



MECHANICAL SPECIFICATIONS

1. GENERAL MECHANICAL

- A. GENERAL
a. THE WORK COVERED BY THIS DIVISION CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT AND MATERIALS AND PERFORMING ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF THE MECHANICAL WORK AS HEREIN CALLED FOR AND SHOWN ON THE DRAWINGS...

2. MECHANICAL DUCTWORK

- A. GENERAL
a. THIS PROJECT INCLUDES THE PROVISION OF MECHANICAL DUCTWORK INCLUDING SUPPLY, RETURN, OUTSIDE AIR AND EXHAUST SYSTEMS. DUCTWORK SHALL BE PROVIDED BASED ON THE FLORIDA BUILDING CODE AND THE MANUFACTURER'S REQUIREMENTS...
B. SHOP DRAWING SUBMITTAL
C. PRODUCTS
D. EXECUTION

3. MECHANICAL INSULATION

- A. GENERAL
a. THIS PROJECT INCLUDES THE PROVISION OF EXTERIOR INSULATION FOR MECHANICAL COMPONENTS INCLUDING DUCTWORK. DO NOT INSULATE COMPONENTS THAT ARE FACTORY INSULATED, UNLESS NOTED OTHERWISE...
B. SHOP DRAWING SUBMITTAL
C. PRODUCTS
D. EXECUTION

4. TAB - TEST - ADJUST - BALANCE

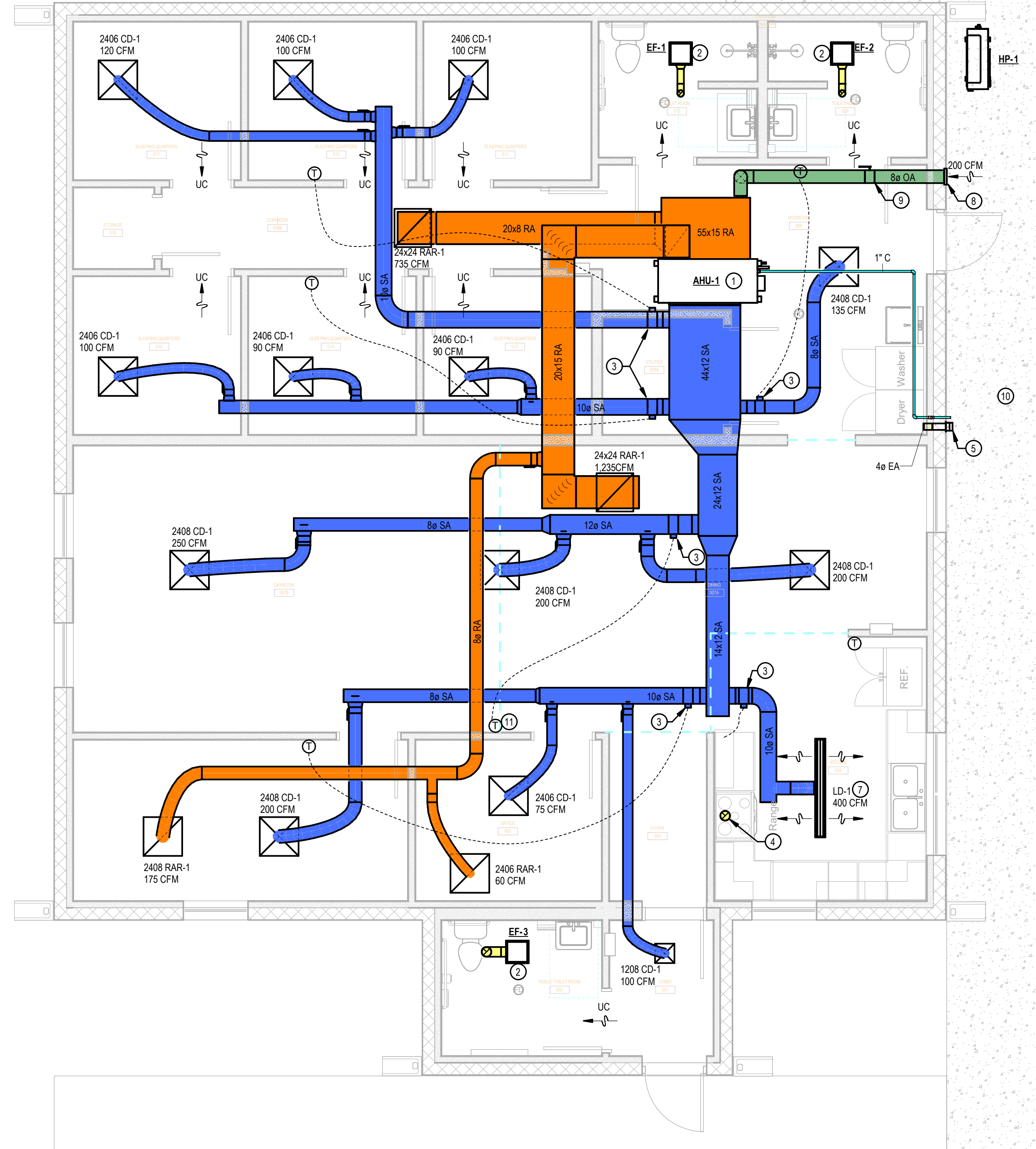
- A. GENERAL
a. THIS PROJECT INCLUDES THE PROVISION OF TEST, ADJUST, BALANCE (TAB) SERVICES FOR THE SYSTEMS DESCRIBED ON THE DRAWINGS...
B. SHOP DRAWING SUBMITTAL
C. PRODUCTS
D. EXECUTION
E. AIRFLOW TOLERANCES
F. TEMPERATURE TOLERANCES

