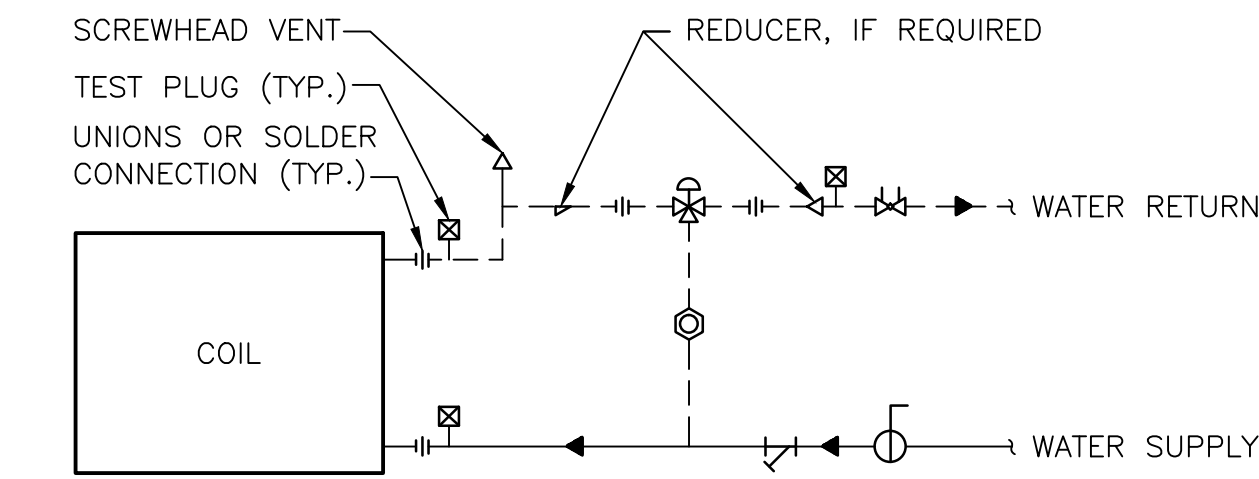
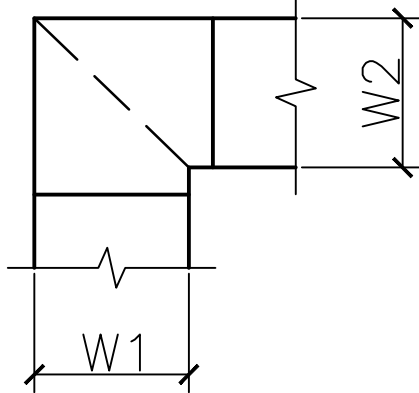


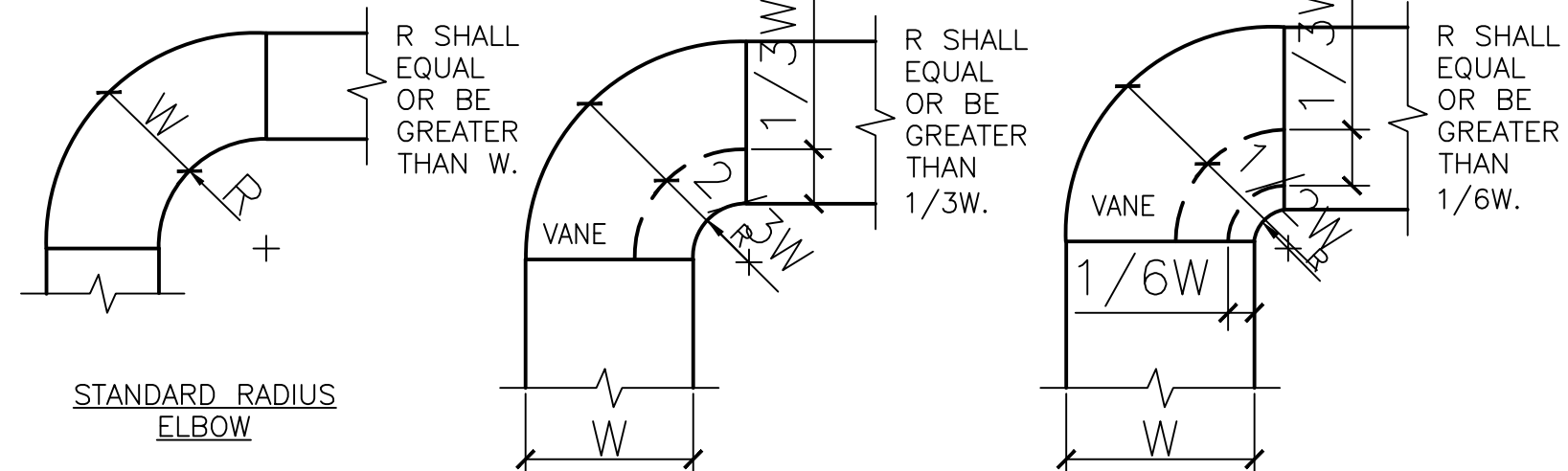
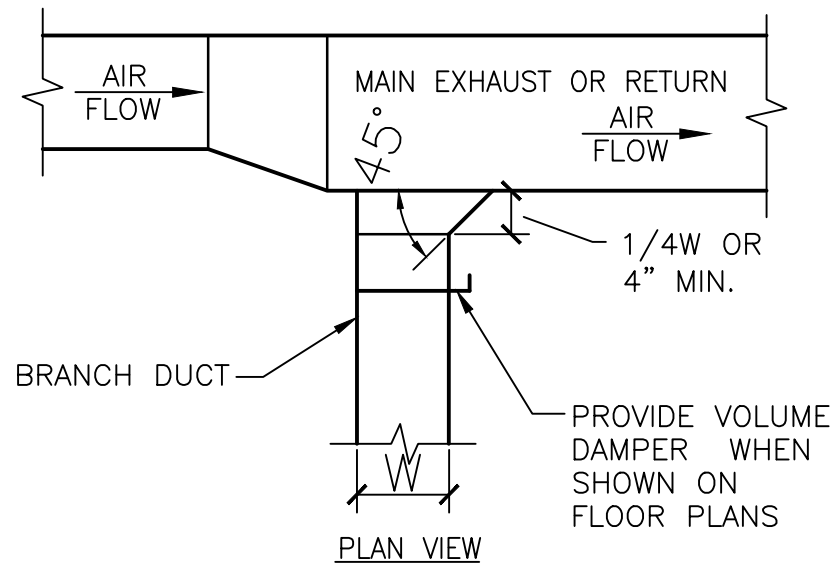
three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



