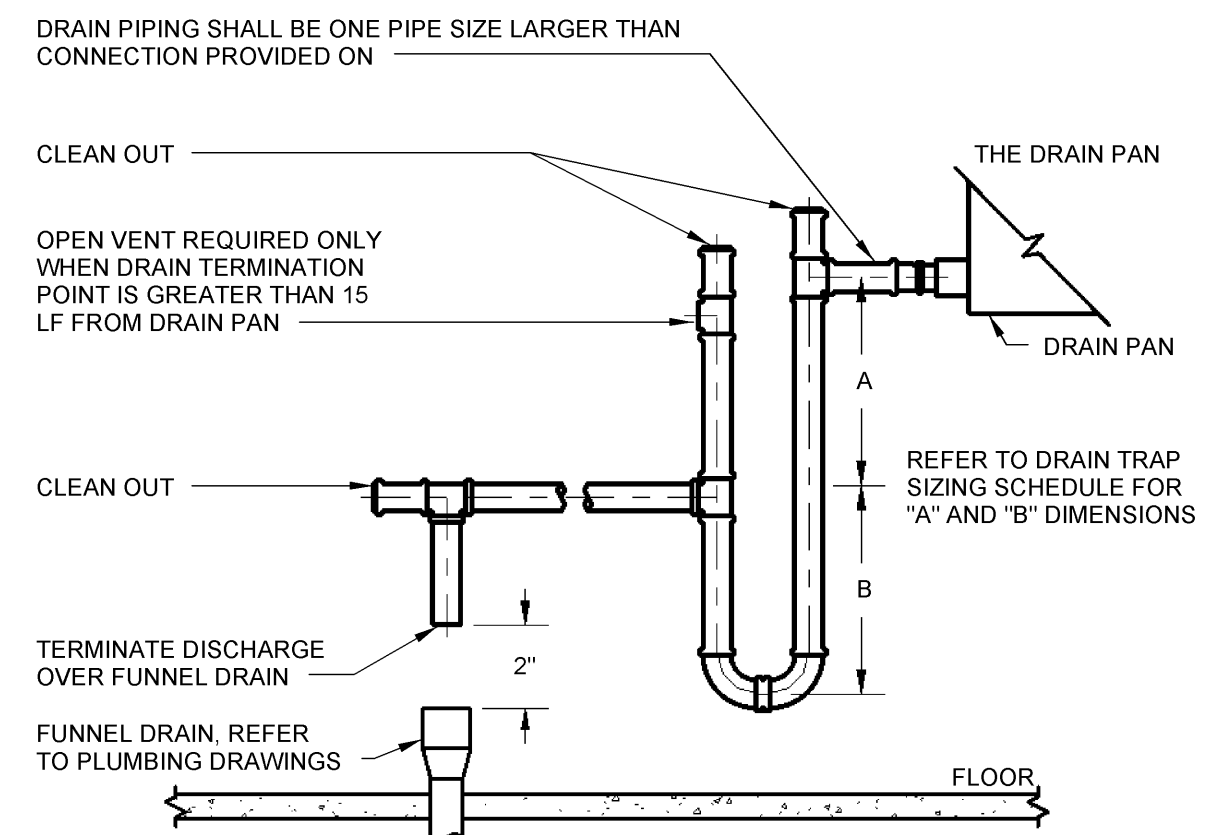


1 CABINET UNIT HEATER PIPING SCHEMATIC - HOT WATER  
N.T.S.

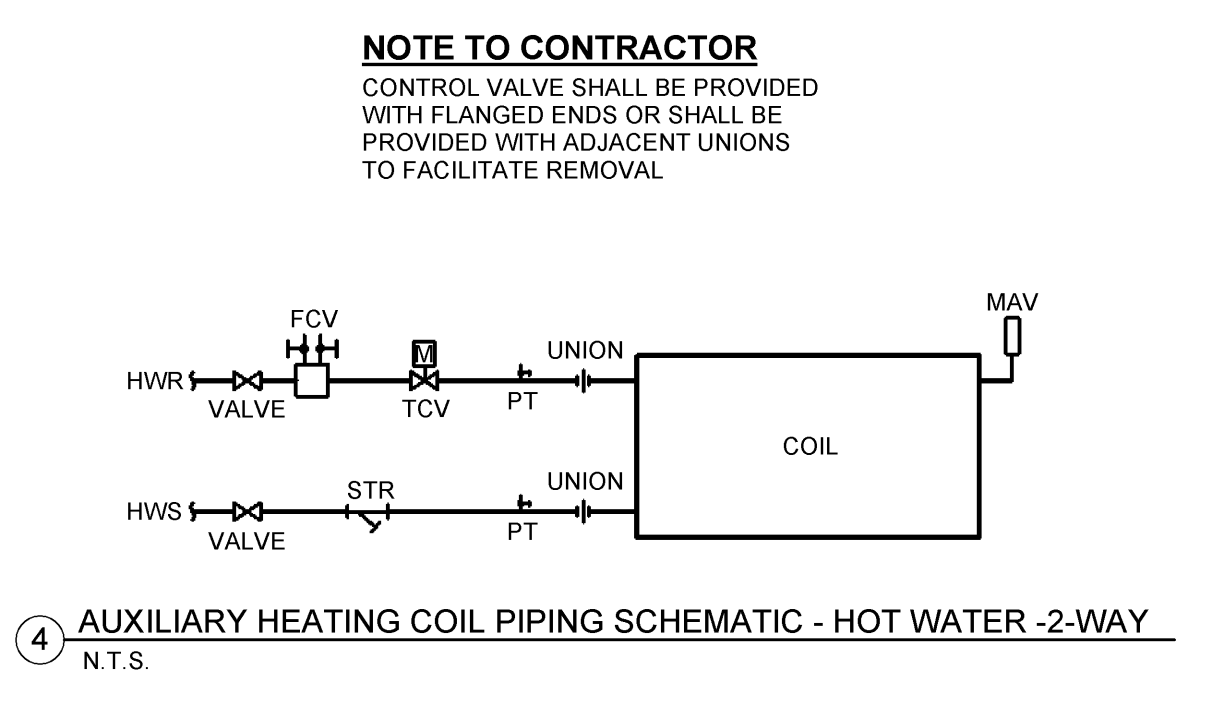


**NOTE:**  
DRAIN PAN MAY BE LOCATED IN THE NEGATIVE OR POSITIVE PRESSURE AREA OF THE AIR STREAM. REFER TO DRAIN TRAP SIZING SCHEDULE FOR DIMENSIONAL DATA REQUIRED FOR SPECIFIC DRAIN LOCATION

