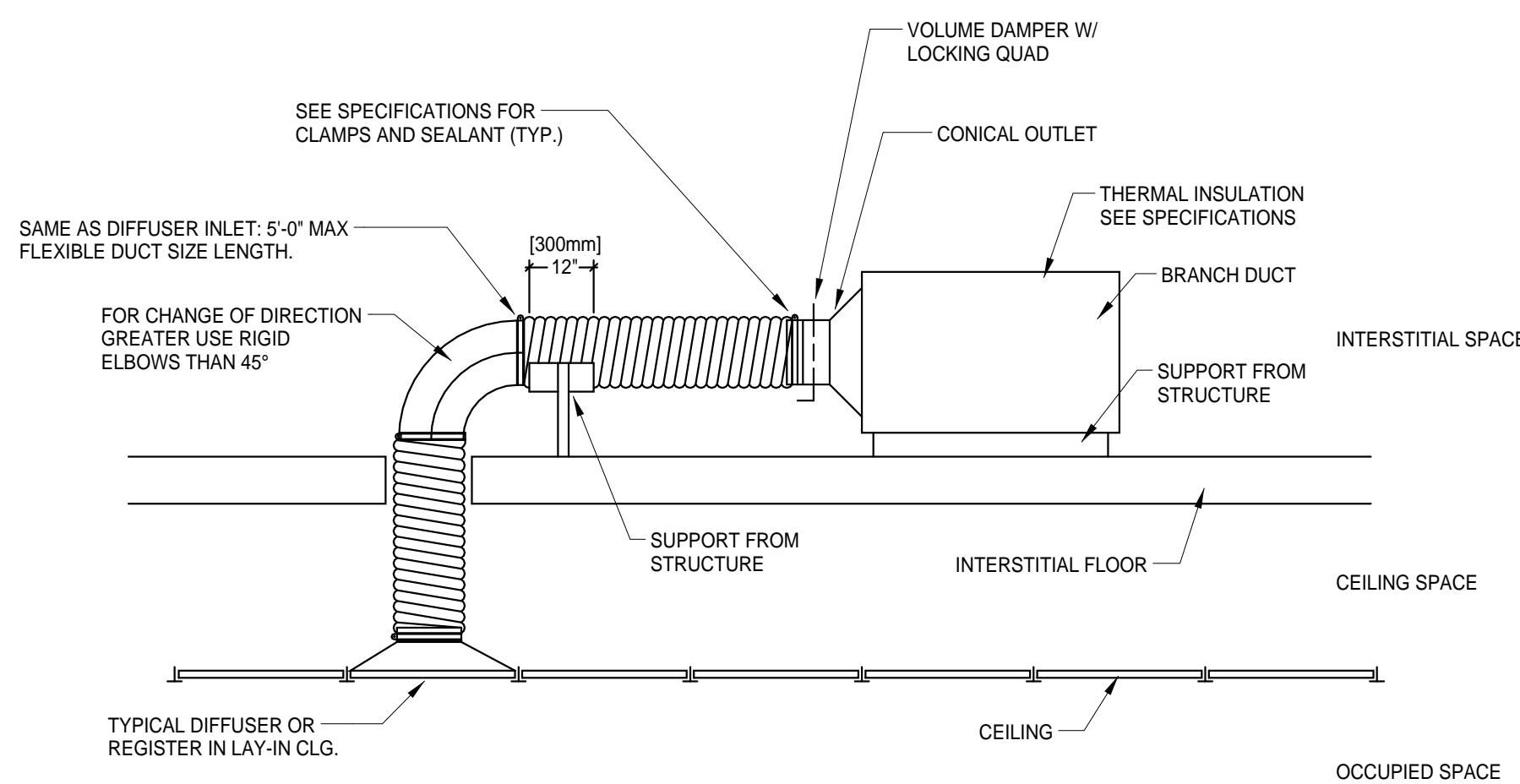


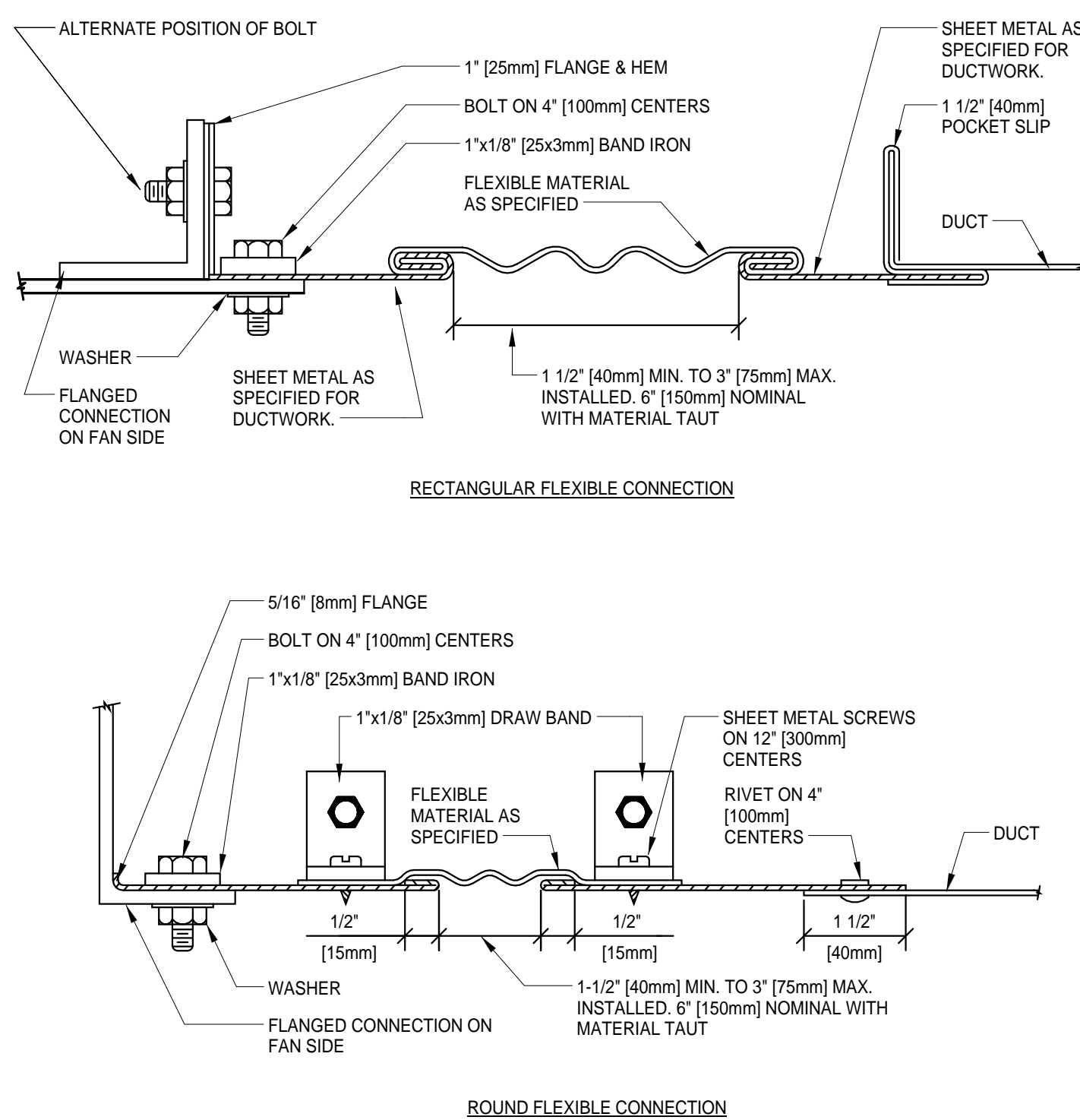
NOTE:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET.
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0" (900MM).
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET. PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET (3 