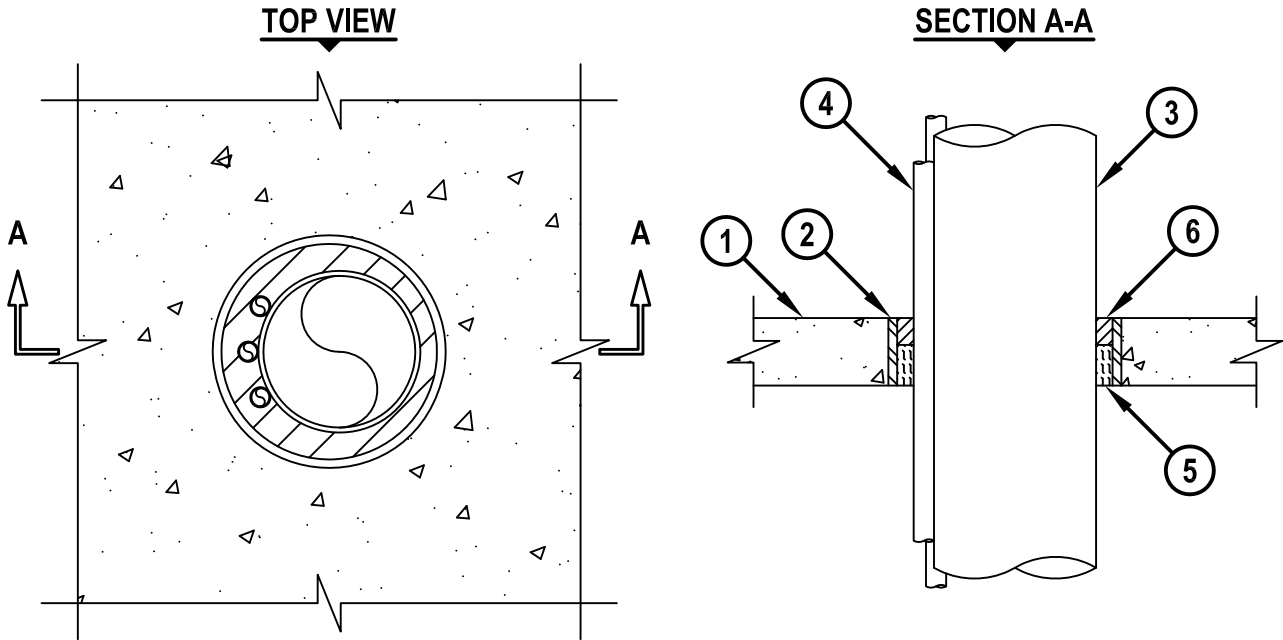


**STEEL TUBE AND CABLES THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

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

CAJ8081c.010615



1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK).
  - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 3-1/2" THICK).
  - C. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. [OPTIONAL] ANY OF THE FOLLOWING STEEL SLEEVES MAY BE USED :
  - A. MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER) MAY EXTEND MAXIMUM 3" ABOVE FLOOR OR BEYOND BOTH SURFACES OF WALL.
  - B. MAXIMUM 6" (MIN. 26 GA.) OR 8" (MIN. 24 GA.) DIAMETER GALVANIZED STEEL SLEEVE WITH SQUARE FLANGE SPOT WELDED TO BOTTOM OR MID-HEIGHT OF SLEEVE AND SIZED MINIMUM 2" LARGER THAN SLEEVE DIAMETER. SLEEVE MAY EXTEND MAXIMUM 1" ABOVE TOP SURFACE OF FLOOR, AND MAXIMUM 4" BELOW BOTTOM SURFACE OF FLOOR.
3. MAXIMUM 6" NOMINAL DIAMETER STEEL TUBE (16 GA.).
4. TWO PAIR NO. 22 AWG FOIL SHIELDED COMMUNICATION CABLES (MAX. QTY. = 3).
5. MINIMUM 1-1/2" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
6. MINIMUM 1" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.

**NOTES :** 1. MAXIMUM DIAMETER OF OPENING = 8".  
 2. ANNULAR SPACE BETWEEN TUBE AND PERIPHERY OF OPENING = MINIMUM 1/4", MAXIMUM 1-3/4".  
 3. ANNULAR SPACE BETWEEN CABLES AND PERIPHERY OF OPENING = MINIMUM 1/4".  
 4. ANNULAR SPACE BETWEEN CABLES AND STEEL TUBE = MINIMUM 0", MAXIMUM 1".



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Sheet	1 of 1
Scale	9/64" = 1"
Date	Jan. 06, 2015

Drawing No.  
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