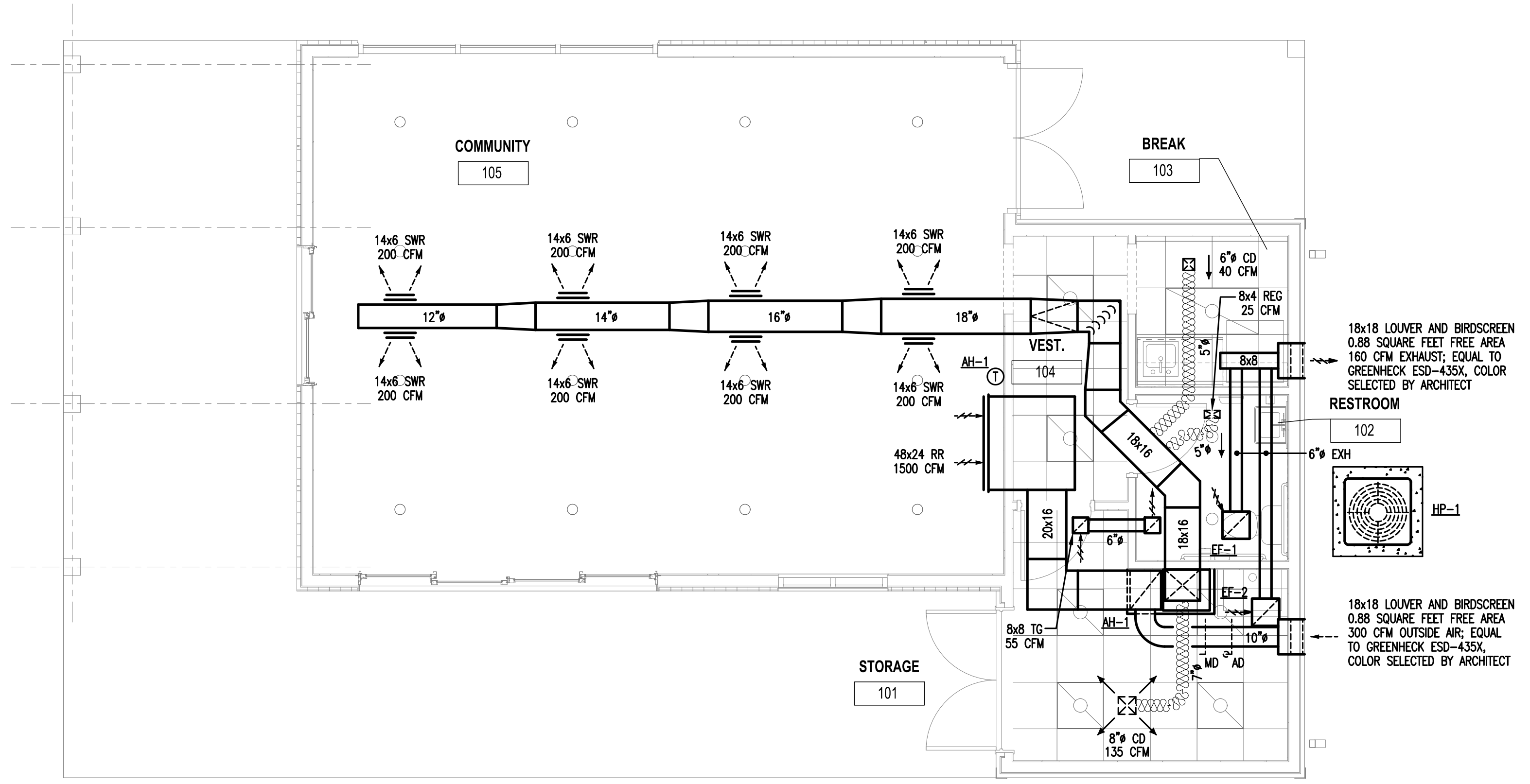


MECHANICAL LEGEND			
MARK	DESCRIPTION	MARK	DESCRIPTION
CFM	CUBIC FEET PER MINUTE		TURNING VANES IN DUCT
DN	DOWN		MANUAL DAMPER/AUTOMATIC DAMPER
CD	CEILING DIFFUSER (TITUS TDCA-AA)		SUPPLY OR OUTSIDE AIR DUCT IN SECTION
RR	RETURN REGISTER (TITUS 350F)		RETURN OR EXHAUST AIR DUCT IN SECTION
TG	TRANSFER GRILLE (TITUS 350F)		DUCT SIZE (FIRST DIMENSION AS VIEWED)
SWR	SIDEWALL SUPPLY REGISTER (TITUS 300F)		CEILING TYPE AIR DIFFUSER RECTANGULAR 4-WAY SHOWN
REG	CEILING SUPPLY REGISTER (TITUS 250-AA)		CEILING EXHAUST OR RETURN AIR REGISTER
W/MD	WITH MANUAL DAMPER		1/2" DOOR UNDERCUT
OA/EXH	OUTSIDE AIR/EXHAUST		
Ⓢ	THERMOSTAT		
	RETURN OR EXHAUST AIR		
	SUPPLY AIR		
	FLEXIBLE DUCTWORK		
⊘	ROUND		

