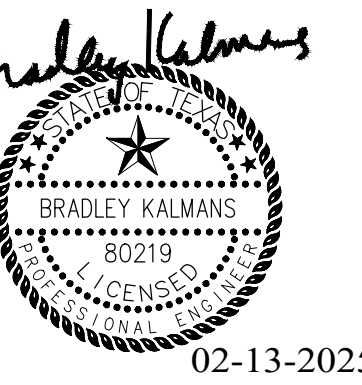




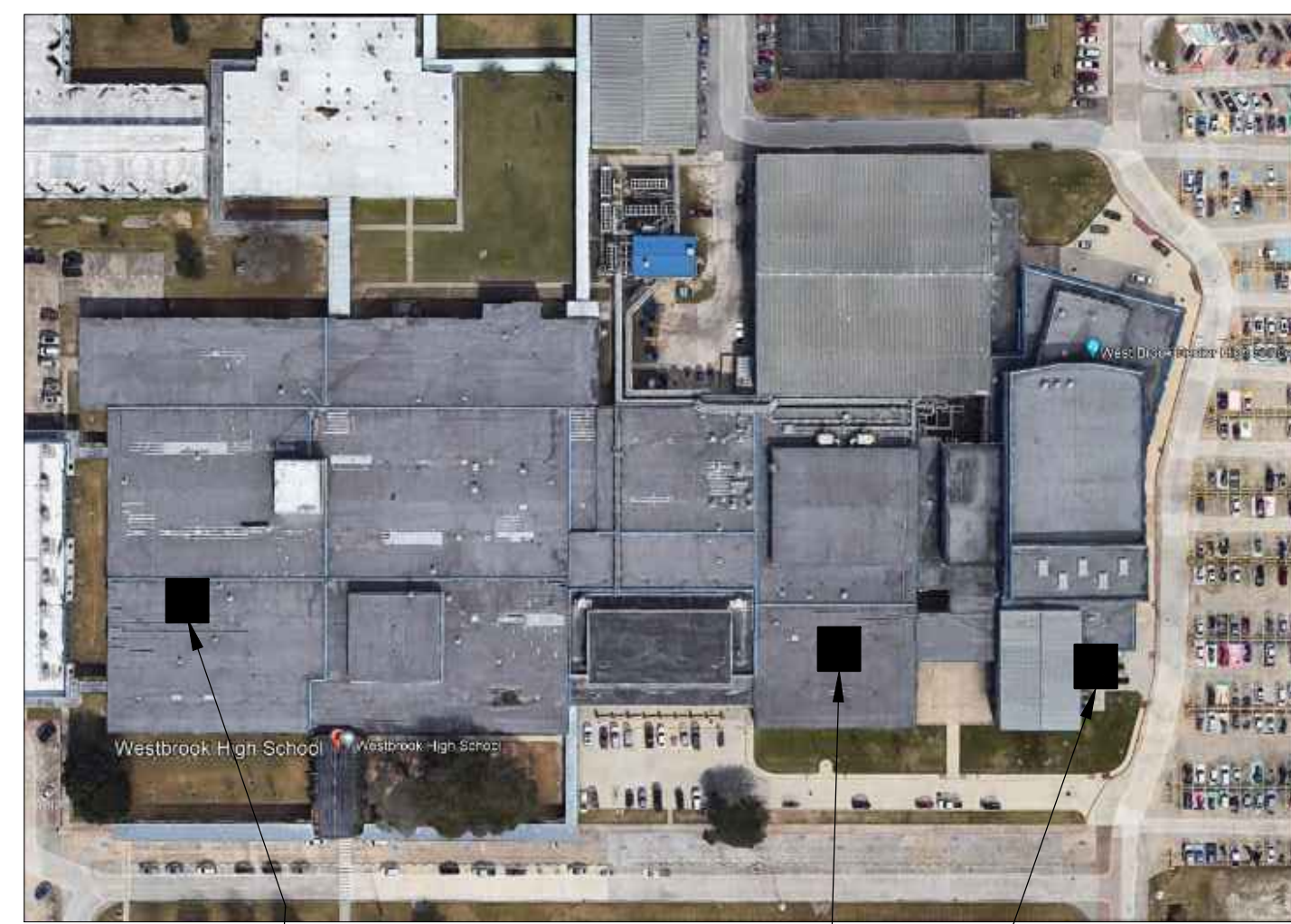
Houston
 10930 W. Sam Houston Pkwy North, Suite 900
 Houston, TX 77064
 Salas O'Brien Registration: F-4111
 Salas O'Brien Project Number: 2450-70835-00

BEAUMONT INDEPENDENT SCHOOL DISTRICT HVAC REPLACEMENT PROJECT AT WESTBROOK HIGH SCHOOL CSP #25.11



SITE LOCATIONS

WESTBROOK HIGH SCHOOL
 8750 PHELAN BLVD, BEAUMONT, TX 77706



ADMIN AREA
 OF WORK

BAND HALL
 AREA OF WORK

CLASSROOM
 AREA OF WORK

Westbrook HS



INDEX OF DRAWINGS:

WESTBROOK HIGH SCHOOL

- CS1.01 COVER SHEET - INDEX OF DRAWINGS**
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- M1.01 MECHANICAL ENLARGED FLOOR PLANS**
- M2.01 MECHANICAL DETAILS, LEGENDS, AND SCHEDULES**
- E1.01 ELECTRICAL ENLARGED FLOOR PLANS**
- E2.01 ELECTRICAL DETAILS, LEGENDS, AND SCHEDULES**

SHEET NAME

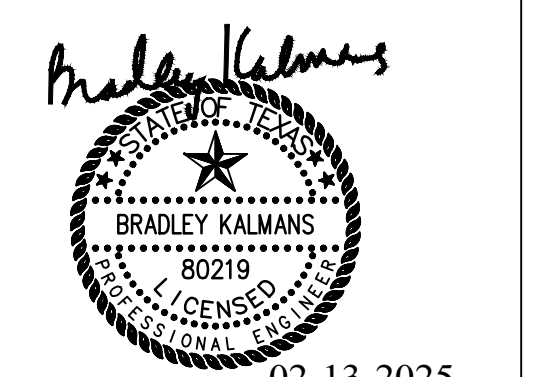
COVER SHEET - INDEX
 OF DRAWINGS

SHEET NUMBER REVISION

CS1.00

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Beaumont Independent
School District

**HVAC
REPLACEMENT
PROJECT AT
WESTBROOK
HIGH SCHOOL
CSP# 25.11**

WESTBROOK HIGH SCHOOL
8750 PHELAN BLVD., BEAUMONT, TX 77706

NOTES

REVISIONS

A	DESCRIPTION	DATE

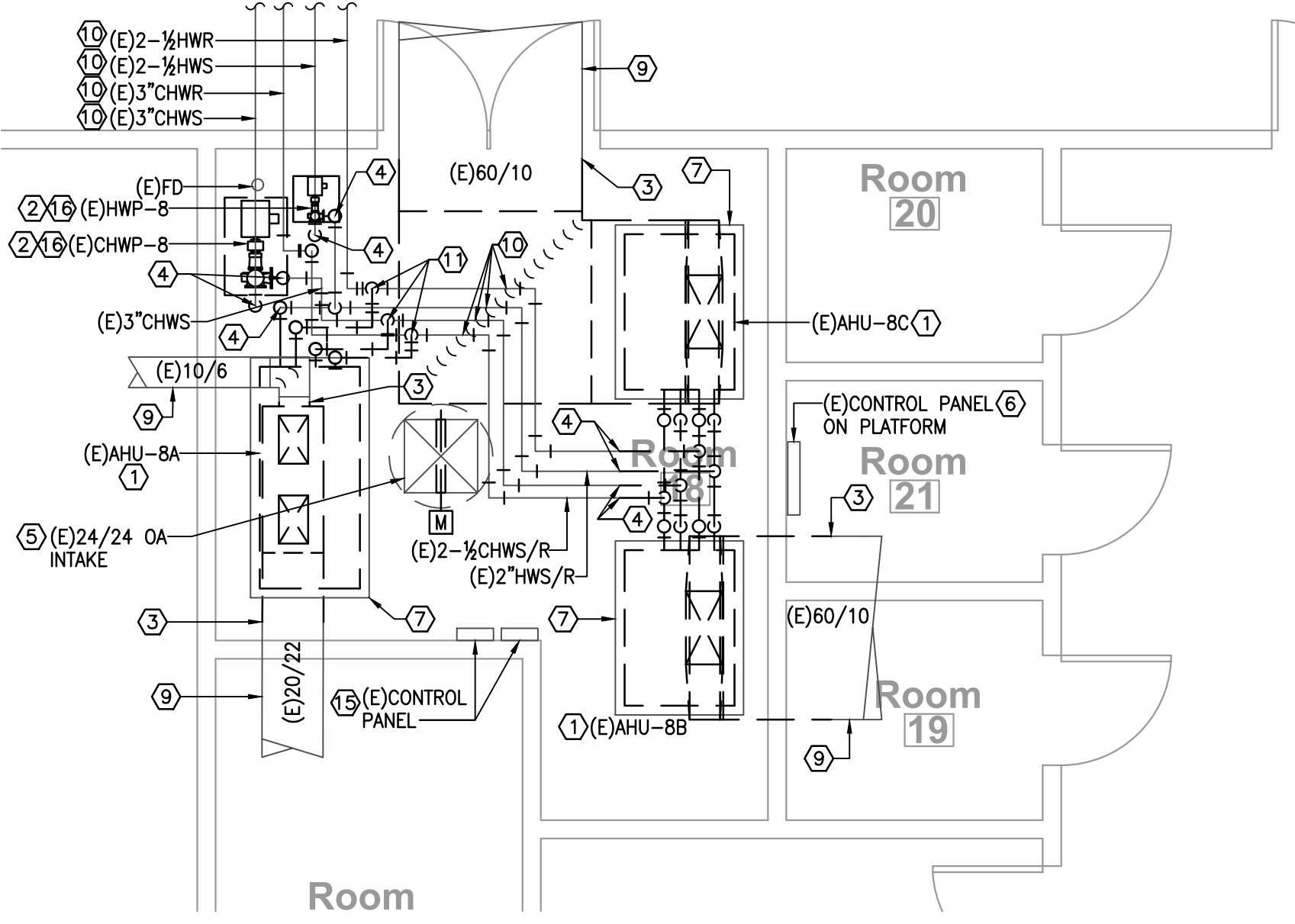
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SHEET NAME
**MECHANICAL
DEMOLITION
ENLARGED FLOOR
PLANS**