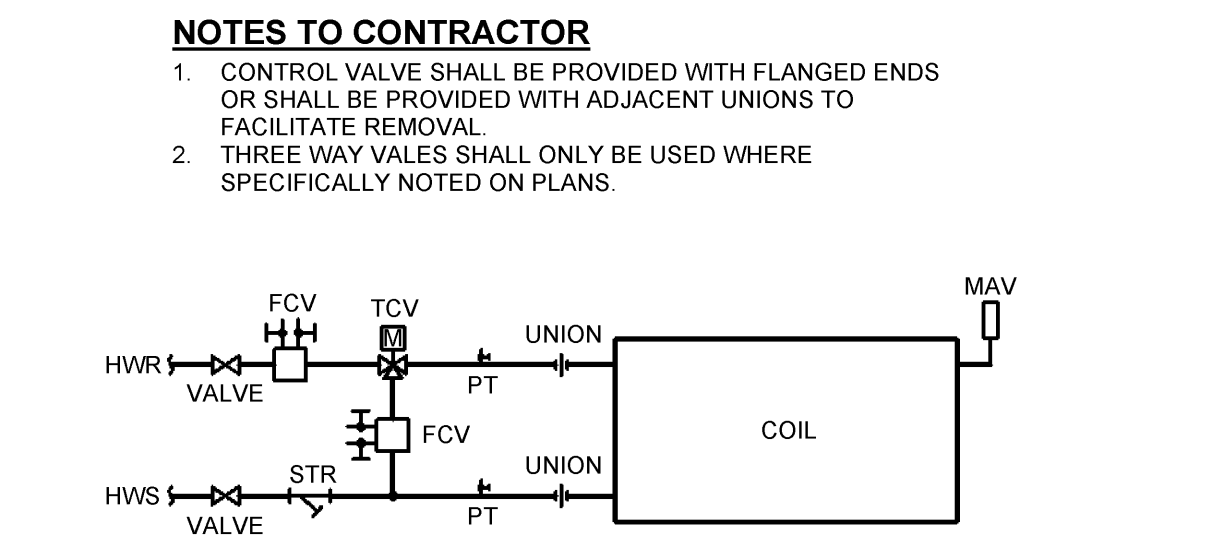
DIMENSION	DRAIN TRAP LOCATIONS FOR NEGATIVE PRESSURE	DRAIN TRAP LOCATIONS FOR POSITIVE PRESSURE
A	4"	2"
B	4"	TOTAL AHU SP ± 1 (4" MINIMUM)

CONDENSATE DRAIN TRAP SIZING SCHEDULE

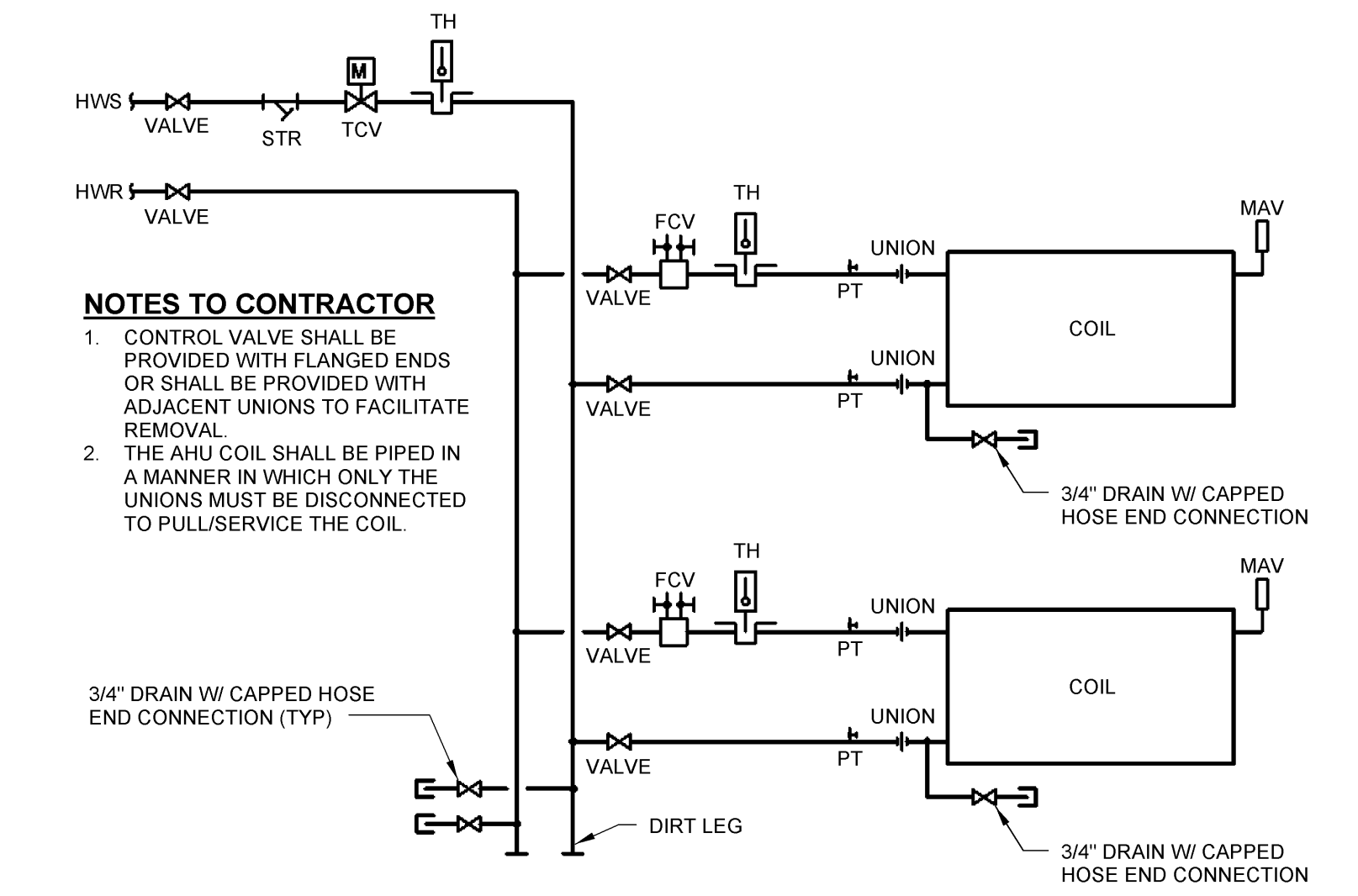
3 INDOOR AIR HANDLING UNIT CONDENSATE DRAIN TRAP PIPING DETAIL  
N.T.S.



