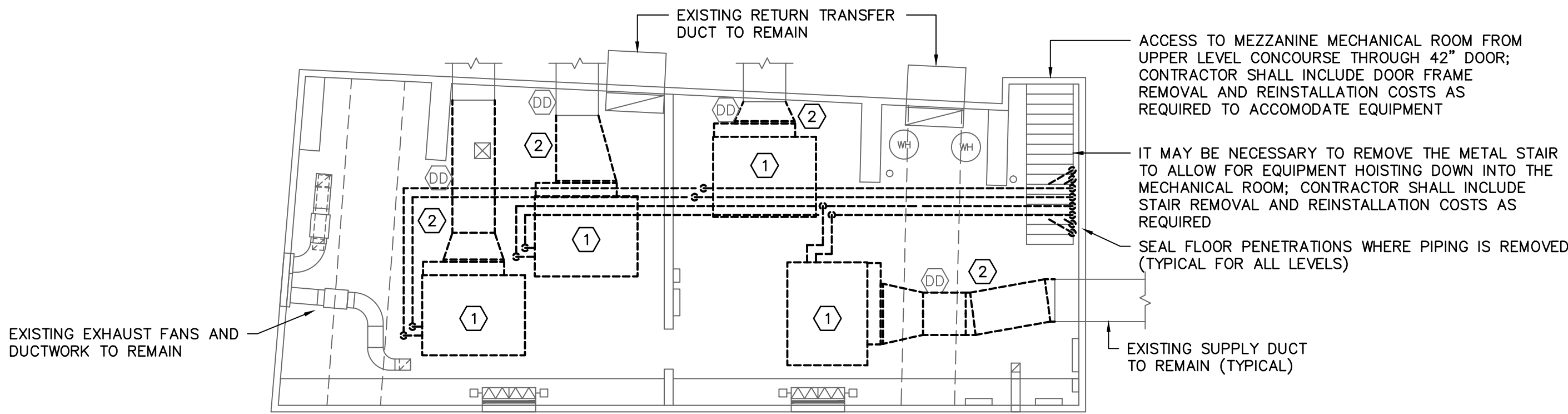


DEMOLITION NOTES

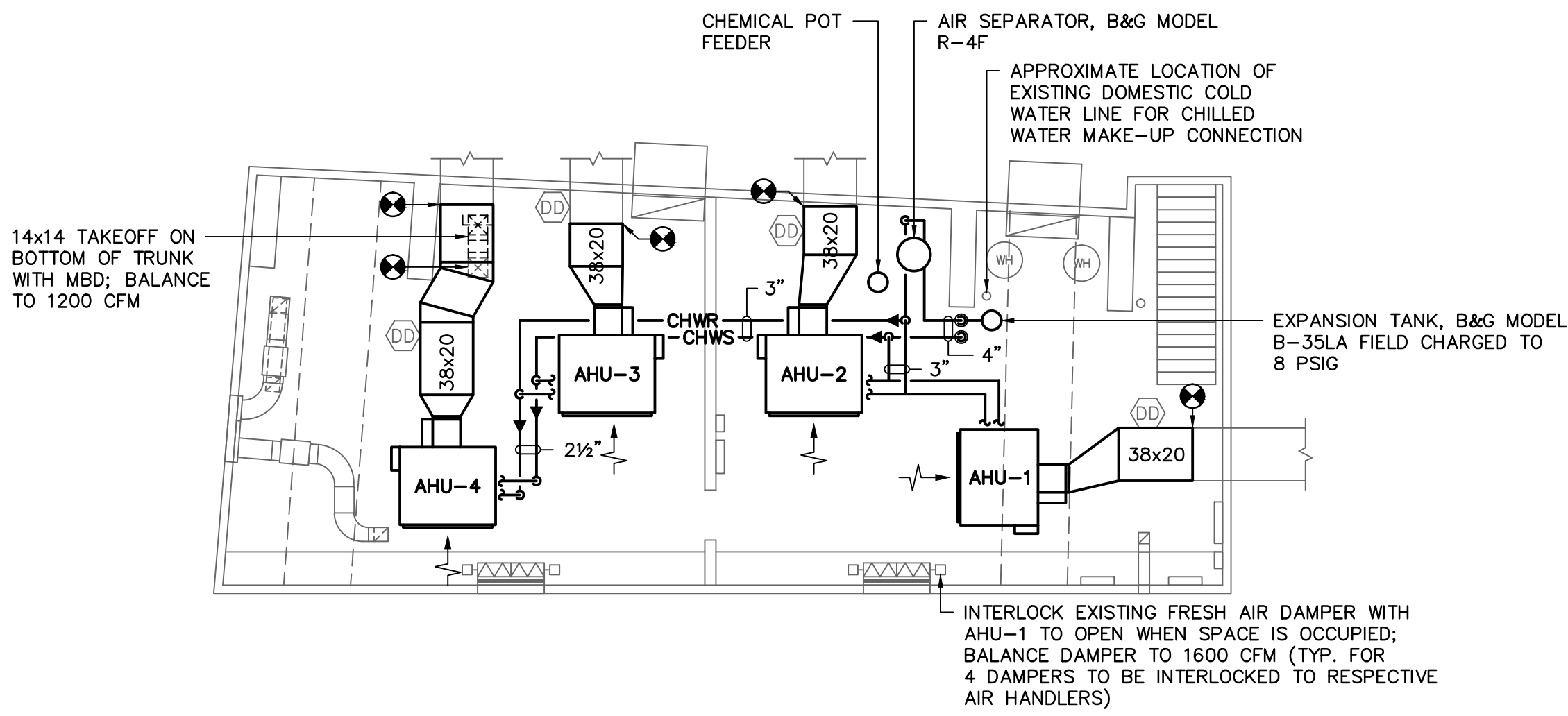
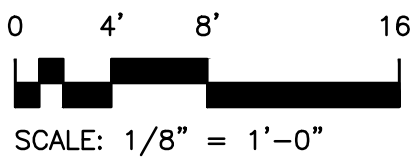
- 1 REMOVE SPLIT-SYSTEM AIR HANDLER COMPLETE INCLUDING ASSOCIATED REFRIGERANT PIPING, DRAIN PIPING, CONTROLS, ETC.
- 2 REMOVE SUPPLY DUCT AS SHOWN. SALVAGE DUCT SMOKE DETECTOR FOR REINSTALLATION IN NEW DUCT.

