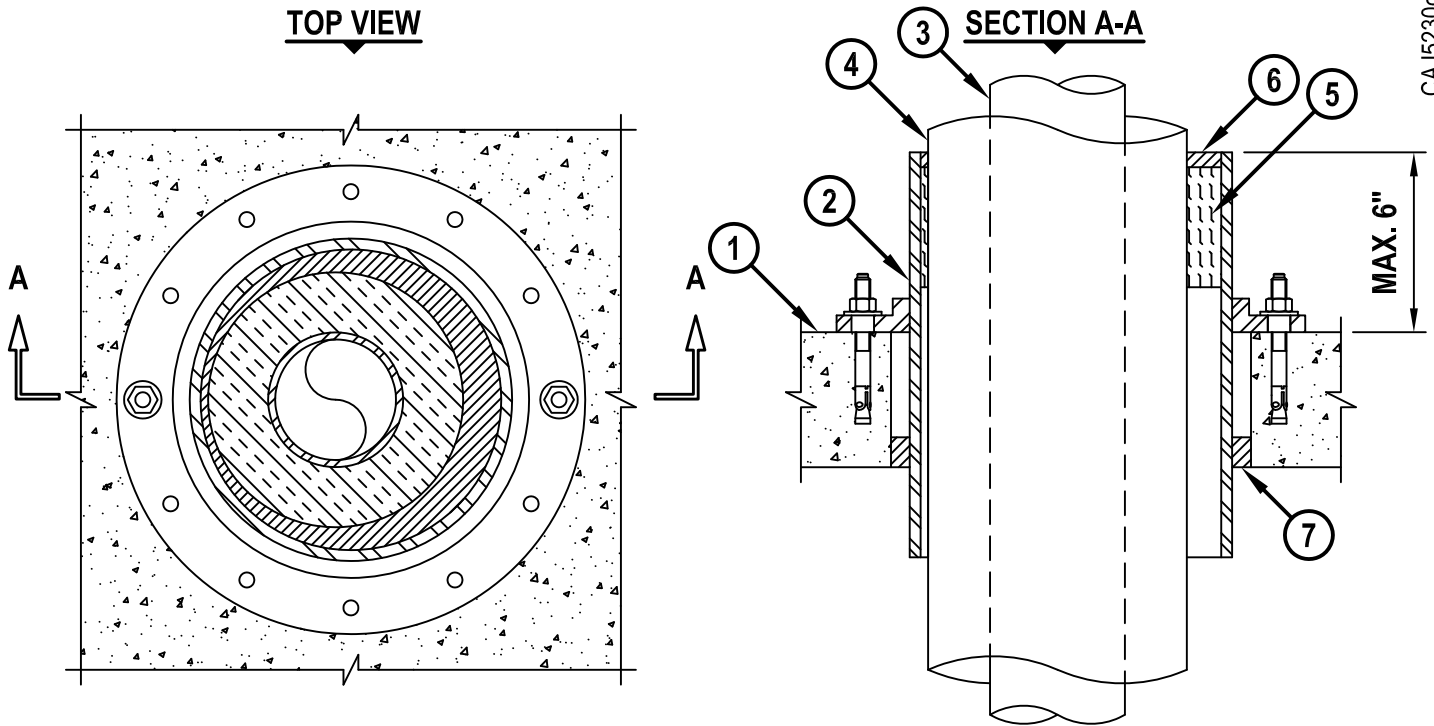


INSULATED METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F-RATING = 2-HR.
T-RATING = 0-HR.

CAJ5230c.011515



1. CONCRETE FLOOR ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 10" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER) WITH WELDED FLANGE (SIZED TO COMPLETELY COVER OPENING). STEEL SLEEVE BOLTED TO TOP SIDE OF FLOOR OR ONE SIDE OF WALL.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
 - A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 4" NOMINAL DIAMETER CAST IRON PIPE.
 - C. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
4. MAXIMUM 2" THICKNESS GLASS-FIBER PIPE INSULATION.
5. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
6. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
7. MINIMUM 1" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 12".
 2. ANNULAR SPACE BETWEEN SLEEVE AND PERIPHERY OF OPENING = MINIMUM 1/4", MAXIMUM 1".
 3. ANNULAR SPACE BETWEEN INSULATED PIPE AND SLEEVE = MINIMUM 1/2", MAXIMUM 1-7/8".
 4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED, FLUSH WITH BOTH ENDS OF STEEL SLEEVE FOR A WALL ASSEMBLY.



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Sheet	1 of 1
Scale	5/32" = 1"
Date	Jan. 15, 2015

Drawing No.
**CAJ
5230c**