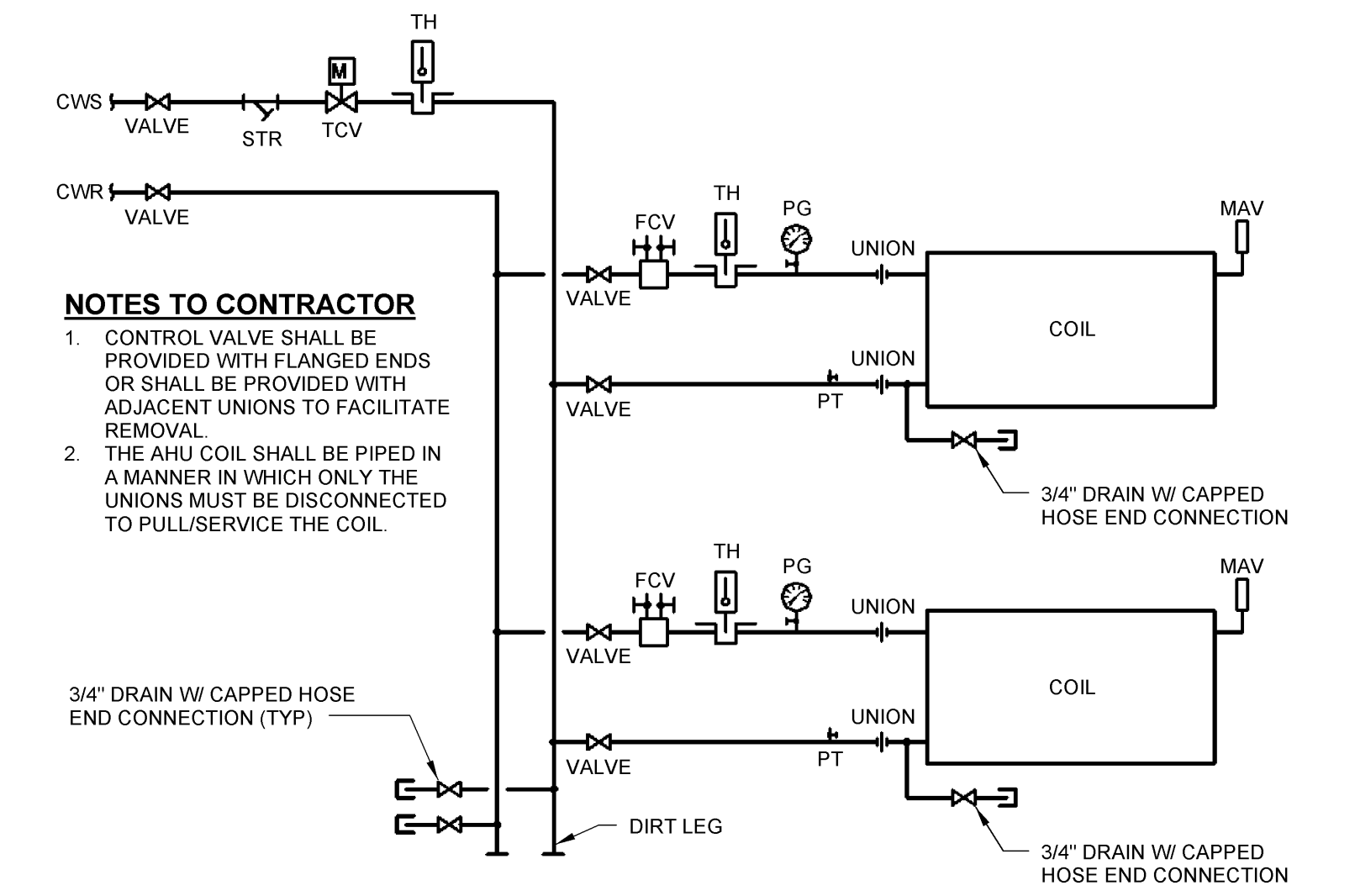
4 AUXILIARY HEATING COIL PIPING SCHEMATIC - HOT WATER - 2-WAY  
N.T.S.



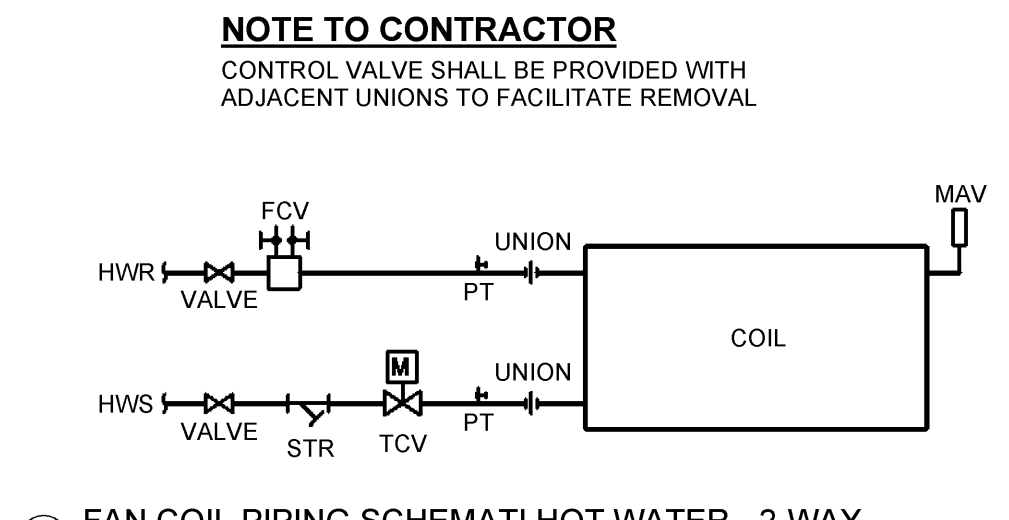
5 AUXILIARY HEATING COIL PIPING SCHEMATIC - HOT WATER - 3-WAY  
N.T.S.