METERS). FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.21/100 (1.64PAM).
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 5'-0" (1500MM). USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/ VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.

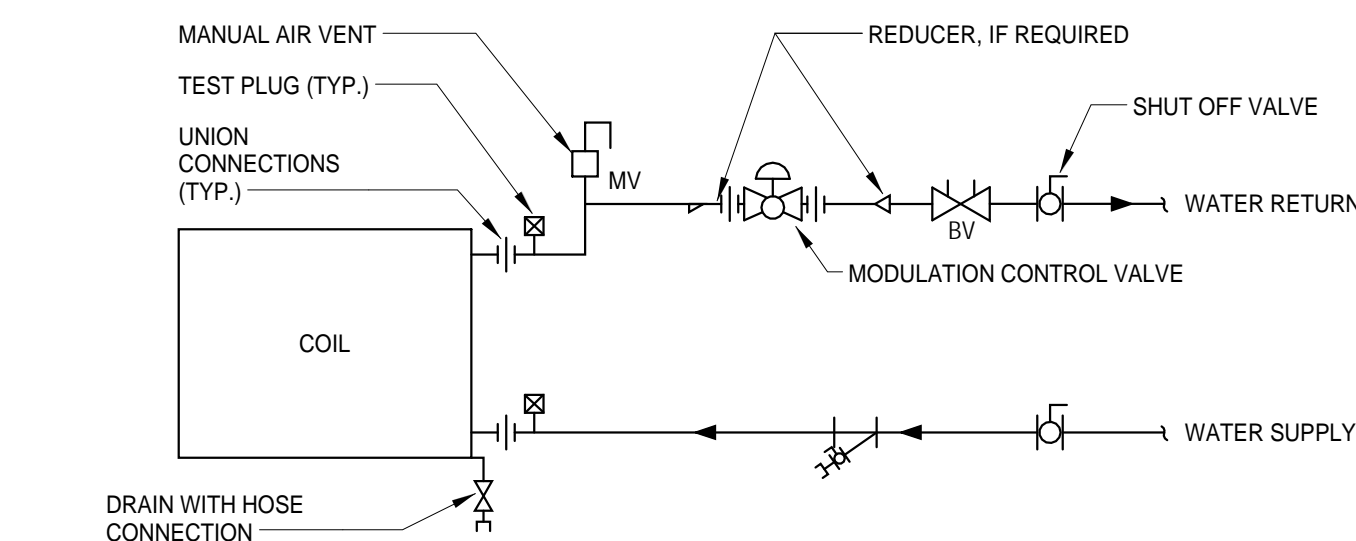
9 DUCT CONNECTIONS - AIR TERMINAL UNITS
N.T.S.