5. DUCTWORK ACCESSORIES

- A. PRODUCTS
a. DAMPERS
A. CONTROL DAMPERS: PROVIDE DAMPERS WITH PARALLEL BLADES FOR 2-POSITION CONTROL OR OPPOSED BLADES FOR MODULATING CONTROL...
B. FLEXIBLE CONNECTIONS
A. GENERAL: PROVIDE FLEXIBLE DUCT CONNECTIONS WHEREVER DUCTWORK CONNECTS TO VIBRATION ISOLATED EQUIPMENT...
B. EXECUTION

SEQUENCE OF OPERATIONS

- 1. PROVIDE THE FOLLOWING FOR MIXED AIR INDOOR UNITS - WITH MULTI ZONE THERMOSTAT CONTROL
A. GENERAL
a. HEAT PUMP COOLING, HEATING CONTROL
b. CONSTANT FAN SPEED
B. SAFETY CONTROL SEQUENCES: PROVIDE THE FOLLOWING SAFETY FUNCTIONS...
C. ZONE DAMPER CONTROL: ZONE DAMPERS SHALL MODULATE OPEN / CLOSE AS REQUIRED TO MAINTAIN ZONE TEMPERATURE SETPOINT...
D. BATHROOM EXHAUST FAN CONTROL
A. FAN SHALL BE INTERLOCKED WITH LIGHTING...



1 FLOOR PLAN - HVAC SCALE: 1/4" = 1'-0"

SHEET NOTES

- 1. CD-1 IS BOD: PRICE-SCD WITH ROUND NECK AND 360 DEGREE THROW PATTERN; OR APPROVED EQUAL.
2. RAR-1 IS BOD: TITUS PAR WITH AG-95 INTEGRAL DAMPER; OR APPROVED EQUAL.
3. ALL CEILING MOUNTED REGISTERS AND DIFFUSERS SHALL BE FINISHED WITH BAKED WHITE ENAMEL.
4. ALL EXHAUST FANS SHALL BE PROVIDED WITH WHITE FINISH INTAKE COVER.
5. UNLESS OTHERWISE NOTED, THERMOSTAT SHALL BE AIRZONE WIRED LITE CONTROLLER: AZVAFILITECB.

KEY NOTES

- 1. PROVIDE AHU - ROUTE CONDENSATE DRAIN TO EXTERIOR OF BUILDING.
2. PROVIDE EXHAUST FAN - INTERLOCK FAN ON/OFF WITH BATHROOM OCCUPANCY SENSOR. ROUTE TO ROOF AND PROVIDE ROOF VENT CAP WITH INTEGRAL BACKDRAFT DAMPER.
3. PROVIDE AIRZONE INTELLIGENT DAMPER.
4. PROVIDE RANGE HOOD EXHAUST AND ROUTE STRAIGHT UP TO ROOF. SIZE ACCORDING TO RANGE MANUFACTURER; 16-GAUGE GALVANIZED STEEL. PROVIDE ROOF VENT CAP WITH INTEGRAL BACKDRAFT DAMPER.
5. ROUTE DRYER EXHAUST TO EXTERIOR WALL. PROVIDE WALL VENT CAP WITH INTEGRAL BACKDRAFT DAMPER.
6. PROVIDE TRANSFER AIR GRILLE AT 8'-0" AFF CENTERED OVER DOORWAY.
7. PROVIDE LINEAR SLOT DIFFUSER: BOD IS 3-SLOT SDS100 WITH SDA PLENUM. SLOTS SHALL BE 1".
8. PROVIDE 8" FRESH AIR INTAKE VENT / MINI LOUVER WITH FILTER.
9. PROVIDE MANUAL BALANCING DAMPER.
10. PROVIDE HEAT PUMP - INSTALL WITH CLEARANCE FROM WALL AS REQUIRED BY MANUFACTURER.
11. PROVIDE MASTER THERMOSTAT - AIRZONE WIRED BLUEFACE ZERO PRINCIPAL CONTROLLER: AZVAFILITEZCRB.

Akin Brooks Engineering logo and contact information: AKIN BROOKS ENGINEERING, INC. 14260 W NEWBERRY RD #115, NEWBERRY, FL 32669. FL LICENSE 35307, 352.281.7104, 352.281.7104, AKINBROOKS.COM

Superlative logo and address: 8129 SW 75TH STREET, GAINESVILLE, FLORIDA 32608, 352-266-6785, www.superlative.design



TO THE REST OF THE ARCHITECTS OF THE SPECIFICATIONS COMPLY WITH THE LOCAL AND STATE BUILDING CODES. ANY APPLICABLE PRE-SALETY DETERMINED BY THE LOCAL AUTHORITY IN THE SECTION AND CHAPTER 635, F.L. STATUTES.

