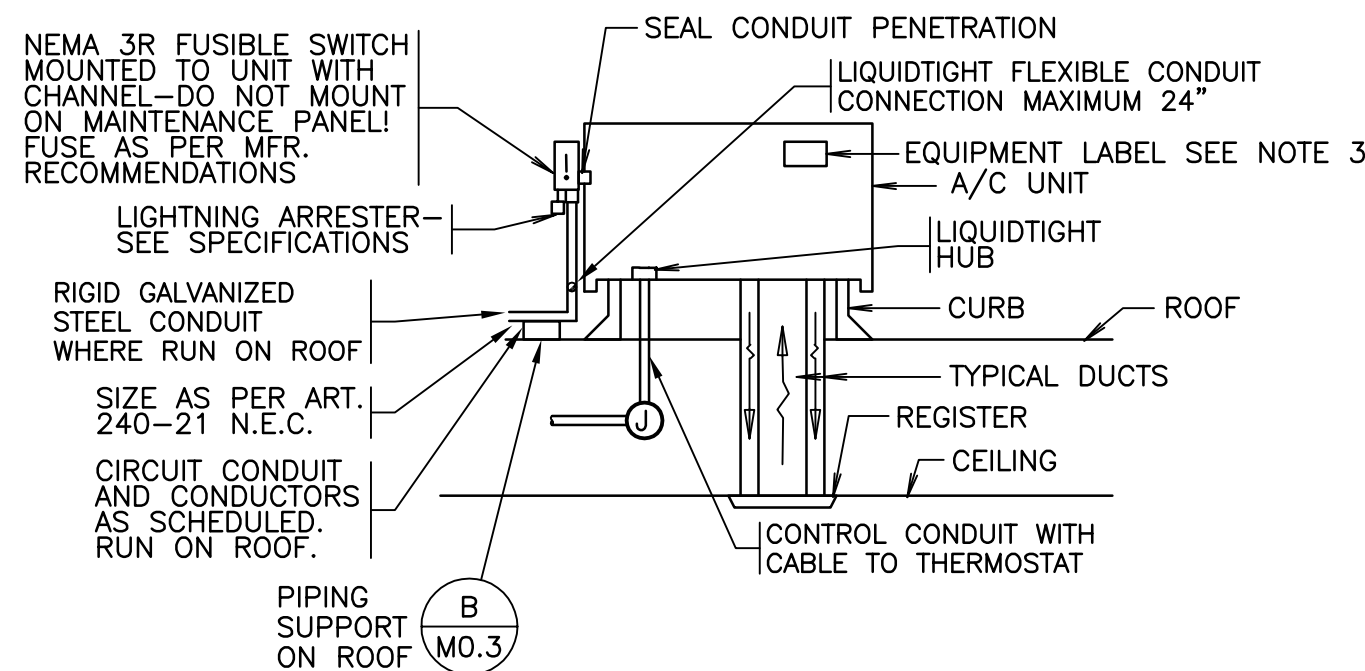
NOTE: REFER TO STRUCTURAL DETAILS FOR ANGLE FRAME SUPPORTS AT PENETRATION



B DETAIL-PIPE & CONDUIT SUPPORT ON ROOF NO SCALE

NOTES:

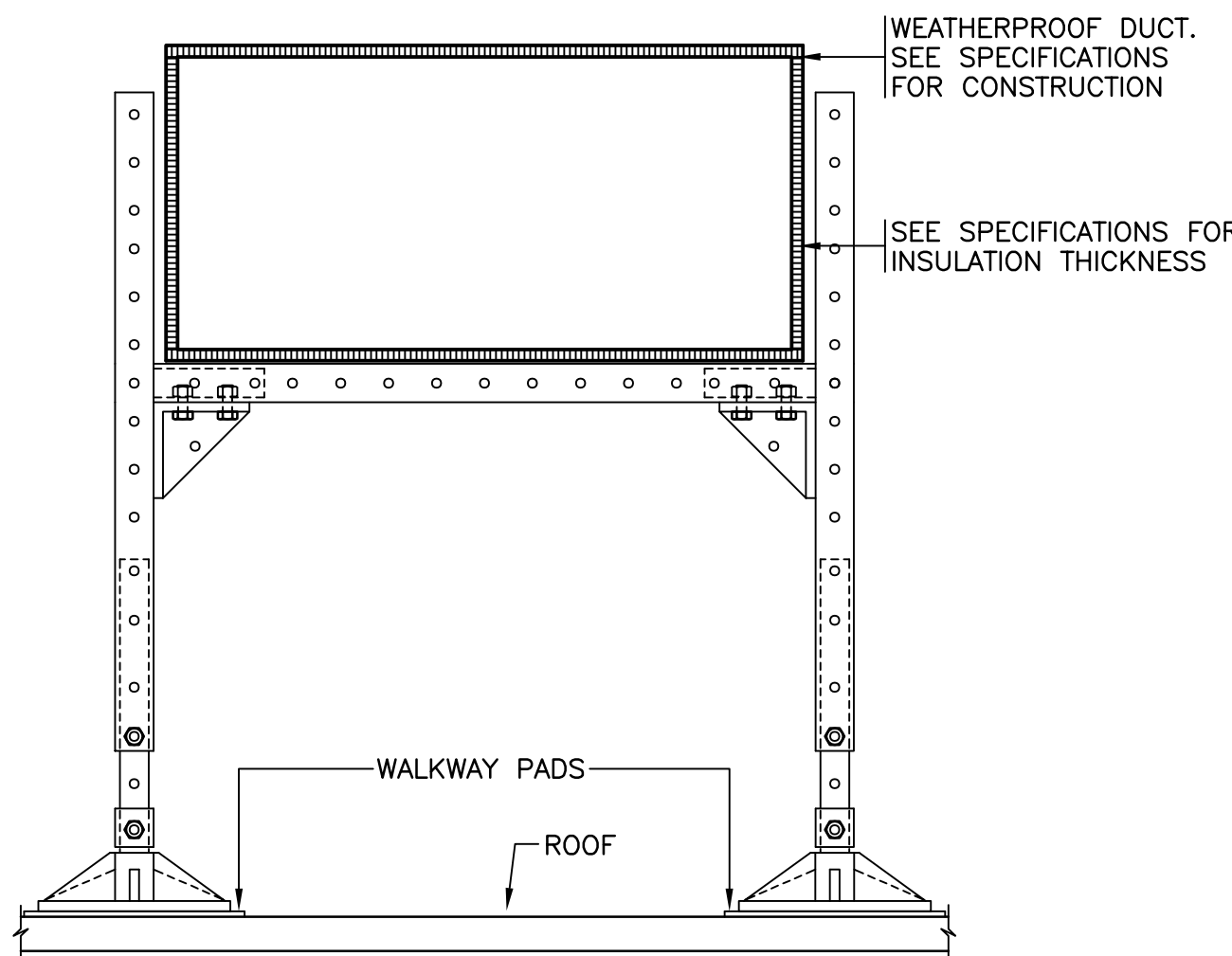
1. PIPE SUPPORT SHALL BE ONE OF THE FOLLOWING OR APPROVED EQUAL:
A. PORTABLE PIPE HANGERS, INC. MODEL PP10S
B. MAPA PRODUCTS, MODEL MS-3.
C. ROOFTOP BLOX, MODEL RTB-01 (CONTRACTOR SUPPLIED HARDWARE REQUIRED).
D. MIRO INDUSTRIES, INC. MODEL 8-BASE STRUT-12
2. ALL STRUTS, RODS, WASHERS, NUTS, BOLTS, CLAMPS, ETC. SHALL BE HOT DIPPED GALVANIZED (ASTM A123).
3. 8"-0" MAXIMUM CAPACITY BETWEEN SUPPORTS.