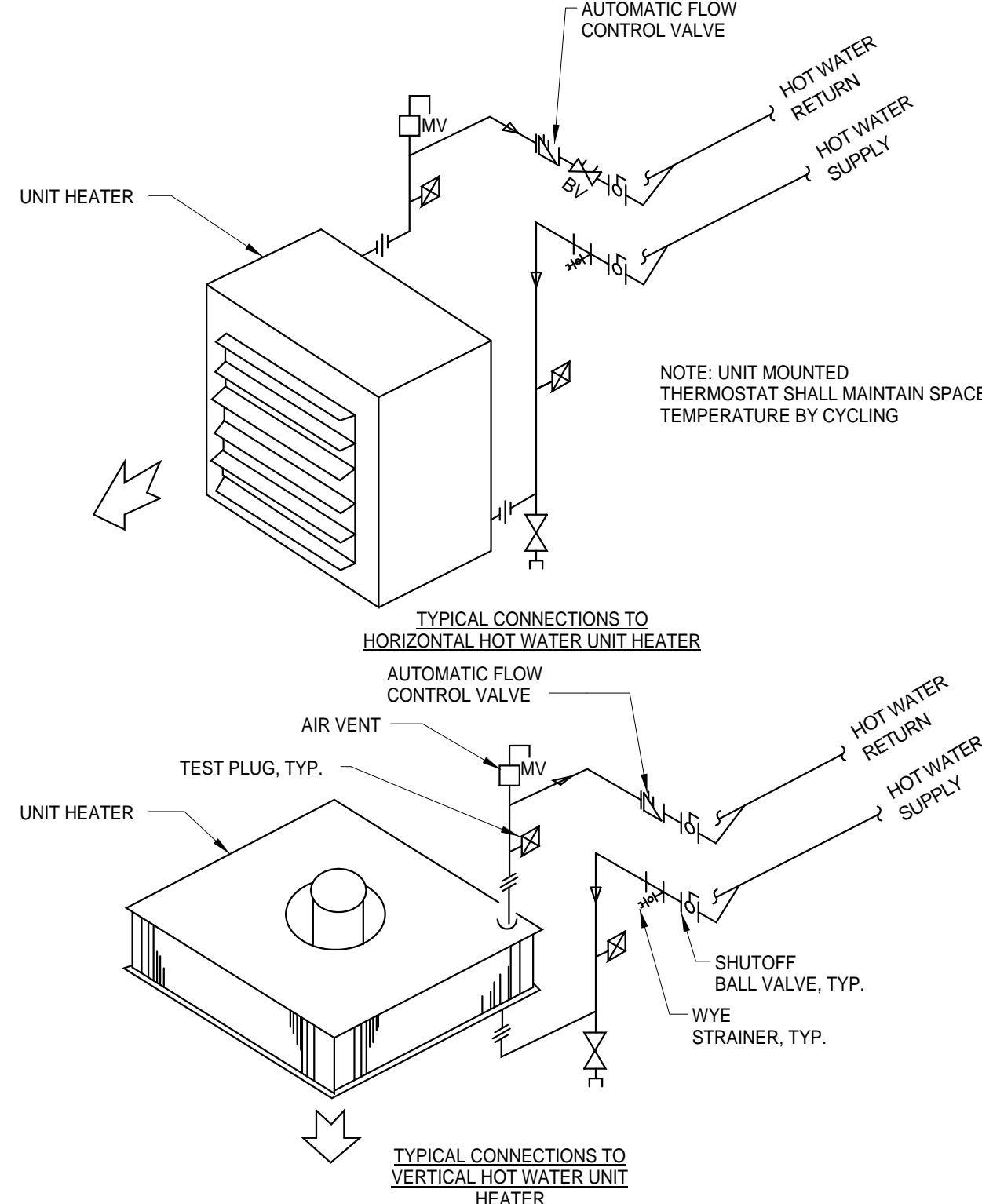
10 FLEXIBLE AIR DUCT CONNECTOR
N.T.S.



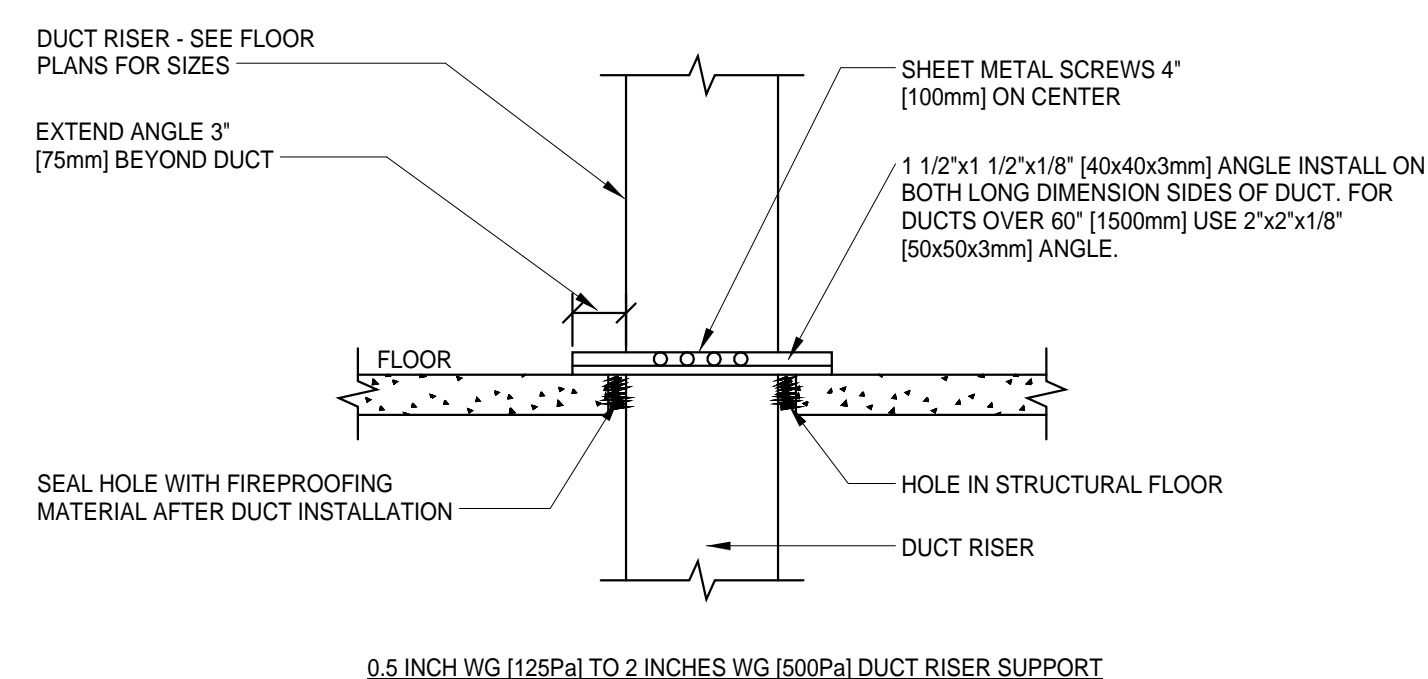
11 FLEXIBLE DUCT CONNECTIONS
N.T.S.