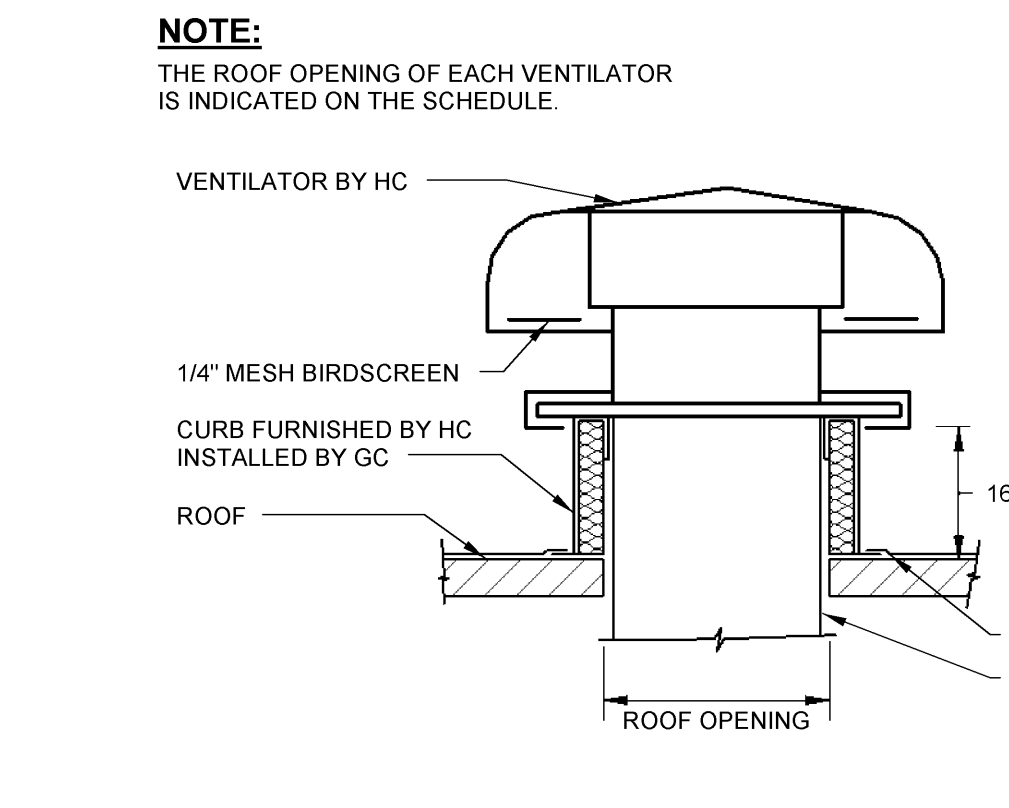
6 AIR HANDLING UNIT PIPING SCHEMATIC - MULTIPLE HOT WATER COILS  
N.T.S.



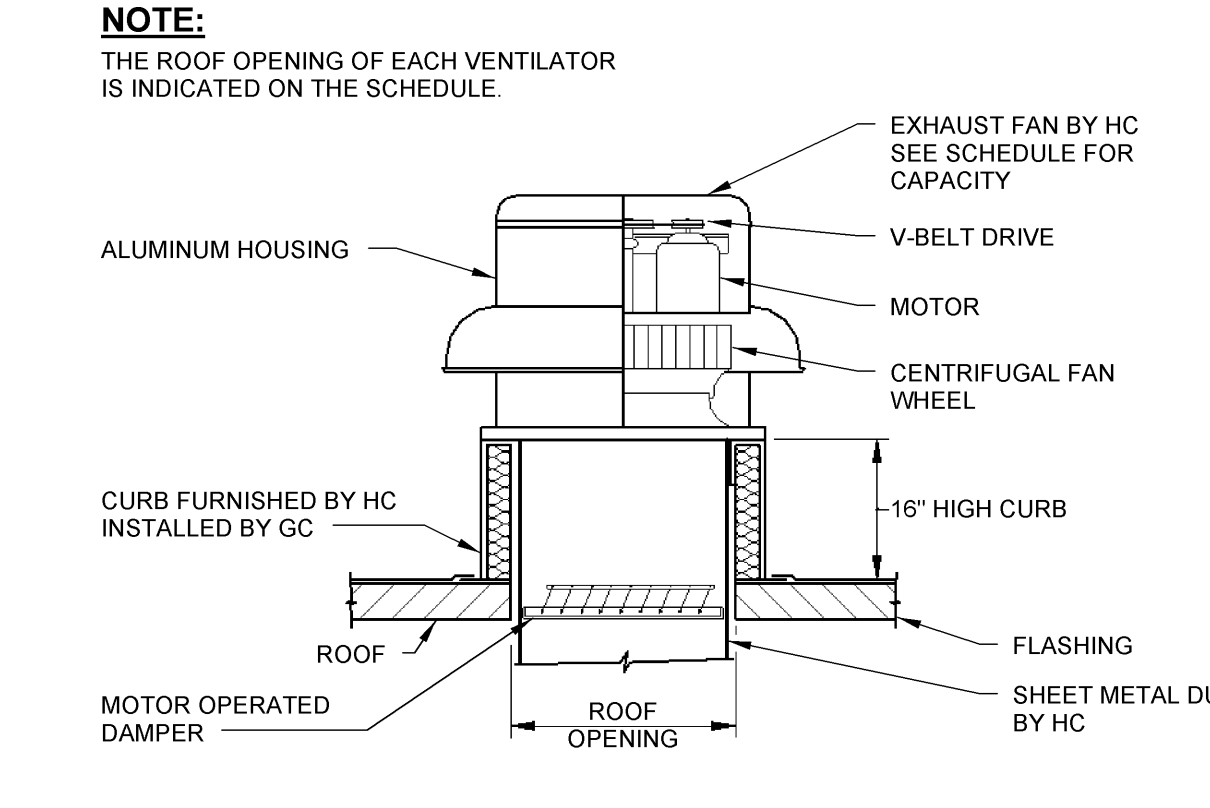
7 AIR HANDLING UNIT PIPING SCHEMATIC - MULTIPLE CHILLED WATER COILS  
N.T.S.