- GENERAL MECHANICAL NOTES**
- FURNISH ALL LABOR, EQUIPMENT, AND MATERIALS TO PROVIDE A COMPLETE MECHANICAL SYSTEM. DUE TO THE SCHEMATIC NATURE OF THESE PLANS, THE CONTRACTOR SHALL FIELD-VERIFY LOCATIONS FOR EQUIPMENT DUCTWORK, AND ACCESSORIES. IN ADDITION, THIS WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS. THE CONTRACTOR SHALL ALSO REVIEW THE STRUCTURAL DRAWINGS BEFORE FABRICATING AND INSTALLING DUCTWORK OR EQUIPMENT.
  - ALL WORK SHALL BE PERFORMED BY SKILLED AND EXPERIENCED WORKMEN. WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED PERMITS, LICENSES, AND INSPECTIONS.
  - ALL MATERIALS SHALL BE NEW AND WITHOUT DEFECTS. SUBMIT SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT. ALL WORK DONE BY THIS CONTRACTOR SHALL BE WARRANTED FOR ONE YEAR FROM THE TIME THE OWNER GIVES ACCEPTANCE OR GAINS BENEFICIAL USE, WHICHEVER IS FIRST. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
  - DUCT SIZES ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. DUCT SHALL BE OF LOW-PRESSURE (1.0" w.g.) CONSTRUCTION AS CLASSIFIED BY SMACNA UNLESS OTHERWISE NOTED. ALL DUCT SHALL HAVE MINIMUM 1" INTERNAL LINER FOR THE FIRST 20 FEET FOR SOUND ATTENUATION. AFTER 20 FEET, THE CONTRACTOR SHALL USE 2" EXTERNAL WRAP (MINIMUM R=6.0). DUCTBOARD IS NOT ALLOWED. EXPOSED ROUND DUCTWORK SHALL BE DOUBLE-WALL SPIRAL DUCT WITH A PAINTABLE FINISH (COLOR SELECTED BY ARCHITECT). EXHAUST AND OUTSIDE AIR DUCTS SHALL BE INSULATED TO MINIMUM R-4.2.
  - FLEXIBLE DUCT MAY BE INSTALLED ONLY WHERE SHOWN ON THE DRAWINGS. DUCT SHALL BE EXTERNALLY-INSULATED CORRUGATED METAL WITH A MAXIMUM LENGTH OF 8'-0". FOR TAKE-OFFS LONGER THAN 8'-0", THE REMAINDER OF THE DISTANCE SHALL BE EXTERNALLY-WRAPPED SINGLE-WALL ROUND DUCT WITH A SPIN-IN STYLE TAP AT THE MAIN DUCT.
  - HANGERS FOR EQUIPMENT AND PIPING SHALL BE SECURED TO THE BUILDING STRUCTURE. NO HANGERS SHALL BE ATTACHED TO THE FLOOR OR ROOF DECK MATERIAL, OR CONCRETE DECKS LESS THAN 4" THICK. EXPOSED ROUND DUCTS SHALL BE HUNG USING LOOP & CABLE HANGING SYSTEMS (NO FLAT STRAP OR TRAPEZE).
  - ALL RETURN AND EXHAUST GRILLES SHALL HAVE OPPOSED-BLADE DAMPERS. ALL SUPPLY-SIDE TAKE-OFFS SHALL HAVE A BALANCING DAMPER.
  - FIRE DAMPERS AND FIRE-STOPPING SHALL BE PROVIDED FOR ANY PENETRATIONS OF FIRE-RATED PARTITIONS. VERIFY LOCATIONS OF ALL FIRE-STOPPING ON THE ARCHITECTURAL DRAWINGS.
  - ALL GRILLES AND REGISTERS SHALL BE EQUAL TO TITUS WITH ALUMINUM CONSTRUCTION. SUPPLY GRILLES SHALL BE EQUAL TO MODEL TDC. SUPPLY REGISTERS SHALL BE EQUAL TO MODEL 301. RETURN, EXHAUST AND TRANSFER GRILLES SHALL BE EQUAL TO MODEL 355 WITH OPPOSED-BLADE DAMPERS. GRILLE FINISH SHALL BE APPROVED BY THE OWNER AND THE ARCHITECT.
  - EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE ABLE TO PROVIDE THE REQUIRED CAPACITIES IN THE MIDDLE OF IT'S PERFORMANCE RANGE. ALL COMPRESSORS SHALL HAVE A MINIMUM 5-YEAR WARRANTY UNLESS OTHERWISE NOTED. THE EQUIPMENT SHALL HAVE ALL THE NECESSARY CONTROLS AND ACCESSORIES TO ALLOW FOR FULL OPERATION. IF EQUIPMENT HAS COMPONENTS OF A VIBRATIVE NATURE, THE CONTRACTOR SHALL PROVIDE THE NECESSARY VIBRATION CONTROLS.
  - REFRIGERANT PIPING SHALL BE HARD-DRAWN TYPE K OR L COPPER WITH COPPER SOLDER FITTINGS. PIPING SHALL BE SOLDERED WITH SILVER SOLDER AND INSULATED WITH 1/2" THICK THERMAL TUBULAR JACKETING. SEAL INSULATION JOINTS WITH TAPE AND CEMENT OR PER MANUFACTURER'S INSTRUCTIONS. PRE-INSULATED AND PRE-CHARGED REFRIGERANT LINES MAY BE USED AS PROVIDED BY THE EQUIPMENT MANUFACTURER. WHERE INSULATION IS EXPOSED TO WEATHER PROTECT LINES WITH AN ALUMINUM COVER AND PAINT TO MATCH EXTERIOR FINISH.
  - CONDENSATE DRAINS SHALL BE FULL-SIZE (3/4" MINIMUM) COPPER OR SCHEDULE 40 PVC. DRAINS SHALL BE INSULATED IN THE SAME MANNER AS REFRIGERANT LINES. SPILL ON GRADE ADJACENT TO OUTDOOR UNITS.
  - CONTROLS SHALL BE EQUAL TO MANUFACTURER'S CONTROLS. OUTDOOR UNITS SHALL HAVE FACTORY-WIRED TIME DELAYS, PRESSURE SWITCHES, LOW-AMBIENT CONTROLS AND DEFROST CONTROLS. THERMOSTATS SHALL BE DIGITAL AND PROGRAMMABLE WITH BATTERY BACK-UP. SETPOINTS SHALL FOLLOW DESIGN CONDITIONS OR BE AS DIRECTED BY THE OWNER. MOUNT ALL THERMOSTATS AND TEMPERATURE SENSORS 60" A.F.F.
  - THE HVAC SYSTEM SHALL BE TESTED AND BALANCED ACCORDING TO AABC STANDARDS. THE CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH A COPY OF THE TEST AND BALANCE REPORT AND THE OWNER WITH A LETTER STATING THAT THE SYSTEM(S) HAVE BEEN BALANCED TO WITHIN 10% OF DESIGN PARAMETERS.