NOTES TO SHEET

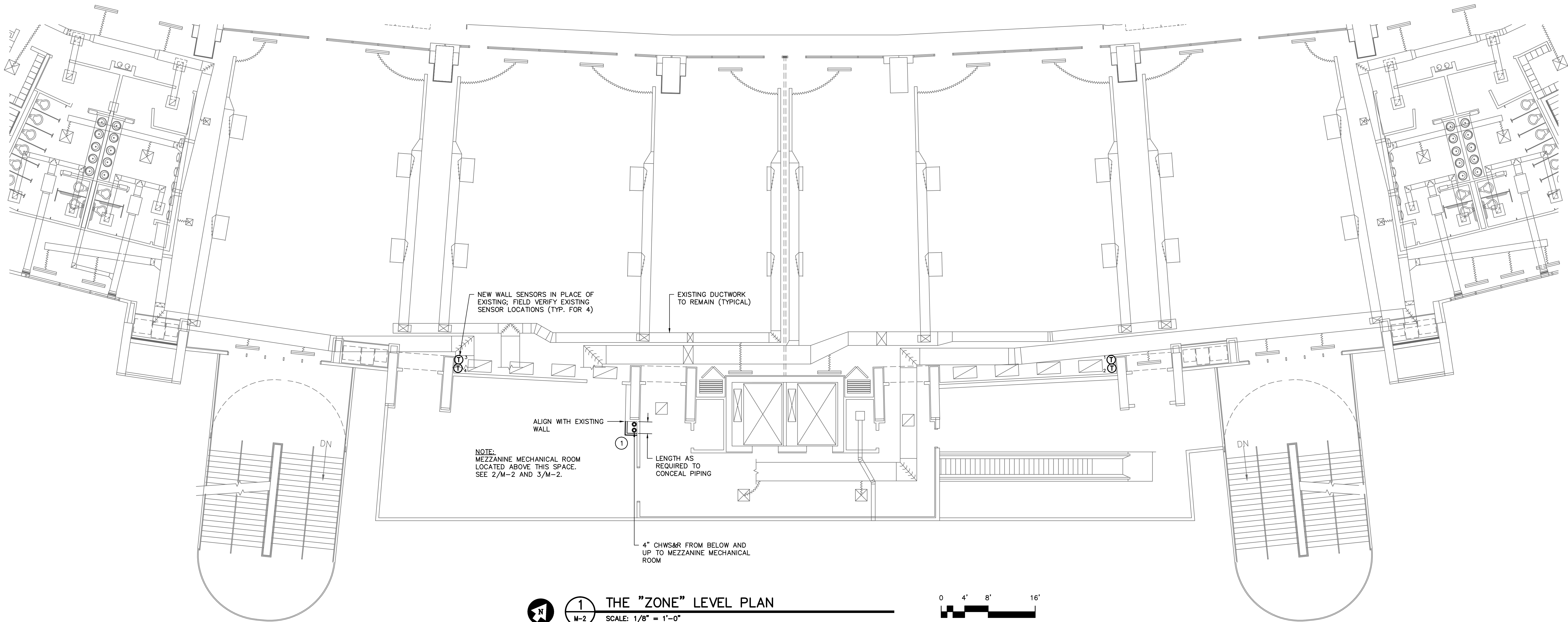
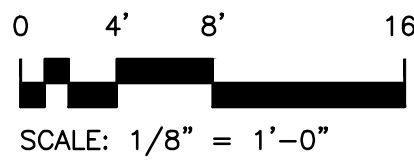
- 1 NEW 3-5/8" METAL STUD WALL, FROM TOP OF CONCRETE FLOOR TO ABOVE EXISTING LAY-IN CEILING ASSEMBLY, SPACED 16" O.C. PROVIDE SINGLE LAYER 5/8" TYPE X GYPSUM BOARD ON KITCHEN SIDE. INSTALL CORNER BEADS AND PROVIDE A USG LEVEL 4 FINISH. PROVIDE TWO COATS OF FINAL PAINTING TO MATCH ADJACENT WALLS. PROVIDE BASE MOLDING TO MATCH EXISTING. MODIFY EXISTING LAY-IN CEILING TO ACCOMMODATE NEW WALLS.