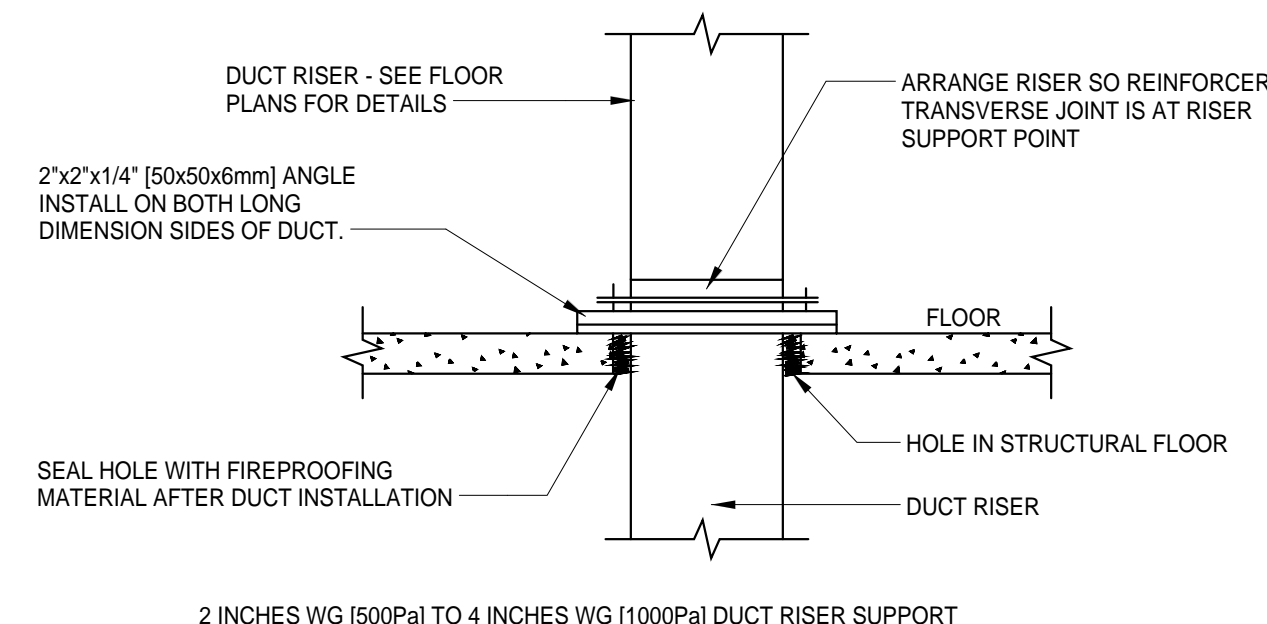
6 TERMINAL UNIT WATER COILS - PIPING CONNECTIONS (2-WAY VALVE)
N.T.S.