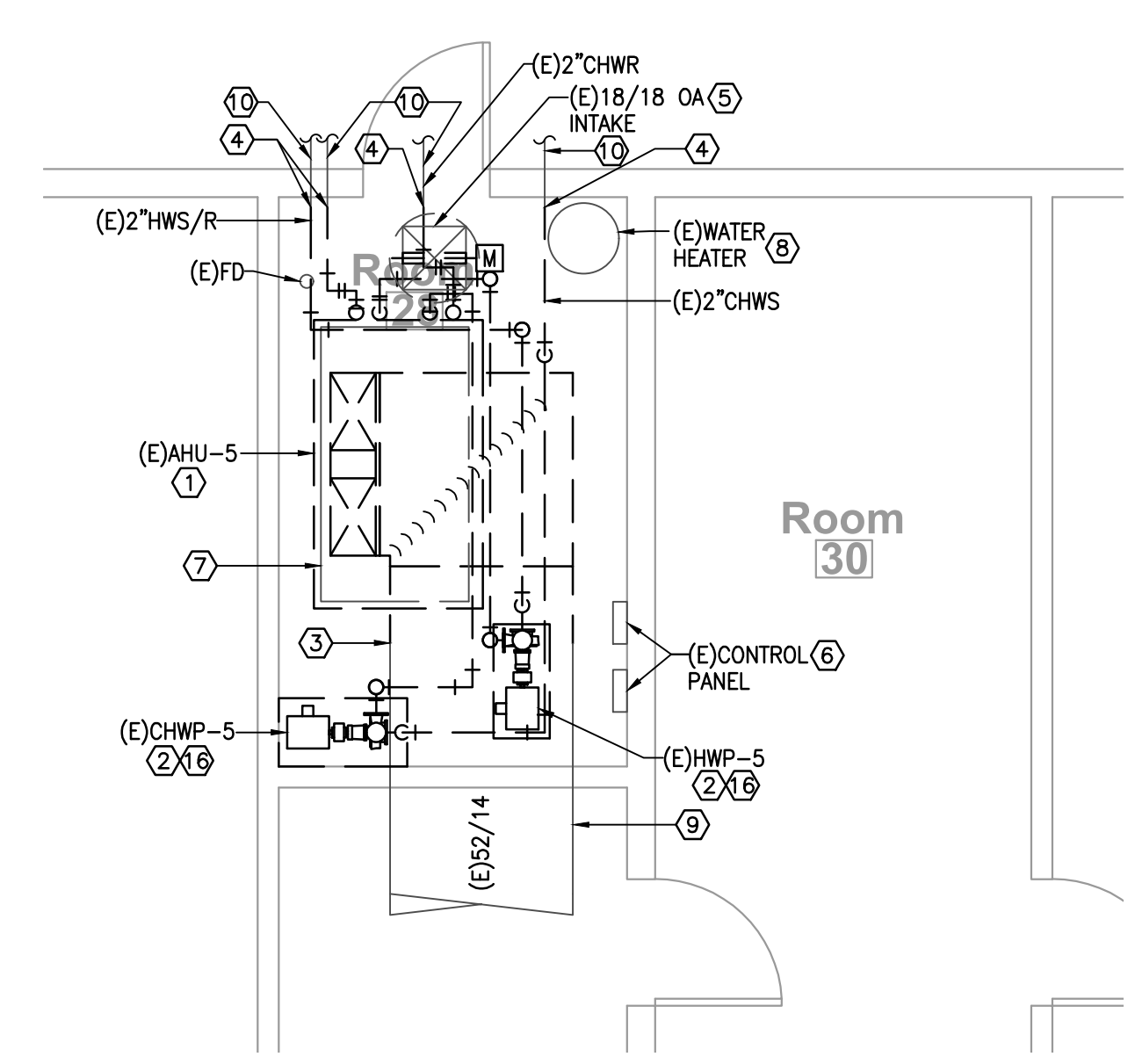
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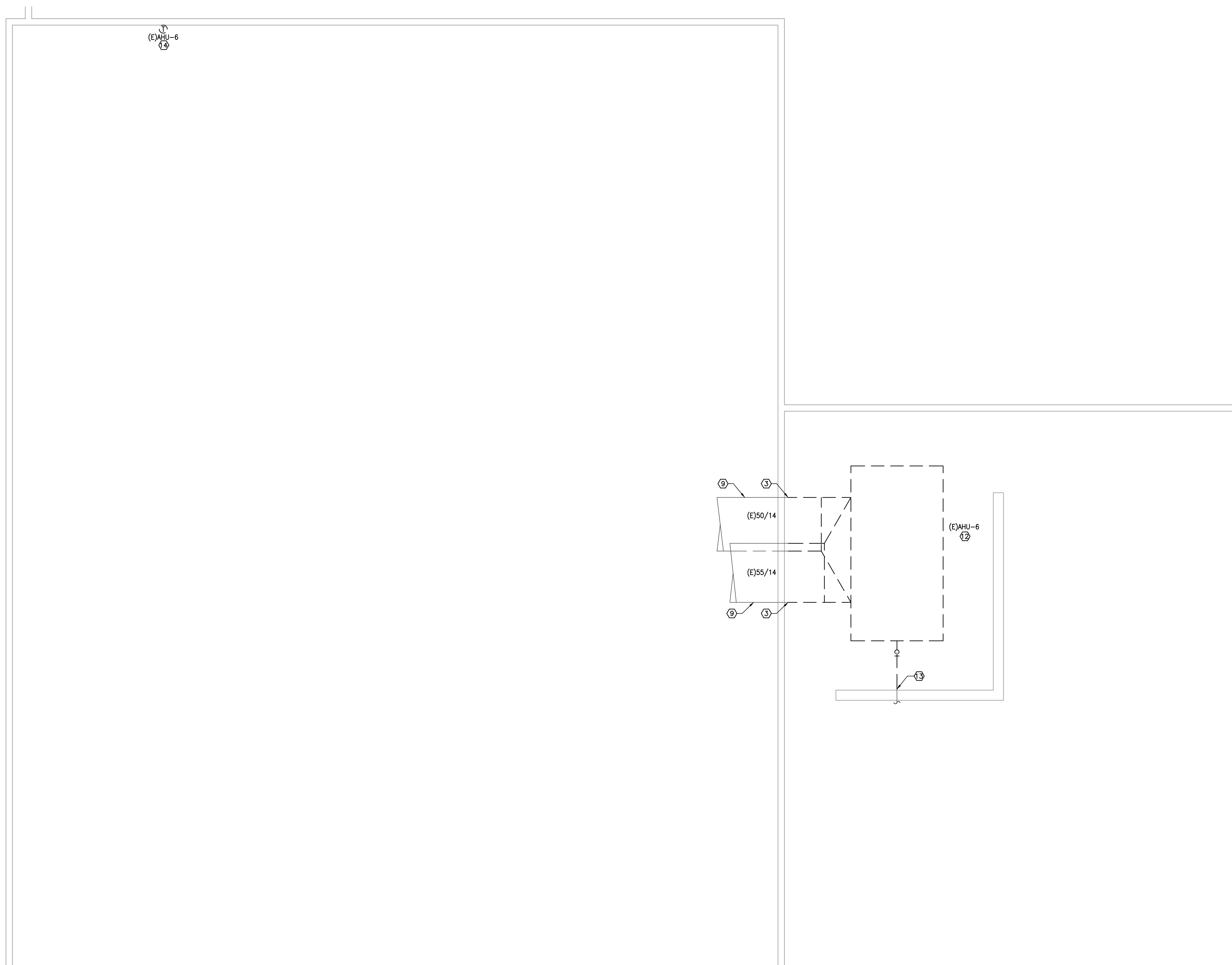
- 1 REMOVE EXISTING AIR HANDLING UNIT, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
- 2 REMOVE EXISTING PUMP, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
- 3 REMOVE EXISTING DUCTWORK, INSULATION, AND ALL ASSOCIATED APPURTENANCES BACK TO POINT INDICATED.
- 4 REMOVE EXISTING PIPING AND ALL ASSOCIATED APPURTENANCES BACK TO POINT INDICATED.
- 5 EXISTING OUTSIDE AIR INTAKE TO REMAIN. REMOVE EXISTING MOTORIZED DAMPER AND ACTUATOR.
- 6 EXISTING CONTROL PANEL TO REMAIN.
- 7 EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN.
- 8 EXISTING WATER HEATER TO REMAIN.
- 9 EXISTING DUCTWORK TO REMAIN.
- 10 EXISTING PIPING TO REMAIN.
- 11 REMOVE EXISTING PIPING AND ALL ASSOCIATED APPURTENANCES BACK TO POINT INDICATED. PATCH, SEAL, AND INSULATE MAIN PIPING AS SPECIFIED.
- 12 REMOVE EXISTING GROUND MOUNTED ROOFTOP UNIT, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
- 13 REMOVE EXISTING CONDENSATE PIPING BACK TO POINT INDICATED.
- 14 REMOVE EXISTING TEMPERATURE SENSOR AND ALL ASSOCIATED CONTROL WIRING.
- 15 EXISTING CONTROL PANELS SHALL BE RELOCATED. REFER TO MECHANICAL SHEET 4/M1.01 FOR NEW LOCATION.
- 16 REMOVE EXISTING CONCRETE HOUSE KEEPING PAD.



2 CLASSROOM - MECHANICAL ENLARGED FLOOR PLAN
SCALE: 1/4" = 1'-0"



3 ADMIN - MECHANICAL ENLARGED FLOOR PLAN
SCALE: 1/4" = 1'-0"

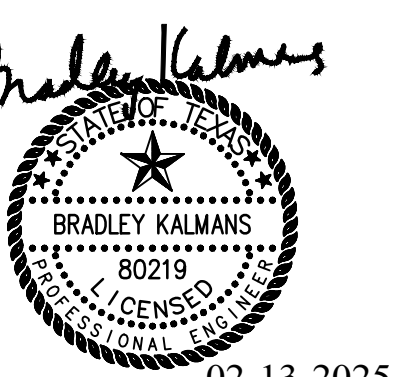


1 BAND HALL - GROUND RTU MECHANICAL
SCALE: 1/4" = 1'-0"

F
E
D
C
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A

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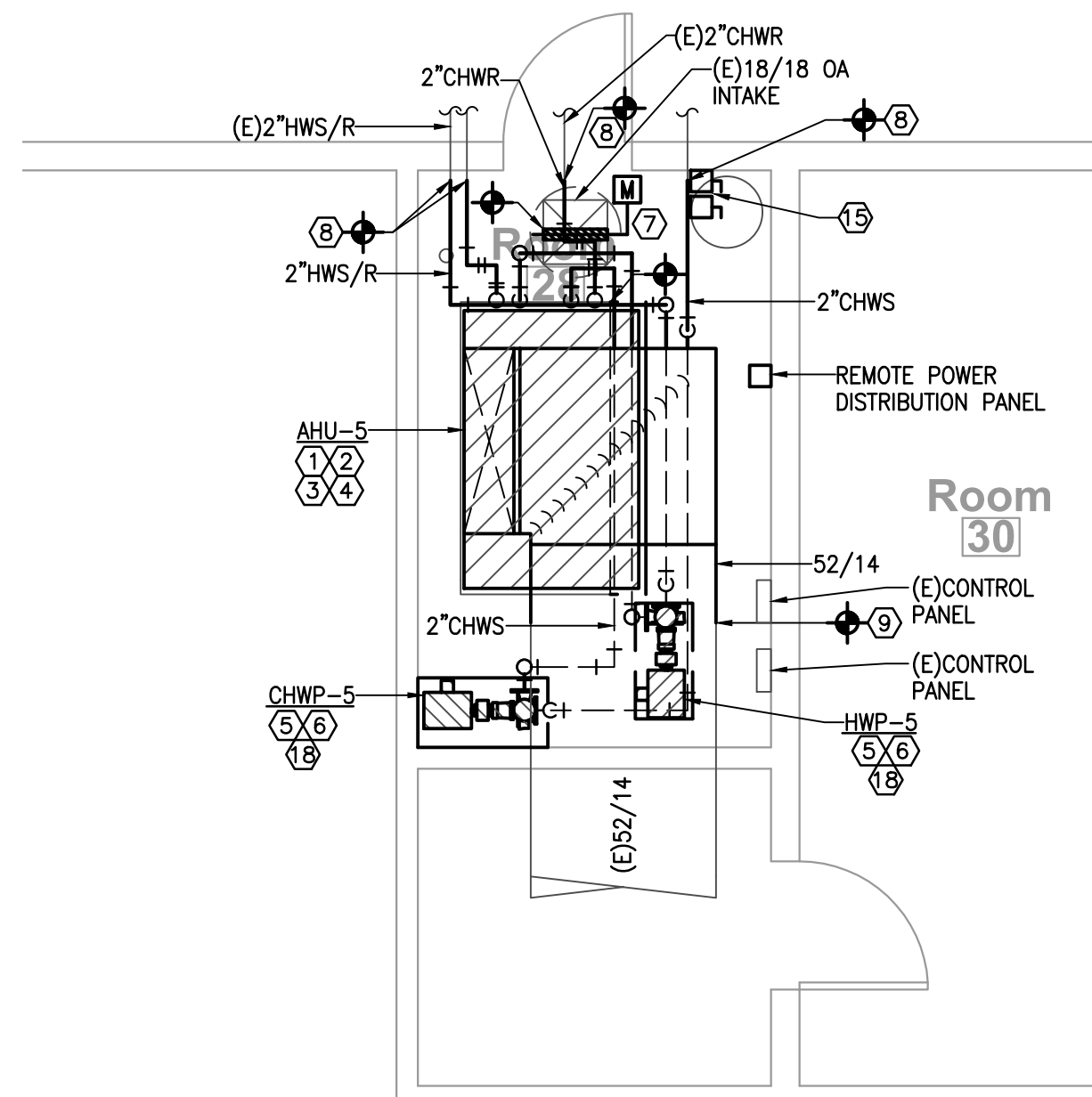
HVAC
REPLACEMENT
PROJECT AT
WESTBROOK
HIGH SCHOOL
CSP# 25.11