**1** HVAC FLOOR PLAN  
M1.1 1/4" = 1'-0"

**JOHNSON PEADAR ENGINEERING INC.**

221 Hollywood Blvd NE  
Flt Walton Beach, FL 32548  
850.244.6189V

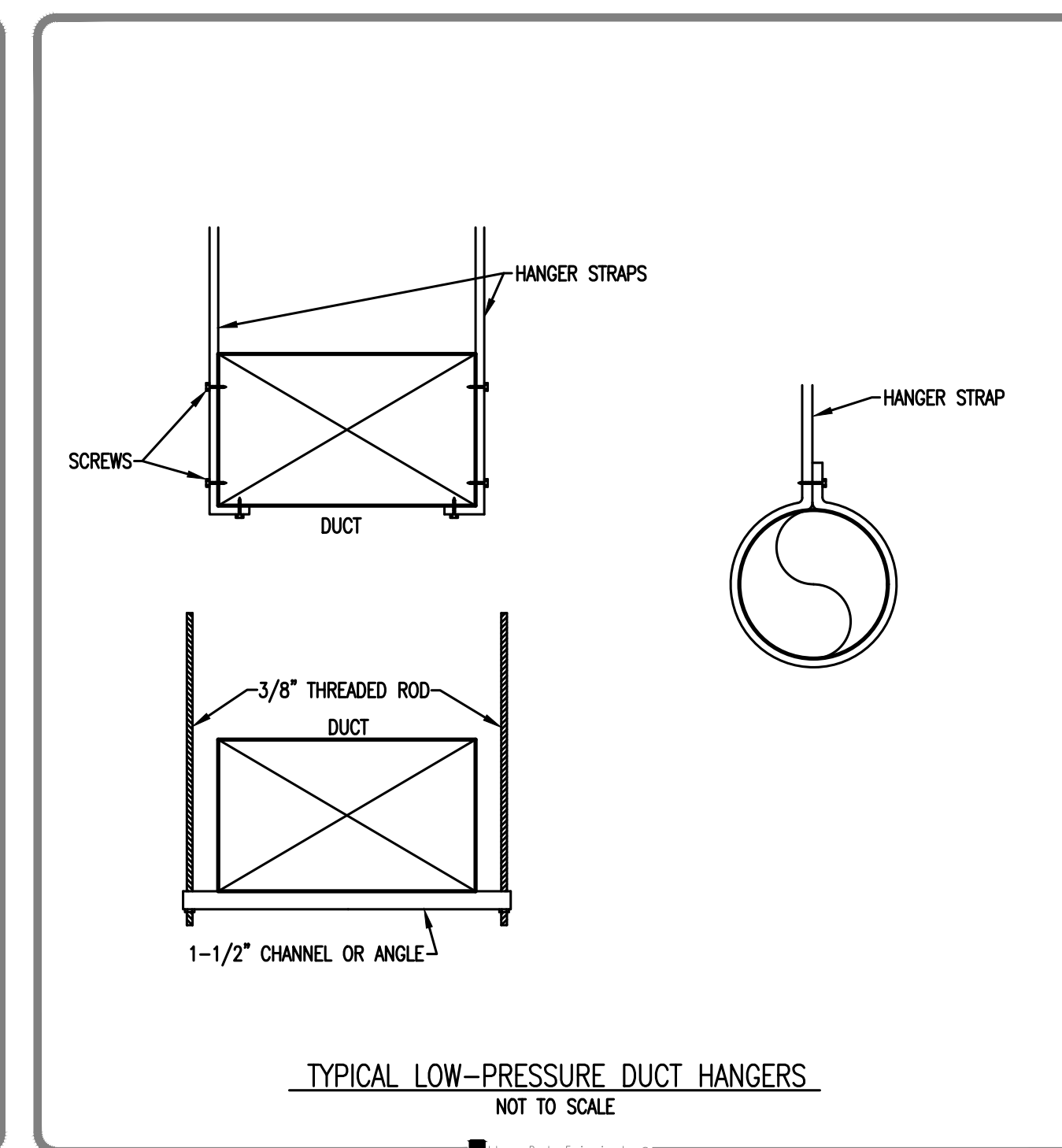
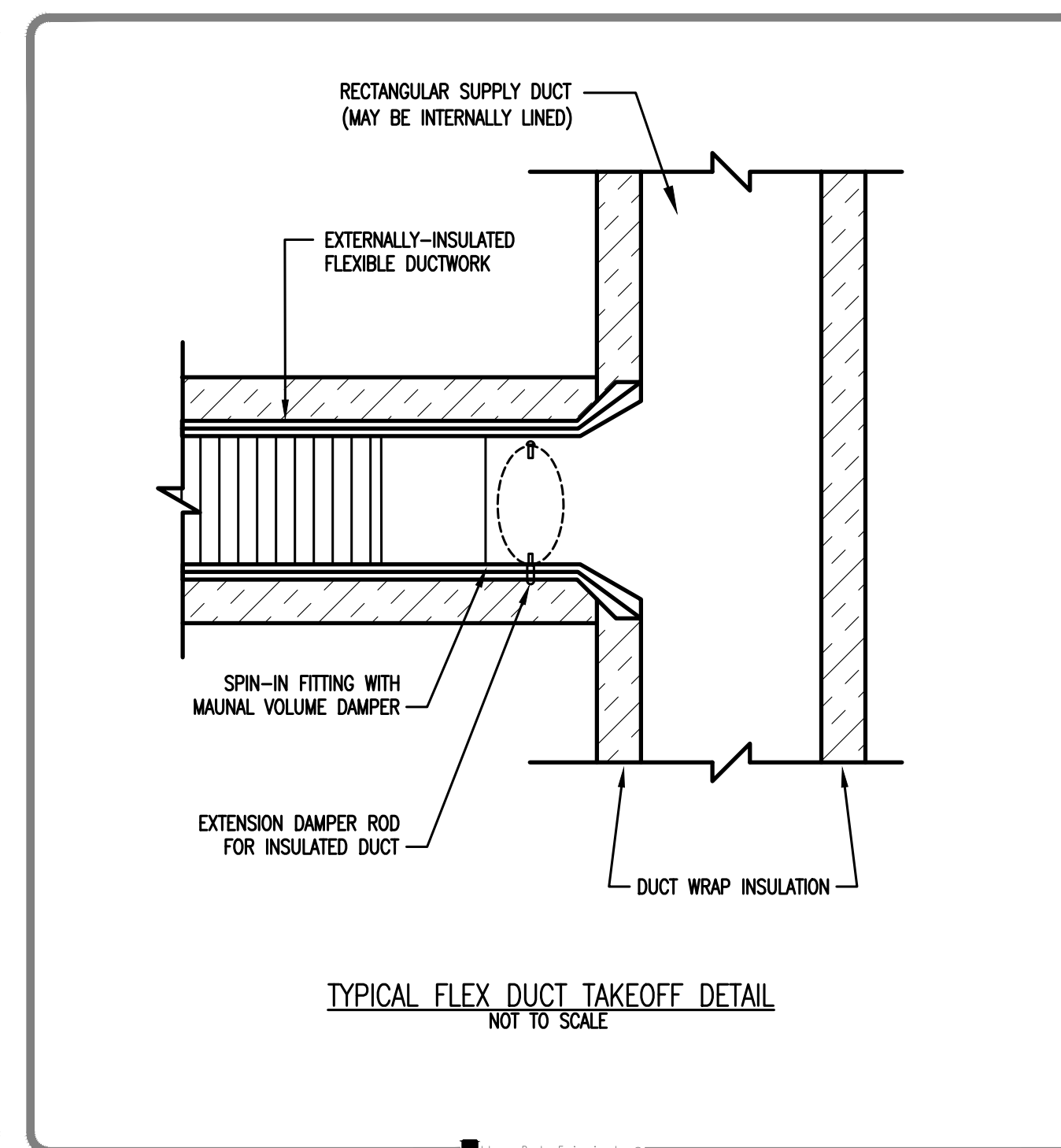
