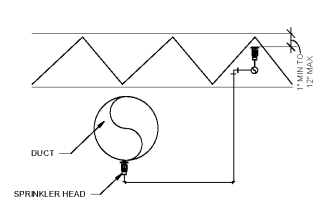
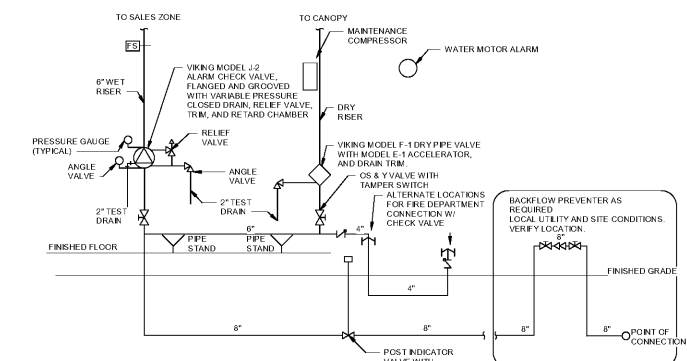


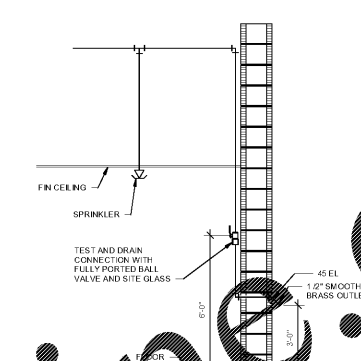
1 FP - DRY PIPE COMPRESSOR SCHEMATIC  
SCALE: N.T.S.



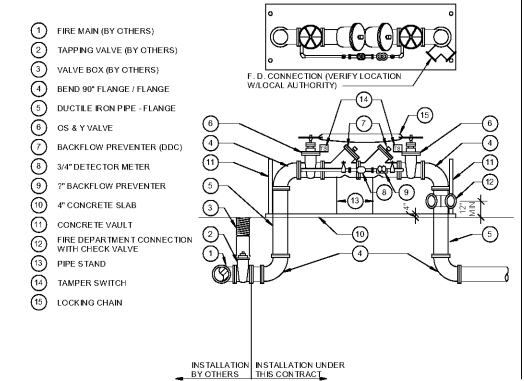
2 FP - HVAC DUCT OVER 48 INCH WIDE  
SCALE: N.T.S.



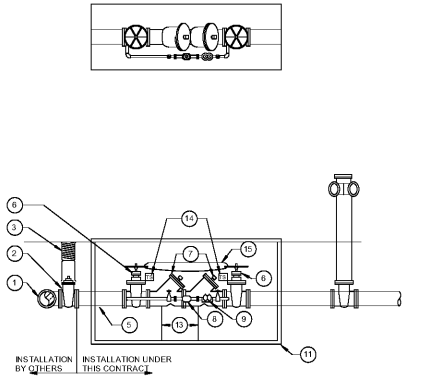
3 FP - RISER MANIFOLD SCHEMATIC  
SCALE: N.T.S.



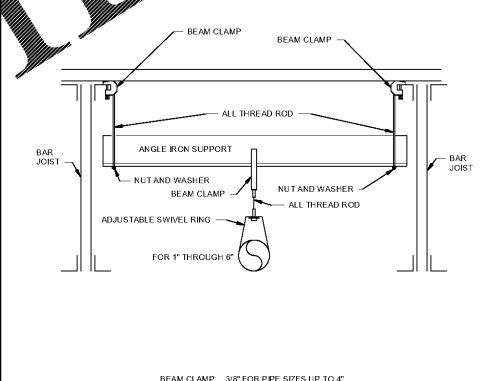
4 FP - INSPECTOR TEST PIPE  
SCALE: N.T.S.



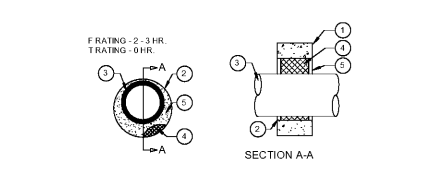
5 FP - BACKFLOW PREVENTER DETAIL  
SCALE: N.T.S.