WESTBROOK HIGH SCHOOL
8750 PHELAN BLVD, BEAUMONT, TX 77706

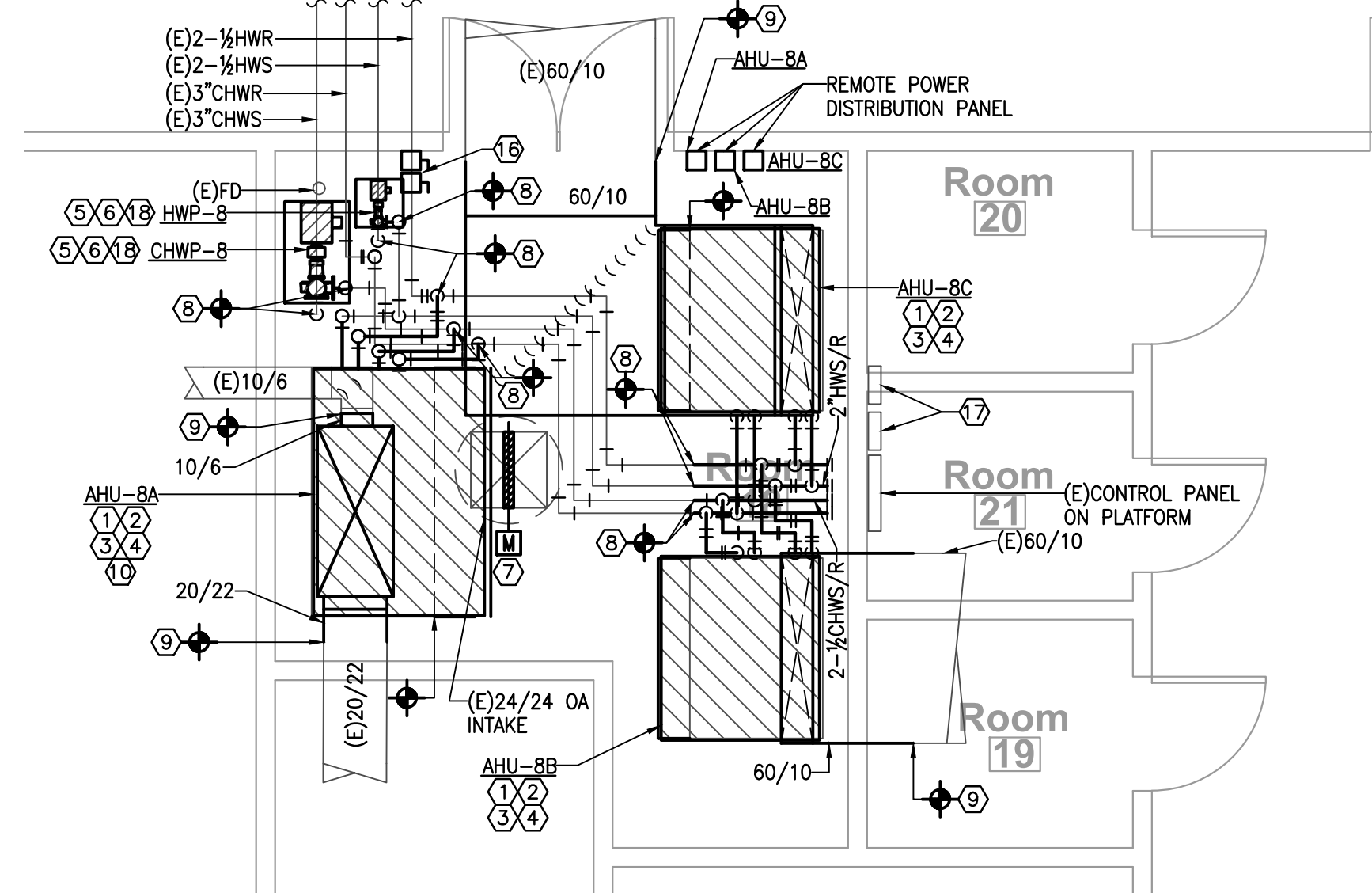
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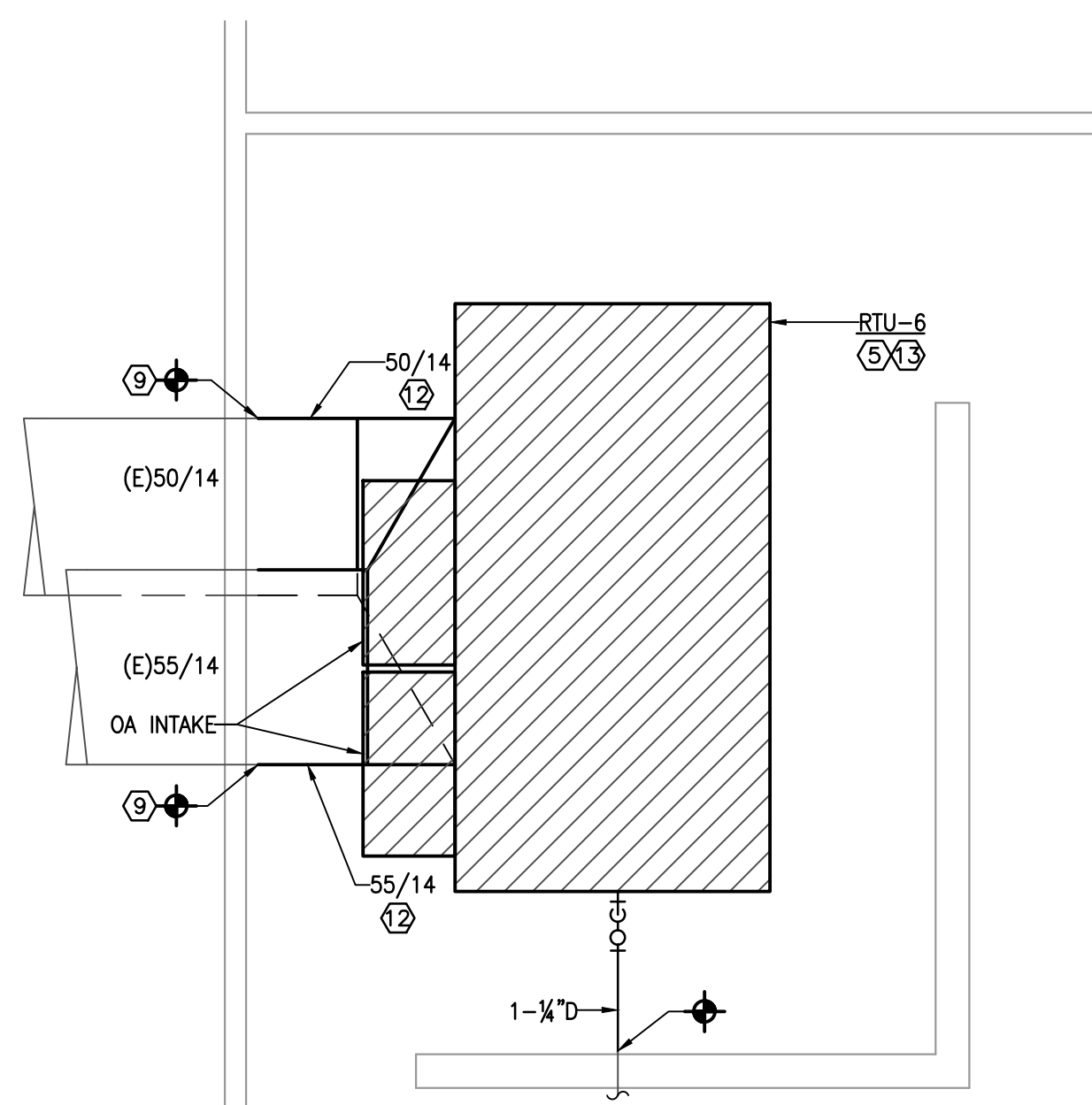
- 1 VERIFY SERVICE CLEARANCES FOR FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH OTHER TRADES NOT TO OBSTRUCT.
- 2 VERIFY SERVICE CLEARANCES FOR AIR FILTER WITH EQUIPMENT MANUFACTURER. COORDINATE WITH OTHER TRADES NOT TO OBSTRUCT.
- 3 ROUTE FULL SIZE CONDENSATE DRAIN LINE TO EXISTING FLOOR SINK. INSTALL TRAP PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 4 MODIFY EXISTING CONCRETE HOUSEKEEPING PAD TO ACCOMMODATE NEW AIR HANDLING UNIT.
- 5 VERIFY SERVICE CLEARANCES WITH EQUIPMENT MANUFACTURER. COORDINATE WITH OTHER TRADES NOT TO OBSTRUCT.
- 6 PROVIDE WITH PUMP PAN. REFER TO DETAIL.
- 7 PROVIDE NEW MOTORIZED DAMPER (D-3) AND ACTUATOR. MODIFY EXISTING DUCTWORK TO ACCOMMODATE NEW MOTORIZED DAMPER.
- 8 CONNECT TO EXISTING PIPING AS INDICATED.
- 9 CONNECT TO EXISTING DUCTWORK AS INDICATED.
- 10 PROVIDE AIR HANDLING UNIT WITH 24" WIDE BY LENGTH OF SUPPLY AIR OPENING PLENUM AS INDICATED.
- 11 PROVIDE GROUND MOUNTED ROOFTOP UNIT WITH CUSTOM DISCHARGE PLENUM. DISCHARGE PLENUM SHALL HAVE SUPPLY AND RETURN DUCT CONFIGURATION AS SHOWN.
- 12 STACKED DUCTWORK SUPPLY DUCT ON BOTTOM AND RETURN DUCT ON TOP.
- 13 CONNECTED TO EXISTING CONDENSATE DRAIN LINE AS INDICATED. INSTALL TRAP PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 14 PROVIDE NEW DDC TEMPERATURE SENSOR AND CONTROL WIRING. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- 15 STACKED VARIABLE FREQUENCY DRIVES (VFD). UPPER VFD SHALL BE FOR HWP-5 AND LOWER VFD SHALL BE FOR CHWP-5.
- 16 STACKED VARIABLE FREQUENCY DRIVES (VFD). UPPER VFD SHALL BE FOR HWP-8 AND LOWER VFD SHALL BE FOR CHWP-8.
- 17 RELOCATE EXISTING BMS CONTROL PANEL AND ALL INTERNAL DEVICES REQUIRED TO REMAIN TO SUPPORT EQUIPMENT NOT PART OF EQUIPMENT REPLACEMENT. EXISTING DEVICES SHALL BE INSTALLED IN NEW CONTROL CABINETS. CONTROLS CONTRACTOR SHALL TEST AND COMMISSION ALL SYSTEMS AFFECTED PRIOR TO SUBSTANTIAL COMPLETION.
- 18 PROVIDE 4" CONCRETE HOUSEKEEPING PAD.



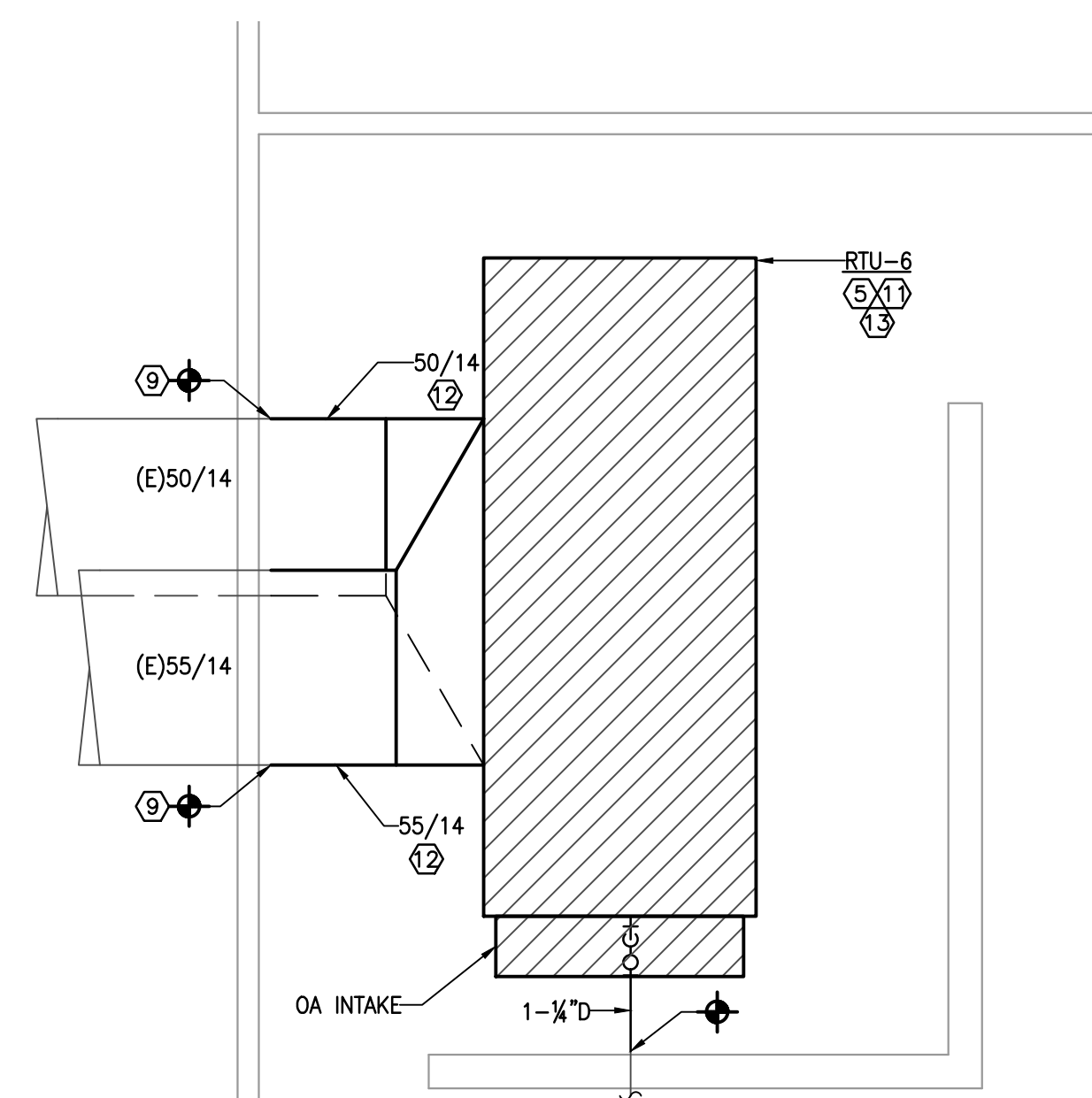
5 ADMIN - MECHANICAL ENLARGED FLOOR PLAN
SCALE: 1/4" = 1'-0"