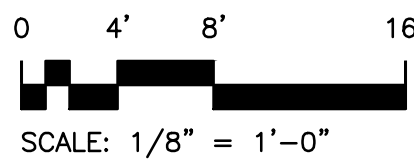
2 DEMOLITION
MEZZANINE MECHANICAL ROOM PLAN
SCALE: 1/8" = 1'-0"



3 RENOVATION
MEZZANINE MECHANICAL ROOM PLAN
SCALE: 1/8" = 1'-0"



1 THE "ZONE" LEVEL PLAN
SCALE: 1/8" = 1'-0"



STATE PROJECT NO. H27-Z083
WILLIAMS-BRICE ZONE
HVAC REPLACEMENT

University of South Carolina

Swygert & Associates
CONSULTING ENGINEERS

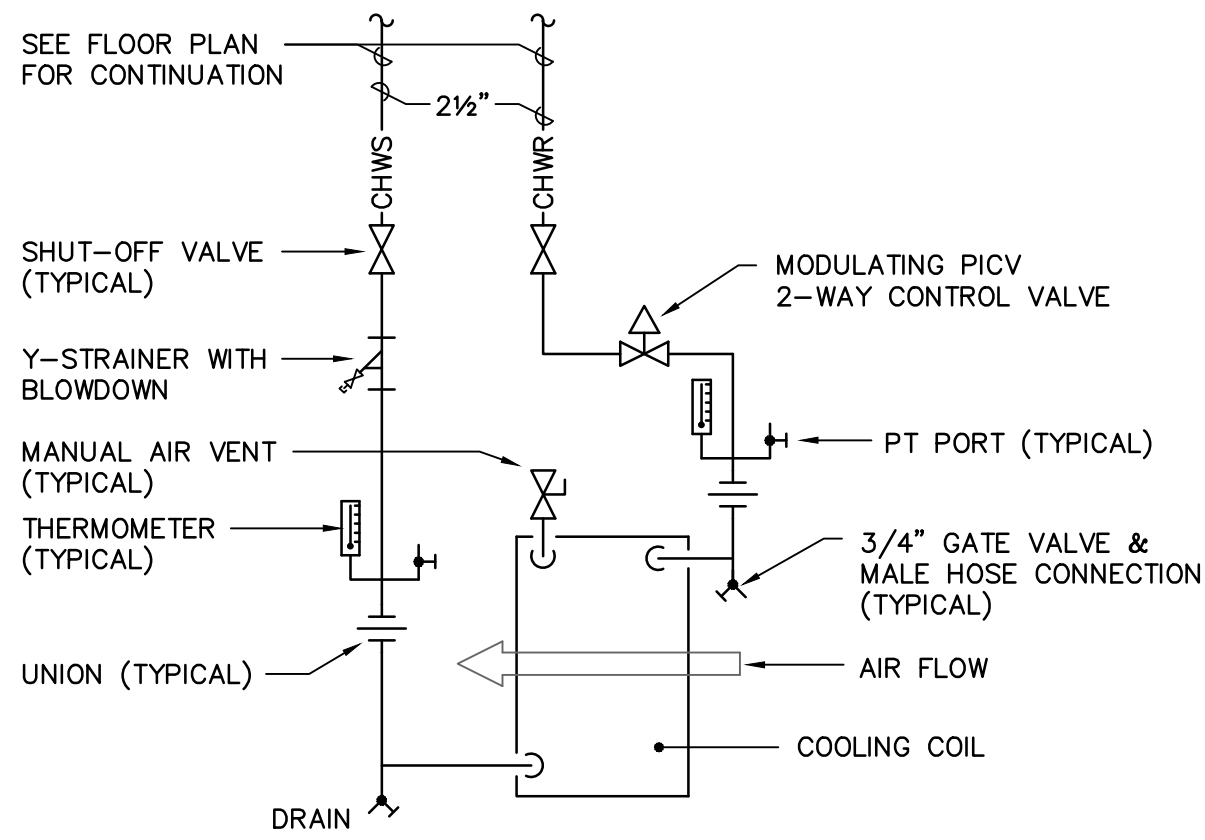
DBA Swygert & Associates, Ltd. Telephone: (803) 791-9300
Post Office Box 11886 Fax: (803) 791-0830
Columbia, S.C. 29211 mail@swygert-associates.com