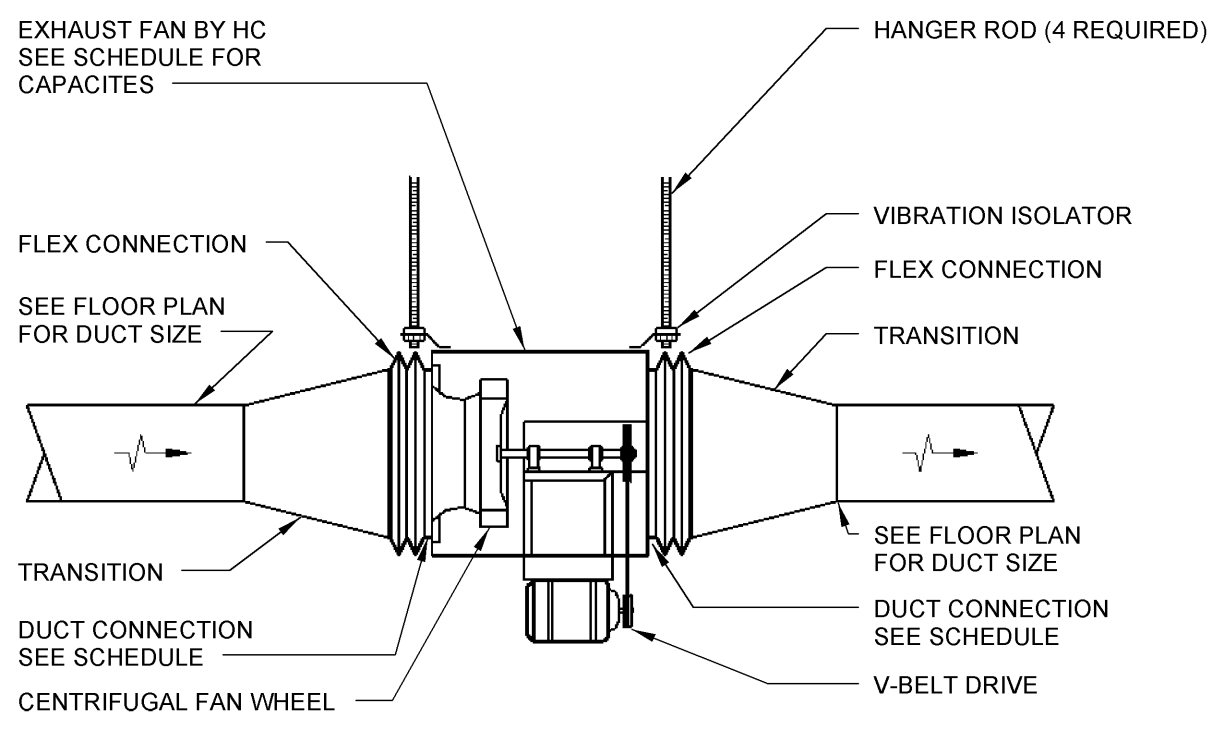
2 FAN COIL PIPING SCHEMATIC - HOT WATER - 2-WAY  
N.T.S.



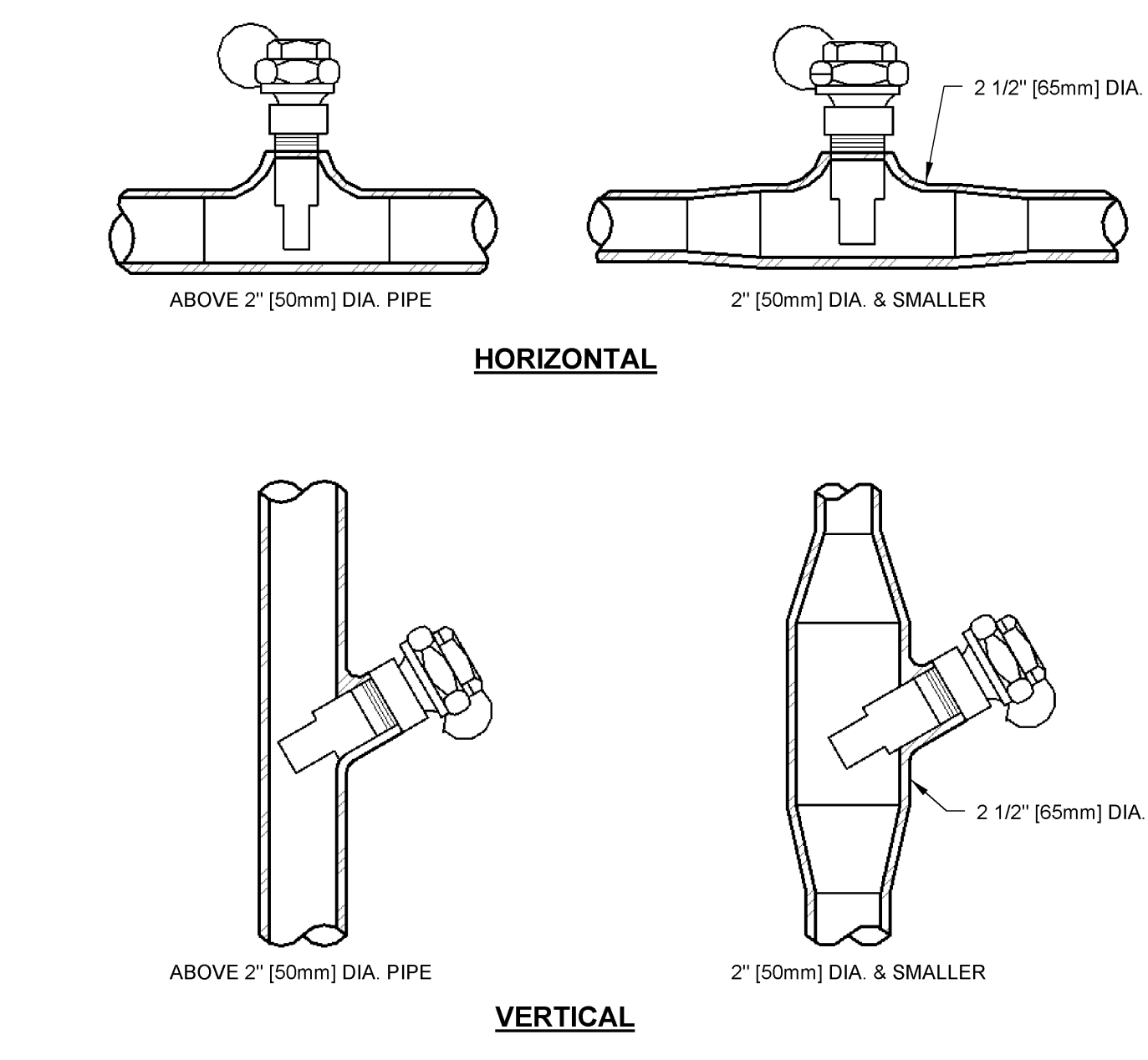
8 TYPE B-1 GRAVITY ROOF VENTILATOR  
N.T.S.