F DETAIL-POWER CONNECTION TO ROOFTOP A/C UNIT FED FROM ROOF NO SCALE

NOTES:

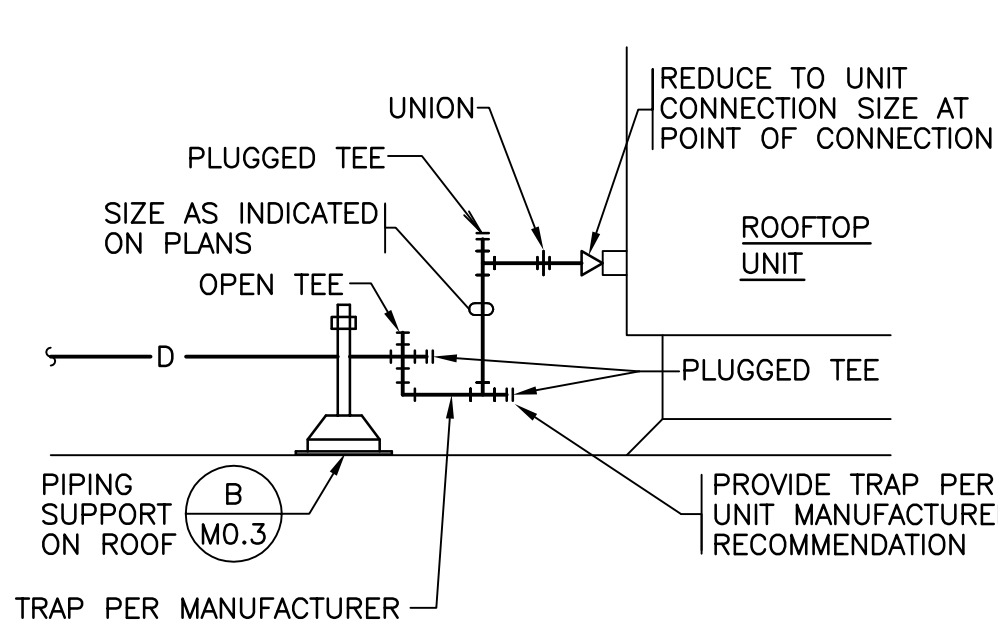
1. EQUIPMENT AND WIRING SHALL BE INSTALLED SO THAT IT DOES NOT INTERFERE WITH EQUIPMENT OPERATION OR ANY REQUIRED MAINTENANCE FUNCTION.
2. WHERE SWITCH IS NOT MOUNTED ON UNIT, PROVIDE LIQUIDTIGHT HUB ON OUTSIDE OF UNIT AND EXTEND IN RIGID OR LIQUIDTIGHT CONDUIT TO DISCONNECT SWITCH.
3. PROVIDE PERMANENT EQUIPMENT LABEL AFFIXED TO UNIT. DO NOT OBSTRUCT DOORS ACCESS PANELS, COILS ETC. LABEL SHALL INCLUDE THE FOLLOWING:
UNIT MARK OR DESIGNATION (FROM DRAWINGS)
ROOM NAME OF SPACE SERVED (FROM DRAWINGS OR BUILDING SIGNAGE)
VOLTAGE/PHASE (FROM EQUIPMENT NAME PLATE)
MAX FUSE SIZE (FROM EQUIPMENT NAME PLATE)
REFRIGERANT AND CHARGE (FROM EQUIPMENT NAMEPLATE)
INSTALL DATE



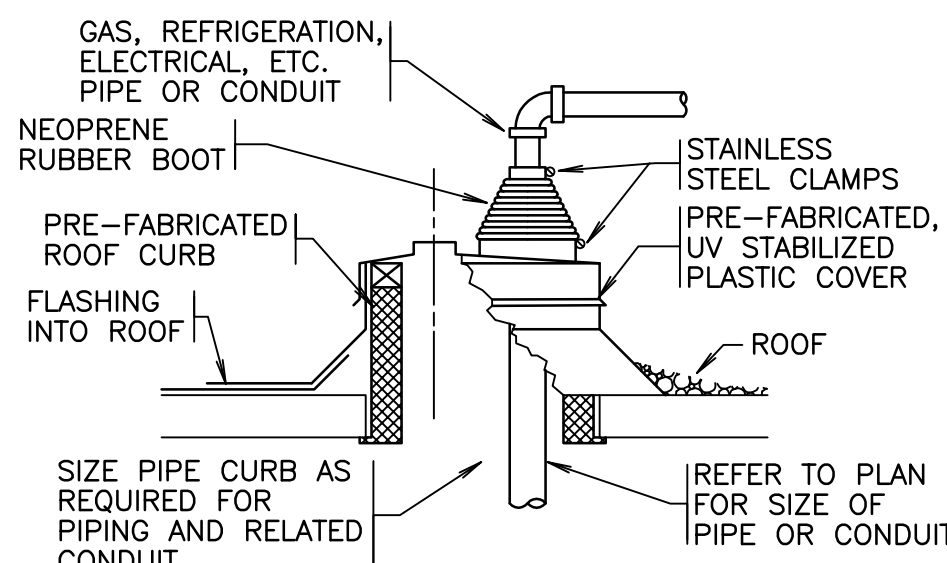
L DETAIL-DUCT SUPPORT ON ROOF NO SCALE

NOTES:

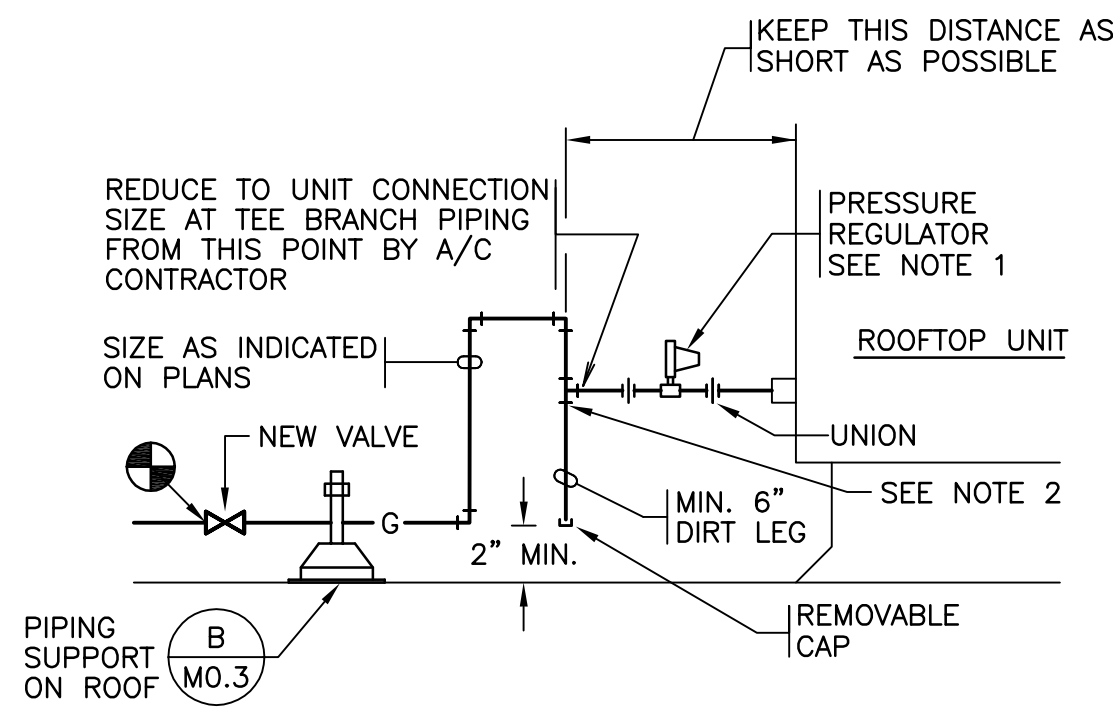
1. PROVIDE WALKWAY PADS AS RECOMMENDED BY ROOFING MANUFACTURER.
2. DUCT SUPPORT SHALL BE ONE OF THE FOLLOWING OR APPROVED EQUAL:
A. PORTABLE PIPE HANGERS, INC. MODEL PPH-D
B. MIRO INDUSTRIES DUCT SUPPORT.
3. ALL METAL PARTS SHALL BE HOT DIPPED GALVANIZED (ASTM A123).