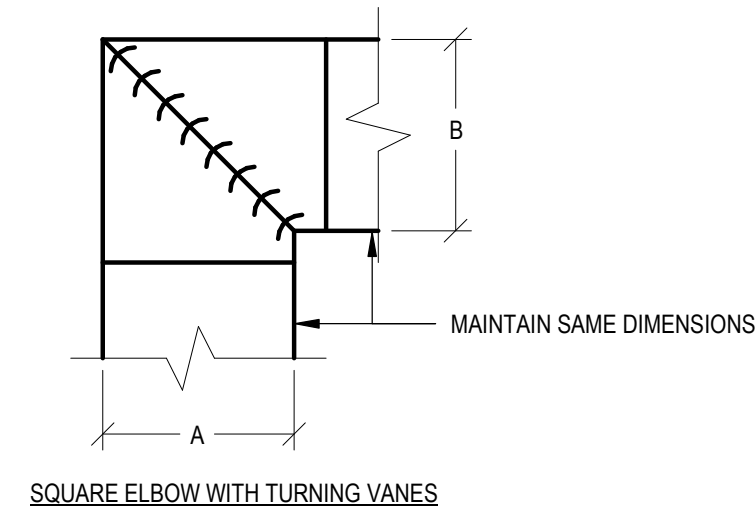
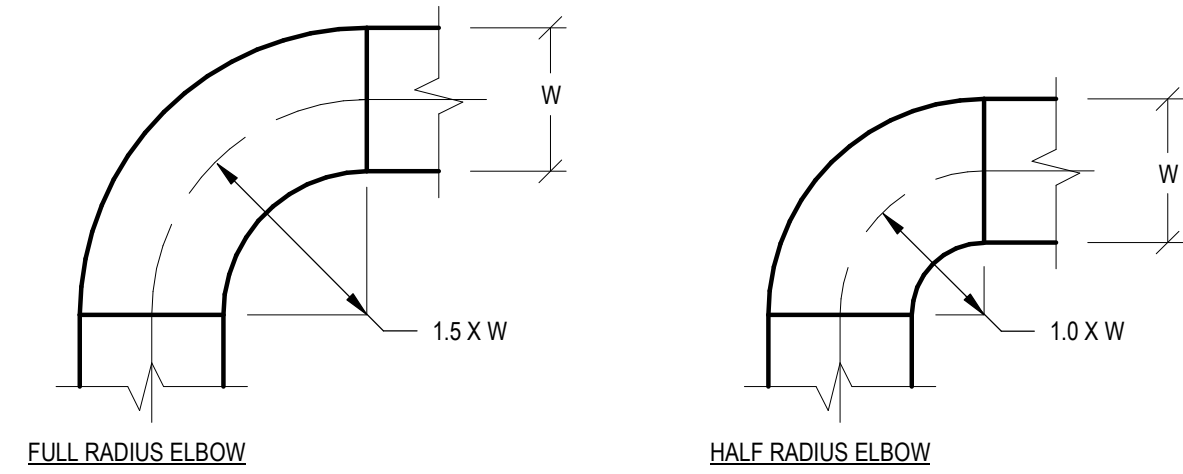


BRADFORD COUNTY SLEEPING QUARTERS
13641 SOUTHWEST COUNTY ROAD 227, STARKE, FLORIDA 32091

Table with 4 columns: NO., DATE, REF., BY. Title: REVISIONS

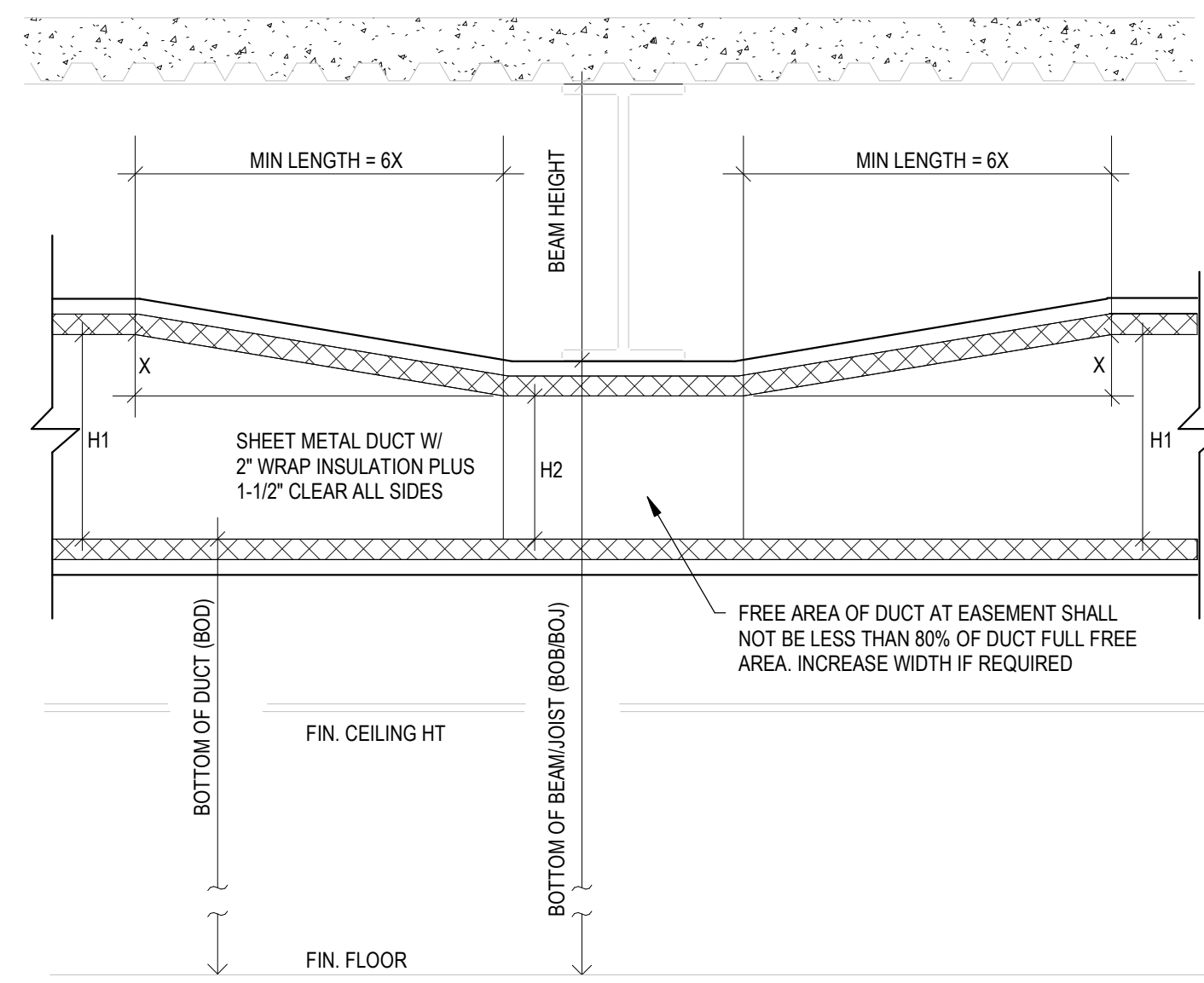
Table with 2 columns: DRAWN BY, CHECKED BY. Includes project number 24064 and drawing title FLOOR PLAN & SPECIFICATIONS.