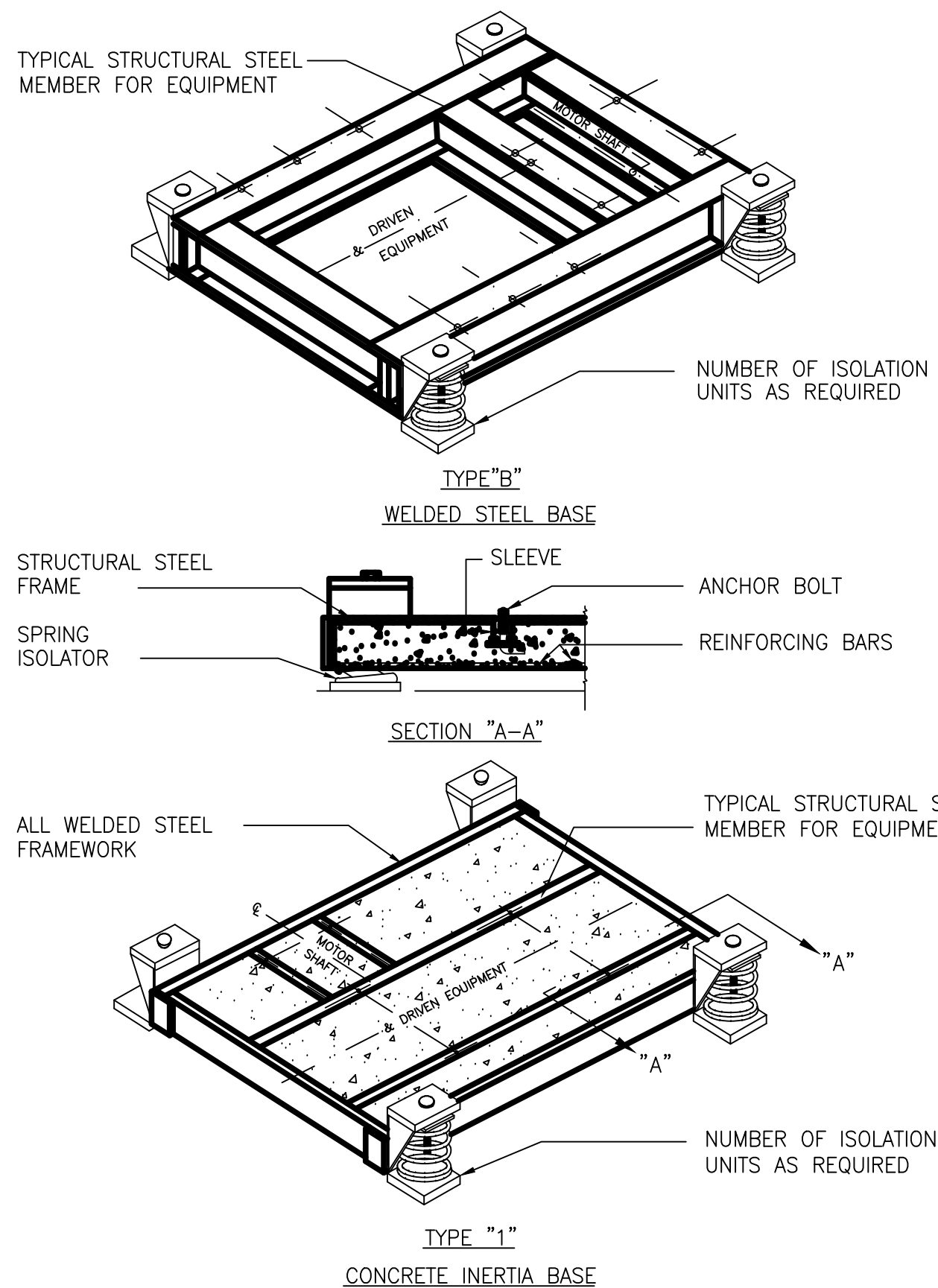
**NOTE:**  
A STRAIGHT-THRU MODULATING CONTROL VALVE IS SHOWN BY SOLID PIPING. WHEN CONTROL DIAGRAM INDICATES THAT A THREE-WAY MODULATING CONTROL VALVE IS REQUIRED, PROVIDE DASHED PIPING AND FITTINGS ALSO.