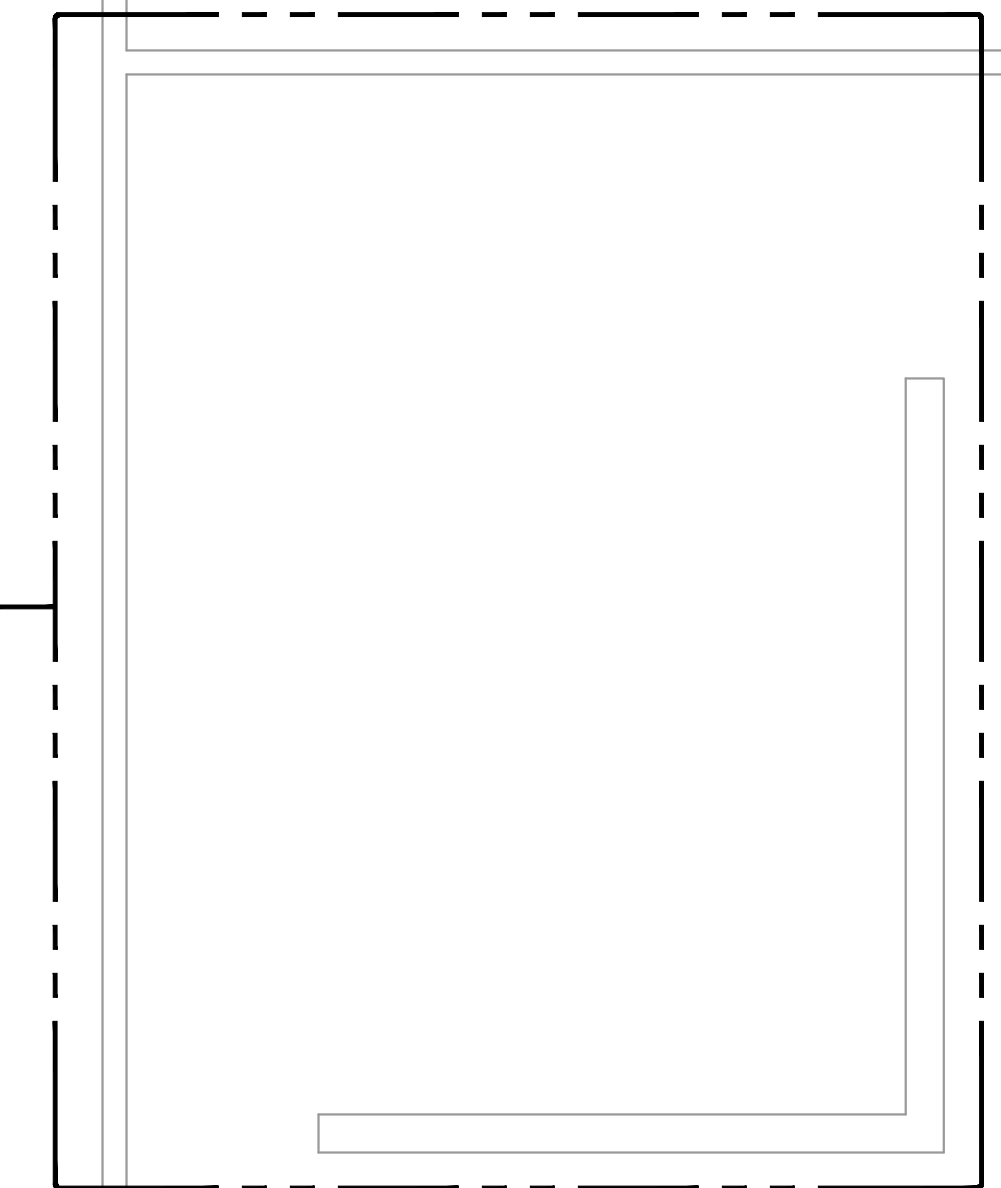
4 CLASSROOM - MECHANICAL ENLARGED FLOOR PLAN
SCALE: 1/4" = 1'-0"



3 BAND HALL - MECHANICAL FLOOR PLAN - CARRIER
SCALE: 1/4" = 1'-0"

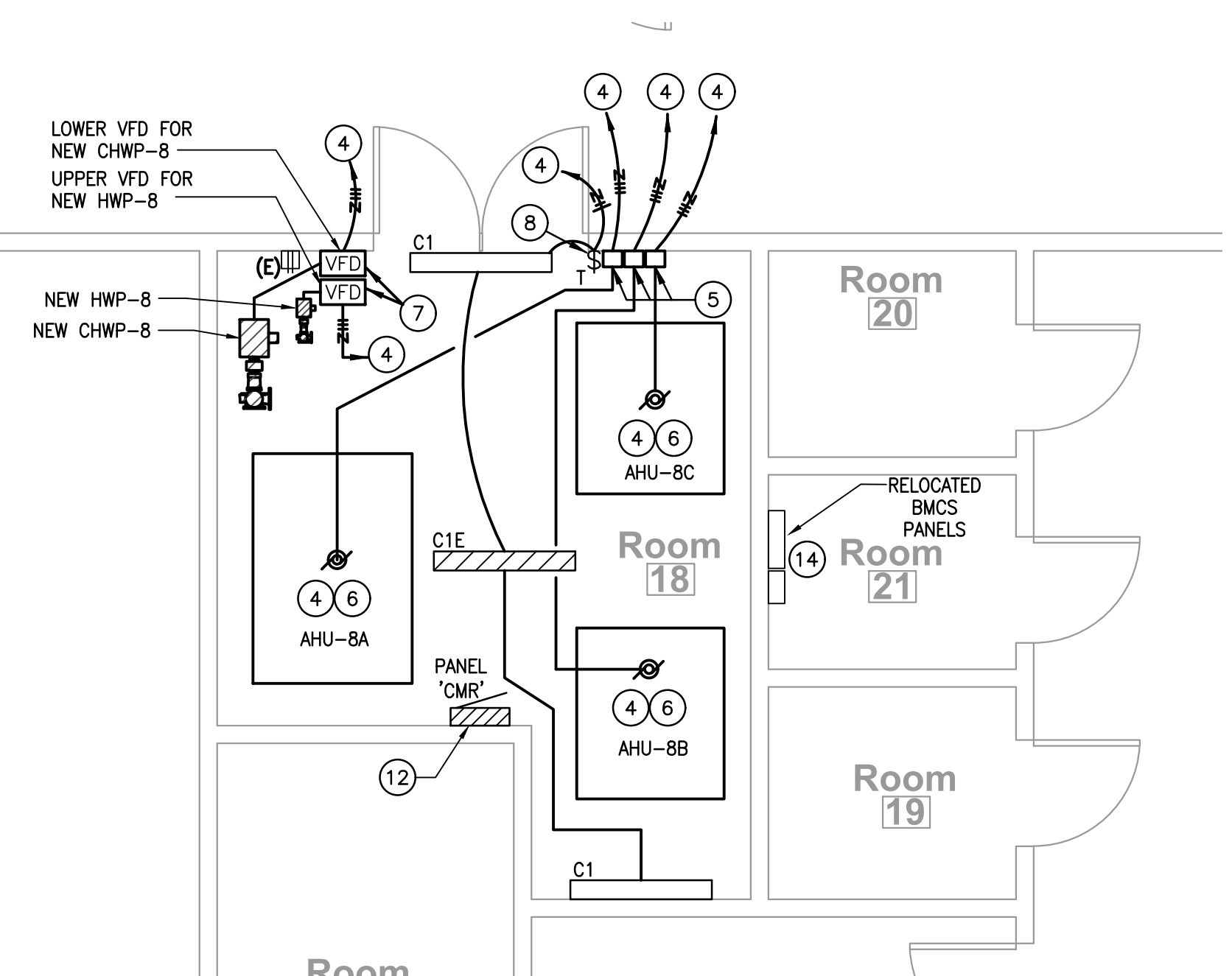


2 BAND HALL - MECHANICAL FLOOR PLAN - DAIKIN
SCALE: 1/4" = 1'-0"



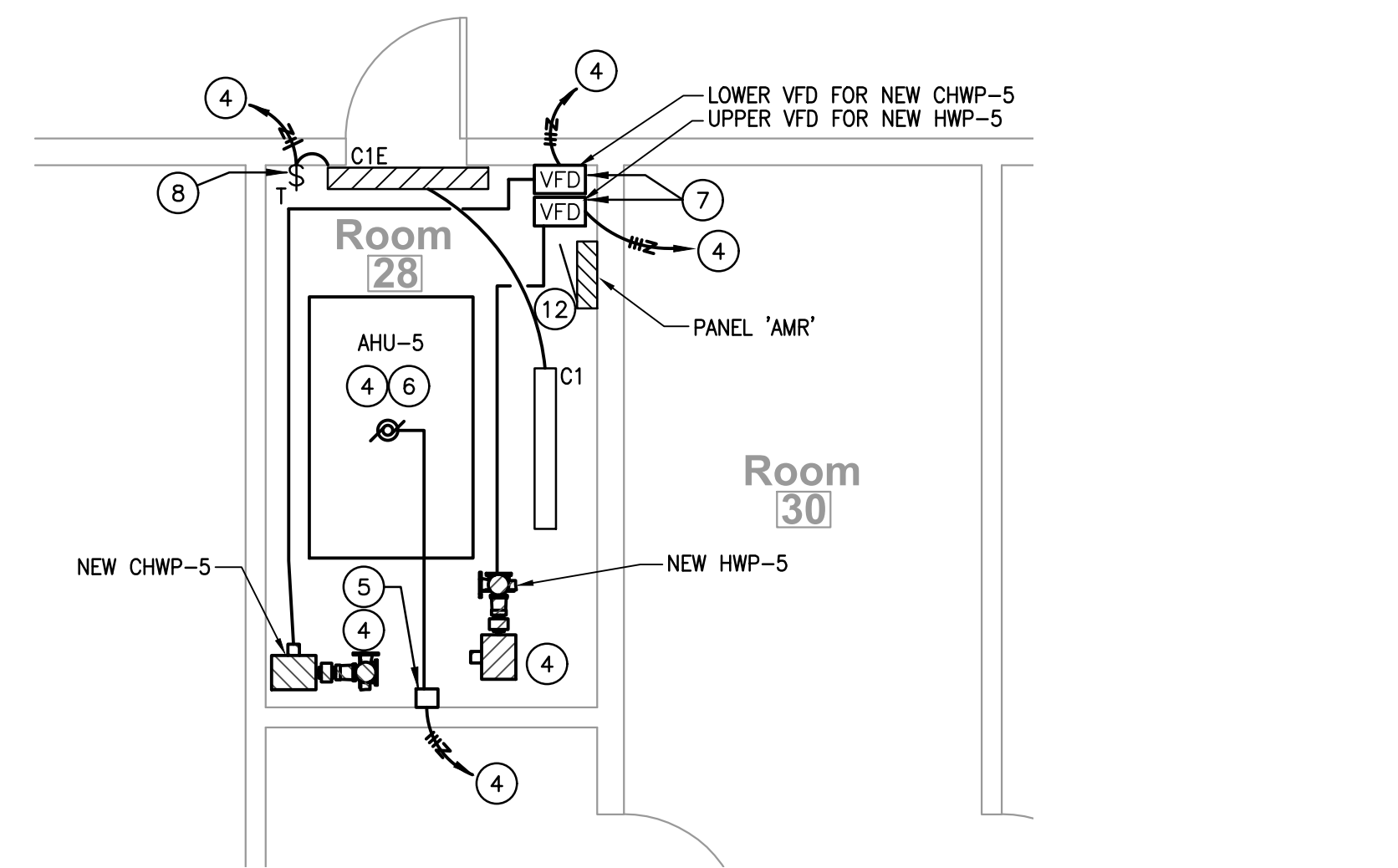
1 BAND HALL - MECHANICAL FLOOR PLAN
SCALE: 1/4" = 1'-0"