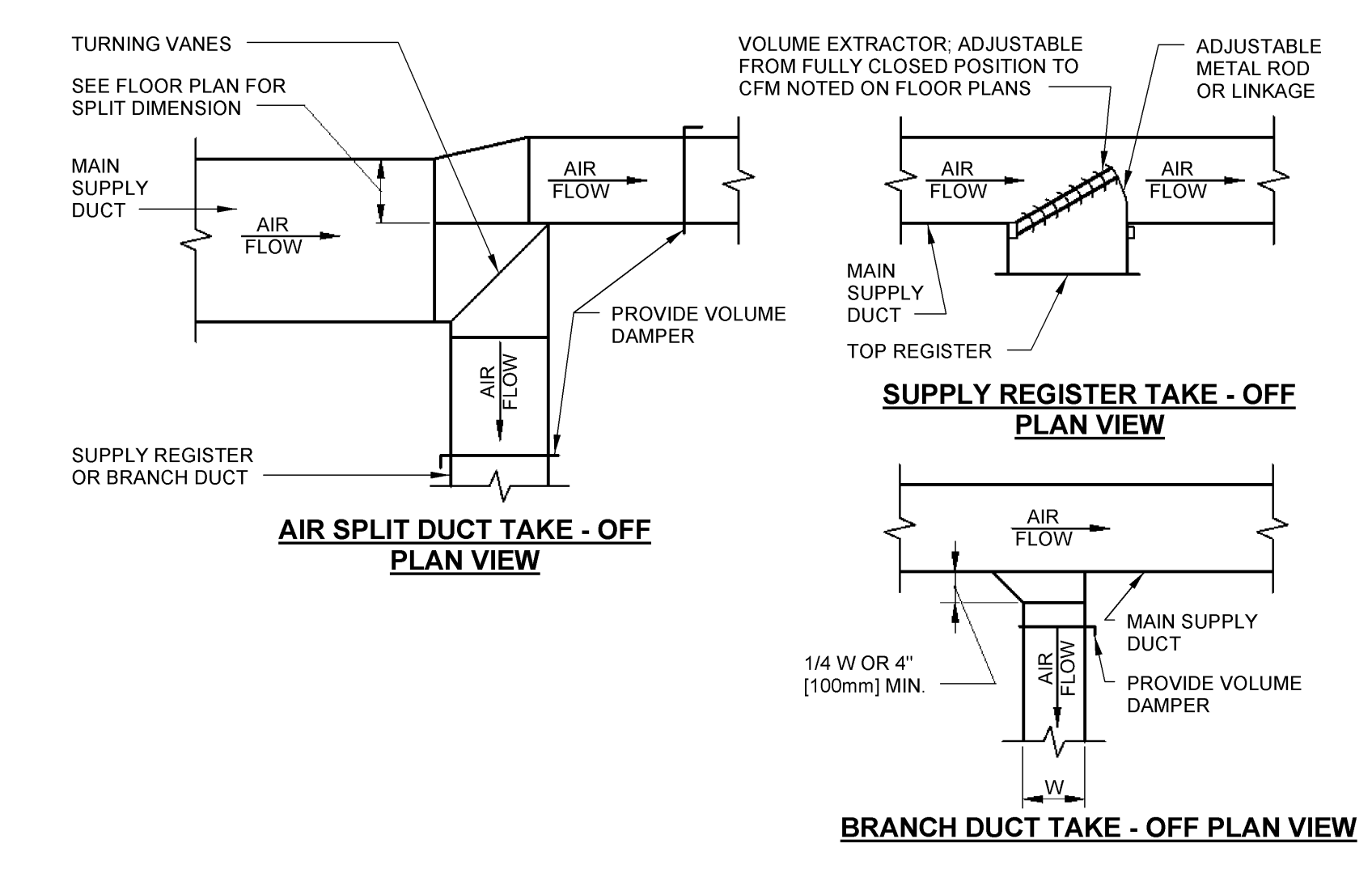
9 TYPE - RE POWER ROOF VENTILATOR  
N.T.S.



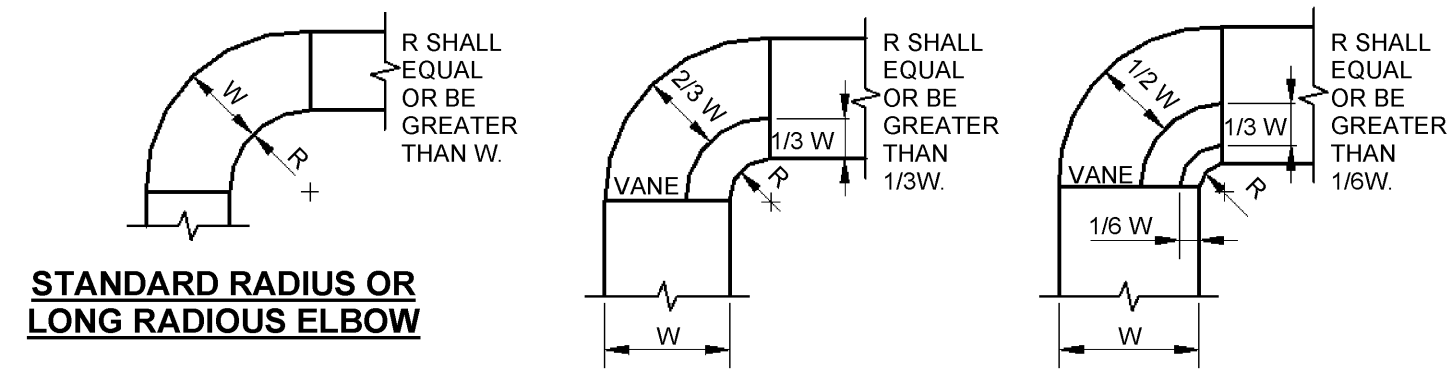
10 IN-LINE EXHAUST FAN  
N.T.S.