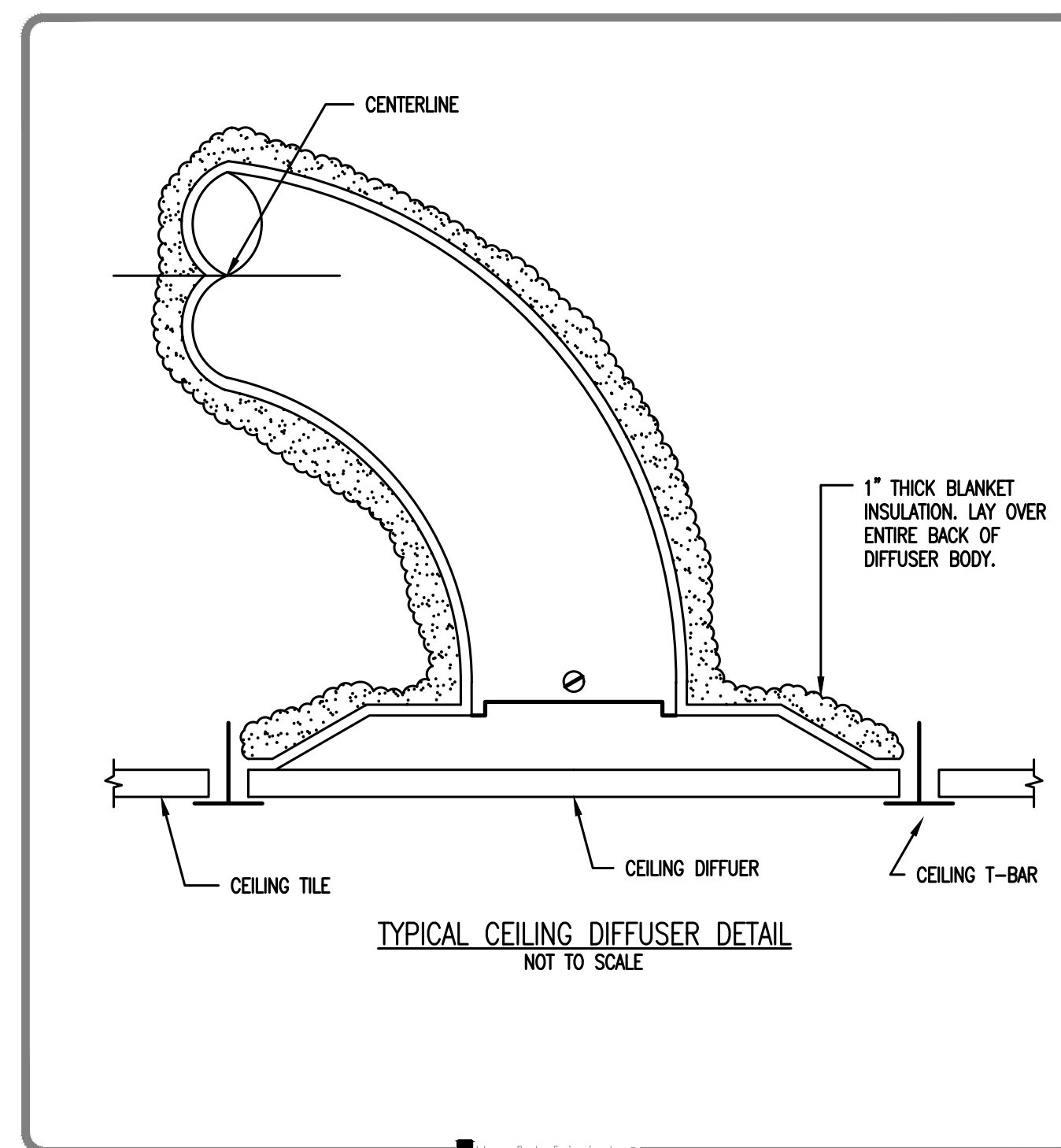
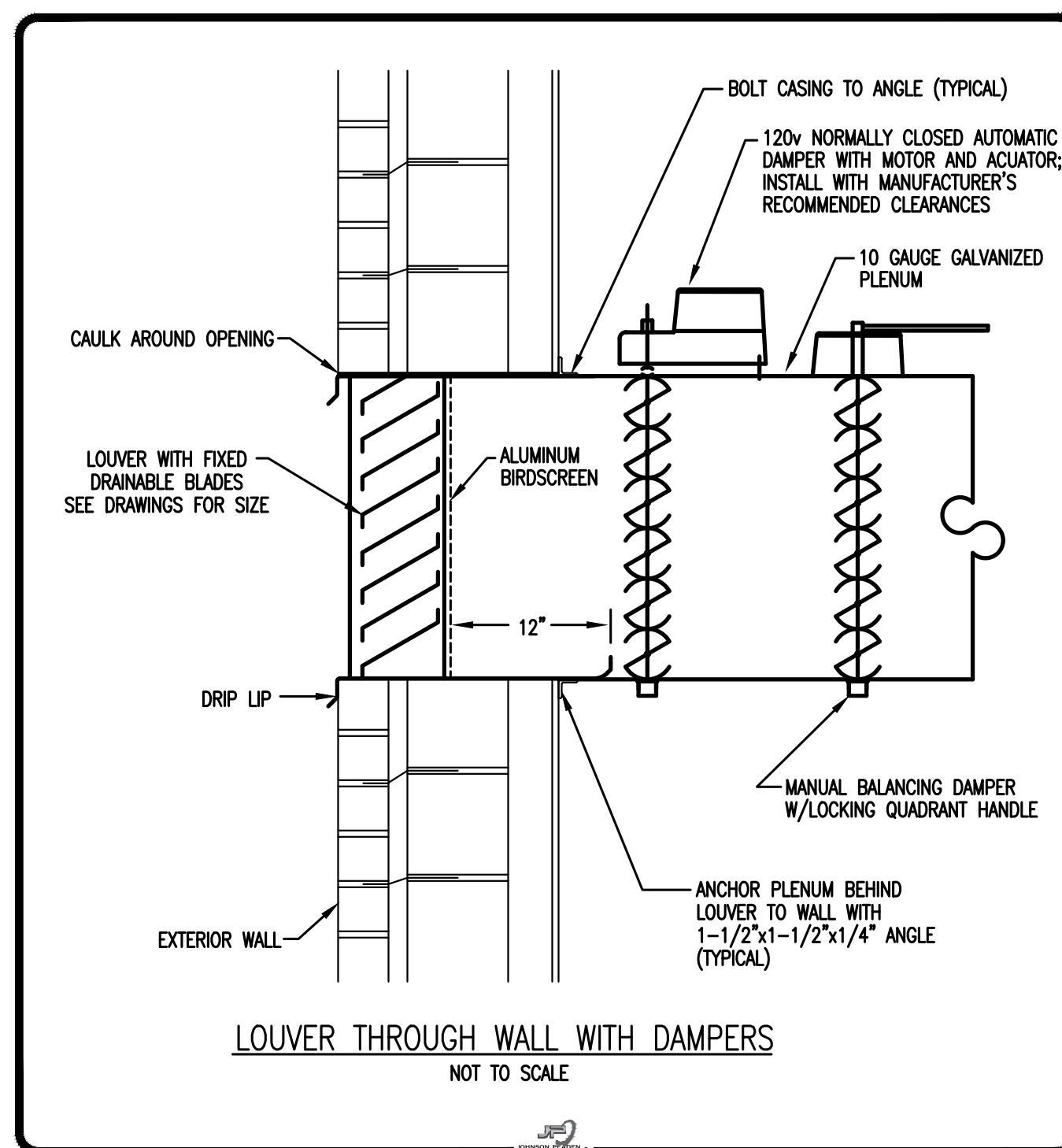