PANELBOARD SCHEDULE													CMR	
VOLTAGE	PHASE	WIRE	MCB (A)		MLO (A)	AIC RATINGS		MOUNTING SURFACE	LOCATION			NEMA ENCLOSURE		
277 480	3	4			100	18,000			MECH ROOM(CR)			NEMA-1		
LOAD TYPE LEGEND			REMARKS											
L	LIGHTING/CON'LD		K		KITCHEN EQUIP									
R	RECEPTACLES		E		EXISTING									
M	MECHANICAL EQ		O		OTHER/MISC									
CHT #	LOAD DESCRIPTION	LOAD TYPE	WIRE SIZE	CONDUIT SIZE	CIRCUIT BREAKER TRIP	LOAD (VA)	PHASE	LOAD (VA)	CIRCUIT BREAKER TRIP	CONDUIT SIZE	WIRE SIZE	LOAD DESCRIPTION	CHT #	
11	AHU 8A	M	#12	3/4"	20A	2106	A	2106	3	20A	3/4"	M AHU 8B	2	
3	SPACE					2106	B	2106					4	
6	SPACE					2106	C	2106					6	
7	SPACE					2106	A	2106					8	
9	CHWP 8	M	#12	3/4"	20A	2106	B	2106	3	20A	3/4"	M AHU 8C	10	
11	SPACE					2106	C	2106					12	
13	SPACE					1330	A	1109					14	
15	HWP 8	M	#8	3/4"	20A	1330	B	1109	3	20A	3/4"	M H&V #12	16	
17	SPACE					1330	C	1109					18	
19	SPACE						A						20	
21	SPACE						B						22	
23	SPACE						C						24	
25	SPACE						A						26	
27	SPACE						B						28	
29	SPACE						C						30	

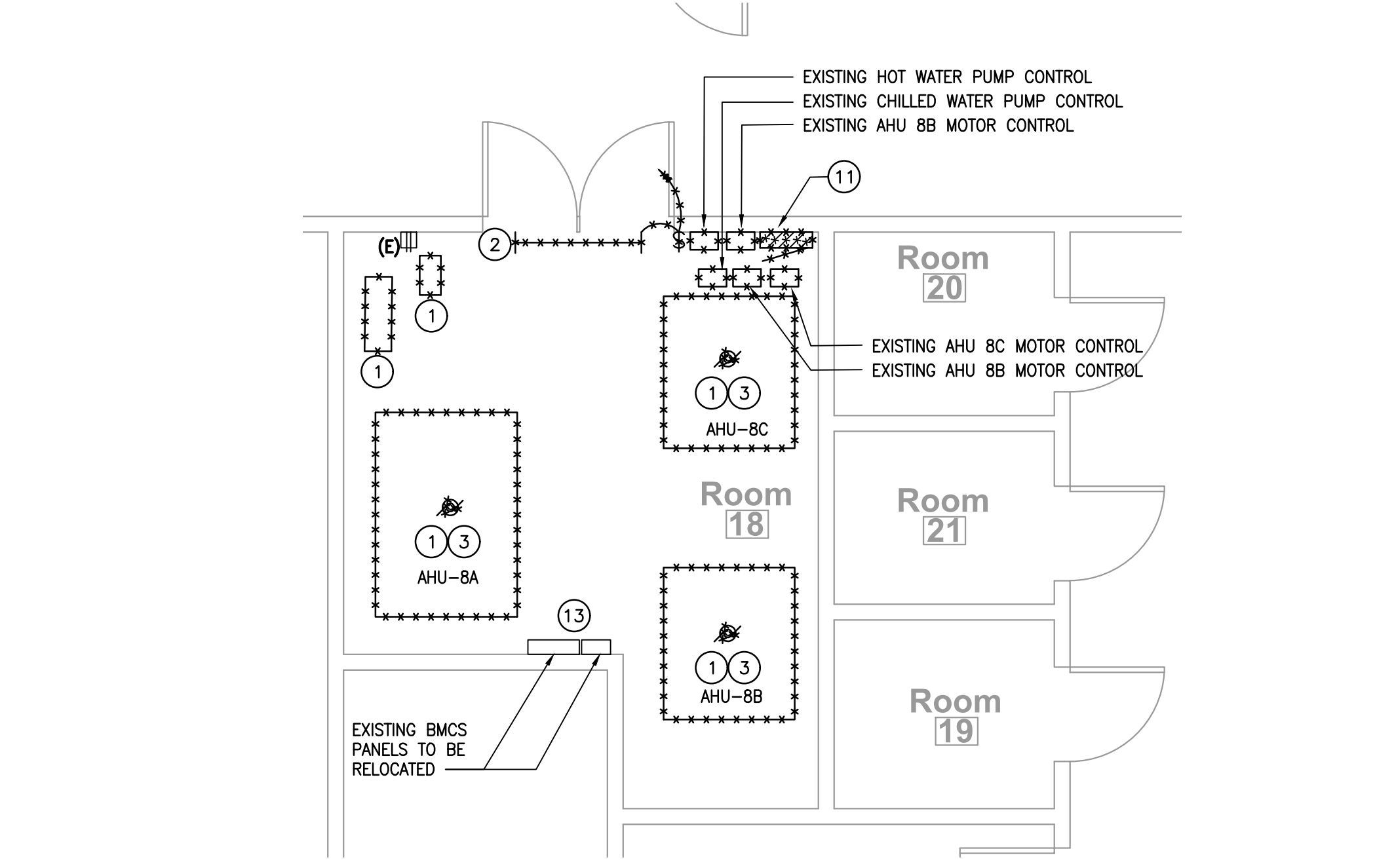


6 ELECTRICAL FLOOR PLAN - CLASSROOM MECHANICAL ROOM
SCALE: 1/4" = 1'-0"

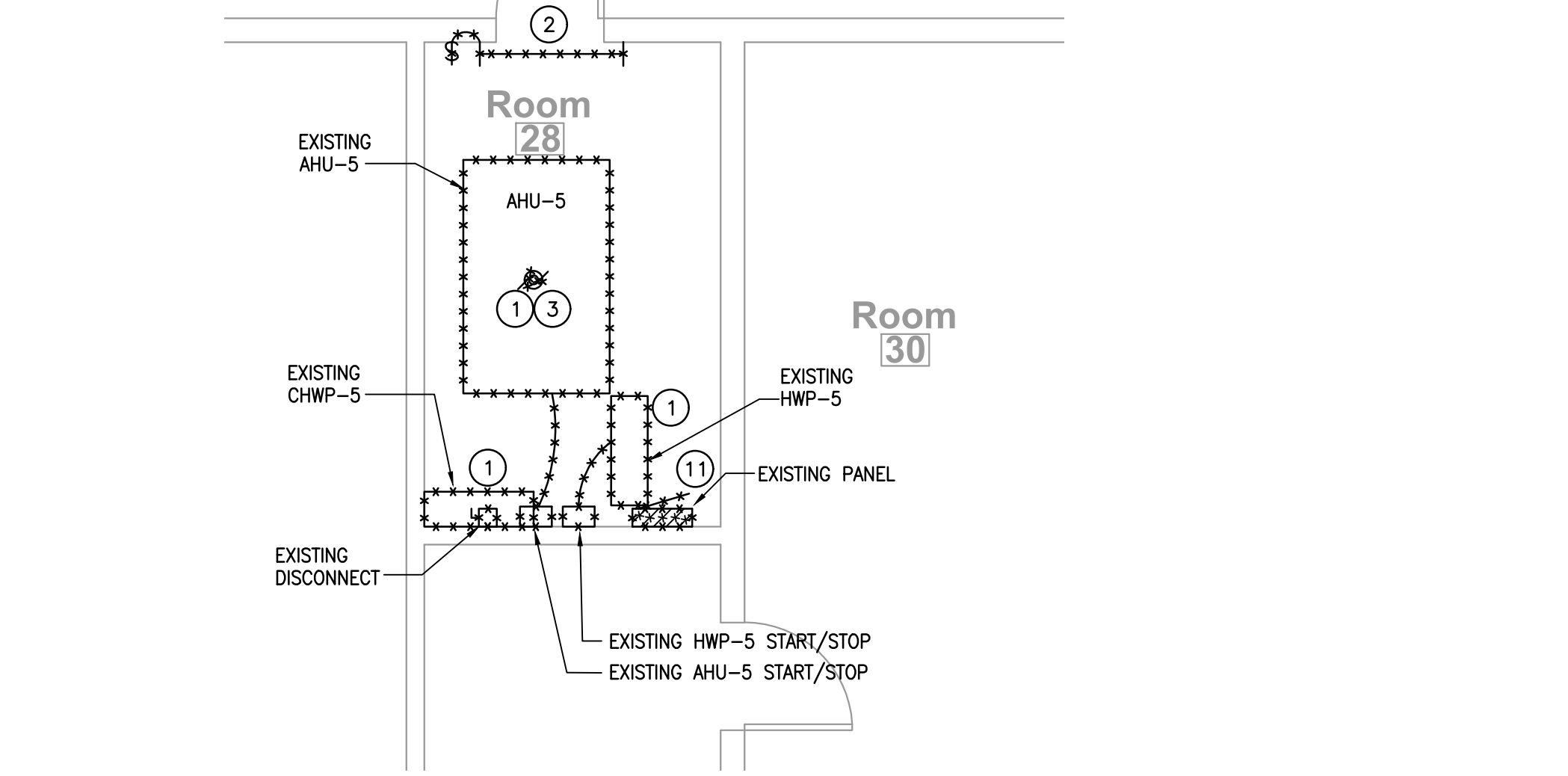
PANELBOARD SCHEDULE													AMR	
VOLTAGE	PHASE	WIRE	MCB (A)		MLO (A)	AIC RATINGS		MOUNTING SURFACE	LOCATION			NEMA ENCLOSURE		
277 480	3	4			100	18,000			MECH ROOM(AD)			NEMA-1		
LOAD TYPE LEGEND			REMARKS											
L	LIGHTING/CON'LD		K		KITCHEN EQUIP									
R	RECEPTACLES		E		EXISTING									
M	MECHANICAL EQ		O		OTHER/MISC									
CHT #	LOAD DESCRIPTION	LOAD TYPE	WIRE SIZE	CONDUIT SIZE	CIRCUIT BREAKER TRIP	LOAD (VA)	PHASE	LOAD (VA)	CIRCUIT BREAKER TRIP	CONDUIT SIZE	WIRE SIZE	LOAD DESCRIPTION	CHT #	
1	AHU-5	M	#12	3/4"	20A	3048	A	2106	3	20A	3/4"	M CHWP-5	2	
3	SPACE					3048	B	2106					4	
5	SPACE					3048	C	2106					6	
7	SPACE					2106	A	2106					8	
9	HWP-5	M	#12	3/4"	20A	2106	B	2106	3	20A	3/4"	SPACE	10	
11	SPACE					2106	C	2106					12	
13	SPACE					1330	A	1109					14	
15	SPACE					1330	B	1109					16	
17	SPACE					1330	C	1109					18	