SHEET NO. M101
DATE/TIME STAMP: 9/30/2024 4:27:14 PM

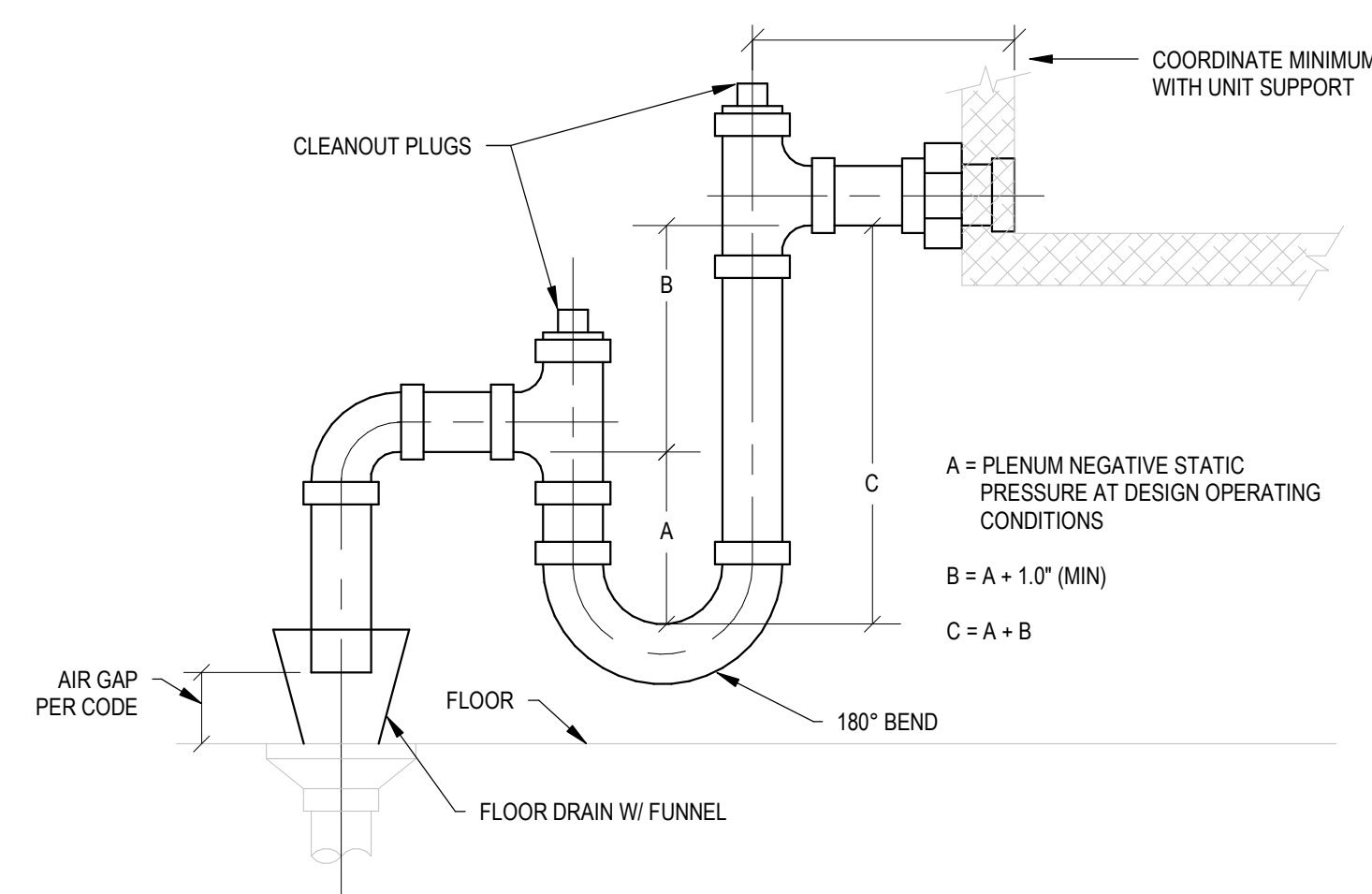


- NOTES:**
- DIMENSIONS 'A' AND 'B' MUST BE EQUAL ON SQUARE ELBOWS, UNLESS OTHERWISE SHOWN ON DRAWINGS.
  - FULL RADIUS ELBOW SHALL BE USED AS THE STANDARD. HALF RADIUS ELBOWS SHALL ONLY BE PERMITTED WHERE FULL RADIUS ELBOWS WILL NOT FIT. MECHANICAL CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM ENGINEER PRIOR TO INSTALLATION OF HALF RADIUS ELBOWS.