7 UNIT HEATERS (HOT WATER) - PIPING CONNECTIONS
N.T.S.



0.5 INCH WG (125Pa) TO 2 INCHES WG (500Pa) DUCT RISER SUPPORT

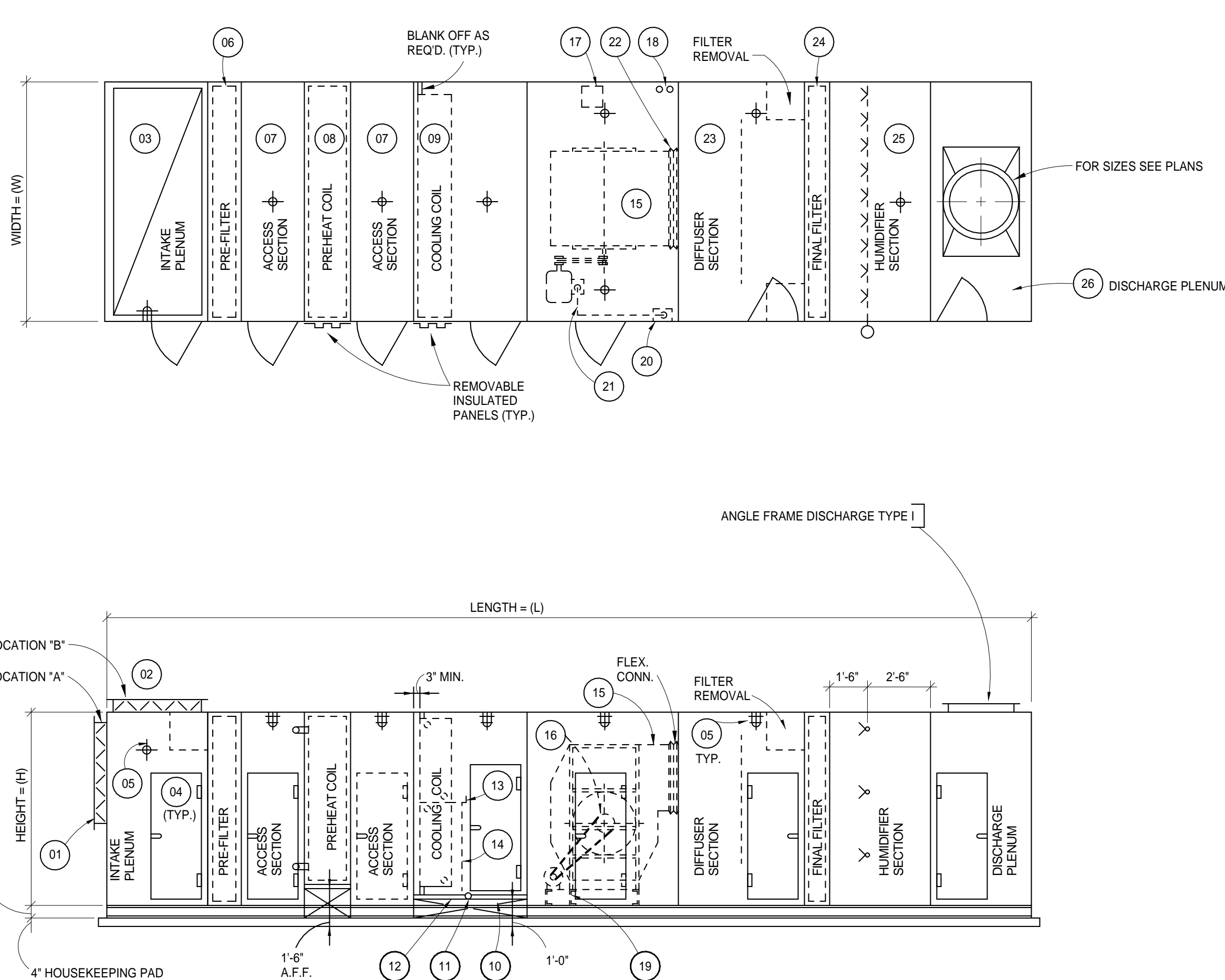


2 INCHES WG (500Pa) TO 4 INCHES WG (1000Pa) DUCT RISER SUPPORT

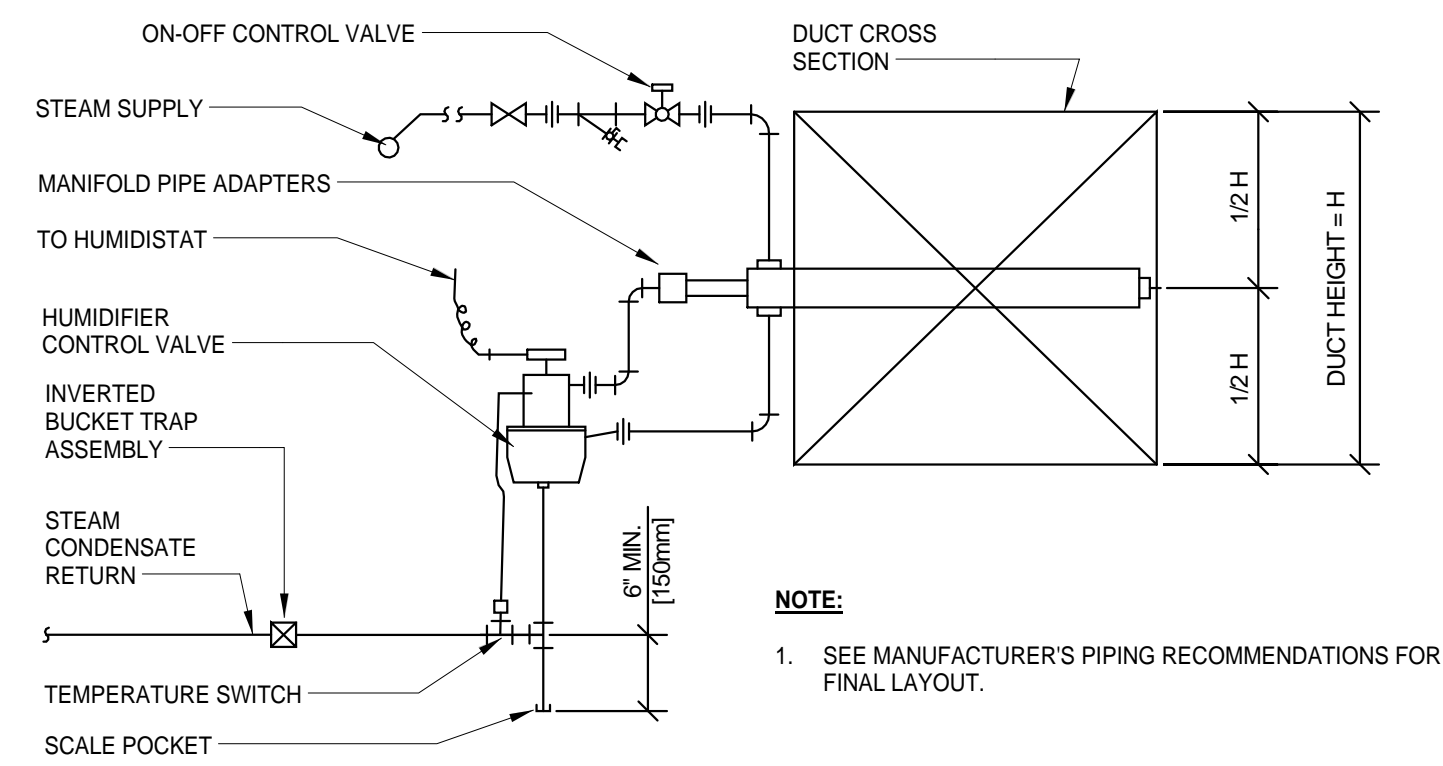
NOTE:

ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND FAN ROOM FLOORS SHALL BE PROVIDED WITH A 3" (75MM) HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

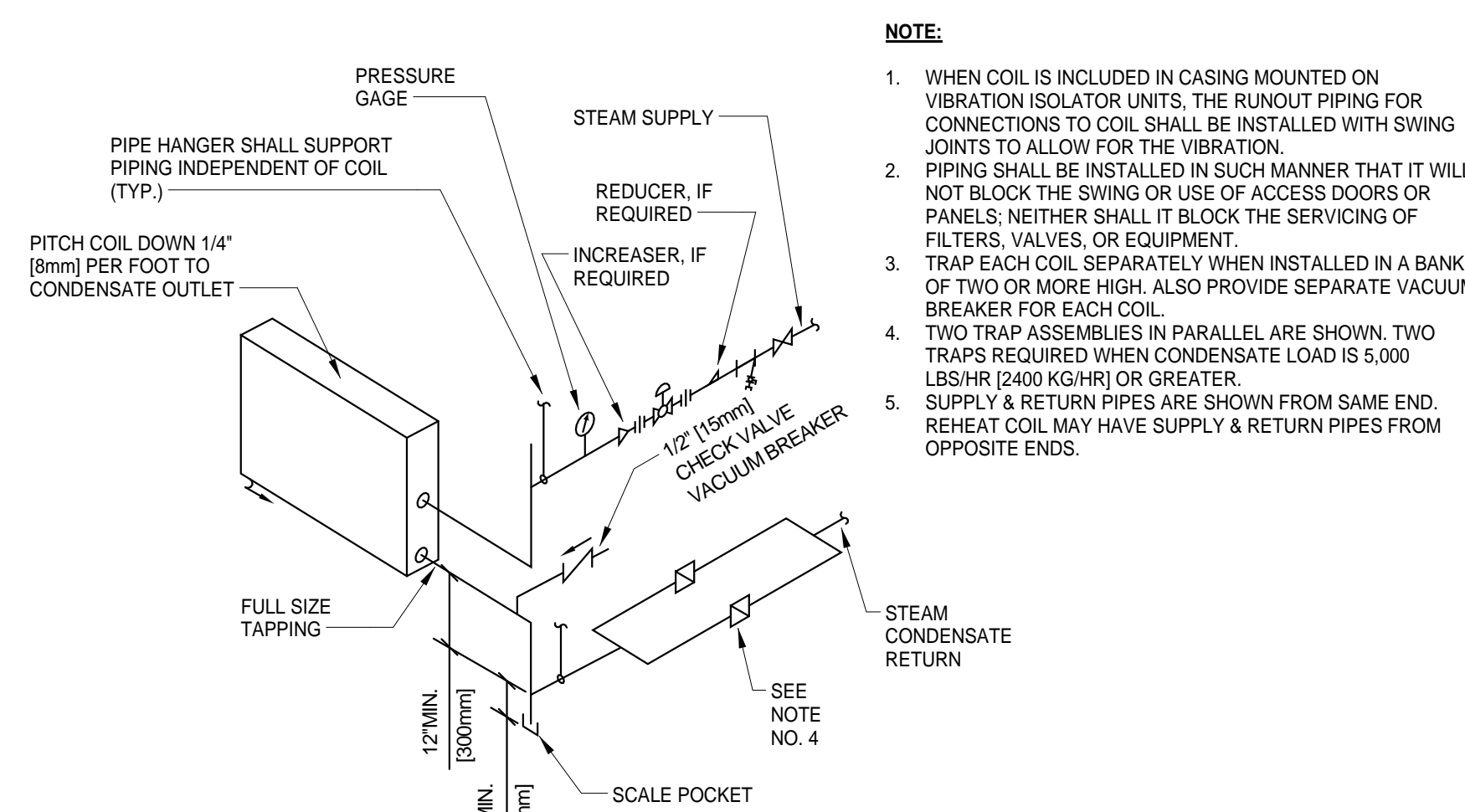
8 DUCT RISER SUPPORTS
N.T.S.