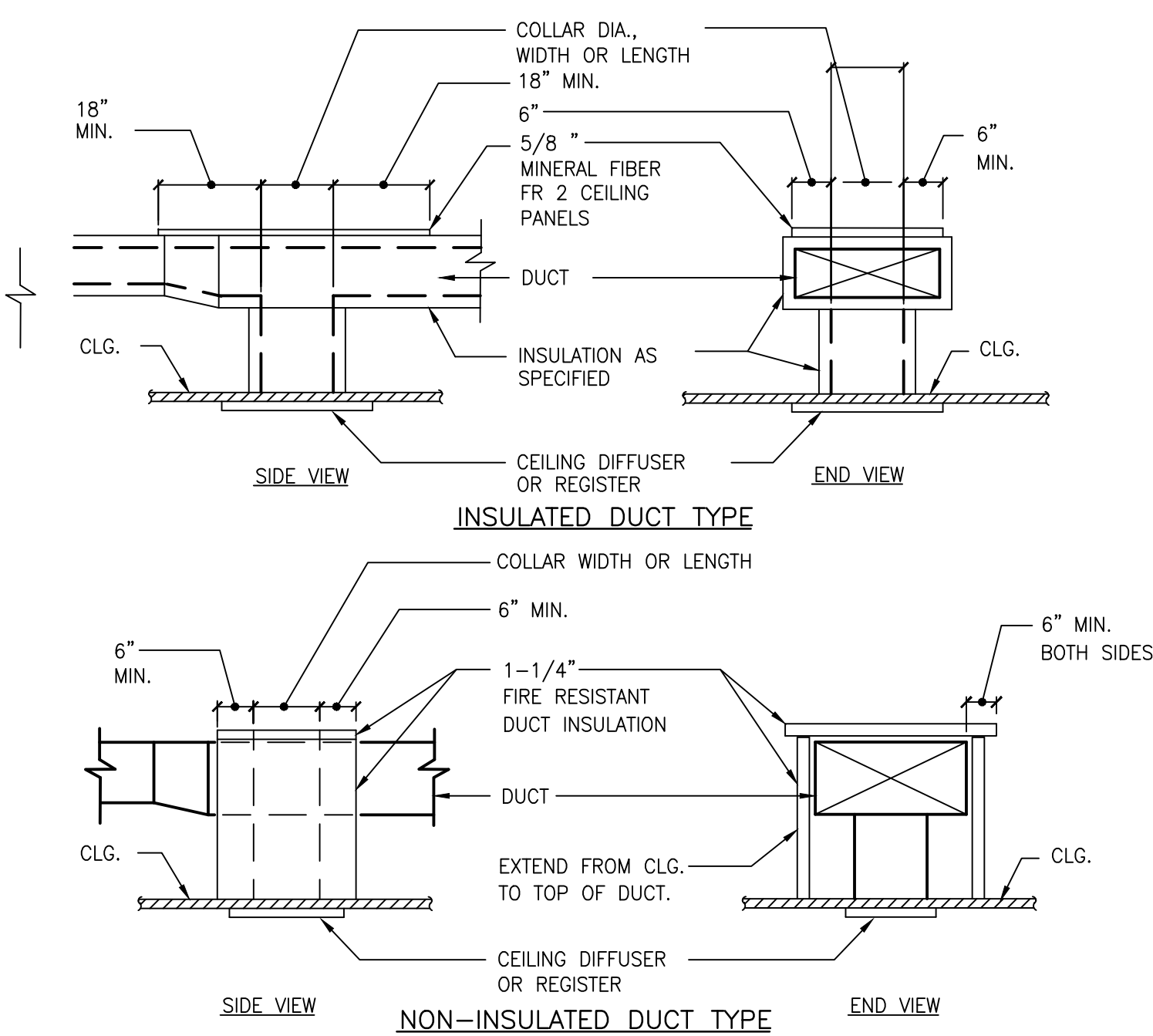
- NOTE:**
1. ALL VANED ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
  2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE VANE TYPE REGARDLESS OF W DIMENSION.
  3. ALL SINGLE VANES SHALL HAVE A 2" RADIUS, 1 1/2" MAXIMUM SPACE BETWEEN VANES AND A 3/4" TRAILING EDGE.
  4. WHEN W EQUALS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