5 ELECTRICAL FLOOR PLAN - ADMIN MECHANICAL ROOM
SCALE: 1/4" = 1'-0"

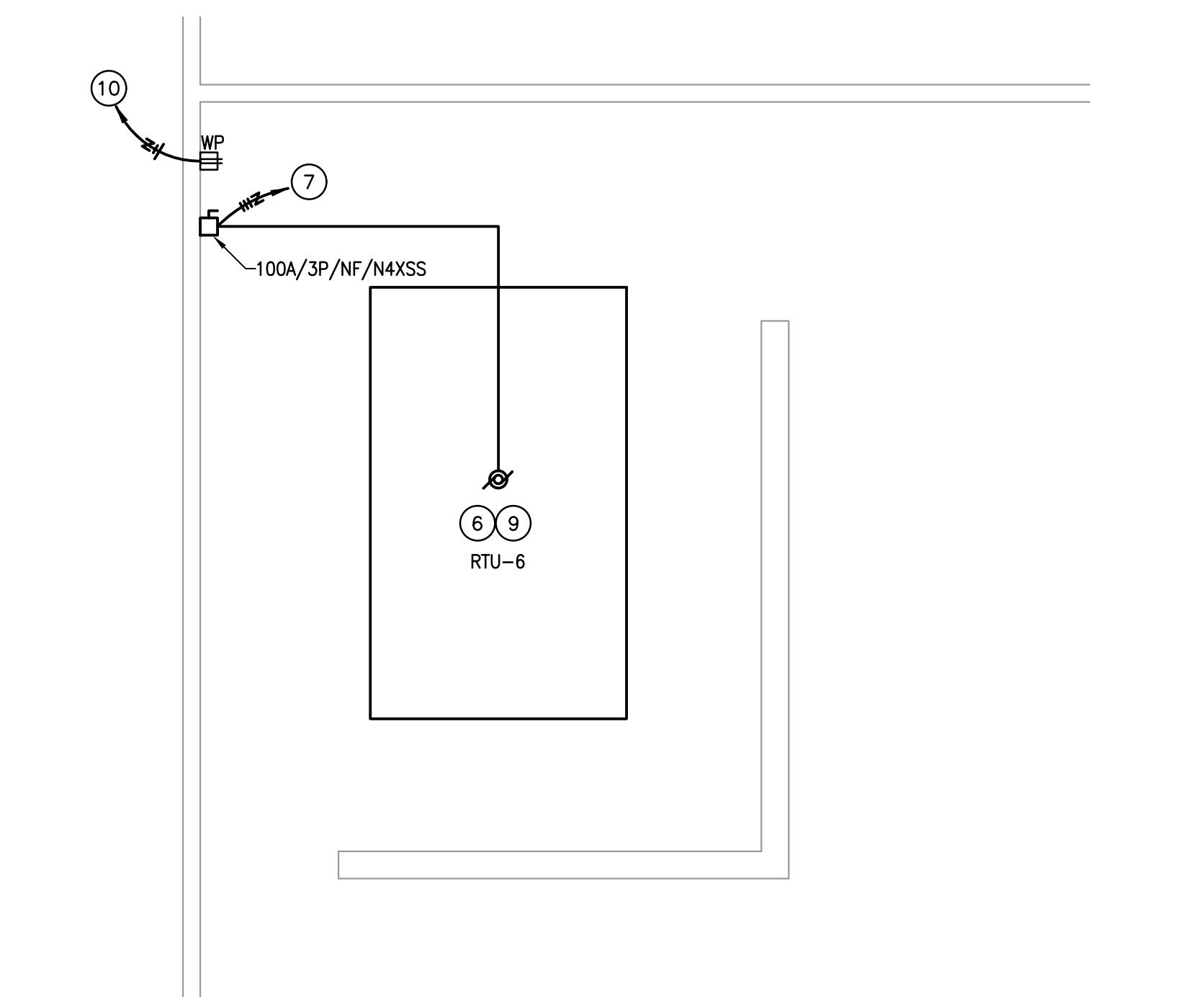


3 ELECTRICAL DEMOLITION FLOOR PLAN - CLASSROOM MECHANICAL ROOM
SCALE: 1/4" = 1'-0"

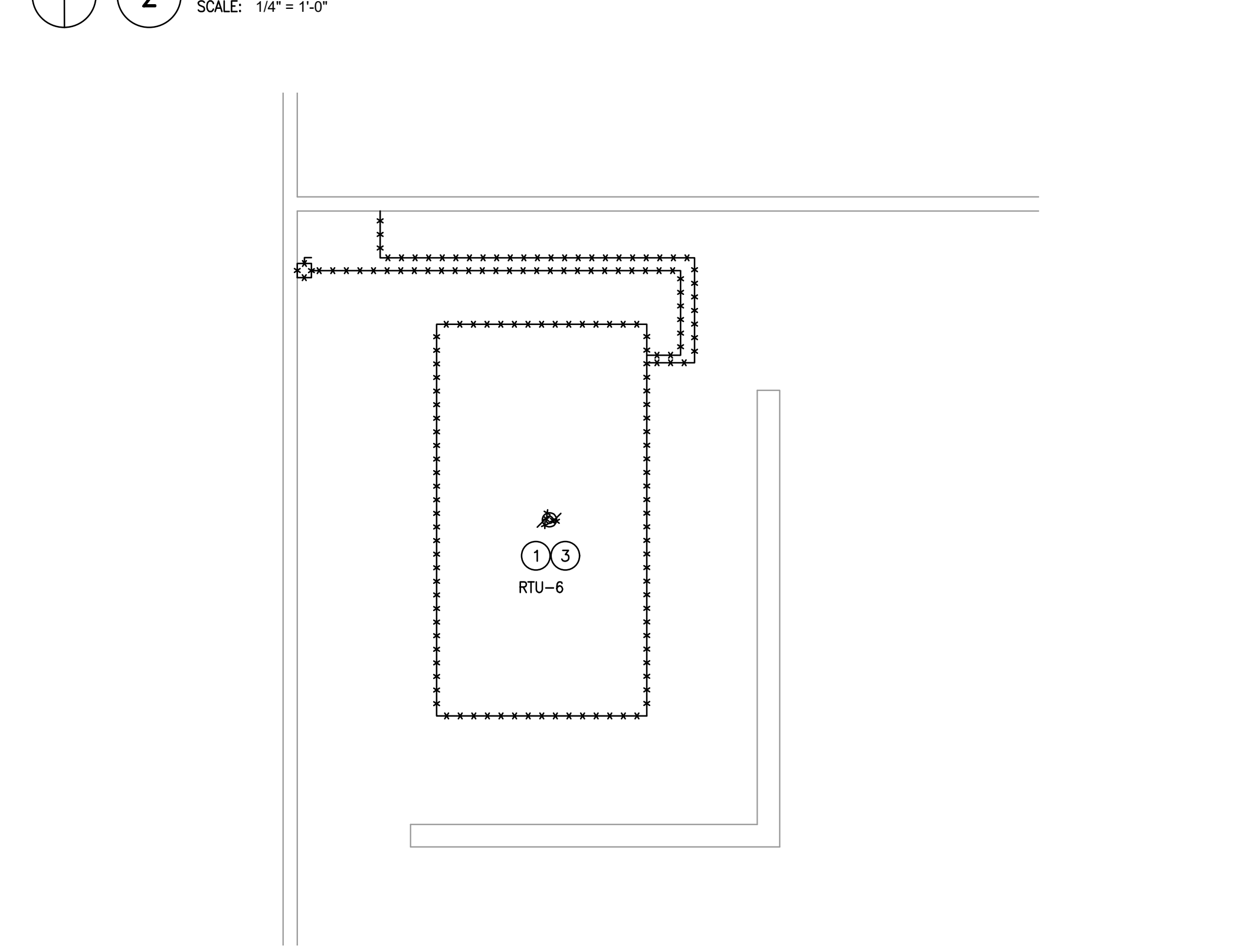


2 ELECTRICAL DEMOLITION FLOOR PLAN - ADMIN MECHANICAL ROOM
SCALE: 1/4" = 1'-0"

PANELBOARD SCHEDULE													CMR	
VOLTAGE	PHASE	WIRE	MCB (A)		MLO (A)	AIC RATINGS		MOUNTING SURFACE	LOCATION			NEMA ENCLOSURE		
277 480	3	4			100	18,000			MECH ROOM(CR)			NEMA-1		
LOAD TYPE LEGEND			REMARKS											
L	LIGHTING/CON'LD		K		KITCHEN EQUIP									
R	RECEPTACLES		E		EXISTING									
M	MECHANICAL EQ		O		OTHER/MISC									
CHT #	LOAD DESCRIPTION	LOAD TYPE	WIRE SIZE	CONDUIT SIZE	CIRCUIT BREAKER TRIP	LOAD (VA)	PHASE	LOAD (VA)	CIRCUIT BREAKER TRIP	CONDUIT SIZE	WIRE SIZE	LOAD DESCRIPTION	CHT #	
11	AHU 8A	M	#12	3/4"	20A	2106	A	2106	3	20A	3/4"	M AHU 8B	2	
3	SPACE					2106	B	2106					4	
6	SPACE					2106	C	2106					6	
7	SPACE					2106	A	2106					8	
9	CHWP 8	M	#12	3/4"	20A	2106	B	2106	3	20A	3/4"	M AHU 8C	10	
11	SPACE					2106	C	2106					12	
13	SPACE					1330	A	1109					14	
15	HWP 8	M	#8	3/4"	20A	1330	B	1109	3	20A	3/4"	M H&V #12	16	
17	SPACE					1330	C	1109					18	
19	SPACE						A						20	
21	SPACE						B						22	
23	SPACE						C						24	
25	SPACE						A						26	
27	SPACE						B						28	
29	SPACE						C						30	



4 ELECTRICAL FLOOR PLAN - BAND HALL OUTDOOR UNIT
SCALE: 1/4" = 1'-0"



1 ELECTRICAL DEMOLITION FLOOR PLAN - BAND HALL OUTDOOR UNIT
SCALE: 1/4" = 1'-0"

ELECTRICAL GENERAL NOTES

- DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
- DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
- UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, RELAY PANEL ETC., SHALL REMAIN.
- EXCEPT AS OTHERWISE NOTED, ELECTRICAL WORK OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS. OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. ANY CONDUITS OUT OF MASONRY SURFACE SHALL BE CUT INTO SURFACE AND PATCHED.
- CONTRACTOR TO FILL IN ALL HOLES LEFT BY THE DEMOLITION OF EXISTING CONDUIT PENETRATIONS.
- DEMOLITION/EXISTING DRAWINGS ARE BASED ON FIELD OBSERVATIONS; CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO BID AND COMMENCEMENT OF WORK.
- CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING A BID AND VERIFY EXISTING CONDITIONS. ANY MODIFICATIONS REQUIRED CONTRARY TO THE DOCUMENTS FOR A COMPLETE AND OPERATING SYSTEM SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- OWNER SHALL HAVE THE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED FROM THE PROJECT. THIS INCLUDES BUT NOT LIMITED TO DISCONNECTS, ETC.
- MAINTAIN CONTINUITY OF CIRCUITS TO ALL EXISTING LOADS TO REMAIN.
- ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
- ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS SHALL CONTAIN A GROUNDING WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE. CONTRACTOR TO PROVIDE GROUNDING CONDUCTOR WHERE NEEDED PER NEC.
- PROVIDE DUCT MOUNTED SMOKE DETECTORS IN SUPPLY AND RETURN DUCTS OF ALL AIR HANDLERS 2000 CFM OR GREATER. SMOKE DETECTOR SHALL SEND SUPERVISORY SIGNAL TO FIRE ALARM PANEL AND SHUT DOWN UNIT. UPON SMOKE DETECTOR ACTUATION, DETECTOR SHALL SEND SIGNAL TO REMOTE ALARM/POWER LED INDICATOR WITH TEST LOCATE DEVICE IN READILY VISIBLE AND ACCESSIBLE LOCATION OF SMOKE DETECTOR PER IMC 606.4.1.
- CONTRACTOR SHALL MAINTAIN ALL WORKING SPACE CLEARANCES PER NEC.
- REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF EQUIPMENT AND SCHEDULES. CONTRACTOR TO PROVIDE DISCONNECT SWITCHES AND MAKE FINAL CONNECTIONS AS REQUIRED TO POWER AND CONTROL EQUIPMENT.
- CONTRACTOR SHALL MAINTAIN ALL WORKING CLEARANCE PER NEC.