M-2

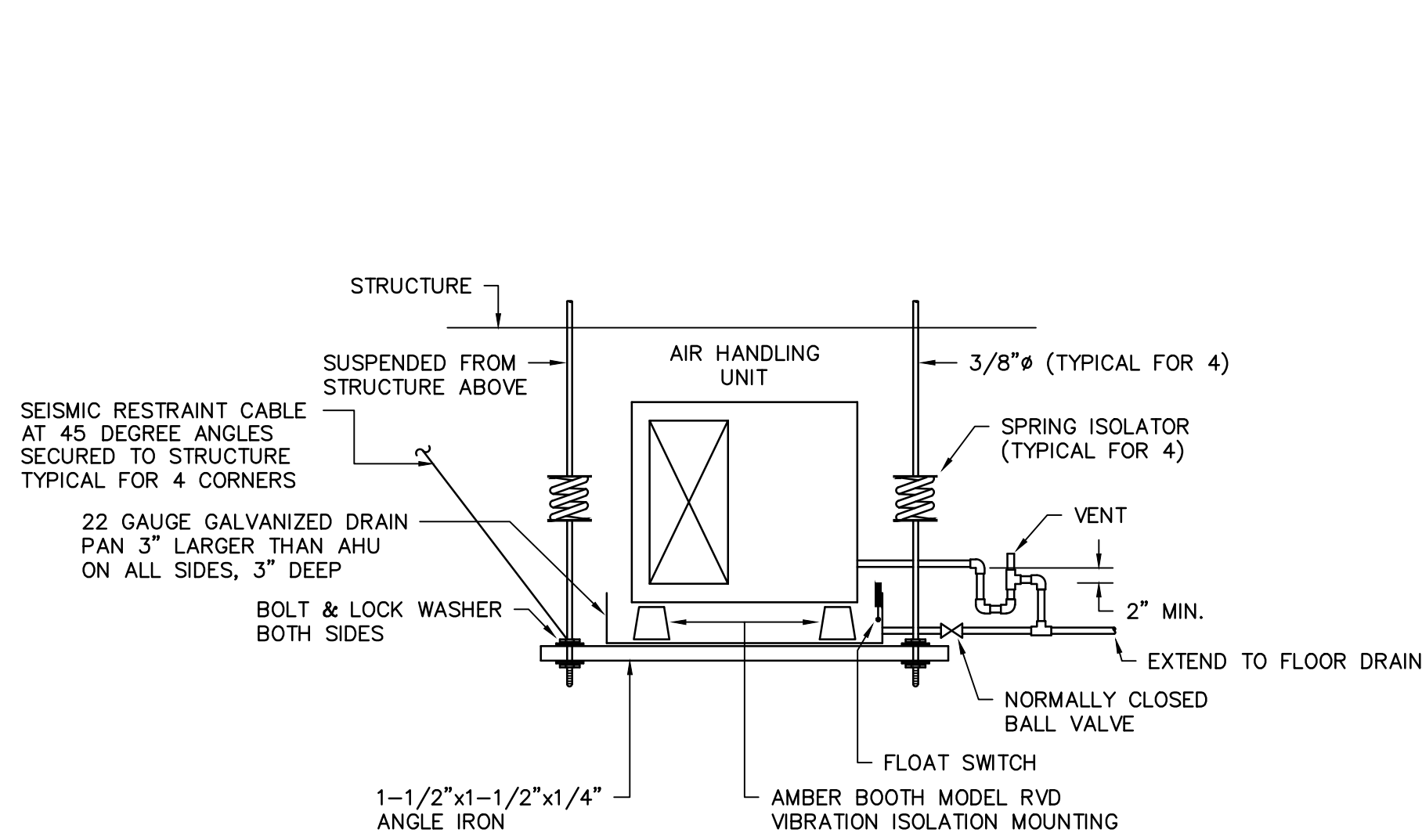
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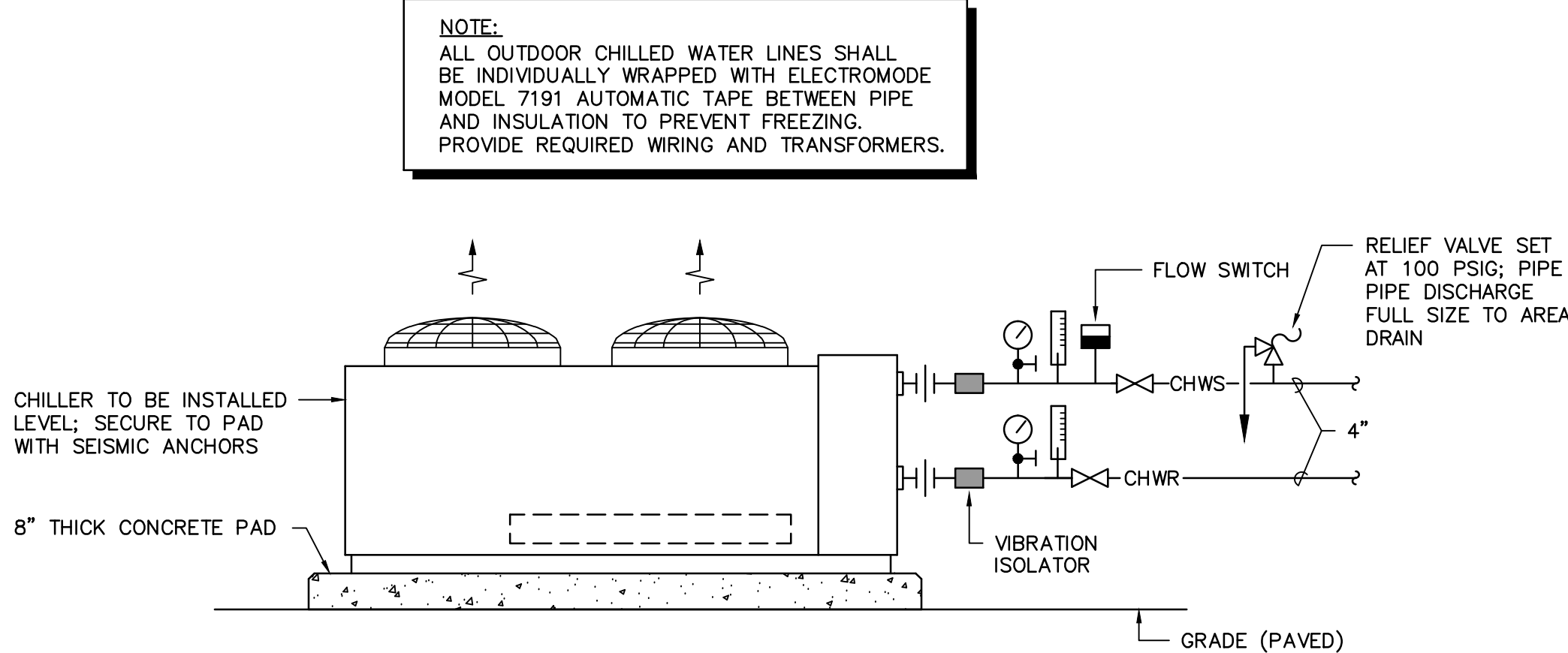