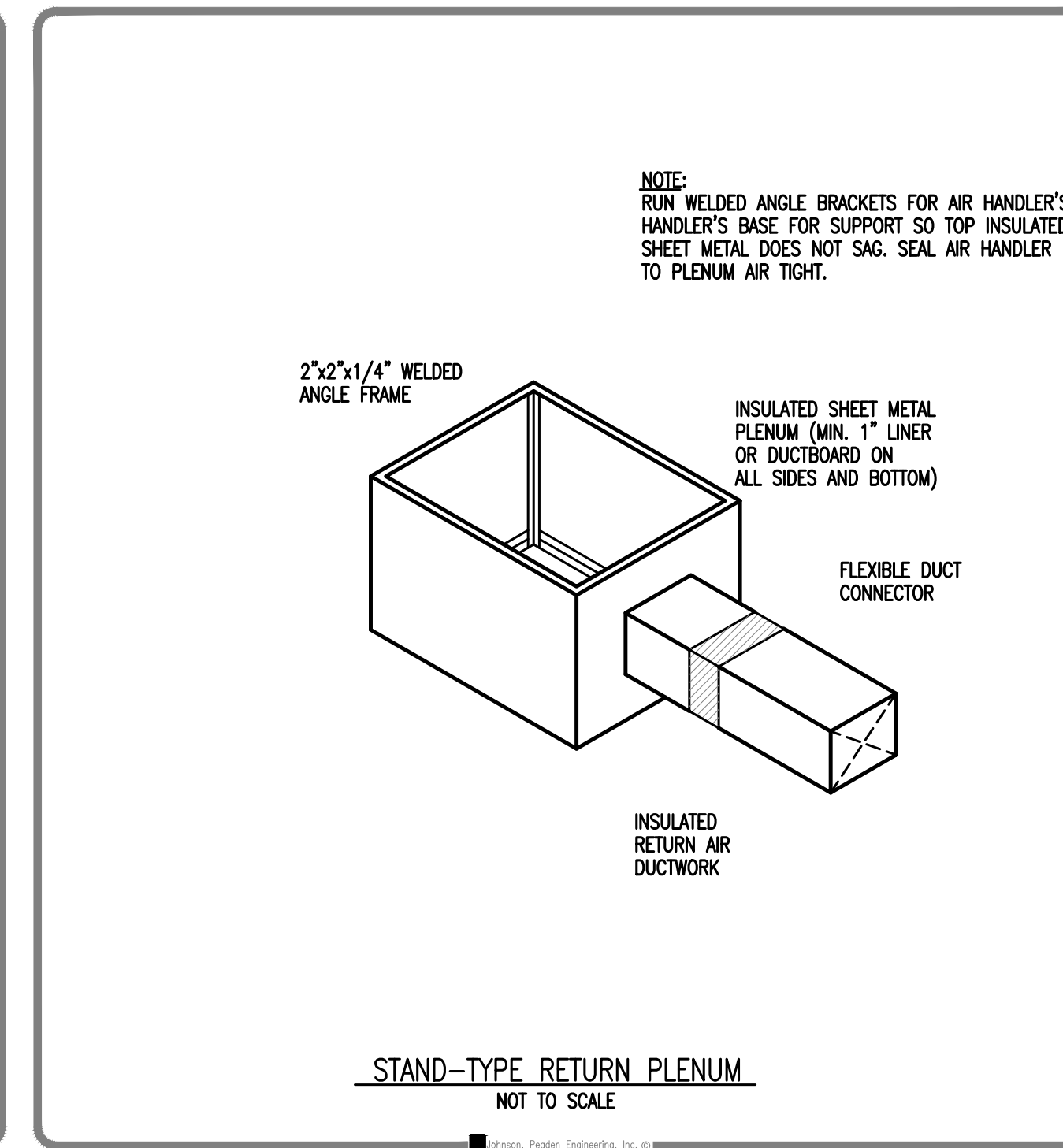
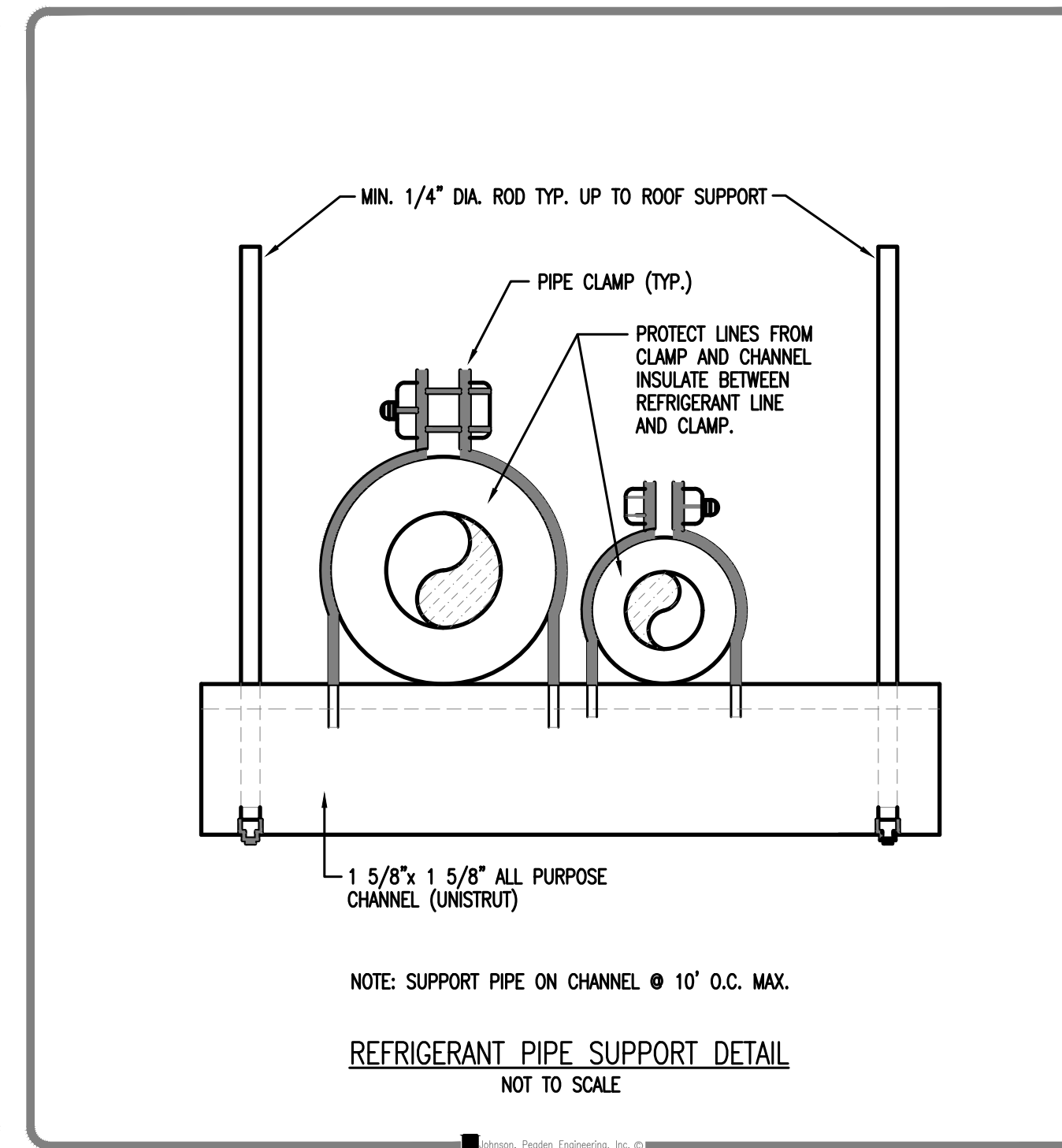
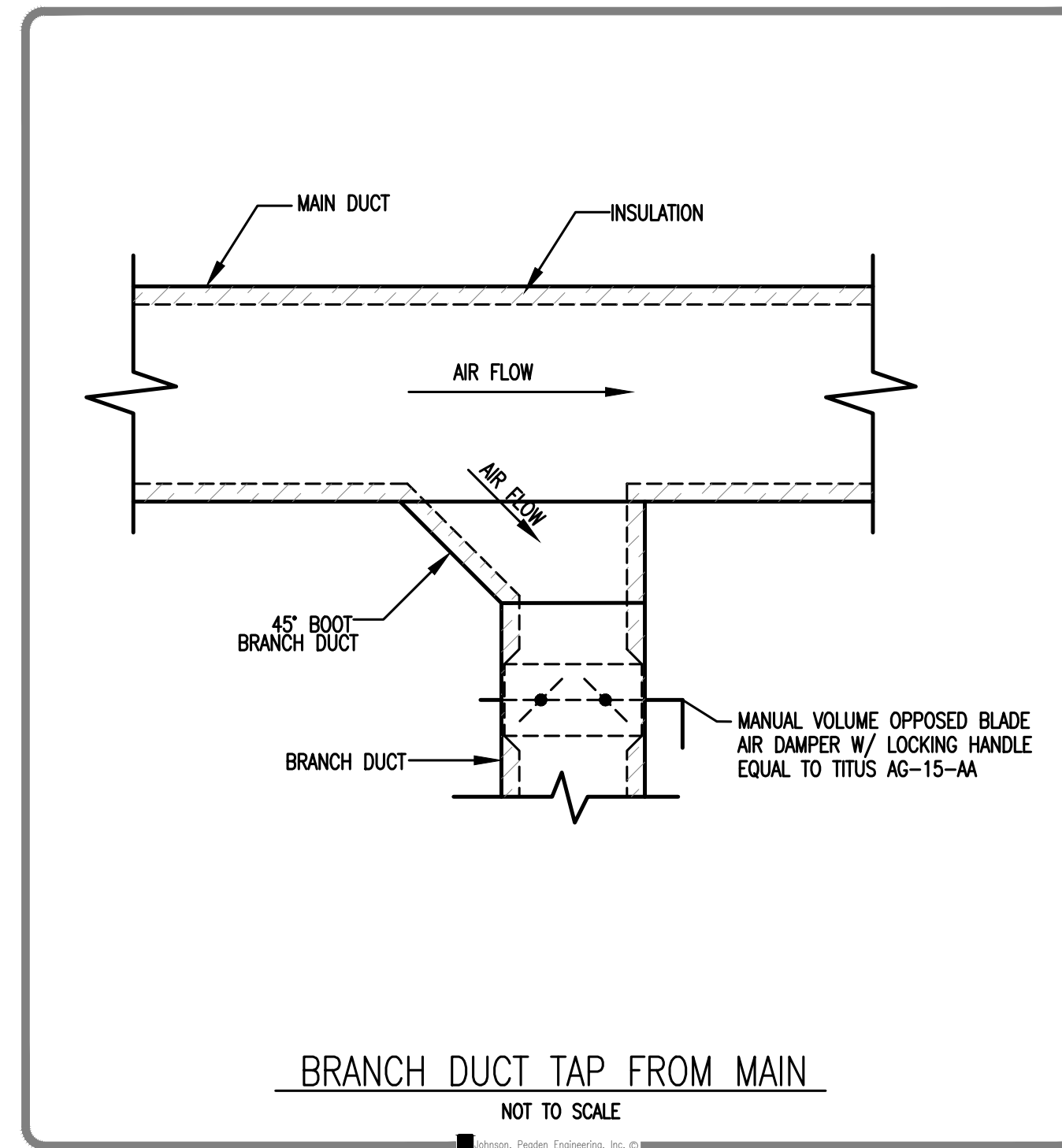