ELECTRICAL KEYED NOTES

- DISCONNECT AND REMOVE ALL ELECTRICAL TO EXISTING MECHANICAL EQUIPMENT AND ASSOCIATED CONDUIT/WIRE BACK TO DISCONNECT SWITCH. LEAVE CIRCUIT INTACT FOR CONNECTION OF REPLACEMENT EQUIPMENT.
- DISCONNECT AND REMOVE ALL EXISTING LIGHTING AND ASSOCIATED CONDUIT/WIRE AND SWITCHES BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUIT INTACT FOR RE-USE.
- DISCONNECT EXISTING FIRE ALARM WIRING FROM EXISTING MOTOR CONTROL CENTER.
- CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
- REMOTE POWER DISTRIBUTION/CONTROL PANEL PROVIDED BY DIVISION 23, INSTALLED BY DIVISION 26. MAKE ALL FINAL CONNECTIONS TO POWER/CONTROL, NEW EQUIPMENT PER MANUFACTURER RECOMMENDATIONS.
- PROVIDE NEW FIRE ALARM WIRING AT REMOTE POWER DISTRIBUTION/CONTROL PANEL, RECOMMISSION FIRE ALARM SYSTEM TO ENSURE ALL AIR HANDLING UNITS SHUT DOWN WHEN SIGNALLED BY THE FIRE ALARM SYSTEM.
- VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER, PROVIDED BY DIVISION 23, INSTALLED BY DIVISION 26.
- ON/OFF SPRING WOUND TIMER SWITCH, 12-HOUR WITH HOLD; PROVIDE INTERMATIC #FD12HWH OR APPROVED EQUAL, WHERE MULTIPLE SWITCHES ARE USED, THESE SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
- CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION; FIELD VERIFY PANEL LOCATION AND REPLACE EXISTING CIRCUIT BREAKER WITH NEW 110A/3P, COORDINATE BREAKER WITH SUBMITTAL SHOP DRAWINGS.
- CONNECT TO NEAREST EXISTING CONVENIENCE RECEPTACLE WITH 2#12, #12G, 3/4".
- EXISTING PANEL TO BE REMOVED, BRANCH CIRCUITS TO BE RE-FED BY NEW PANEL, REMOVE EXISTING WIRES AND CONDUITS BACK TO SOURCE OR NEAREST ACTIVE JUNCTION BOX TO REMAIN.
- NEW PANEL REPLACING EXISTING, RECONNECT EXISTING BRANCH CIRCUITS REMOVED DURING DEMOLITION, USING SAME SIZE OF EXISTING, INSTALL NEW BREAKERS AND RUN NEW WIRES AND CONDUITS.
- EXISTING MECHANICAL EQUIPMENT TO BE RELOCATED, REMOVE EXISTING WIRES BACK TO SOURCE OR NEAREST DEVICE TO REMAIN, EXISTING CONDUITS TO REMAIN AND TO BE EXTENDED TO NEW EQUIPMENT LOCATION.
- NEW LOCATION OF EXISTING EQUIPMENT, RUN NEW WIRES AND EXTEND EXISTING CONDUITS PRESERVED DURING DEMOLITION, MAKE ALL FINAL CONNECTIONS.

REVISIONS

NO.	DESCRIPTION	DATE

BEAUMONT ISD
Prepping Our Next Generation

2450-70835-00
Beaumont Independent School District

HVAC REPLACEMENT PROJECT AT WESTBROOK HIGH SCHOOL CSP# 25.11

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Bradley Kalmans
Professional Engineer
No. 00219
02-13-2025

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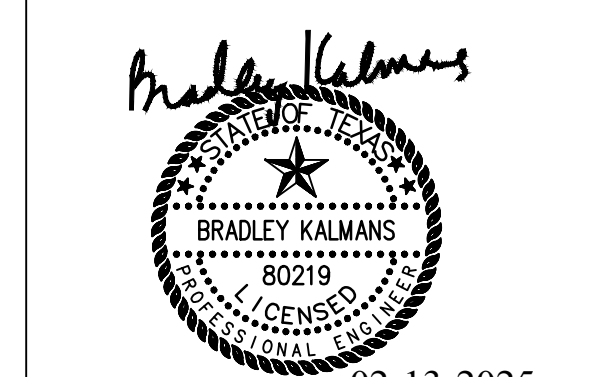
FIRE ALARM IS PERFORMANCE BASED PER SPECIFICATIONS. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION. A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.

CHECKED BY PS
DRAWN BY JS

SHEET NAME
ELECTRICAL ENLARGED FLOOR PLANS

SHEET NUMBER E1.01
REVISION

LINETYPE LEGEND	
---	EXISTING TO REMAIN
- - -	REMOVE EXISTING
----	NEW WORK



2450-70835-00
Beaumont Independent School District

HVAC REPLACEMENT PROJECT AT WESTBROOK HIGH SCHOOL CSP# 25.11

WESTBROOK HIGH SCHOOL
8750 PHELAN BLVD, BEAUMONT, TX 77706

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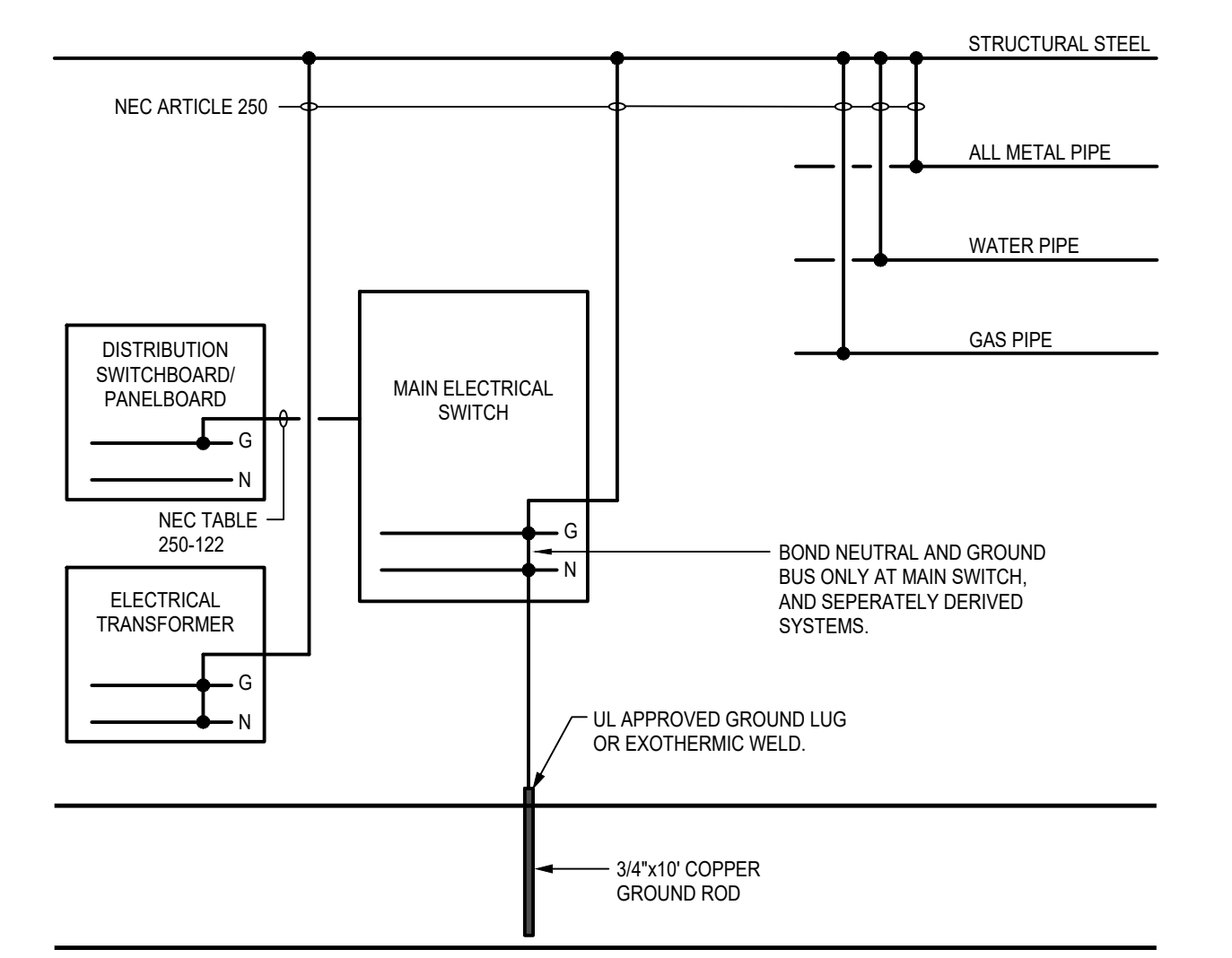
NO	DESCRIPTION	DATE

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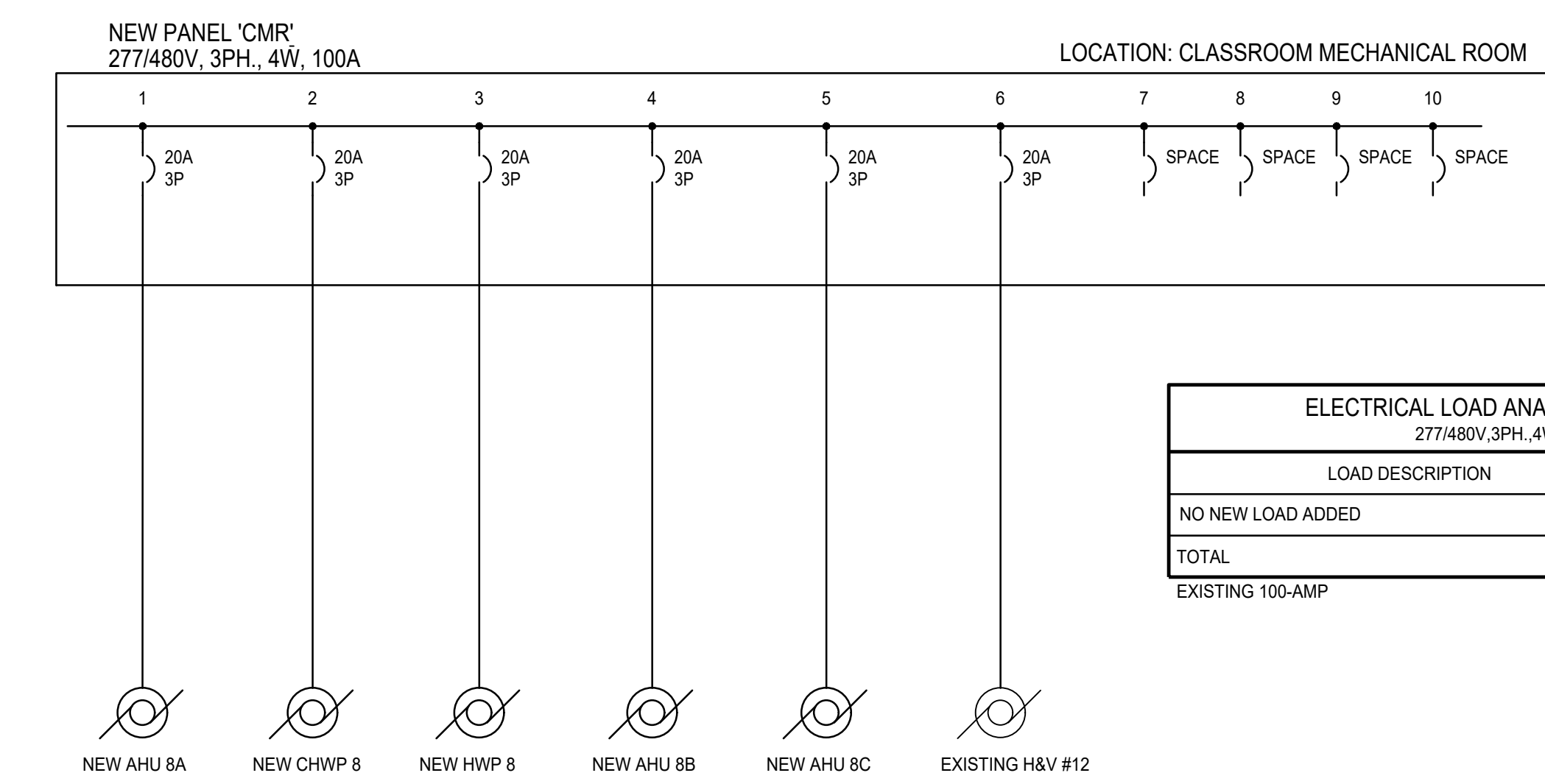
SHEET NAME
ELECTRICAL DETAILS, LEGENDS, AND SCHEDULES