C CONDENSATE DRAIN CONNECTION NO SCALE



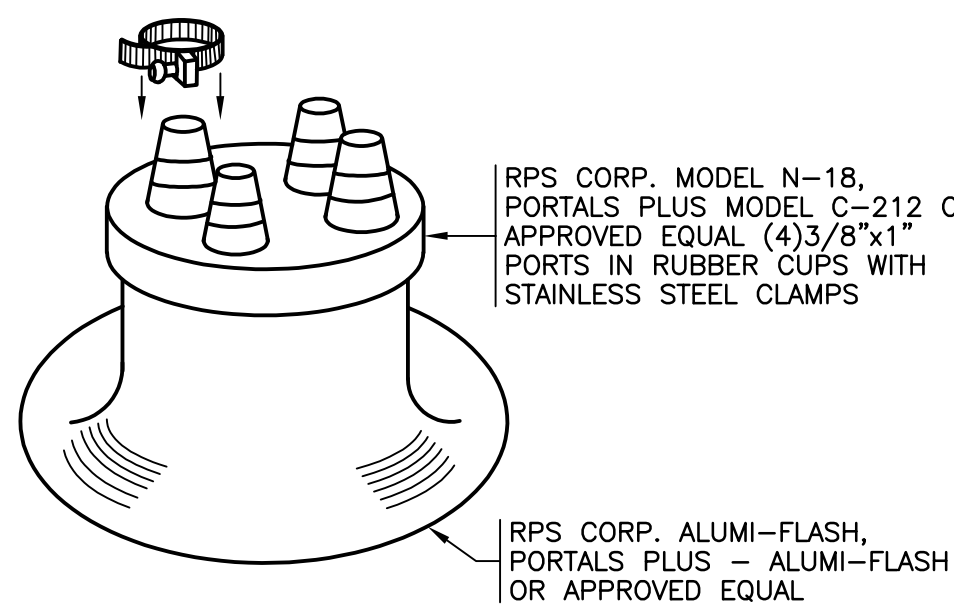
G DETAIL-PIPE CURB ASSEMBLY NO SCALE



D DETAIL-CONNECTION OF GAS PIPING WITH REGULATOR TO A/C UNIT NO SCALE

NOTE:

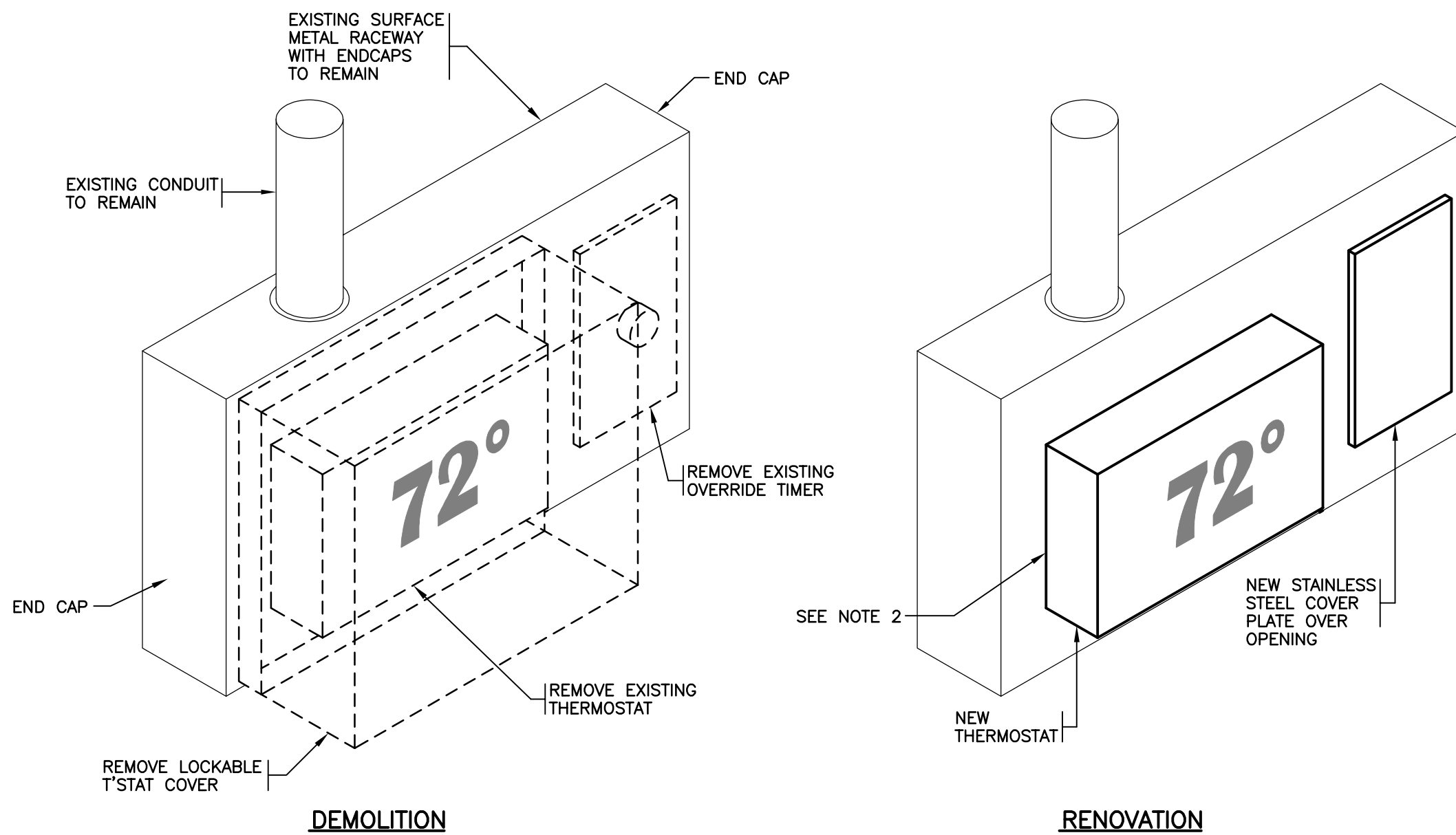
1. OMIT REGULATOR AND ONE UNION IF NOT REQUIRED.
2. DIRT LEG ON BRANCH OUTLET OF TEE INSTALLED WITH RUN IN HORIZONTAL IS NOT PERMITTED. NFPA 54 (2024)-FIGURE 9.6.8. IFGC (2021)-FIGURE 408.4.



J ROOF PIPE PORTAL DETAIL NO SCALE

NOTES:


1. CONTRACTOR MAY USE A SINGLE OUTLET BOOT IF ONLY ONE OUTLET IS NEEDED.
2. PROVIDE LARGER PORTAL/CURB AS REQUIRED WHEN COVERING A LARGER EXISTING OPENING IN ROOF DECK OR IF MORE OUTLETS ARE NEEDED.



H DETAIL - THERMOSTAT MOUNTING NO SCALE

NOTES:

1. COORDINATE REQUIREMENTS WITH BMCS CONTRACTOR.
2. PROVIDE STAINLESS STEEL PLATE TO COVER EXISTING OPENING AND MOUNT NEW THERMOSTAT OR SENSORS.



EST. 1960
AILLET, FENNER, JOLLY,
& McCLELLAND INC.

CONSULTING ENGINEERS
3003 KNIGHT STREET, SUITE 100 OFFICE: 338-425-7452
SHREVEPORT, LA 71105 FAX: 338-425-4322
WWW.AFJINC.COM

E.F. 0000010 (Louisiana Engineer)
V.F. 0000003 (Louisiana Survey)
CA-2742-E (Alabama)
19370-0 (Arizona)
840 (Arkansas)
29781 (Florida)
5226 (Kentucky)
E-0000984 (Mississippi)
F-1502 (N. Carolina)
1461PE (N. Dakota)
03349 (Ohio)
CA 1943 PE (Oklahoma)
F-667 (Texas)

FIRM
REGISTRATION
NUMBERS

CADDO PARISH SCHOOL BOARD
FOREST HILL ELEMENTARY SCHOOL
HVAC UPGRADE


CPSB PROJECT NO. 2027-752

2005 FRANCAIS DR. SHREVEPORT, LA 71118

Revisions

--	--

Seal



ENGINEER MICHAEL S. MIDDLETON, P.E.
LICENSE NO. 27979
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. COPYRIGHT NOTICE
THIS ENGINEERING DRAWING SHALL BE USED ONLY PURSUANT TO THE AGREEMENT WITH AFJMC. NO OTHER USE, DISSEMINATION OR DUPLICATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF AFJMC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.