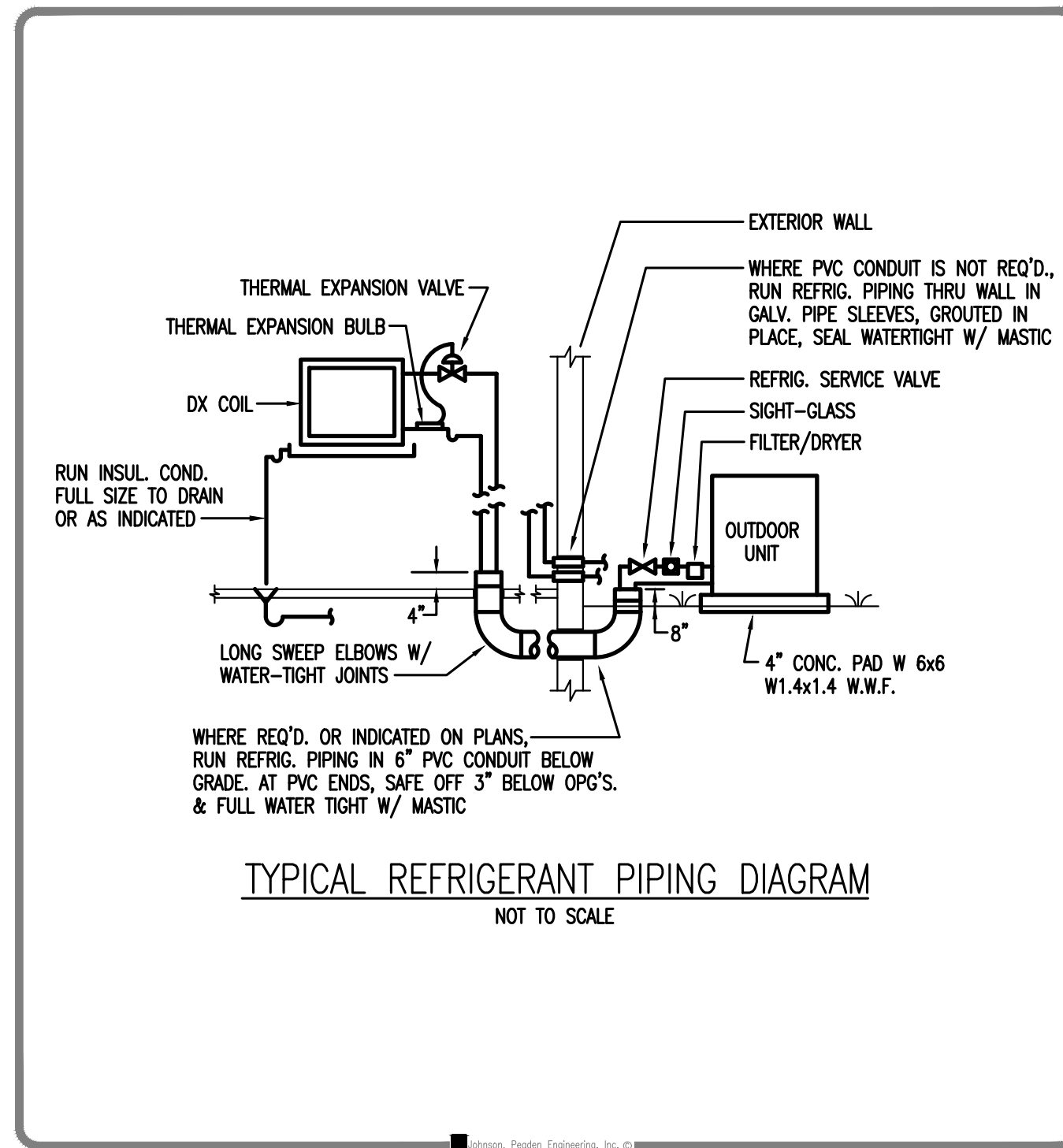
1399-M Jenks Ave  
Panama City, FL 32401  
850.215.4068V