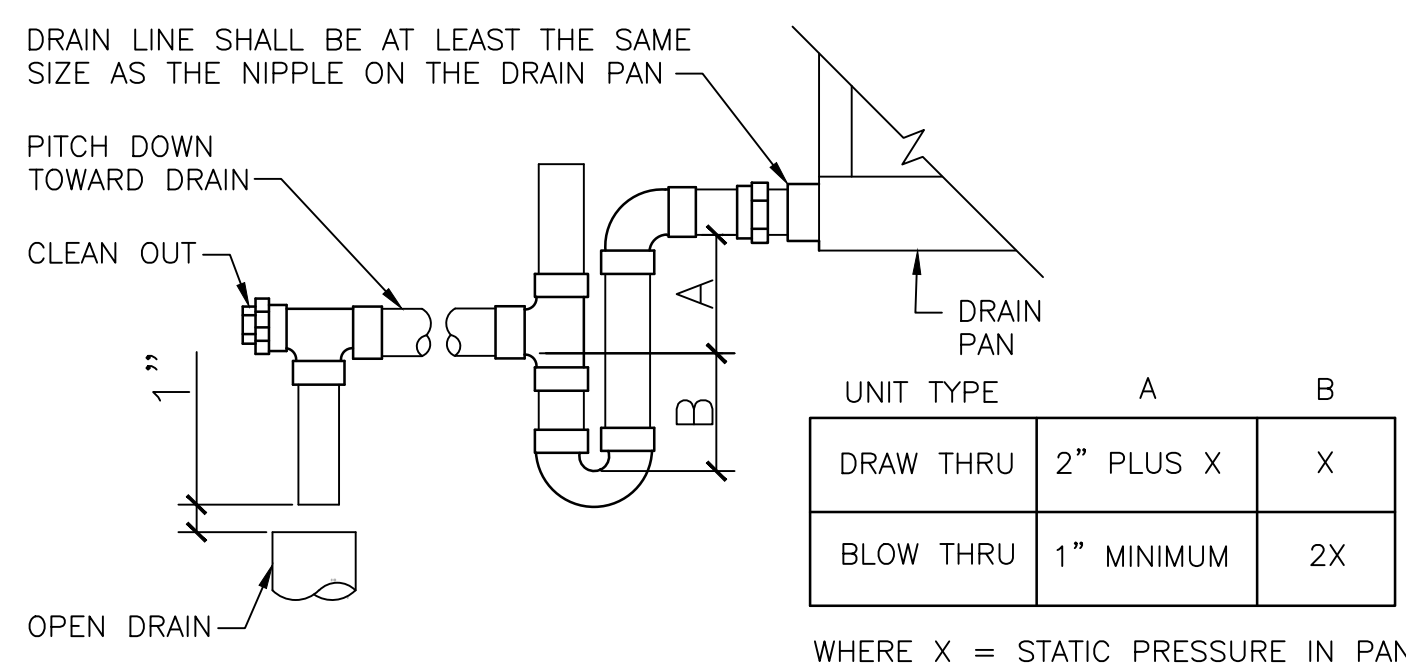
- NOTE:**
1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
  2. ALL STANDARD RADIUS ELBOWS SHOWN ON FLOOR PLANS MAY BE MADE SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.