SHEET NUMBER REVISION
E2.01

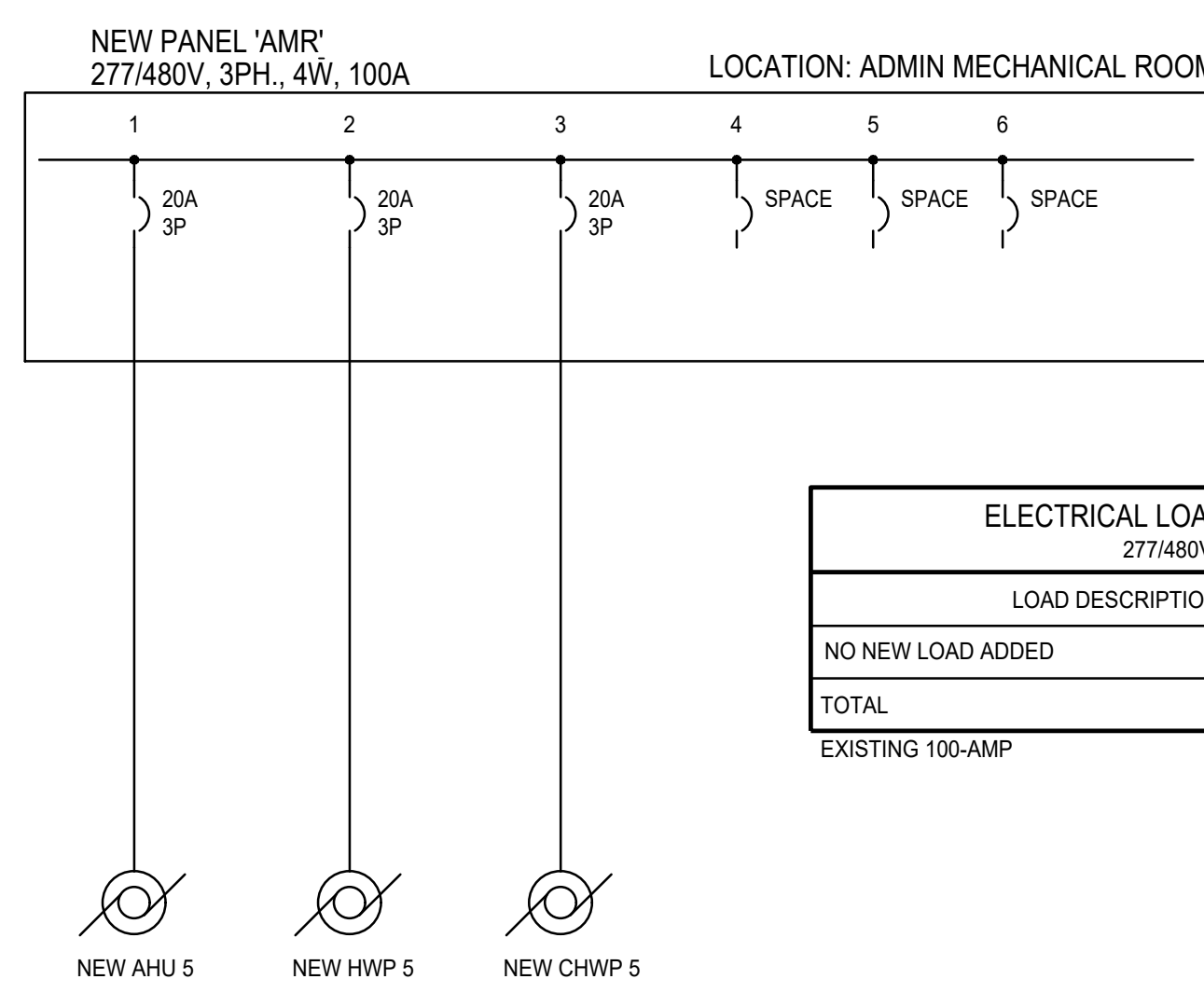
SYMBOL SCHEDULE	
SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
☐	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
☐	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
○	DOWNLIGHT FIXTURE
●	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
○	LIGHT FIXTURE - WALL MOUNTED
○	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
⊗	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
⊗	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
Ⓢ	LINE VOLTAGE SINGLE POLE SWITCH
Ⓢ	LINE VOLTAGE 3-WAY SWITCH
Ⓢ	LINE VOLTAGE 4-WAY SWITCH
Ⓢ	LINE VOLTAGE MOMENTARY DPST KEYPED SWITCH
Ⓢ	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
Ⓢ	LINE VOLTAGE SWITCH WITH PILOT LIGHT
Ⓢ	SPRING WOUND MECHANICAL TIME SWITCH, 20 AMP, 12-HOUR WITH HOLD.
Ⓢ	PUSH BUTTON EPO SWITCH WITH COVER
Ⓢ	LOW VOLTAGE MOMENTARY CONTACT SWITCH
Ⓢ	LOW VOLTAGE DIGITAL KEYPAD
Ⓢ	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
Ⓢ	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
Ⓢ	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
Ⓢ	PHOTOCELL SENSOR
Ⓢ	LIGHTING CONTROL SYSTEM ('W' DENOTES TYPE - SEE LIGHTING CONTROLS DETAILS/SCHEDULE)
Ⓢ	UL924 LOAD CONTROL RELAY, PLENUM RATED, 0-10V COMPATIBLE, 16A MINIMUM
Ⓢ	UL1008 GENERATOR TRANSFER DEVICE, PLENUM RATED, 0-10V COMPATIBLE, 16A MINIMUM
RECEPTACLES AND OUTLETS	
Ⓢ	SIMPLEX RECEPTACLE
Ⓢ	DUPLEX RECEPTACLE
Ⓢ	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS
Ⓢ	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
Ⓢ	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
Ⓢ	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
Ⓢ	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
Ⓢ	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
Ⓢ	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE
Ⓢ	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE
Ⓢ	JUNCTION BOX
Ⓢ	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
Ⓢ	MOTOR, MAKE FINAL MOTOR CONNECTION
Ⓢ	3PH. MOTOR, MAKE FINAL MOTOR CONNECTION
Ⓢ	MOTOR-RATED SWITCH, 20A UNLESS INDICATED OTHERWISE
Ⓢ	DISCONNECT SWITCH AS REQUIRED
Ⓢ	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
Ⓢ	MOTOR STARTER
Ⓢ	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
Ⓢ	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR
Ⓢ	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
Ⓢ	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
Ⓢ	ELECTRICAL PANELBOARD, REFER TO FLOOR PLANS FOR VOLTAGE.
Ⓢ	DRY TYPE TRANSFORMER
Ⓢ	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
---	CONDUIT
---	CONDUIT BELOW FLOOR, SLAB, OR GRADE
---	34°C, UNLESS OTHERWISE NOTED, LONG HATCH, NEUTRAL, SHORT HATCH, PHASE, LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN
---	PARTIAL ELECTRICAL HOMERUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES WEATHERPROOF
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'
1-L	INDICATES REFER TO ONE-LINE DIAGRAM.
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(REP)	INDICATES REPLACE DEVICE AND COVERPLATE.
HB	INDICATES HIGH BAY.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES
GENERAL NOTES:	
ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM.	
ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.	



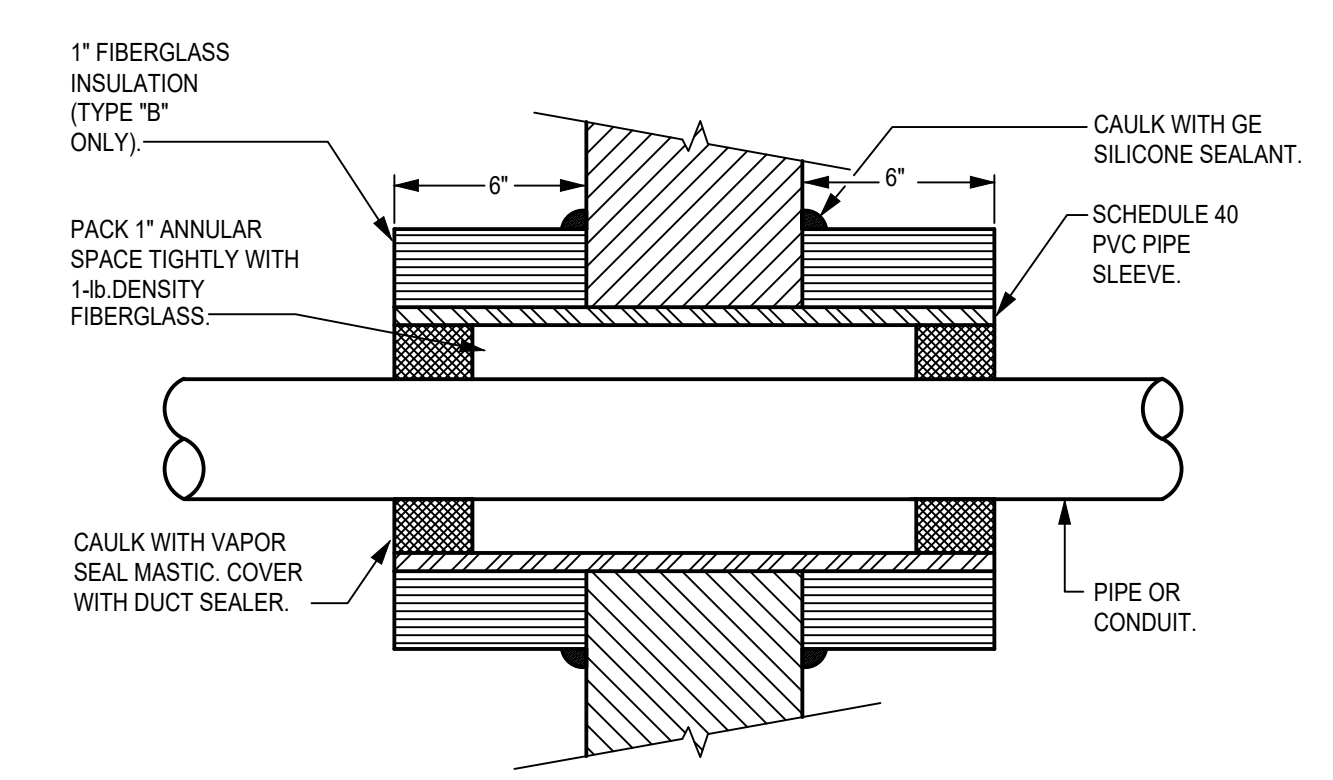
1 GROUNDING DETAIL
SCALE: NONE



ELECTRICAL LOAD ANALYSIS 'CMR'	
277/480V, 3PH., 4W	
LOAD DESCRIPTION	LOAD KVA
NO NEW LOAD ADDED	0.0
TOTAL	--
EXISTING 100-AMP	



ELECTRICAL LOAD ANALYSIS 'AMR'	
277/480V, 3PH., 4W	
LOAD DESCRIPTION	LOAD KVA
NO NEW LOAD ADDED	0.0
TOTAL	--
EXISTING 100-AMP	



2 CONDUIT SEALANT THRU EXTERIOR WALLS
SCALE: NONE ECOND-3

ELECTRICAL GENERAL NOTES:

- ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
- NO MORE THAN THREE SINGLE PHASE CIRCUITS AND NO MORE THAN SIX CURRENT CARRYING CONDUCTORS SHALL BE INSTALLED IN A SINGLE RACEWAY. WHEN FOUR, FIVE, OR SIX CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY, THEIR CURRENT CARRYING CAPACITIES SHALL BE DERATED AS REQUIRED BY THE NEC FOR NON-DIVERSIFIED LOADS. THE INSTALLED WIRE SIZE SHALL HAVE A NOMINAL AMPACITY RATING OF 125% OF THAT REQUIRED OR SPECIFIED WHEN FOUR OR MORE CURRENT CARRYING CONDUCTORS ARE INSTALLED IN A SINGLE RACEWAY. NEUTRAL CONDUCTORS SHALL BE CONSIDERED A CURRENT CARRYING CONDUCTOR IN ALL NON-LINEAR LOADED CIRCUITS AS REQUIRED BY THE NEC.
- ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE, USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
- PROVIDE DUCT MOUNTED SMOKE DETECTORS IN SUPPLY AND RETURN DUCTS OF ALL AIR HANDLERS 2000 CFM OR GREATER. SMOKE DETECTOR SHALL SEND SUPERVISORY SIGNAL TO FIRE ALARM PANEL AND SHUT DOWN UNIT. UPON SMOKE DETECTOR ACTUATION, DETECTION SHALL SEND SIGNAL TO REMOTE ALARM/POWER LED INDICATOR WITH TEST SWITCH. LOCATE DEVICE IN READILY VISIBLE AND ACCESSIBLE LOCATION OF SMOKE DETECTOR PER IMC. 606.4.1

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER AND CATALOG NUMBER	MOUNTING	TYPE/LUMENS	KELVIN COLOR	CRI	VOLTS	INPUT WATTAGE	REMARKS
C1	4SNLED-LD5-47SL-LW-UNV-L840-CD1-U+AYC/CHAIN-SET+WG/SNF-4FT	SURFACE / CHAIN HANG	LED / 4,000 LU	4000K	80+	UNV	38W	4-FOOT STRIP LIGHT, 0-10V DRIVER, FROSTED LENS, DLC LISTED, CHAIN HANG KIT.
C1E	4SNLED-LD5-47SL-LW-UNV-L840-CD1-U+AYC/CHAIN-SET+WG/SNF-4FT-EL14W	SURFACE / CHAIN HANG	LED / 4,000 LU	4000K	80+	UNV	38W	4-FOOT STRIP LIGHT, 0-10V DRIVER, FROSTED LENS, DLC LISTED, CHAIN HANG KIT. PROVIDE WITH 90-MIN EMERGENCY BATTERY.

APPROVED MANUFACTURERS:
PRODUCTS BY COOPER, ACUIITY, PHILIPS (SIGNIFY), HE WILLIAMS, LSI

NOTES:
EMERGENCY BATTERY BACK-UP, WHEN SPECIFIED, SHALL ENERGIZE FIXTURE FOR A MINIMUM OF 90-MINUTES, REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.

LIGHT FIXTURE APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESSORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.

DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.

F
E
D
C
B
A