Sheet Name

MECHANICAL & ELECTRICAL DETAILS

Job number	25-171
Date	31 DECEMBER, 2025
Designed by	MSM
Drawn by	MLH

M0.3

Scale AS SHOWN
IF SHEET IS LESS THAN (24"x36") IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.

GENERAL NOTES:

- EXISTING ROOF IS NOT UNDER WARRANTY.
- REMOVE AND RE-INSTALL EXISTING CEILING TILES AND SUPPORT GRID AS REQUIRED FOR WORK. PROVIDE NEW MATERIALS TO MATCH EXISTING WHERE THE EXISTING ITEMS ARE NOT SUITABLE FOR RE-USE.

MECHANICAL DEMOLITION NOTES:

- (MD1) REMOVE EXISTING PACKAGED RTU AND CURB ADAPTER AS INDICATED. EXISTING CURB TO REMAIN.
- (MD2) REMOVE EXISTING GAS PIPING AS INDICATED. SAVE EXISTING SUPPORTS ON ROOF FOR RE-INSTALLATION.
- (MD3) REMOVE EXISTING CONDENSATE DRAIN PIPING AND TRAP AS INDICATED. SAVE EXISTING SUPPORTS ON ROOF FOR RE-INSTALLATION.
- (MD4) REMOVE EXISTING WALL THERMOSTAT, OVER-RIDE TIMER, LOCKING COVER AND CONTROL WIRING. EXISTING CONDUIT AND SURFACE METAL RACEWAY TO REMAIN FOR REUSE.
- (MD5) CLEAN EXISTING DUCT AND AIR DISTRIBUTION DEVICES TO REMAIN.
- (MD6) REMOVE EXISTING TIME CLOCK. FIELD VERIFY LOCATION OF EXISTING TIME CLOCK.

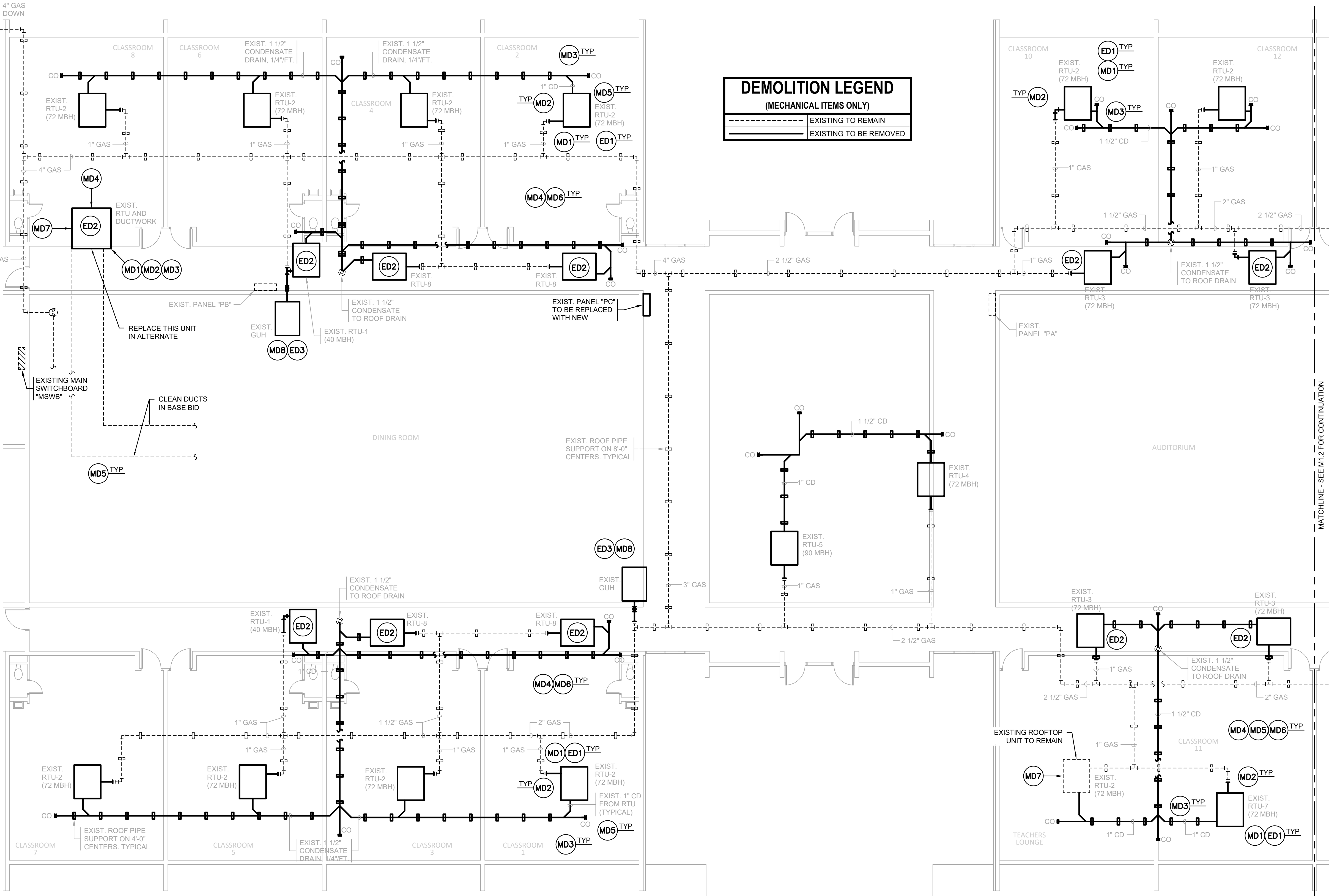
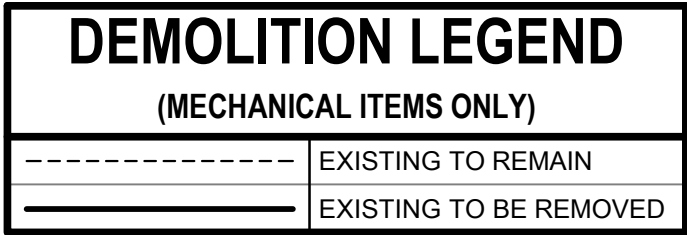
- (MD7) REMOVE EXISTING IDENTIFICATION LABEL FROM EXISTING UNIT.
- (MD8) REMOVE EXISTING UNIT HEATER AND ALL ASSOCIATED SUPPORTS, HANGERS, POWER AND CONTROLS.

ELECTRICAL DEMOLITION NOTES:

- (ED1) DISCONNECT EXISTING RTU FEEDER. REMOVE EXISTING SAFETY SWITCH. SALVAGE FEEDER FOR CONNECTION TO NEW EQUIPMENT. **SALVAGE FUSES TO OWNER.**
- (ED2) DISCONNECT EXISTING DUCT SMOKE DETECTOR(S). SALVAGE EXISTING SIGNAL LINE CIRCUIT FOR REUSE.
- (ED3) DISCONNECT MECHANICAL EQUIPMENT. REMOVE CONDUCTORS TO SOURCE. REMOVE RACEWAY TO NEAREST J BOX.

ALTERNATE BID:

- ALL WORK ASSOCIATED WITH REPLACING RTU-K1.