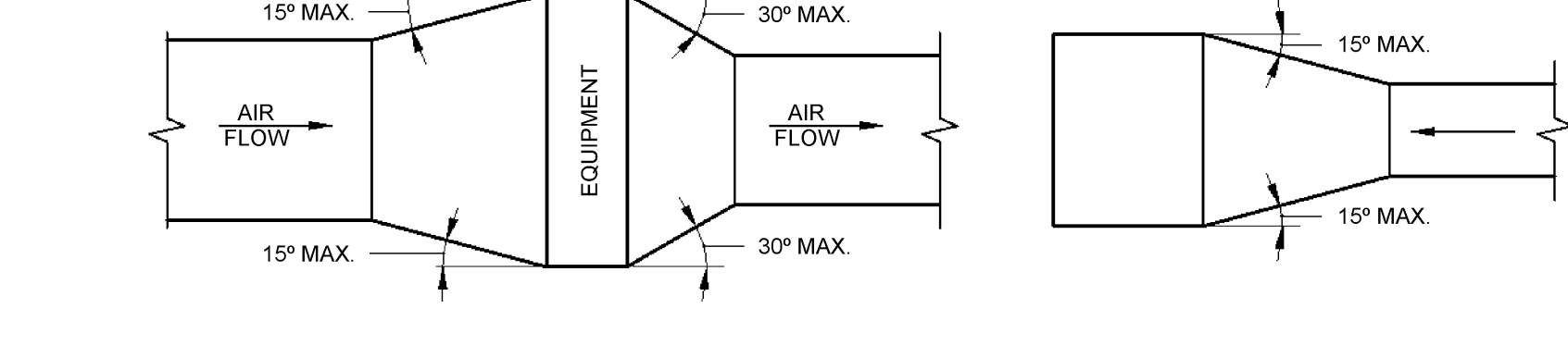
11 INSULATION OF THERMOMETER WELLS  
N.T.S.



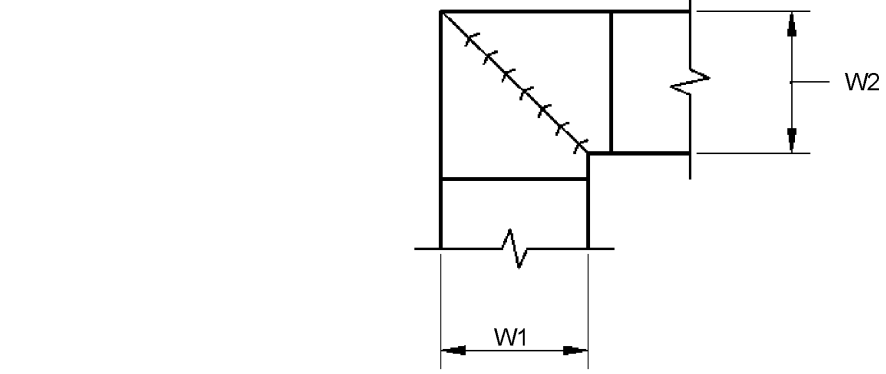
12 SUPPLY DUCTWORK TAKEOFF  
N.T.S.



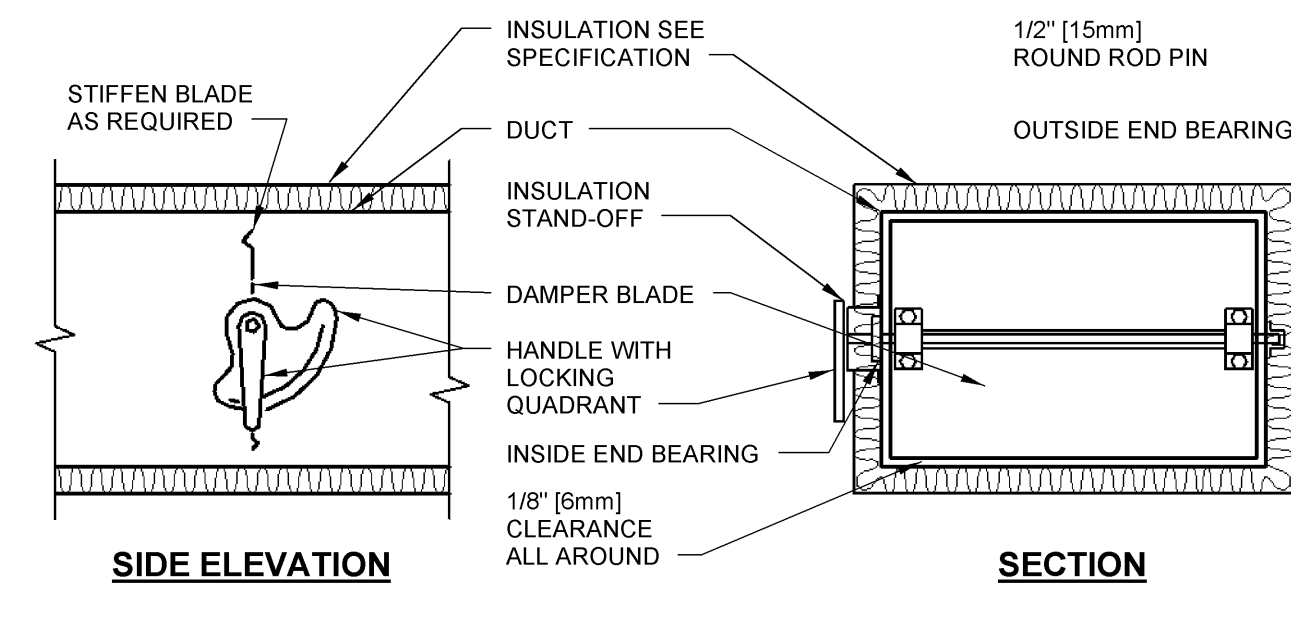
13 DUCTWORK RADIUS ELBOWS  
N.T.S.