### 1 TYPICAL COIL PIPING CONNECTIONS TO TWO PIPE FAN COIL UNITS, VAV BOX WITH REHEAT COILS

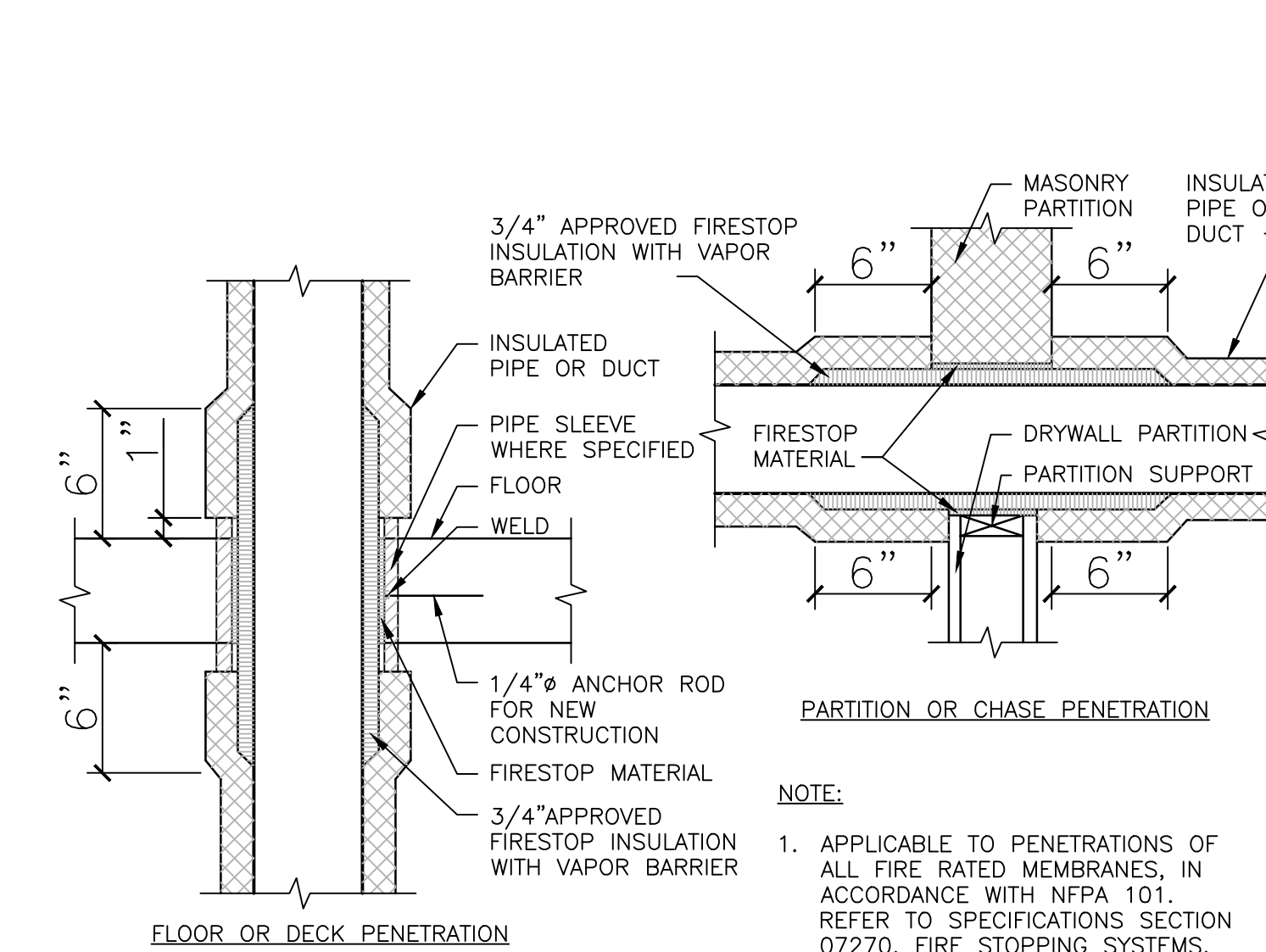


### 6 FIRE PROTECTION FOR CEILING OUTLETS

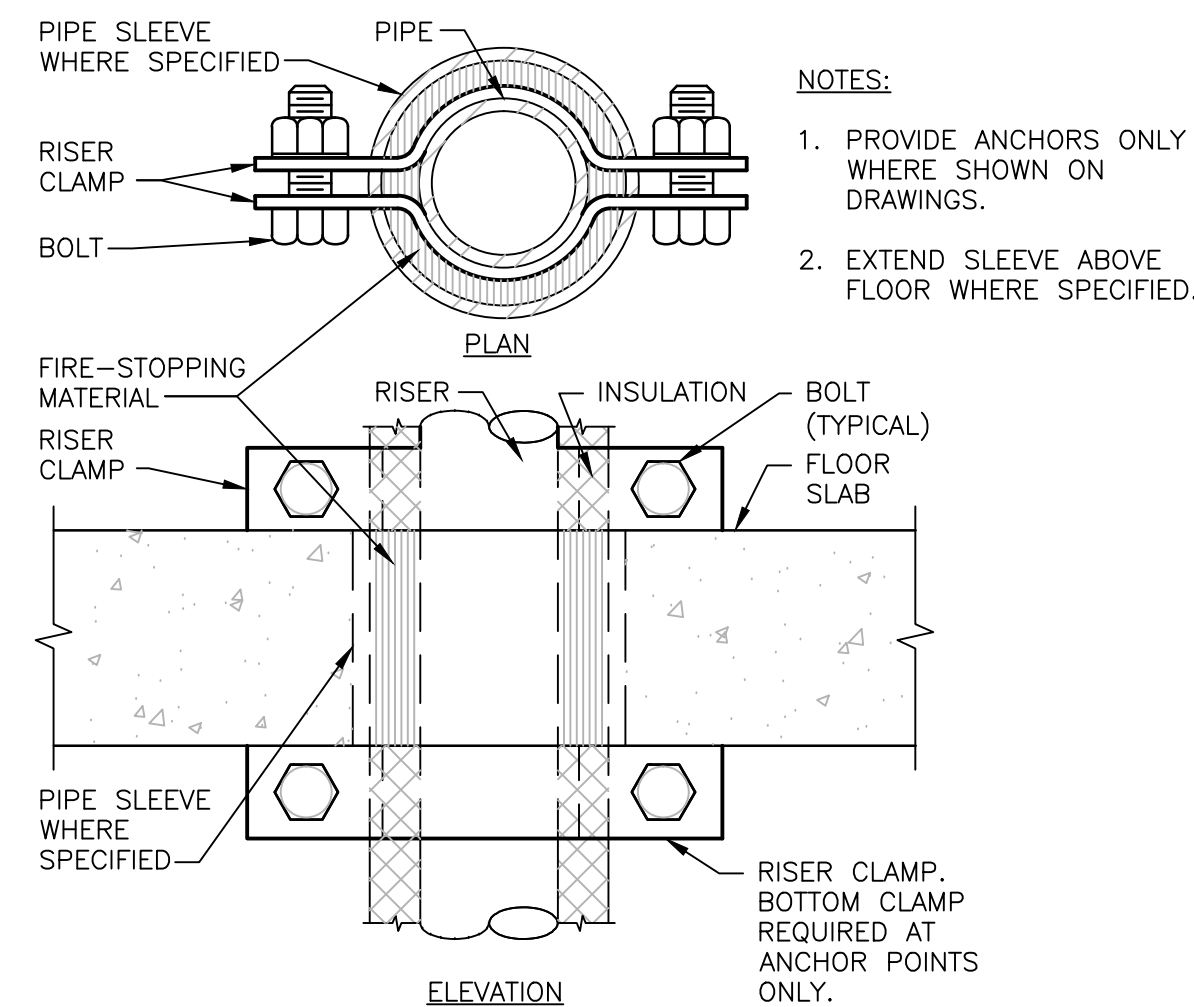


### 9 AIR HANDLING UNIT DRAIN TRAP DETAIL

### 2 DUCTWORK SQUARE VANED