PARTIAL FLOOR PLAN 'B' & 'D' WINGS MECHANICAL DEMOLITION

SCALE: 1/8" = 1'-0"

AILLET, FENNER, JOLLY, & McCLELLAND INC.
EST. 1960
CONSULTING ENGINEERS
3003 KNIGHT STREET, SUITE 120 OFFICE: 338-425-7452
SHREVEPORT, LA 71105 FAX: 338-425-4222
WWW.AFJMC.COM

FIRM REGISTRATION NUMBERS

E.F. 0000010 (Louisiana Engineer)	V.F. 0000003 (Louisiana Survey)
CA-2742-E (Alabama)	19370-0 (Arizona)
840 (Arkansas)	29781 (Florida)
5226 (Kentucky)	E-00009884 (Mississippi)
F-1502 (N. Carolina)	1461PE (N. Dakota)
05349 (Ohio)	CA 1943 PE (Oklahoma)
F-667 (Texas)	

**CADDO PARISH SCHOOL BOARD
FOREST HILL ELEMENTARY SCHOOL
HVAC UPGRADE**

CPSB PROJECT NO. 2027-752

2005 FRANCOIS DR. SHREVEPORT, LA 71118

Revisions

Seal

STATE OF LOUISIANA
MICHAEL S. MIDDLETON
REG. NO. 27979
MECHANICAL ENGINEER
IN
11/15/2025

ENGINEER MICHAEL S. MIDDLETON, P.E.
LICENSE NO. 27979

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. COPYRIGHT NOTICE
THIS ENGINEERING DRAWING SHALL BE USED ONLY PURSUANT TO THE AGREEMENT WITH AFJMC. NO OTHER USE, DISSEMINATION OR DUPLICATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF AFJMC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.

Sheet Name
**PARTIAL FLOOR PLAN
'B' & 'D' WINGS
MECHANICAL
DEMOLITION**

Job number	25-171
Date	31 DECEMBER, 2025
Designed by	MSM
Drawn by	AJL

M1.1

Scale AS SHOWN
IF SHEET IS LESS THAN (24"x36") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY.



EST. 1960
AILLET, FENNER, JOLLY,
& McCLELLAND INC.

CONSULTING ENGINEERS

3003 KNIGHT STREET, SUITE 120 OFFICE: 338-425-7452
SHREVEPORT, LA 71105 FAX: 338-425-4022
WWW.AFJ.MC.COM

FIRM
REGISTRATION
NUMBERS

E.F. 00000110 (Louisiana Engineer)
V.F. 00000003 (Louisiana Survey)
CA-2742-E (Alabama)
19370-0 (Arizona)
840 (Arkansas)
29781 (Florida)
5226 (Kentucky)
E-00000884 (Mississippi)
F-1502 (N. Carolina)
1461PE (N. Dakota)
05349 (Ohio)
CA 1943 PE (Oklahoma)
F-667 (Texas)

DEMOLITION LEGEND

(MECHANICAL ITEMS ONLY)

----- EXISTING TO REMAIN

===== EXISTING TO BE REMOVED

GENERAL NOTES:

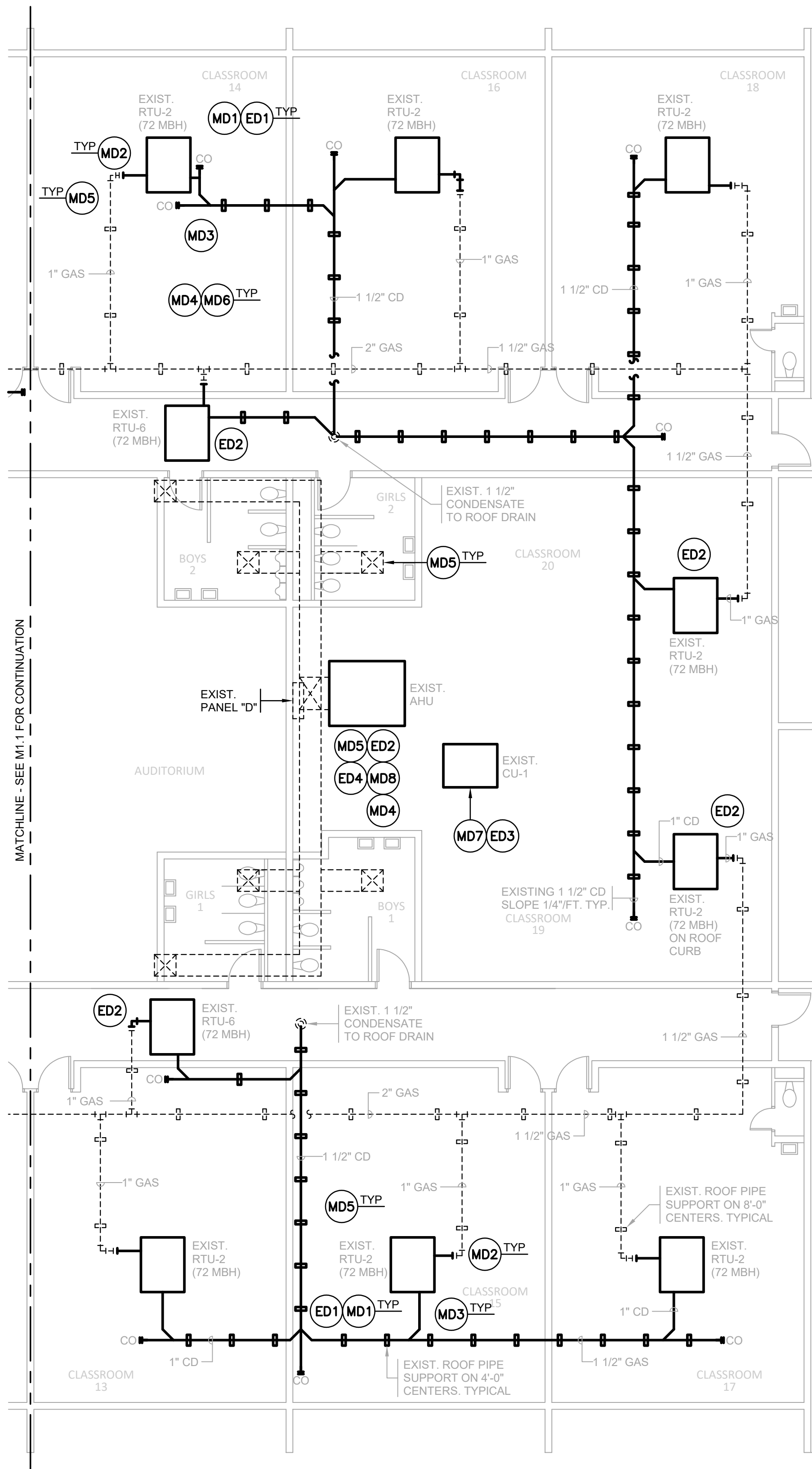
- EXISTING ROOF IS NOT UNDER WARRANTY.
- REMOVE AND RE-INSTALL EXISTING CEILING TILES AND SUPPORT GRID AS REQUIRED FOR WORK. PROVIDE NEW MATERIALS TO MATCH EXISTING WHERE THE EXISTING ITEMS ARE NOT SUITABLE FOR RE-USE.

MECHANICAL DEMOLITION NOTES:

- MD1** REMOVE EXISTING PACKAGED RTU AND CURB ADAPTER AS INDICATED. EXISTING CURB TO REMAIN.
- MD2** REMOVE EXISTING GAS PIPING AS INDICATED. SAVE EXISTING SUPPORTS ON ROOF FOR RE-INSTALLATION.
- MD3** REMOVE EXISTING CONDENSATE DRAIN PIPING AND TRAP AS INDICATED. SAVE EXISTING SUPPORTS ON ROOF FOR RE-INSTALLATION.
- MD4** REMOVE EXISTING WALL THERMOSTAT, OVER-RIDE TIMER, LOCKING COVER AND CONTROL WIRING. EXISTING CONDUIT AND SURFACE METAL RACEWAY TO REMAIN FOR REUSE.
- MD5** CLEAN EXISTING DUCT AND AIR DISTRIBUTION DEVICES TO REMAIN.
- MD6** REMOVE EXISTING TIME CLOCK. FIELD VERIFY LOCATION OF EXISTING TIME CLOCK.
- MD7** REMOVE EXISTING CONDENSING UNIT FROM ROOF. REMOVE ALL REFRIGERANT PIPING AND CONTROL WIRING.
- MD8** REMOVE EXISTING AIR HANDLER AND ELECTRICAL HEATER. REMOVE DUCTWORK AS REQUIRED TO INSTALL NEW UNIT. REMOVE CONDENSATE DRAIN FROM AHU TO TERMINATION.