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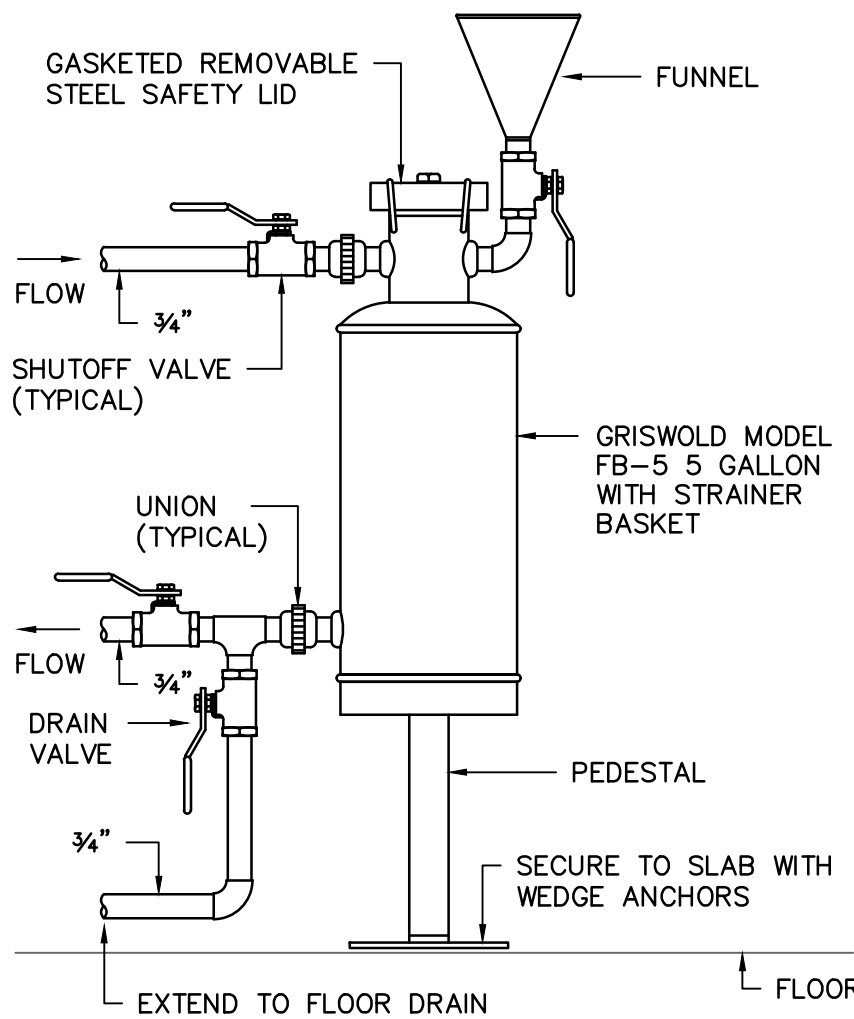
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