ELBOWS

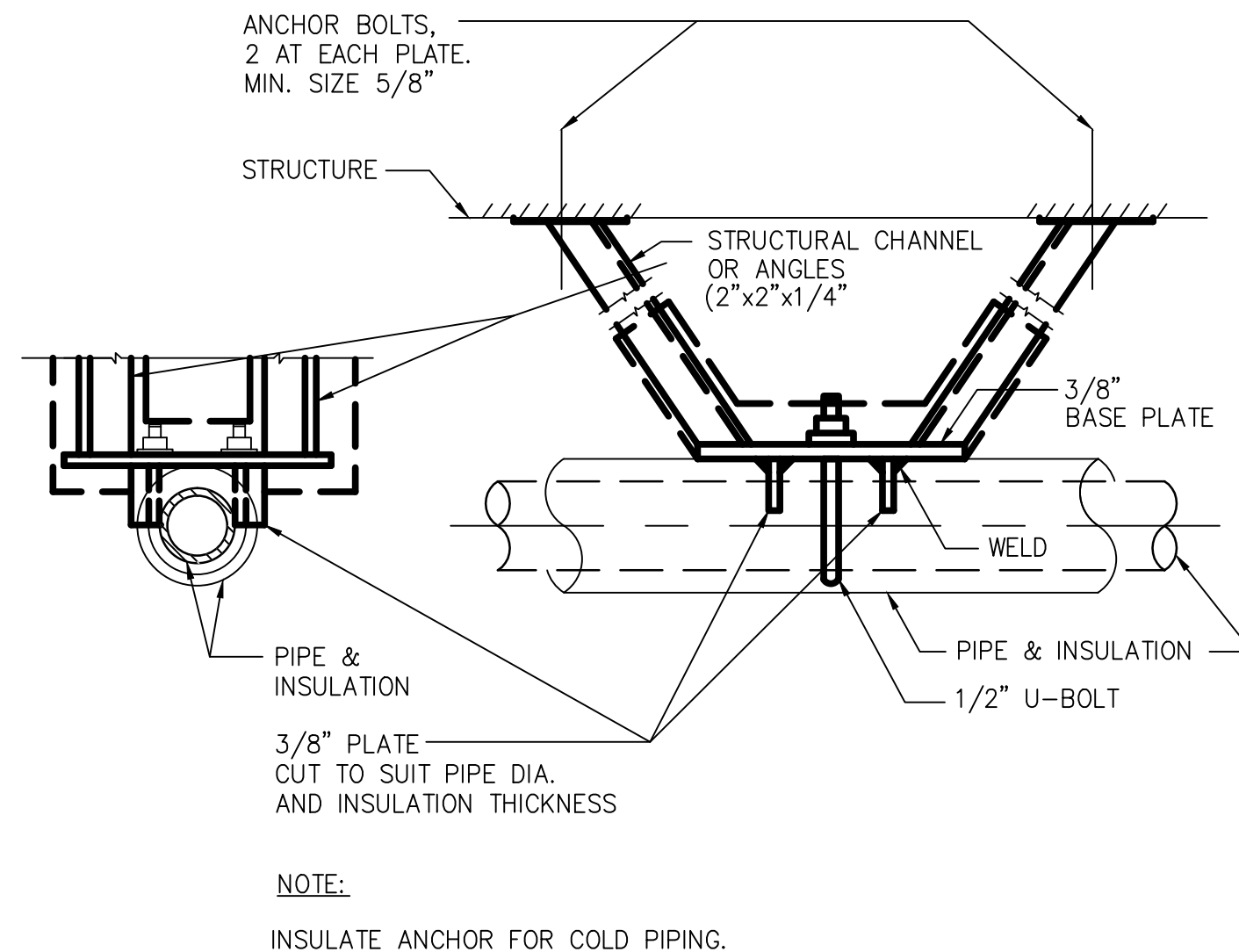


### 7 PIPE/DUCT PENETRATION OF FIRE/SMOKE BARRIERS

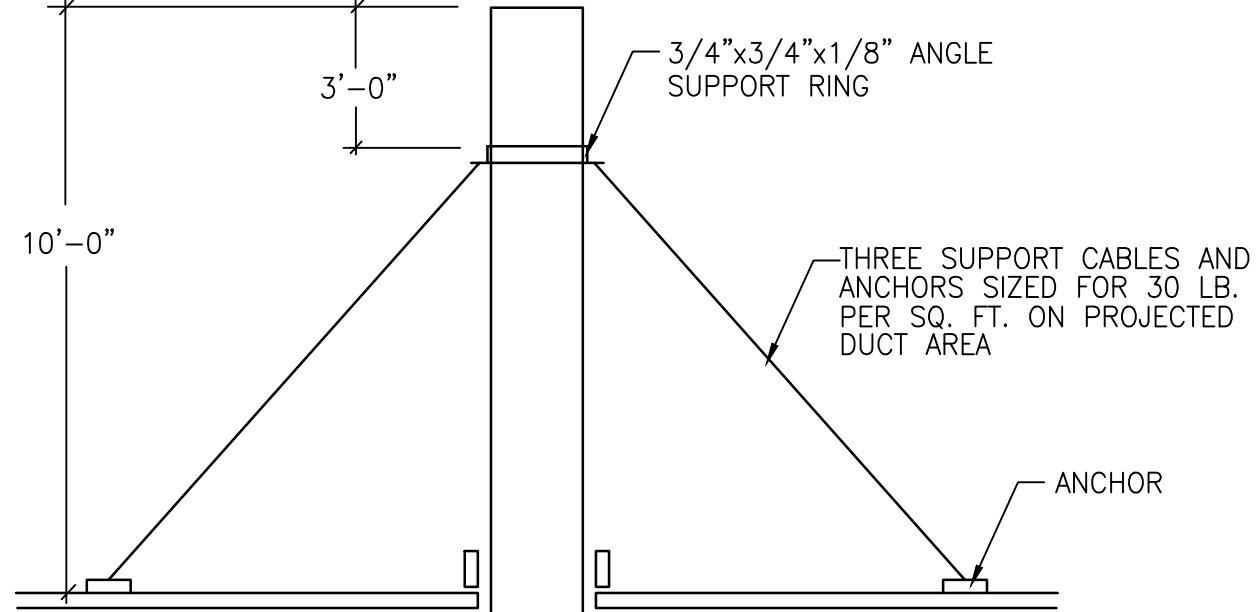


### 10 SUPPORT/ANCHOR FOR PIPE RISERS

### 4 DUCTWORK RADIUS ELBOWS

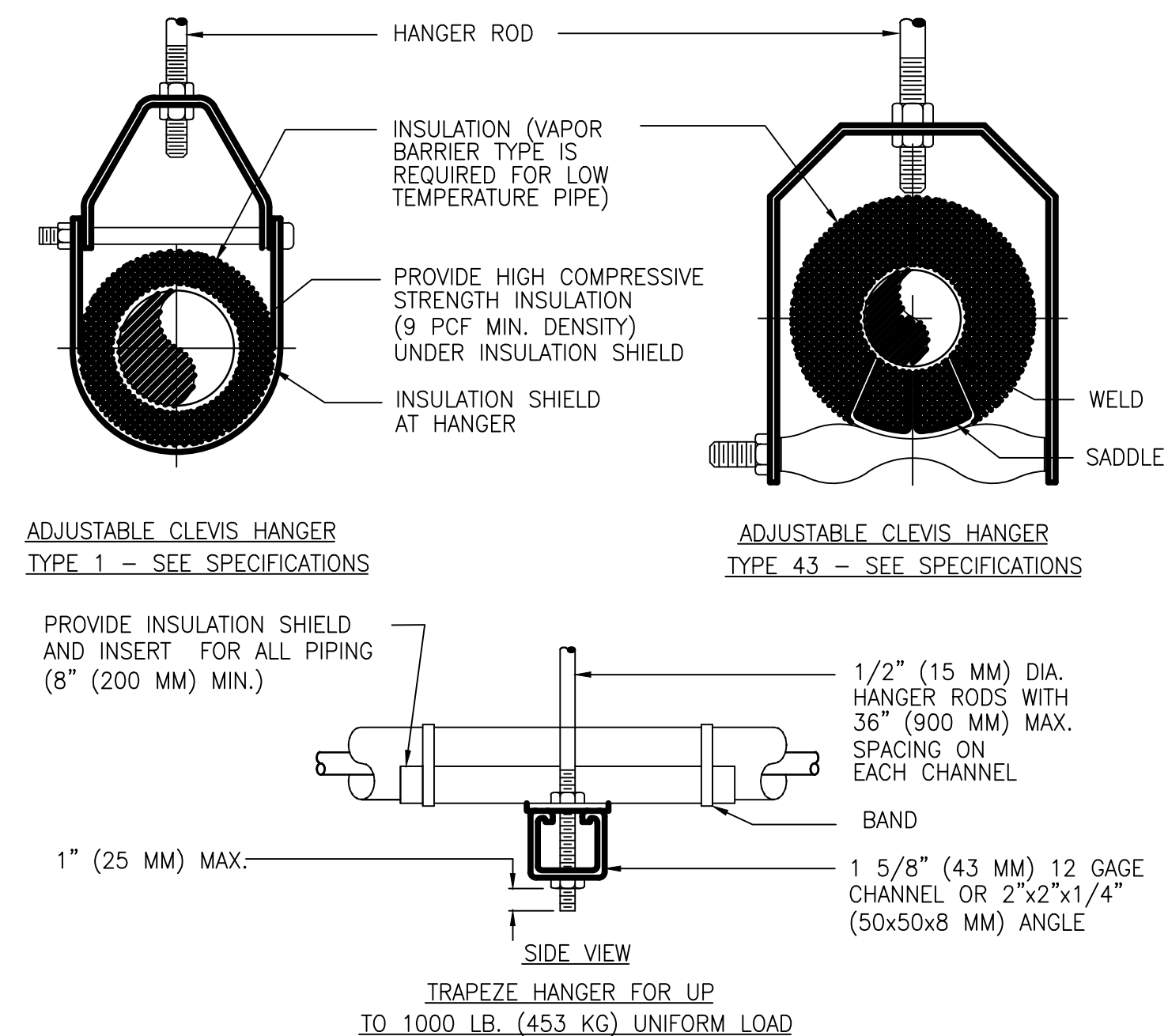


### 8 HORIZONTAL PIPE ANCHOR DETAIL



### 11 UP-BLAST FAN DISCHARGE DETAIL

### 5 VIBRATION ISOLATOR BASES



### 12 TYPICAL PIPE HANGERS

FOR BIDDING PURPOSES ONLY  
FINAL SUBMISSION  
FULLY SPRINKLERED

Revisions:	50% CONSTRUCTION DOCUMENT	01/18/12
Date		

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Drawing Title	MECHANICAL DETAILS
Scale	NOT TO SCALE
Approved: Project Director	

Project Title	BALTIMORE VA MEDICAL CENTER MANAGED CARE / ED IMPROVEMENTS AND ENROLLMENT CENTER
Location	BALTIMORE, MARYLAND
Date	8/17/2012
Checked	SN
Drawn	JAR

Project Number	512-511
Building Number	1
Drawing Number	MH-502
Fig. 100 of 175	