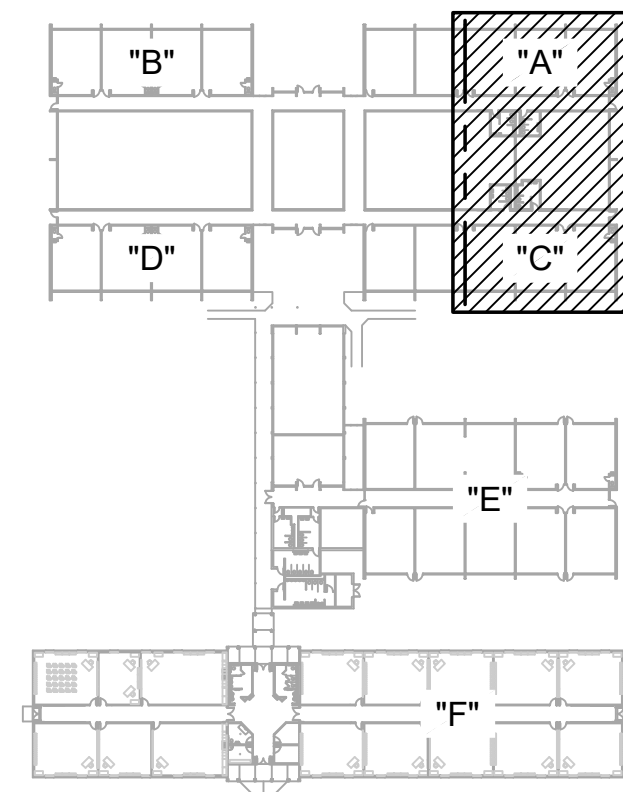
ELECTRICAL DEMOLITION NOTES:

- ED1** DISCONNECT EXISTING RTU FEEDER. REMOVE EXISTING SAFETY SWITCH. SALVAGE FEEDER FOR CONNECTION TO NEW EQUIPMENT. **SALVAGE FUSES TO OWNER.**
- ED2** DISCONNECT EXISTING DUCT SMOKE DETECTOR(S). SALVAGE EXISTING SIGNAL LINE CIRCUIT FOR REUSE.
- ED3** DISCONNECT EXISTING CONDENSING UNIT FEEDER. REMOVE EXISTING SAFETY SWITCH. SALVAGE FEEDER FOR CONNECTION TO NEW EQUIPMENT. **SALVAGE FUSES TO OWNER.**
- ED4** DISCONNECT EXISTING AHU AND ELECTRICAL HEAT. REMOVE SAFETY SWITCHES. SALVAGE FEEDERS FOR CONNECTION TO NEW EQUIPMENT. **SALVAGE FUSES TO OWNER.**



PARTIAL FLOOR PLAN "A" & "C" WINGS MECHANICAL DEMOLITION

SCALE: 1/8" = 1'-0"



KEY PLAN

SCALE: NO SCALE

Revisions

Seal



ENGINEER MICHAEL S. MIDDLETON, P.E.

LICENSE NO. 27979

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. COPYRIGHT NOTICE

THIS ENGINEERING DRAWING SHALL BE USED ONLY PURSUANT TO THE AGREEMENT WITH AFJMC. NO OTHER USE, DISSEMINATION OR DUPLICATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF AFJMC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.

Sheet Name

PARTIAL FLOOR PLAN
"A" & "C" WINGS
MECHANICAL
DEMOLITION

Job number 25-171

Date 31 DECEMBER, 2025

Designed by MSM

Drawn by AJL

M1.2

Scale AS SHOWN

IF SHEET IS LESS THAN (24"x36") IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.

GENERAL NOTES:

- EXISTING ROOF IS NOT UNDER WARRANTY.
- PROVIDE PIPE SUPPORTS FOR NEW FUEL GAS PIPING ON ROOF AT EACH CHANGE IN DIRECTION AND 8'-0" ON CENTER MAXIMUM.
- PROVIDE PIPE SUPPORTS FOR NEW CONDENSATE DRAIN PIPING AT EACH CHANGE IN DIRECTION AND 4'-0" ON CENTER MAXIMUM.
- FUEL GAS PIPING SIZED PER 2015 IFGC TABLE 402.4(5); SCH 40 METALLIC PIPE 2 PSI INLET PRESSURE, 1.0 PSI DROP AND 1000' PIPE LENGTH.
- REMOVE AND RE-INSTALL EXISTING CEILING TILES AND SUPPORT GRID AS REQUIRED FOR WORK. PROVIDE NEW MATERIALS TO MATCH EXISTING WHERE THE EXISTING ITEMS ARE NOT SUITABLE FOR RE-USE.

MECHANICAL RENOVATION NOTES:

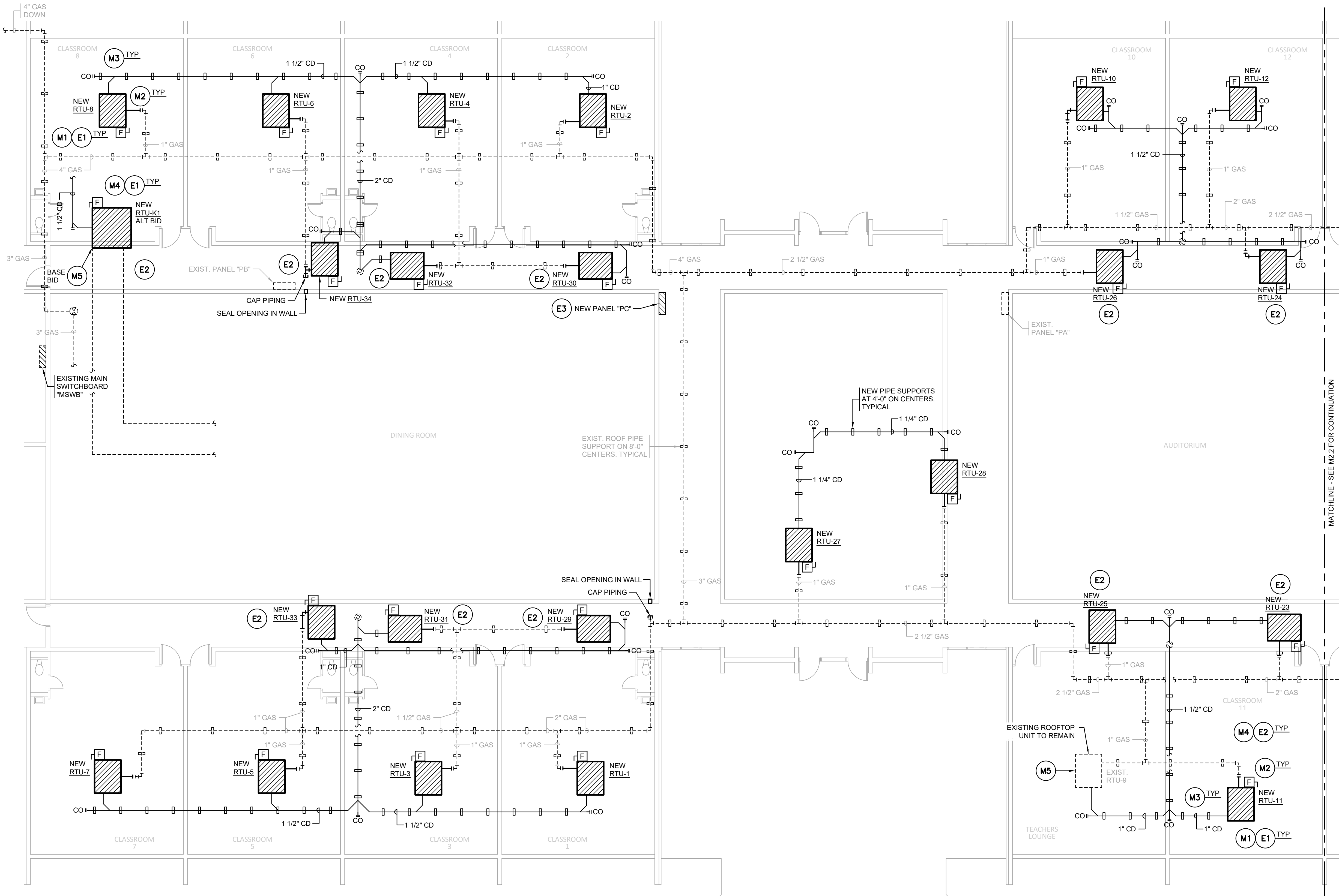
- M1** PROVIDE ROOFTOP UNIT AND CURB ADAPTOR TO MATCH EXISTING ROOF CURB. PROVIDE NEW CONTROL WIRING.
- M2** PROVIDE FUEL GAS PIPING CONNECTION PER DETAIL. EXTEND PIPING AS INDICATED AND PROVIDE PIPE SUPPORTS AND WALKWAY PADS PER DETAIL D/M0.3.
- M3** PROVIDE CONDENSATE DRAIN WITH TRAP AND SUPPORTS ON ROOF. EXTEND PIPING AS INDICATED, PROVIDE PIPE SUPPORTS AND WALKWAY PADS PER DETAIL C/M0.3.
- M4** PROVIDE THERMOSTAT AS SPECIFIED. VERIFY EXACT LOCATION WITH EXISTING WALL MOUNTED ITEMS. EXTEND CONTROL WIRING THROUGH EXISTING CONDUITS, WALL CONSTRUCTION OR SURFACE METAL RACEWAY.
- M5** PROVIDE NEW FILTERS AND VERIFY PROPER OPERATION OF ALL EXISTING RTU FUNCTIONS. PROVIDE TEST, ADJUST AND BALANCE ON EXISTING UNIT SAME AS NEW UNITS. PROVIDE IDENTIFICATION LABEL ON EXISTING UNIT SAME AS NEW UNITS.