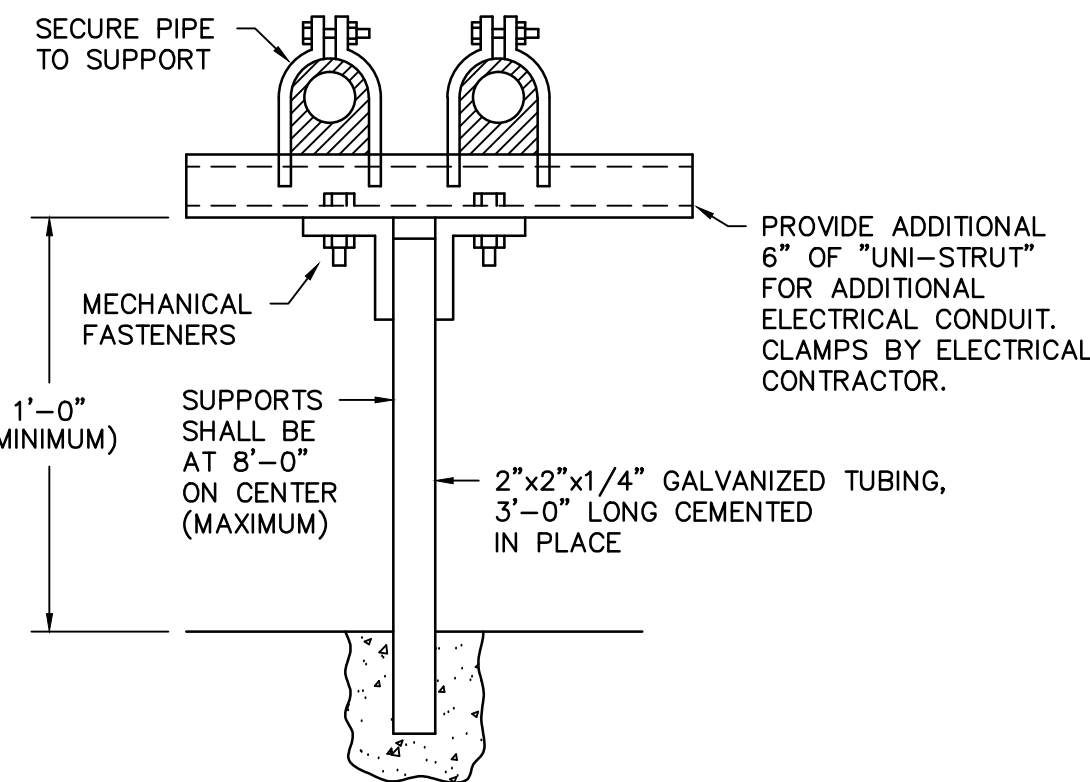
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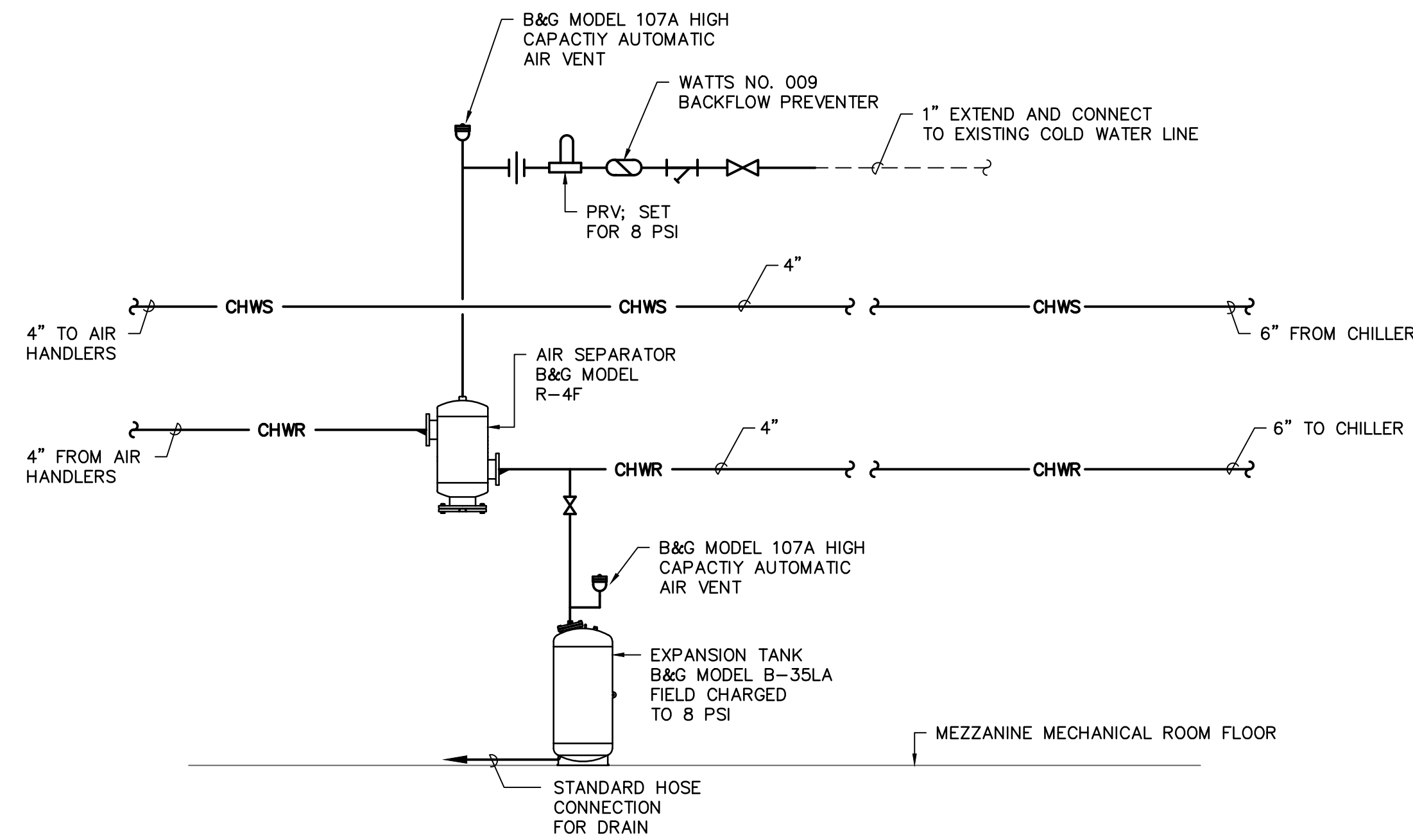
NO SCALE