Alabama #CD-2429-E  
Arkansas #1654  
Florida #00009014  
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JPE Job Number: 2450



VENTILATION FAN SCHEDULE											
MARK	CFM	S.P. "W.G.	MIN. POWER	VOLTAGE/ PHASE	MAX. RPM	MAX. SONES	FAN TYPE	DRIVE TYPE	EQUAL TO GREENHECK	CONTROL OR INTERLOCK	NOTES
EF-1	80	0.25	17 W	120/1	870	0.4	CENTRIF.	DIRECT	SP-AGO	MOTION SENSOR	1, 2, 3
EF-2	80	0.25	17 W	120/1	870	0.4	CENTRIF.	DIRECT	SP-AGO	LIGHT SWITCH	1, 2, 3

1. PROVIDE BACKDRAFT DAMPER, DISCONNECT, THERMAL OVERLOAD PROTECTION, ISOLATION KIT, MOUNTED FAN SPEED CONTROLLER.  
 2. MOTION SENSOR SHALL HAVE OVERRIDE CONTROL.  
 3. DISCHARGE EXHAUST DUCT THROUGH EXHAUST LOUVER IN EXTERIOR WALL.

AIR COOLED HEAT PUMP SCHEDULE												
UNIT NO.	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	LATENT COOLING (MBH)	COOLING STAGES	SEER2	OUTDOOR TEMP-COOLING (°FDB/°FWB)	FLA	MCA	MOCP	VOLT/PHASE	REMARKS	
HP-1	55.9	37.7	18.2	2	16.0	93°FDB/79°FWB	28.2	35	60	208-230/1	1, 2	

REMARKS  
 1. BASIS OF DESIGN IS TRANE 4TWR60 HEAT PUMP WITH ANTI-SHORT-CYCLE TIMER, LOW AMBIENT COOLING, EVAPORATOR DEFROST.  
 2. INSTALL HEAT PUMP ON MINIMUM 4" CONCRETE HOUSEKEEPING PAD.

AIR HANDLER SCHEDULE												
UNIT NO.	SUPPLY AIR CFM	APPROX. E.S.P."W.G.	FAN H.P.	COOLING ENT AIR TEMP	COOLING LVG AIR TEMP	O.A. CFM	OUTDOOR TEMP-COOLING	ELEC HEAT (kW)	MCA	MOCP	VOLT/PHASE	REMARKS
AH-1	1800	0.50	3/4	78.4°FDB/67.0°FWB	58.7°FDB/56.8°FWB	300	93°FDB/79°FWB	14.4	59/25	60/25	240V/1Ø	1, 2, 3, 4

REMARKS  
 1. AIR HANDLER BASIS OF DESIGN IS TRANE TEM60. PROVIDE TXV AND 7-DAY DIGITAL PROGRAMMABLE T'STAT WITH BATTERY BACK-UP.  
 2. PROVIDE 120V MOTORIZED DAMPER AND MANUAL BALANCING DAMPER IN ALL OUTSIDE AIR DUCTS. INSTALL DAMPERS AS CLOSE TO AIR HANDLER RETURN DUCT AS POSSIBLE.  
 3. PROVIDE AUXILIARY DRAIN PAN WITH FLOAT SWITCH UNDERNEATH AIR HANDLER. SPILL CONDENSATE IN EXTERIOR LANDSCAPED AREAS.  
 4. PROVIDE BIPOLAR IONIZATION SYSTEM EQUAL TO GPS AIR IN AIR HANDLER.



ROCK BLUFF  
 COMMUNITY  
 CENTER

19860 Drawn By: JM  
 Project Code Checked By: DS

30 OCTOBER 2024

Date

CONTRACT  
 DOCUMENTS

- Revisions
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HVAC DETAILS AND  
 SCHEDULES

Tallahassee Florida

M2.1

221 Hollywood Blvd NE  
 Ft. Walton Beach, FL 32548  
 850.244.6189V  
 Alabama #CD-2429-E  
 Arkansas #1654  
 Florida #00009014  
 Georgia #PEF003983  
 Louisiana #EF0006882  
 1399-M Jenks Ave  
 Panama City, FL 32401  
 850.215.4068V  
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