6 FP - PIPE HANGER DETAIL  
SCALE: N.T.S.

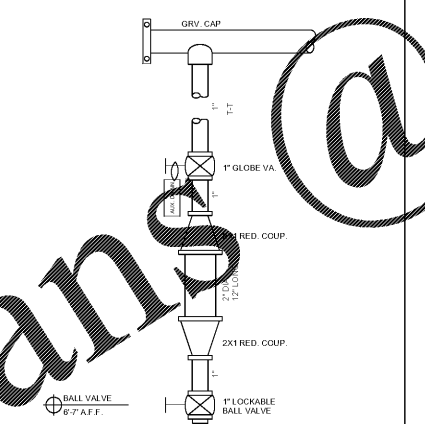


7 FP - TRAPEZE HANGER DETAIL  
SCALE: N.T.S.

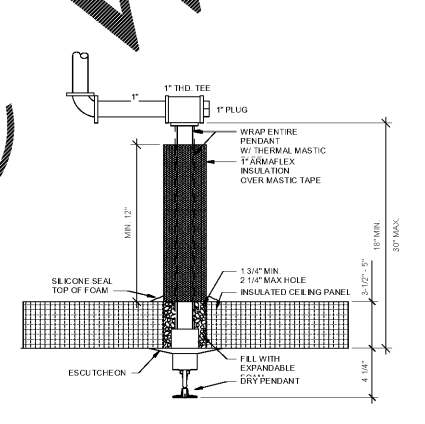


8 FP - PENETRATION FIRESTOP DETAIL DESIGN No. CAJ-1081  
SCALE: N.T.S.

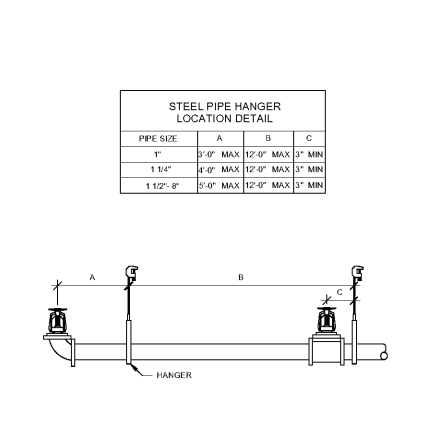
- Floor or Wall Assembly Min 3-3/4 in. (2 Hr Rating) or min 4-1/2 in. (3 Hr Rating) thick reinforced lightweight or normal weight (100-150 pcf) concrete floor, or min 4-3/4 in. (2 Hr Rating) or min 5 in. (3 Hr Rating) thick reinforced lightweight or normal weight (100-150 pcf) concrete wall. Wall may also be constructed of any UL Classified Concrete Block\*. Max clear of opening is 16 in.
- See Concrete Block (CAZ7) category in the Fire Resistance Directory for names of manufacturers.
- Metallic Sleeve (Optional) — Non 16 in. diam (or smaller) steel pipe, conduit or steel EMT cast or grouted into floor or wall assembly. Flush with floor or wall surfaces.
- Through Penetrants One metallic pipe, conduit or tubing to be installed either concentrically within the sleeve or tubing. Pipe, conduit or tubing to be rigidly supported on the sides of floor or wall assembly. The following types and sizes of metallic pipe, conduits or tubing may be used:
  - Steel Pipe Non 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe. Spacing shall be min to max 4 in.
  - Steel Pipe Non 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe. This shall be min to max 1-1/16 in.
  - Conduit Non 6 in. diam (or smaller) steel conduit or non 4 in. diam (or smaller) electric metallic tubing. The annular shall be min to max 4 in.
  - Copper Tubing Non 6 in. diam (or smaller) Type K copper tubing. The annular shall be min to max 1-1/16 in.
  - Copper Tubing Non 4 in. (or smaller) Type K copper tubing. The annular shall be min to max 4 in.
- For "Metal" Min 2-3/4 in. (2 Hr Rating) or min 3 in. (3 Hr Rating) thickness of min 3.5 pcf rigid foam insulation to be applied to the surface of the floor or wall assembly to accommodate the required thickness of the metallic sleeve or tubing.
- Thermal Break — Type FC
- Fire or Smoke Sealant — Fire or smoke sealant with both surfaces of wall. Dry mix sealant with water to be applied at rate of 2-1/2 pcf dry mix to 1 part water by weight in accordance with accompanying installation instructions.
- UNIT STATES GYPSUM CO. Type FC
- SA F. A. Gypsum Co. "Ready-Mix" of Shown — Two component fill material used as an alternate to item 5. It is a mixture of fill material applied within the annular. Both the top side of floor or both surfaces of wall. Ready-mix component mix with accelerator component at a rate of 66 parts of ready-mix component to 1 part accelerator component by weight in accordance with the accompanying installation instructions.
- UNITED STATES GYPSUM CO. - Type RFC  
\*Bearing the UL Classification Mark



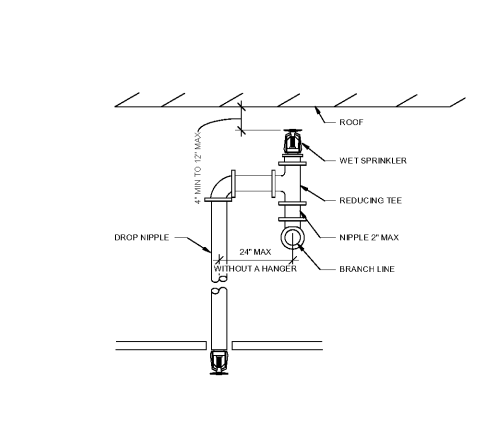
9 FP - AUX. DRAIN DETAIL (DRY SYSTEM)  
SCALE: N.T.S.



10 FP - DRY PENDANT INSTALLATION DETAIL  
SCALE: N.T.S.



11 FP - PIPE HANGER SCHEDULE  
SCALE: N.T.S.



12 FP - CONCEALED SPACE AND BELOW CEILING SPRINKLER HEAD  
SCALE: N.T.S.

No.	Description	Date