NO SCALE



NO SCALE



NO SCALE

FAN COIL UNIT SCHEDULE (TWO PIPE)														
TAG	TRANE MODEL NO.	TOTAL CFM	OUTDOOR AIR—CFM	ESP IN. WG	MOTOR H.P.	COOLING COIL				RUN OUTS	ELECTRIC REHEAT COIL			REMARKS
						EADB/WB	LADB/WB	GPM	WTR. P.D. FT. WTR.		EADB	LADB	KW @460V	
AHU—1	LPCAA12F	6400	1600	1.0	5	81.0/68.0	53.7/53.5	57.2	7.7	2½"	60.0	85.0	50	1—6
AHU—2	LPCAA12F	6400	1600	1.0	5	81.0/68.0	53.7/53.5	57.2	7.7	2½"	60.0	85.0	50	1—6
AHU—3	LPCAA12F	6400	1600	1.0	5	81.0/68.0	53.7/53.5	57.2	7.7	2½"	60.0	85.0	50	1—6
AHU—4	LPCAA12F	6400	1600	1.0	5	81.0/68.0	53.7/53.5	57.2	7.7	2½"	60.0	85.0	50	1—6

1. UNIT SELECTION SHALL INCLUDE 0.20" FILTER LOAD AND 3% BELT AND DRIVE LOSSES.

2. ENTERING CHILLED WATER TEMPERATURE SHALL BE 45F AND THE WATER TEMPERATURE RISE SHALL BE 10F.

3. PROVIDE FLAT FILTER SECTION WITH TWO INCH MERV 8 FILTERS AND 2 EXTRA SETS OF FILTERS.

4. FAN SECTION TO BE INTERNALLY ISOLATED.

5. PROVIDE 1" DOUBLE WALL CONSTRUCTION AND UNIT MOUNTED DISCONNECT.

6. FAN COILS TO BE HORIZONTAL DRAW THRU. CONFIGURATION SHALL BE FLAT FILTER/CW COIL/FAN/ELECTRIC HEATER.

ISOLATION AND SEISMIC SCHEDULE									
SEISMIC OCCUPANCY CATEGORY = III					SEISMIC DESIGN CATEGORY = D				
EQUIPMENT TAG	COMPONENT IP	ISOLATION SPECIFICATION	SEISMIC REST. SPECIFICATION	ISOLATION DEFLECTION					
SUSP. FAN COIL UNITS (INDOOR)	1.0	SPEC E SPEC K	SPEC SC	1"					
AIR SEPARATORS & EXP. TANKS	1.0	NONE	NOTE 1	N/A					
AIR COOLED CHILLER	1.0	SPEC W	NOTE 1,2	.15"					

1. ANCHOR BOLTS FOR NON-ISOLATED AND INTERNALLY ISOLATED EQUIPMENT SHALL BE SIZED BY THE SEISMIC RESTRAINT SUPPLIER. IF REQUIRED, SPEC. SL SNUBBERS OR SPEC. SC CABLE KITS SHALL BE PROVIDED.

2. PADS REINFORCED AND DOWELED IN ACCORDANCE WITH ASHRAE SEISMIC GUIDELINES.

AIR COOLED SCROLL CHILLER SCHEDULE													
TAG	TRANE MODEL NO.	CAPACITY TONS	UNIT EER	IPLV EER	EVAPORATOR			CONDENSER		COMPRESSOR		REMARKS	
					EWI °F	LWI °F	GPM	P.D.-FT.	AMB. °F	MIN. °F	QUAN.		STAGES
CH-1	CGAM120	120	9.9	15.4	55.0	45.0	282	14.9	95.0	0.0	4	4	1,2,3,4

1. PROVIDE FLOW SWITCH, HEAT TRACE TAPE CIRCUIT, AND ARCHITECTURAL LOUVERED PANELS.

2. PROVIDE ON BOARD MICROPROCESSOR UNIT CONTROL.

3. PROVIDE "HUSHORE" ECONOMY AND PREMIUM SOUND ATTENUATION PACKAGES, INCLUDING ACOUSTIC BLANKETS FOR COMPRESSORS AND ACOUSTIC CURTAINS COVERING ENTIRE CHILLER FENCE ENCLOSURE, PER SPECIFICATIONS.

4. PROVIDE INTEGRATED DUAL PUMP PACKAGE PER SPECIFICATIONS. AVAILABLE HEAD PRESSURE AT WATER CONNECTION SHALL BE 82.5 FT. H2O.