ELECTRICAL RENOVATION NOTES:

- E1** CONNECT NEW ROOFTOP UNIT TO EXISTING FEEDER. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.
- E2** PROVIDE NEW DUCT SMOKE DETECTOR AND CONTROL MODULE AS REQUIRED. CONNECT TO EXISTING FIRE ALARM CONTROL PANEL AND ROOFTOP CONTROLS AS REQUIRED TO SHUT DOWN UNIT AND INITIATE FIRE ALARM. PROGRAM THE FIRE ALARM SYSTEM SUCH THAT ANY SMOKE DETECTOR IN A SPACE WILL SHUT DOWN ALL UNITS IN THAT SPACE.
- E3** PROVIDE NEW, NEMA 3R, PANEL "PC" TO REPLACE EXISTING. PROVIDE NEW 400A-3P BREAKER TO REPLACE EXISTING 300A IN EXISTING "MSWB" AND EXTEND 4#500KCMIL-#3G VIA EXISTING 3"C TO NEW PANEL.

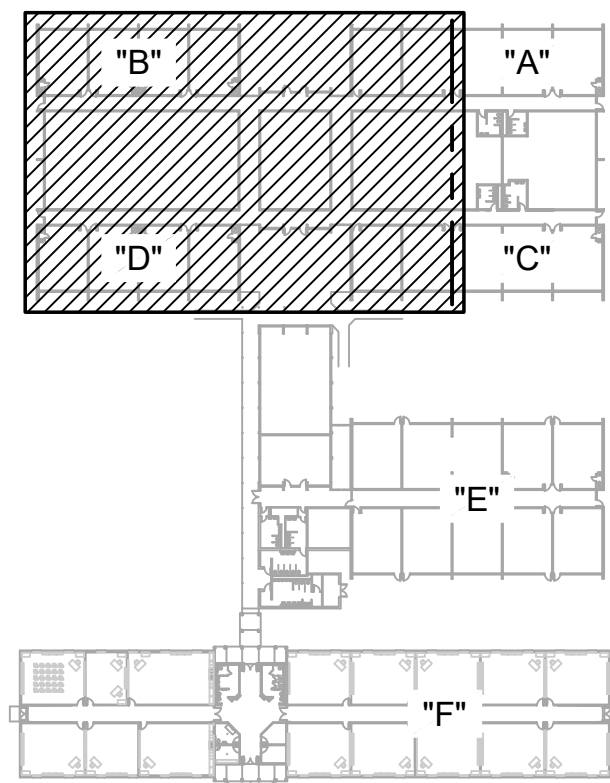
ALTERNATE BIDS:

- ALL WORK ASSOCIATED WITH REPLACING RTU-K1.



PARTIAL FLOOR PLAN - WINGS "B" & "D" MECHANICAL RENOVATION

SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NO SCALE



AILLET, FENNER, JOLLY, & McCLELLAND INC.
EST. 1960
CONSULTING ENGINEERS
3003 KNIGHT STREET, SUITE 120 OFFICE: 338-425-7452
SHREVEPORT, LA 71105 FAX: 338-425-4222
WWW.AFJ.MC.COM

FIRM REGISTRATION NUMBERS
E.F. 0000010 (Louisiana Engineer)
V.F. 0000003 (Louisiana Survey)
CA-2742-E (Alabama)
19370-0 (Arizona)
840 (Arkansas)
29781 (Florida)
5226 (Kentucky)
E-0000984 (Mississippi)
F-1502 (N. Carolina)
1461PE (N. Dakota)
05349 (Ohio)
CA 1943 PE (Oklahoma)
F-667 (Texas)

**CADDO PARISH SCHOOL BOARD
FOREST HILL ELEMENTARY SCHOOL
HVAC UPGRADE**
CPSB PROJECT NO. 2027-752
2005 FRANCOIS DR. SHREVEPORT, LA 71118

Revisions

Seal



ENGINEER	MICHAEL S. MIDDLETON, P.E.
LICENSE NO.	27979
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. COPYRIGHT NOTICE	
THIS ENGINEERING DRAWING SHALL BE USED ONLY PURSUANT TO THE AGREEMENT WITH AFJMC. NO OTHER USE DISSEMINATION OR DUPLICATION MAY BE MADE WITHOUT PRIOR WRITTEN CONSENT OF AFJMC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.	
Sheet Name	PARTIAL FLOOR PLAN "B" & "D" WINGS MECHANICAL RENOVATION
Job number	25-171
Date	31 DECEMBER, 2025
Designed by	MSM
Drawn by	AJL

M2.1

Scale AS SHOWN
IF SHEET IS LESS THAN (24"x36") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY.



EST. 1960
AILLET, FENNER, JOLLY,
& McCLELLAND INC.

CONSULTING ENGINEERS

3003 KNIGHT STREET, SUITE 120 OFFICE 338-425-7452
SHREVEPORT, LA 71105 FAX 338-425-4422
WWW.AFJINC.COM

FIRM
REGISTRATION
NUMBERS

E.F. 00000110 (Louisiana Engineer)
V.F. 00000003 (Louisiana Survey)
CA-2742-E (Alabama)
19370-0 (Arizona)
840 (Arkansas)
29781 (Florida)
5226 (Kentucky)
E-00000884 (Mississippi)
F-1502 (N. Carolina)
1461PE (N. Dakota)
05349 (Ohio)
CA 1943 PE (Oklahoma)
F-667 (Texas)

CADDO PARISH SCHOOL BOARD
FOREST HILL ELEMENTARY SCHOOL
HVAC UPGRADE

CPSB PROJECT NO. 2027-752

2005 FRANCAIS DR. SHREVEPORT, LA
71118

Revisions

Seal



ENGINEER MICHAEL S. MIDDLETON, P.E.

LICENSE NO. 27979

THESE DRAWINGS DO NOT INCLUDE NECESSARY
COMPONENTS FOR CONSTRUCTION SAFETY.

COPYRIGHT NOTICE
THIS ENGINEERING DRAWING SHALL BE USED ONLY
PURSUANT TO THE AGREEMENT WITH AFJMC. NO
OTHER USE, DISSEMINATION OR DUPLICATION MAY BE
MADE WITHOUT PRIOR WRITTEN CONSENT OF AFJMC.
ALL COMMON LAW RIGHTS OF COPYRIGHT AND
OTHERWISE ARE HEREBY SPECIFICALLY RESERVED.