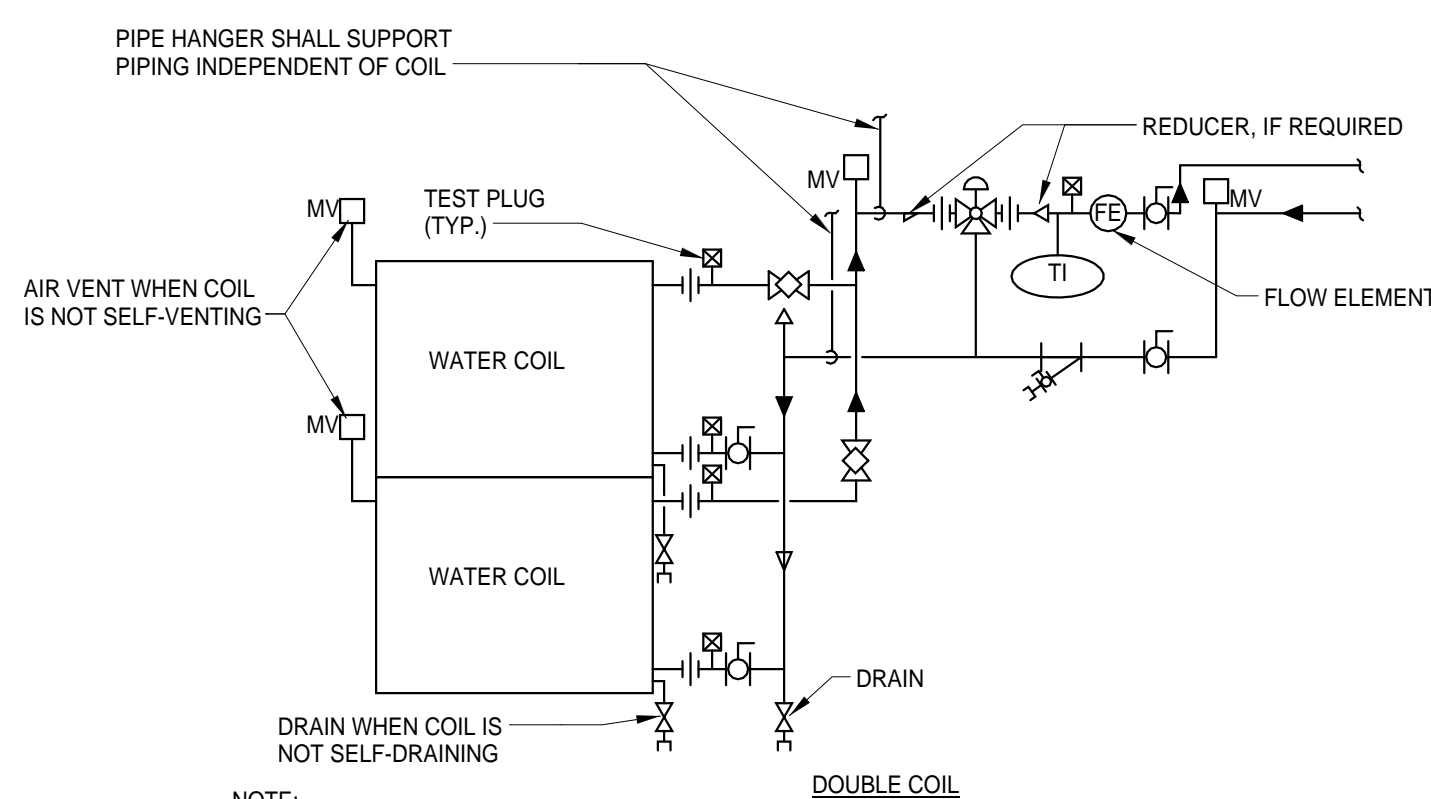
1 EXISTING AIR HANDLING UNIT AH-3081 DETAIL (FOR REFERENCE)
N.T.S.



3 EXISTING STEAM HUMIDIFIER - PIPING CONNECTIONS (FOR REFERENCE)
N.T.S.



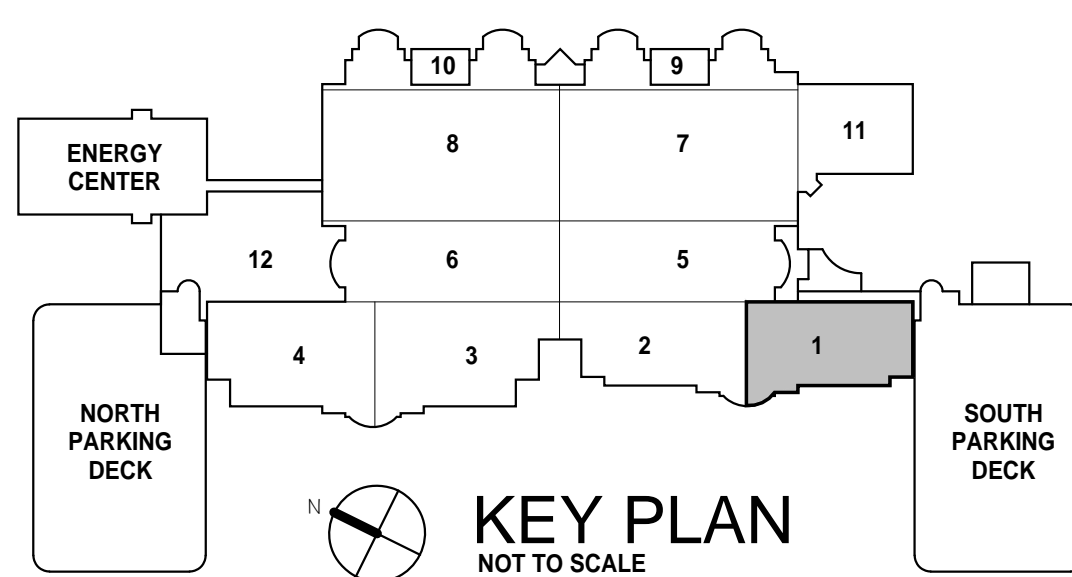
4 EXISTING STEAM COIL - PIPING CONNECTION (FOR REFERENCE)
N.T.S.