14 DUCTWORK TRANSITIONS (WITH EQUIPMENT MOUNTED IN DUCT)  
N.T.S.



15 DUCTWORK SQUARE VANE ELBOWS  
N.T.S.



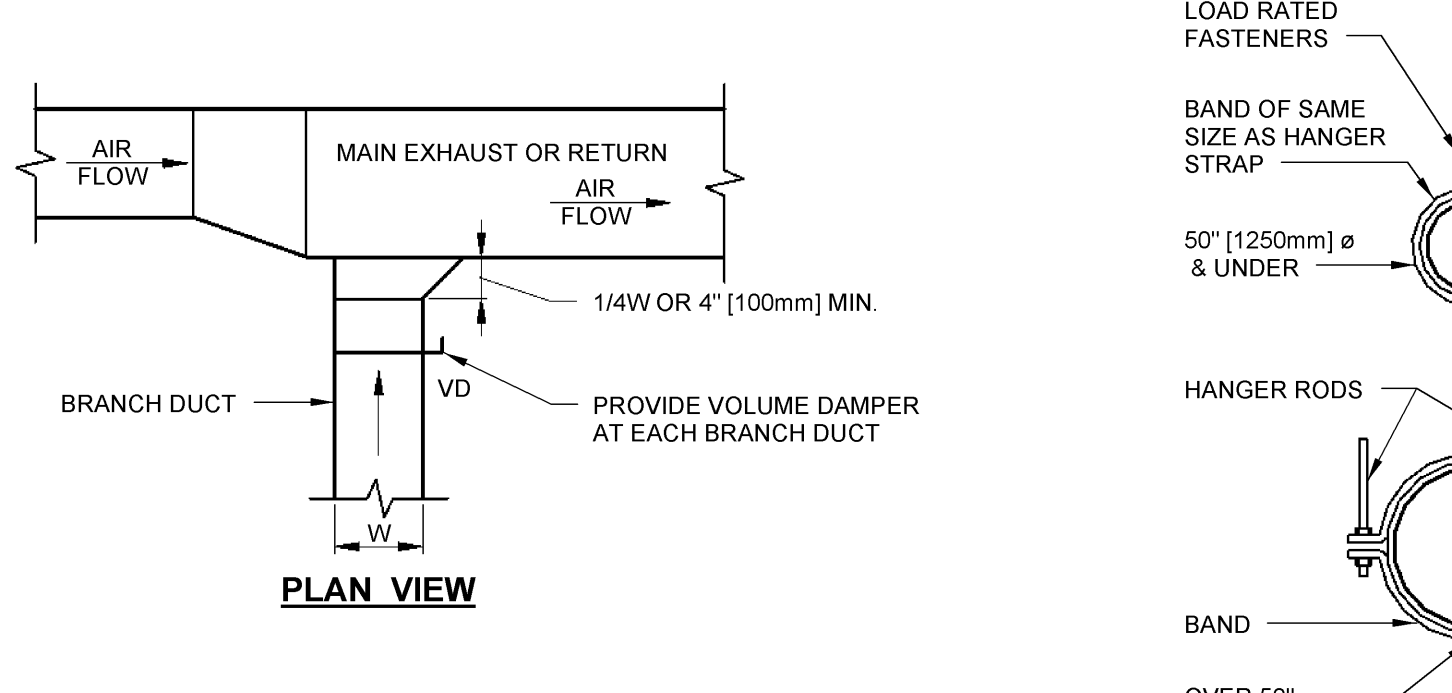
16 VOLUME DAMPER DETAIL  
N.T.S.

**NOTE:**  
1. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

**NOTE:**  
UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

**NOTE:**  
1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.  
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.  
3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" (50mm) RADIUS, 1/2" (10mm) MAXIMUM SPACE BETWEEN VANES AND 3/4" (20mm) TRAILING EDGE.  
4. WHEN W1 EQUALS W2 AND W1 IS GREATER THAN 20" (500mm) VANES SHALL BE DOUBLE VANE TYPE.

**NOTE:**  
1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.  
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

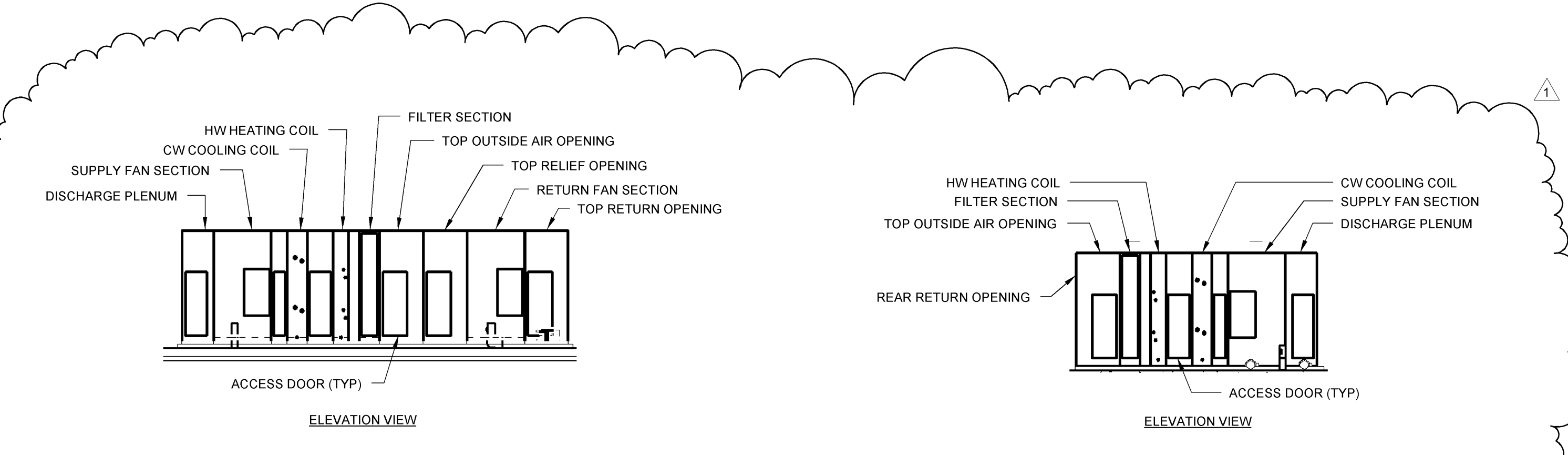


17 EXHAUST OR RETURN BRANCH DUCTWORK  
N.T.S.

HANGER STRAPS OR RODS			
MAX. DUCT Ø IN. (mm)	QUANTITY/SIZE IN. (mm)	MAX. LOAD LBS. (kg)	MAX. SPACING IN. (mm)
26 (650)	ONE 1 [25] x 22 GA STRAP	250 (199)	144 (3600)
36 (900)	ONE 1 [25] x 18 GA STRAP	420 (190)	144 (3600)
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 (317)	144 (3600)
60 [1500]	TWO 3/8 [10] RODS	1320 (598)	144 (3600)
84 [2100]	TWO 1/2 [13] RODS	2500 (1133)	144 (3600)

**NOTE:**  
TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

18 ROUND DUCT HANGERS  
N.T.S.



19 AHU-1 CONFIGURATION  
N.T.S.

20 AHU-2 CONFIGURATION  
N.T.S.

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No.	ITEM	DATE
1		3/7/2014

PROJ. NO.: 0810123.05  
DATE: NOVEMBER 19, 2013  
SHEET NO.:

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MECHANICAL DETAILS  
**M505**

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