Sheet Name

PARTIAL FLOOR PLAN
"A" & "C" WINGS
MECHANICAL
RENOVATION

Job number 25-171

Date 31 DECEMBER, 2025

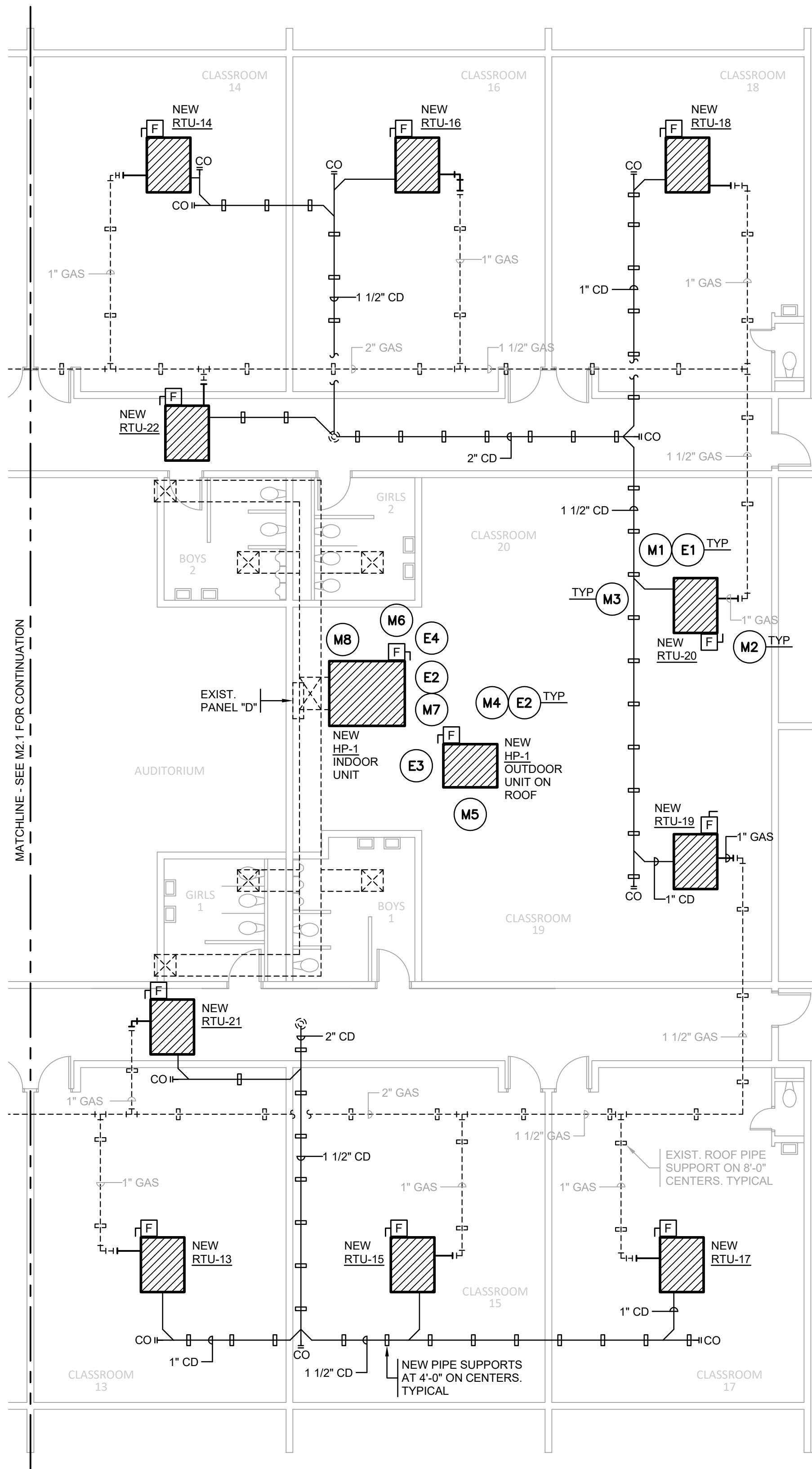
Designed by MSM

Drawn by AJL

M2.2

Scale AS SHOWN

IF SHEET IS LESS THAN (24"x36") IT IS A REDUCED
PRINT. SCALE REDUCED ACCORDINGLY.



PARTIAL FLOOR PLAN - WINGS "A" & "C" MECHANICAL RENOVATION

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- EXISTING ROOF IS NOT UNDER WARRANTY.
- PROVIDE PIPE SUPPORTS FOR NEW FUEL GAS PIPING ON ROOF AT EACH CHANGE IN DIRECTION AND 8'-0" ON CENTER MAXIMUM.
- PROVIDE PIPE SUPPORTS FOR NEW CONDENSATE DRAIN PIPING AT EACH CHANGE IN DIRECTION AND 4'-0" ON CENTER MAXIMUM.
- FUEL GAS PIPING SIZED PER 2015 IFGC TABLE 402.4(5); SCH 40 METALLIC PIPE 2 PSI INLET PRESSURE, 1.0 PSI DROP AND 1000' PIPE LENGTH.
- REMOVE AND RE-INSTALL EXISTING CEILING TILES AND SUPPORT GRID AS REQUIRED FOR WORK. PROVIDE NEW MATERIALS TO MATCH EXISTING WHERE THE EXISTING ITEMS ARE NOT SUITABLE FOR RE-USE.

ELECTRICAL RENOVATION NOTES:

- E1** CONNECT NEW ROOFTOP UNIT TO EXISTING FEEDER. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.
- E2** PROVIDE NEW DUCT SMOKE DETECTOR AND CONTROL MODULE AS REQUIRED. CONNECT TO EXISTING FIRE ALARM CONTROL PANEL AND ROOFTOP CONTROLS AS REQUIRED TO SHUT DOWN UNIT AND INITIATE FIRE ALARM. PROGRAM THE FIRE ALARM SYSTEM SUCH THAT ANY SMOKE DETECTOR IN A SPACE WILL SHUT DOWN ALL UNITS IN THAT SPACE.
- E3** REPLACE EXISTING 20A-2P BREAKER IN EXISTING PANEL "D" WITH NEW 30A-2P AND EXTEND 2#10+#10G TO NEW CONDENSING UNIT.
- E4** CONNECT NEW AHU AND HEATER TO EXISTING FEEDER. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED. REPLACE EXISTING 35A-2P BREAKER IN EXISTING PANEL "D" WITH NEW 40A-2P BREAKER. EXISTING WIRING TO REMAIN.

MECHANICAL RENOVATION NOTES:

- M1** PROVIDE ROOFTOP UNIT AND CURB ADAPTOR TO MATCH EXISTING ROOF CURB. PROVIDE NEW CONTROL WIRING.
- M2** PROVIDE FUEL GAS PIPING CONNECTION PER DETAIL. EXTEND PIPING AS INDICATED AND PROVIDE PIPE SUPPORTS AND WALKWAY PADS PER DETAIL D/M0.3.
- M3** PROVIDE CONDENSATE DRAIN WITH TRAP AND SUPPORTS ON ROOF. EXTEND PIPING AS INDICATED, PROVIDE PIPE SUPPORTS AND WALKWAY PADS PER DETAIL C/M0.3.
- M4** PROVIDE THERMOSTAT AS SPECIFIED. VERIFY EXACT LOCATION WITH EXISTING WALL MOUNTED ITEMS. EXTEND CONTROL WIRING THROUGH EXISTING CONDUITS, WALL CONSTRUCTION OR SURFACE METAL RACEWAY.
- M5** PROVIDE NEW CONDENSING UNIT AND SUPPORTS ON ROOF. EXTEND REFRIGERANT PIPING AND CONTROL WIRING TO NEW AIR HANDLING UNIT.
- M6** PROVIDE NEW AIR HANDLING UNIT. PROVIDE NEW CONDENSATE DRAIN AND TRAP. PROVIDE SAFE PAN WITH FLOAT SWITCH TO DE-ENERGIZE UNIT.
- M7** ROUTE NEW PIPING AND WIRING THROUGH EXISTING PIPE CURB PENETRATION. PROVIDE NEW COVER AND PIPE BOOTS AS REQUIRED. SEE DETAIL "6" ON SHEET M0.3.
- M8** PROVIDE NEW ELECTRIC HEATER. COORDINATE REQUIREMENT FOR POWER WITH EXISTING CONDITIONS.