**1 DUCT ELBOW DETAIL**  
NOT TO SCALE

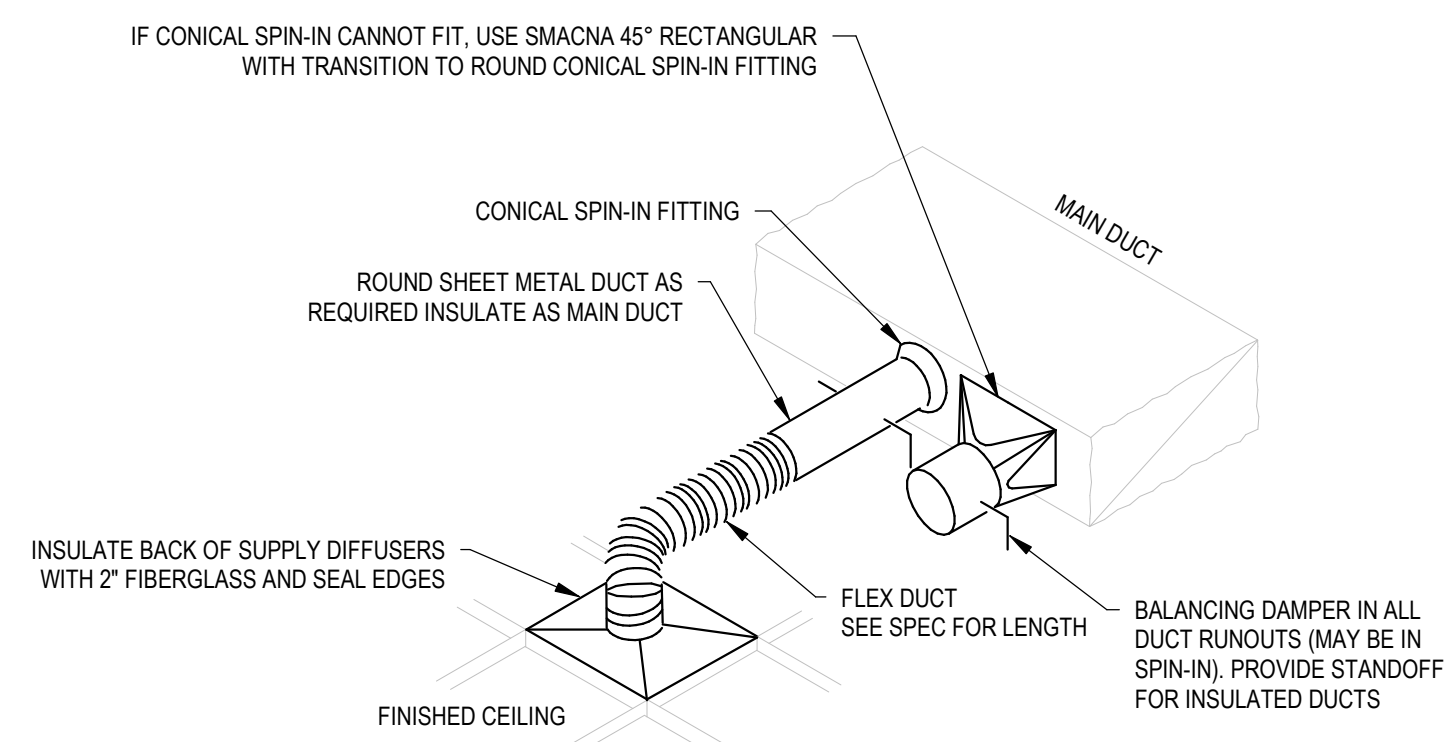


**4 DUCT EASEMENT DETAIL**  
NOT TO SCALE



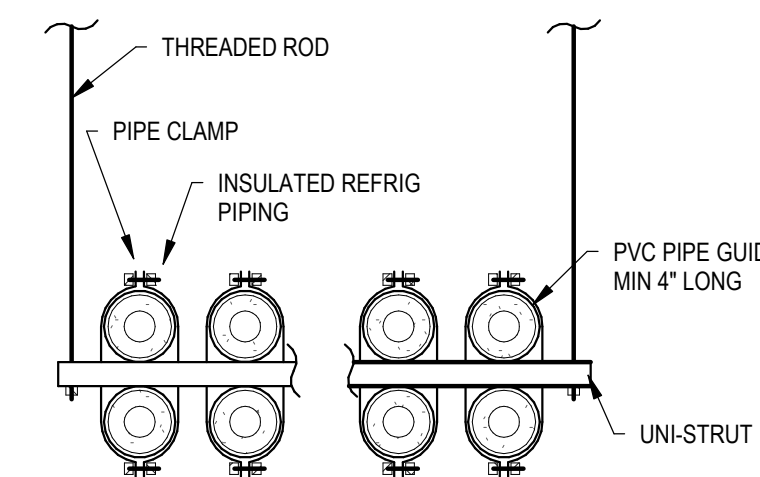
- NOTES:**
- CONTRACTOR SHALL COORDINATE DRAIN DIMENSIONS AND PAD-RAIL HEIGHT TO ENSURE PROPER COIL DRAINAGE AND CLEARANCE FOR TRAP.
  - WHERE UNIT HEIGHT DOES NOT ALLOW PROPER DRAIN HEIGHT, DRAIN PIPE TO DROP DOWN THRU FLOOR AND INSTALL TRAP AT FLOOR BELOW. ROUTE PIPING TO NEAREST FLOOR DRAIN.
  - SEE SPECIFICATIONS FOR PIPE MATERIALS.