GENERAL NOTES

1. VISIT SITE PRIOR TO BIDDING. THIS CONTRACTOR SHALL DETERMINE DIFFICULTY OF INSTALLATION AND REFLECT THIS IN HIS BIDDING.
2. DO NOT SCALE DRAWINGS. THIS CONTRACTOR SHALL VERIFY ALL EXISTING ITEMS AND LOCATIONS IN THE FIELD.
3. EXISTING PIPE, DUCTWORK, CONDUIT, ETC THAT INTERFERES WITH THE ROUTING OF NEW SYSTEMS SHALL BE RELOCATED. THIS CONTRACTOR SHALL INCLUDE THE COST OF SUCH IN HIS BID UNLESS NOTED OTHERWISE.
4. WATER SYSTEMS SHALL BE DRAINED AS REQUIRED FOR INSTALLATION OF WORK. UPON COMPLETION, SYSTEM SHALL BE FILLED WITH WATER AND VENTED OF ALL AIR.
5. ALL PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH FLOORS, ROOFS AND PARTITIONS.
6. ALL MECHANICAL ITEMS EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED AND COUNTERFLASHED. PROVIDE PIPE PORTALS AS REQUIRED FOR CONDUIT OR TUBING PENETRATIONS THROUGH THE ROOF.
7. ALL PIPING IS SHOWN DIAGRAMMATIC. HOWEVER, THIS CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, PIPING AND INSULATION FOR ALL OFFSETS AND/OR CHANGES IN ELEVATION.
8. EXTEND ALL DRAIN LINES TO NEAREST FLOOR DRAIN OR AS INDICATED - SO ROUTED AS TO AVOID INTERFERENCE WITH PASSAGEWAYS AND MAINTENANCE. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED PER STATIC PRESSURE REQUIREMENTS.
9. EXTEND DRAIN LINES FROM RELIEF VALVES TO NEAREST FLOOR DRAIN UNLESS OTHERWISE NOTED OR INDICATED.
10. ALL WATER PIPING SHALL PITCH DOWN IN DIRECTION OF FLOW ONE-INCH PER FIFTY FEET WITH MANUAL AIR VENTS AT ALL HIGH POINTS AND 3/4-INCH DRAIN VALVES WITH STANDARD HOSE CONNECTION AT ALL LOW POINTS.
11. ALL VALVES AND SPECIALTIES SHALL BE LINE SIZE UNLESS NOTED OTHERWISE, USING ECCENTRIC REDUCERS ON PUMP SUCTION AND CONCENTRIC REDUCERS ON PUMP DISCHARGE. USE ECCENTRIC REDUCERS ON AUTOMATIC VALVES AS REQUIRED.
12. MINIMUM PIPE SIZE SHALL BE 3/4-INCH UNLESS INDICATED OTHERWISE.
13. ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATIONS AND FURTHER SUPPORTS OR HANGERS SHALL BE PROVIDED TO PREVENT WEIGHT OF PIPING BEING PLACED ON EQUIPMENT.
14. SET PRESSURE REGULATING VALVE ON SYSTEM MAKE-UP WATER SUPPLY TO MAINTAIN 4 PSIG AT HIGHEST POINT IN BUILDING WITH PUMPS OFF.
15. PROVIDE AND INSTALL HEAT TRACE TAPE ON ALL EXTERIOR CHILLED WATER PIPING.
16. ALL DUCTWORK SPECIFIED TO BE LINED SHALL BE INCREASED IN SIZE TO ALLOW FOR LINER.
17. ALL ITEMS OF EQUIPMENT IN MECHANICAL ROOM AND ON GRADE SHALL BE LOCATED ON REINFORCED CONCRETE FOUNDATIONS, MINIMUM 6-INCH THICK OR AS DETAILED ON THESE PLANS AND SPECIFICATIONS AND 6 INCHES LARGER THAN EQUIPMENT IN EACH DIRECTION. PADS SHALL BE REINFORCED PER THE HOUSEKEEPING PAD SECTION OF THE ASHRAE PRACTICAL GUIDE FOR SEISMIC RESTRAINT. ALL UNITS SHALL BE SECURED TO THE HOUSEKEEPING PADS WITH SEISMIC RESTRAINTS. PROVIDE 1-INCH CHAMFERS ON ALL SIDES.
18. PROVIDE FOR ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT.
19. THIS CONTRACTOR SHALL PROVIDE ALL ITEMS OF MISCELLANEOUS STEEL AS REQUIRED FOR INSTALLATION OF ALL MECHANICAL ITEMS.
20. THIS CONTRACTOR SHALL DO ALL CONTROL WIRING. ELECTRICAL CONTRACTOR WILL DO ALL POWER WIRING. ALL WIRING SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL AND ALL CONTROL WIRING SHALL BE ROUTED IN EMT CONDUIT. EXISTING DUCT DETECTORS SHALL BE REINSTALLED BY MECHANICAL CONTRACTOR. POWER WIRING AND FIRE ALARM CONNECTIONS SHALL BE BY ELECTRICAL CONTRACTOR. CONTROL WIRING FOR UNIT SHUTDOWN SHALL BE BY MECHANICAL CONTRACTOR.
21. LOCATE ALL SPACE CONTROL INSTRUMENTS 4'-0" ABOVE FINISHED FLOOR TO TOP OF DEVICE IN ACCORDANCE WITH ADA.
22. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY DISMANTLING OF EQUIPMENT TO BE REMOVED.
23. ITEMS REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.
24. THIS CONTRACTOR SHALL PATCH ALL WALLS AND FINISHES TO MATCH EXISTING WHERE ALL ITEMS OR EQUIPMENT ARE REMOVED.

LEGEND

SYMBOL	DESCRIPTION
CHWS	CHILLED WATER SUPPLY LINE
CHWR	CHILLED WATER RETURN LINE
D	DRAIN LINE
SHUTOFF VALVE	SHUTOFF VALVE
CHECK VALVE	CHECK VALVE
STRAINER WITH BLOWDOWN	STRAINER WITH BLOWDOWN
BUTTERFLY VALVE	BUTTERFLY VALVE
BALANCING VALVE	BALANCING VALVE
UNION	UNION
PIPE TURNS TO, AWAY	PIPE TURNS TO, AWAY
THERMOMETER / PRESSURE GAGE	THERMOMETER / PRESSURE GAGE
THERMOMETER WELL CAPPED / GAGE COCK	THERMOMETER WELL CAPPED / GAGE COCK
CONCENTRIC REDUCER	CONCENTRIC REDUCER
ECCENTRIC REDUCER	ECCENTRIC REDUCER
THERMOSTAT	THERMOSTAT
48x24	48"x24" RECTANGULAR DUCT
CONNECTION POINT OF NEW TO EXISTING	CONNECTION POINT OF NEW TO EXISTING

STATE PROJECT NO. H27-Z083

WILLIAMS-BRICE ZONE
HVAC REPLACEMENT

University of South Carolina

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SHEET IN SET:

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