2 EXISTING CHILLED WATER COILS - PIPING CONNECTION DETAIL (FOR REFERENCE)
N.T.S.

LEGEND

1. INLET DAMPER. FLANGED DUCT CONNECTION WITH HOLES ON 4 1/2" CENTERS WITH ACTUATORS & POSITIVE POSITIONERS.
2. RETURN DAMPER. (SAME AS 01 ABOVE).
3. INTAKE PLENUM.
4. QUICK OPENING ACCESS DOOR.
5. MARINE LIGHT COMPLETE WITH SWITCH MOUNTED ON EXTERIOR AT DOOR.
6. PREFILTER. (FLAT PANEL FILTERS, VA GRADE D, 30% EFF.)
7. ACCESS SECTION COMPLETE WITH 04 & 05 ABOVE. FOR LOCATIONS REFER TO PLANS.
8. PREHEAT COIL. (FACE & BYPASS. - 30° STEAM) FACTORY PREPIPE COIL AND INSULATE IN ACCORDANCE WITH SPECIFICATIONS TO OUTSIDE CASING. PROVIDE REMOVABLE INSULATED PANELS. REFER TO PLANS FOR CONNECTION LOCATIONS.
9. COOLING COIL SECTION WITH 04 & 05 ABOVE. (WITH ULTRA VIOLET LIGHT) FACTORY PREPIPE COIL TO OUTSIDE CASING. PROVIDE REMOVABLE INSULATED PANELS.
10. PROVIDE SUPPORTS BELOW CONDENSATE DRAIN TANK TO SUPPORT COOLING COIL.
11. 1 1/2" INSULATED CONDENSATE DRAIN LINE. SEE TRAP DETAIL.
12. CONDENSATE DRAIN PAN DOUBLE SURFACE INSULATED.
13. INTERMEDIATE STAINLESS STEEL COIL DRAIN PAN.
14. FACTORY PREPIPED 3/4" DRAIN LINES DIRECTLY PIPED TO DRAIN TANK.
15. FAN SECTION WITH 04 & 05 ABOVE.
16. OSHA BELT GUARD. REMOVABLE WITH TACHOMETER OPENINGS. WIRE MESH.
17. PREWIRED JUNCTION BOX. 115 V-1 PHASE ON TOP OF UNIT CASING FOR SINGLE POINT ELECTRICAL CONNECTION TO SERVE UNIT LIGHTS. (SWITCHES AT EACH DOOR)
18. STUB 3/4" CONDUITS THRU TOP OF UNIT CASING TO ACCOMMODATE FIELD INSTALLATION OF CONTROLS. COORDINATE NUMBER & ACTUAL LOCATIONS WITH CONTROL SUBCONTRACTOR.
19. VIBRATION ISOLATORS.
20. DISCONNECT SWITCH INSIDE FAN HOUSING.
21. CONDUIT & WIRE. DISCONNECT TO MOTOR. WITH FLEXIBLE CONNECTION AT MOTOR. POWER SUPPLY TO DISCONNECT. WIRE & CONDUIT.
22. FLEXIBLE CONNECTION.
23. DIFFUSER SECTION WITH 04 & 05 ABOVE. PERFORATED DIFFUSER PLATE. LOCATION SHALL BE AS RECOMMENDED BY EQUIPMENT SUPPLIER.
24. FINAL FILTER. (BAG FILTERS, VA GRADE B, 85% EFF.)
25. HUMIDIFIER SECTION WITH MANIFOLD STEAM HUMIDIFIER. COORDINATE NUMBER OF MANIFOLD WITH SCHEDULE AND SPECIFICATIONS.
26. DISCHARGE PLENUM WITH 04 & 05.
27. STRUCTURAL STEEL SUPPORTS.



1		<div>CONSULTANTS:</div> <div><div><div>725 Prudden Street Lansing, MI 48906 - 517.371.1200</div><div>123 West Main Street, Suite 200 Gaylord, MI 49735 - 989.732.8131</div><div>648 Monroe Avenue NW, Suite 210 Grand Rapids, MI 49503 - 616.454.9414</div><div>1211 Ludington Street Escanaba, MI 49829 - 906.233.9360</div></div><div><div>www.c2ae.com</div><div><div><div></div><div>c2ae</div><div>elevating human achievement</div></div></div></div></div>	<div><div><div></div></div><div>Department of Veterans Affairs John D. Dingell VA Medical Center 4646 John R Street Detroit, MI 48201</div></div>	<div><div>Property of the United States Government For Official Use Only <small>Do not remove this notice Properly Destroy documents when no longer needed</small></div><div>File Name</div><div>File Location</div></div>	<div><div>Drawing Title</div><div>HVAC DETAILS</div><div>Approved: Division Chief</div><div>Approved: Service Director</div></div>	<div><div>Project Title</div><div>A3 SOUTH RENOVATION</div><div><div>Building Number 1</div><div>Checked EJR</div><div>Drawn JCW</div></div><div><div>Location</div><div>4646 JOHN R. STREET DETROIT, MI 48201</div></div></div>	<div><div>Date 12/16/2014</div><div>Project Number 553-14-100</div><div>Drawing Number M-500</div></div>	<div><div>Office of Facilities Management</div><div><div><div></div></div>Department of Veterans Affairs</div></div>
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