**7 CONDENSATE TRAP DETAIL - DRAW THRU**  
NOT TO SCALE

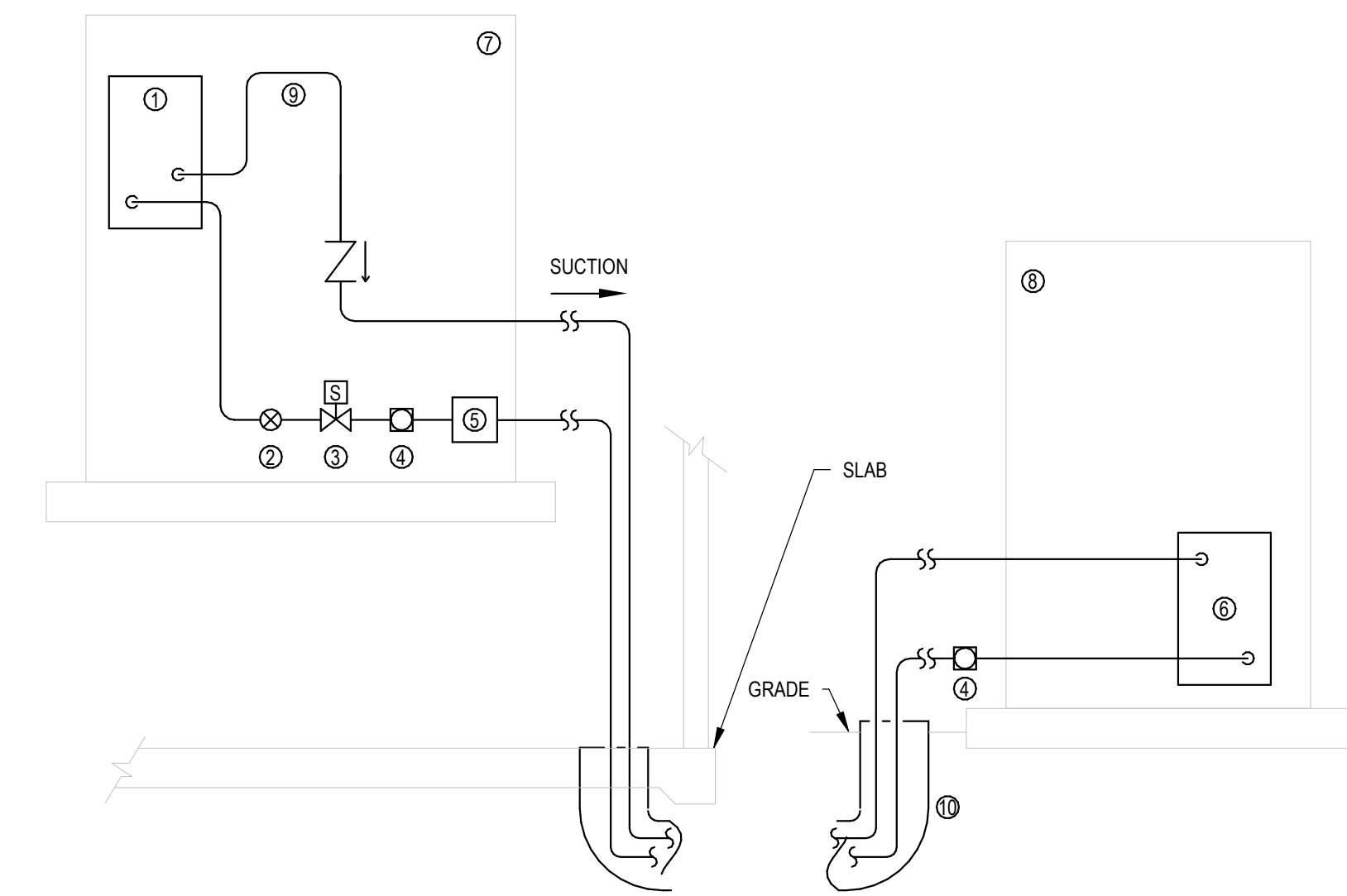


- NOTES:**
- DETAIL IS FOR CONCEALED DUCT. WHERE EXPOSED, DUCT RUNOUTS TO DIFFUSER/GRILLE SHALL BE DOUBLE WALL HARD DUCT.
  - PROVIDE ADAPTER WITH SIDE CONNECTION WHERE OBSTRUCTIONS DO NOT ALLOW CONNECTION TO TOP. IF SIDE ADAPTERS ARE NEEDED AT DIFFUSER/GRILLE, NOTIFY ENGINEER.
  - FOR CEILING DIFFUSERS, FLEX DUCT SHALL BE FULL SIZE OF DIFFUSER NECK.

**2 DUCT RUNOUT TO DIFFUSERS AND GRILLES**  
NOT TO SCALE



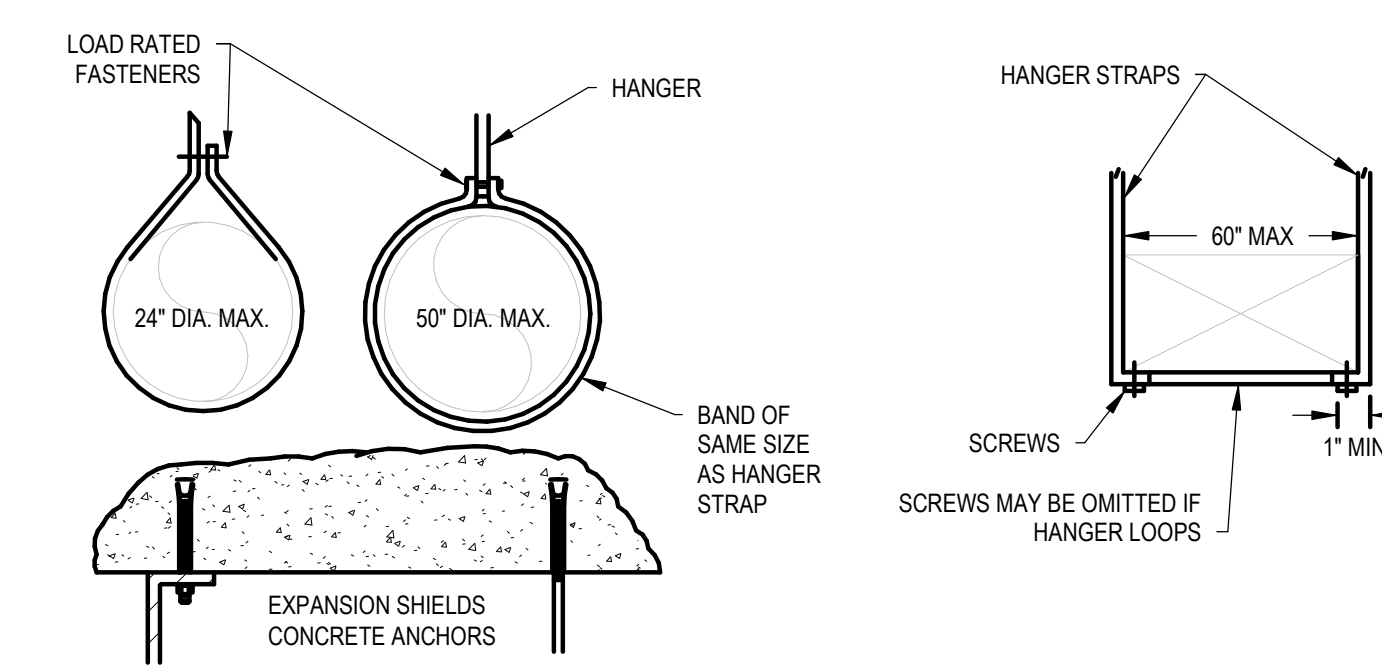
**5 REFRIGERANT PIPE SUPPORT DETAIL**  
NOT TO SCALE



