

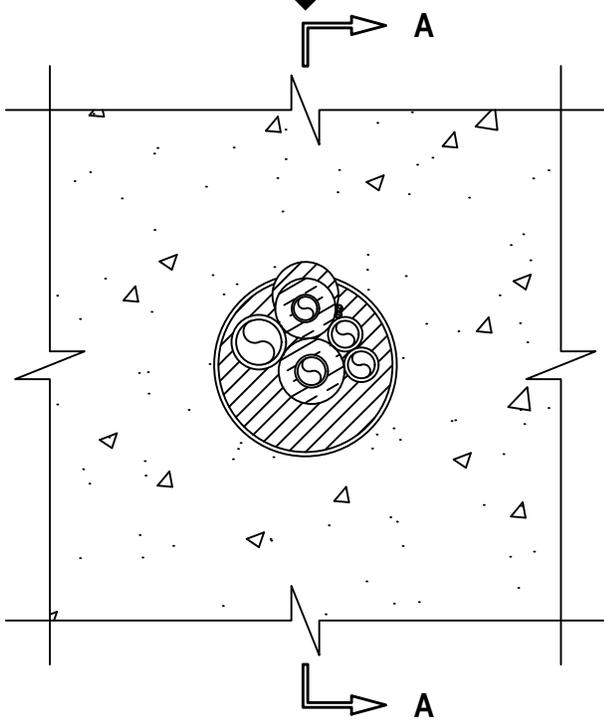
UL/cUL SYSTEM NO. C-AJ-8363

MULTIPLE PENETRATING ITEMS THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

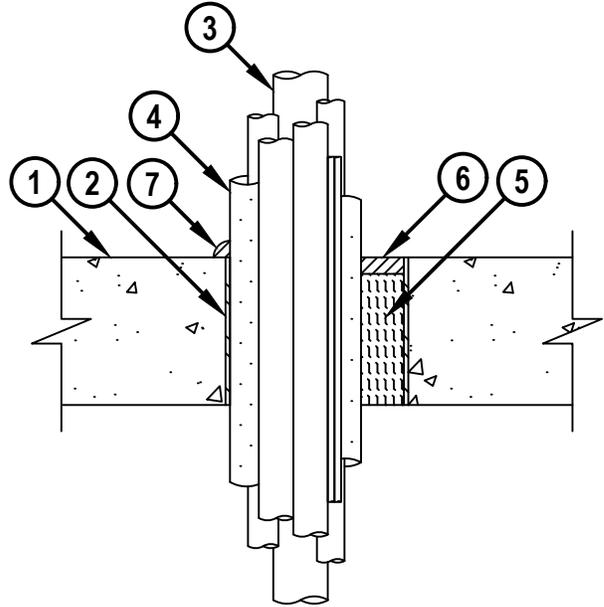
F-RATING = 2-HR.
T-RATING = 1/4-HR.

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TOP VIEW



SECTION A-A



HILTI, Inc.
Plano, Texas USA (800) 879-8000

Sheet	1 of 2
Scale	1 1/64" = 1"
Date	Mar. 11, 2026

Drawing No.

**CAJ
8363a**

Saving Lives through Innovation and Education

MULTIPLE PENETRATING ITEMS THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F-RATING = 2-HR.
T-RATING = 1/4-HR.

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1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
 - B. PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).
 - C. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
 - D. ANY UL CLASSIFIED CONCRETE BLOCK WALL
2. [OPTIONAL] MAXIMUM 5" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 10 OR HEAVIER) FLUSH WITH ASSEMBLY SURFACES.
3. PENETRATING ITEMS TO CONSIST FOLLOWING ITEMS TIGHTLY BUNDLED TOGETHER (SEE NOTES):
 - A. MAXIMUM 3/4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
 - B. MAXIMUM 3/4" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 3/4" NOMINAL DIAMETER STEEL CONDUIT OR STEEL EMT.
 - D. MAXIMUM 3/4" NOMINAL DIAMETER PIPE (SCHEDULE 5 OR HEAVIER).
 - E. MAXIMUM 1-1/4" NOMINAL DIAMETER PVC PIPE (SCH. 40) (CLOSED OR VENTED PIPING SYSTEM).
 - F. MAXIMUM 1-1/4" NOMINAL DIAMETER CPVC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY).
 - G. MAXIMUM 1-1/4" NOMINAL DIAMETER RNC-PVC PIPE (SCH. 40).
 - H. MAXIMUM 4 PAIR NO. 18 AWG THERMOSTAT CABLE WITH PVC JACKET.
4. COPPER PIPE OR TUBING WITHIN BUNDLE (ITEM 2A) MAY BE INSULATED WITH MAXIMUM 3/4" THICK ACRYLONITRILE BUTADIENE/POLYVINYL CHLORIDE (AB/PVC) FLEXIBLE FOAM PIPE INSULATION (MAX. QTY. = 2).
5. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED FROM TOP OF FLOOR ASSEMBLY, OR BOTH SIDES OF WALL ASSEMBLY, TO ACCOMMODATE FIRESTOP SEALANT.
6. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT FLUSH WITH BOTTOM SURFACE OF FLOOR ASSEMBLY, OR BOTH SURFACES OF WALL ASSEMBLY.
7. MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES :

1. MAXIMUM DIAMETER OF OPENING = 5".
2. ANNULAR SPACE BETWEEN PENETRANTS AND PERIPHERY OF OPENING = MINIMUM 0", MAXIMUM 1-1/2".
3. PENETRANTS TO FILL MAXIMUM 66% OF THE CROSS SECTIONAL AREA OF OPENING.
4. HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT TO BE APPLIED INTO INTERSTICES OF BUNDLE TO MAXIMUM EXTENT POSSIBLE ON TOP SIDE OF FLOOR, OR BOTH SIDES OF WALL.



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