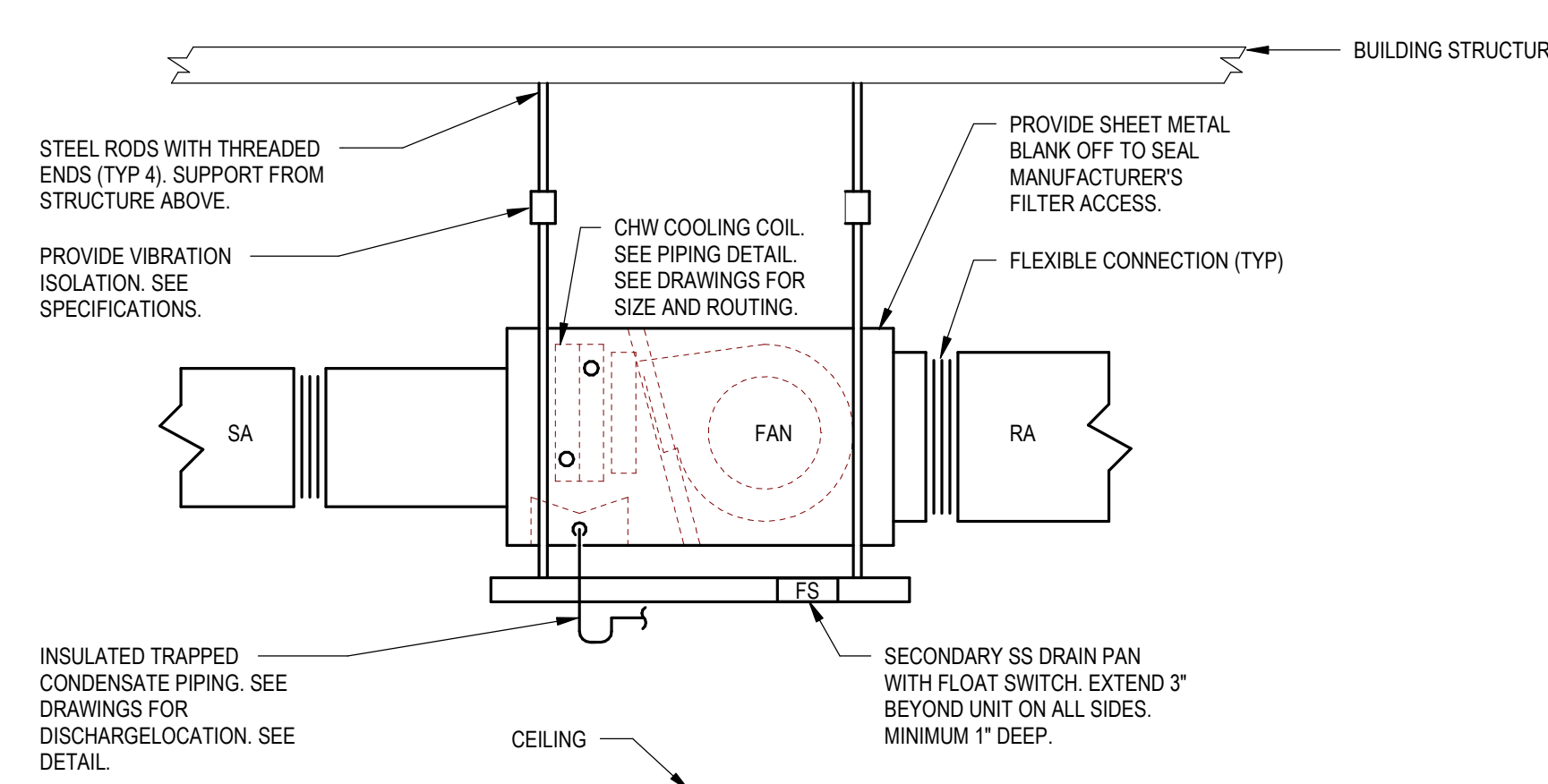
- NOTES: #**
- EVAPORATOR COIL
  - EXPANSION VALVE
  - SOLENOID VALVE
  - SIGHT GLASS
  - FILTER DRIER
  - CONDENSING COIL
  - AIR HANDLING UNIT
  - CONDENSING UNIT
  - LOOP SUCTION LINE ABOVE TOP OF COIL
  - PVC CONDUIT. SIZE TO ACCOMMODATE REFRIGERANT PIPES. SEAL ENDS WITH FOAM

- GENERAL NOTES:**
- PITCH HORIZONTAL HOT GAS PIPING AT A MINIMUM OF 1/2" PER 10 FEET SO THAT GRAVITY WILL AID IN MOVING OIL IN THE DIRECTION OF REFRIGERANT FLOW.
  - ALL COMPONENTS SHOWN IN UNIT, IF NOT SUPPLIED BY MANUFACTURER, SHALL BE PROVIDED BY CONTRACTOR AND INSTALLED EXTERNAL TO UNIT.

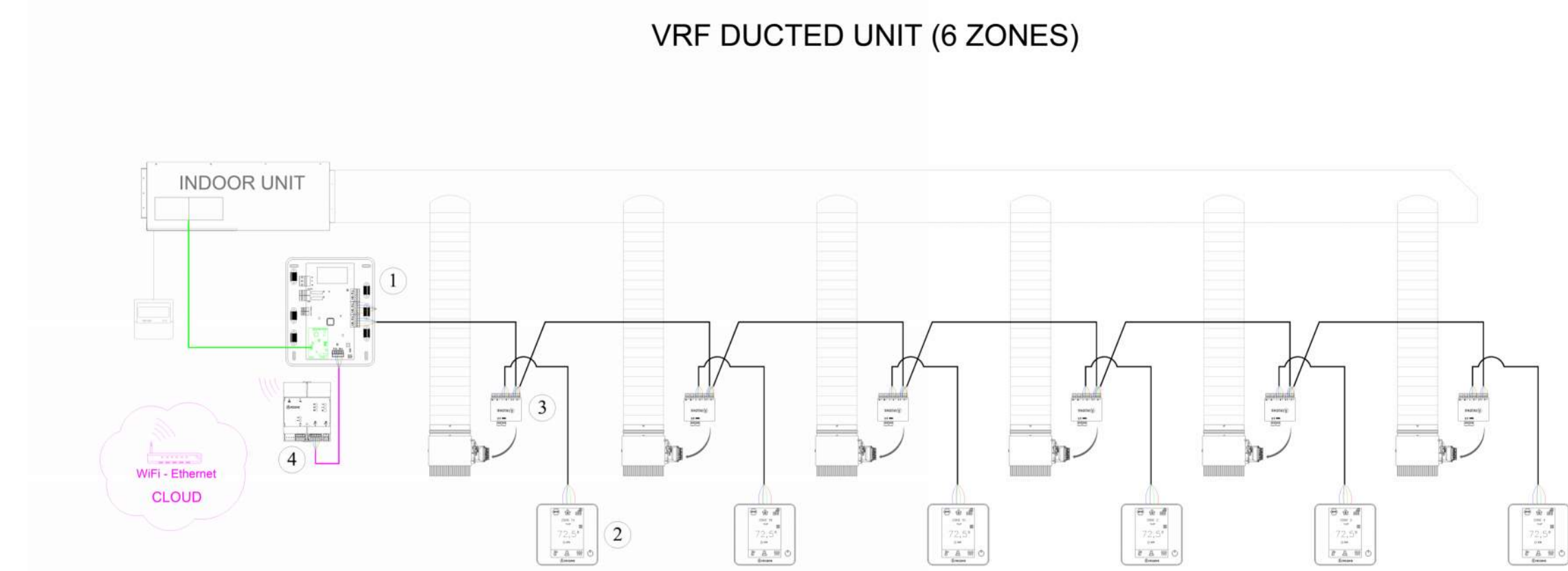
**3 REFRIGERANT PIPING DIAGRAM - CU BELOW AHU**  
NOT TO SCALE



**6 DUCT HANGER DETAILS**  
NOT TO SCALE

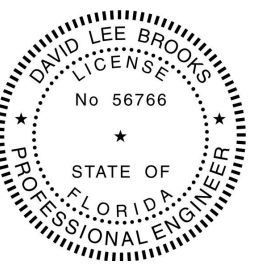


**8 FAN COIL UNIT WITH REHEAT DETAIL**  
NOT TO SCALE



1	AZVAFB2LGE	AIRZONE VAF CONTROL BOARD WITH LG COMMUNICATION REGION 2
2	AZVAFBLUEZEROCB	AIRZONE VAF WIRED BLUEFACE ZERO PRINCIPAL CONTROLLER WHITE
3	AZVAFDAMPERRXC	AIRZONE VAF XX INCHES WIRED INTELLIGENT ROUND DAMPER
4	AZX6WSPHUB	AIRZONE WEBSERVER HUB CLOUD DUAL 2.4-5G/ETHERNET

**9 AIRZONE WIRING DIAGRAM**  
NOT TO SCALE



TO THE BEST OF THE ARCHITECTS OR THE ENGINEER'S KNOWLEDGE, THESE PLANS AND SPECIFICATIONS COMPLY WITH ALL CITY, COUNTY, STATE AND FEDERAL BUILDING CODES AND APPLICABLE FIRE SAFETY REGULATIONS. THE LOCAL AUTHORITY IN THE SECTION AND CHAPTER 633, F.L. STATUTES.



**BRADFORD COUNTY SLEEPING QUARTERS**  
13641 SOUTHWEST COUNTY ROAD 227  
STARKE, FLORIDA 32091

**REVISIONS**

NO.	DATE	REF.	BY:

**DRAWING STATUS:**  
100% CONSTRUCTION DOCUMENTS

**ISSUE DATE:**  
09/27/2024

**DRAWN BY:** PJD **CHECKED BY:** DLB

**PROJECT NUMBER:** 24064

**DRAWING TITLE:** DETAILS