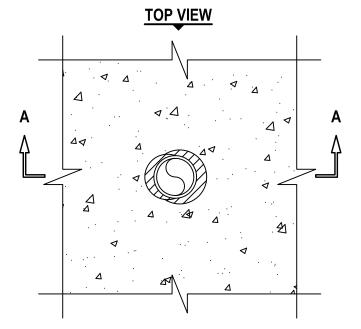
## **cUL SYSTEM NO. F-A-2009**

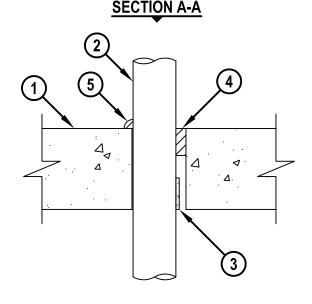


## PLASTIC PIPE THROUGH CONCRETE FLOOR ASSEMBLY

F, FT, FH AND FTH-RATINGS = 2-HR.

NOTE: TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL





- 1. CONCRETE FLOOR 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).
- 2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (ALSO SEE NOTE NO. 4 BELOW):
  - A. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - B. MAXIMUM 2" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY).
  - C. MAXIMUM 2" NOMINAL DIAMETER CROSS LINKED POLYETHYLENE (PEX) SDR 9 TUBING (CLOSED OR VENTED PIPING SYSTEM).
  - D. MAXIMUM 2" NOMINAL DIAMETER AQUARISE CPVC PLASTIC PIPE (SDR 11) MANUFACTURED BY IPEX, INC. (CLOSED PIPING SYSTEM ONLY).
- 3. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK X 1-3/4" WIDE) WRAPPED AROUND PIPE TO MAXIMUM EXTENT POSSIBLE AND HELD IN PLACE WITH STEEL TIE WIRE. WRAP STRIP INSTALLED FLUSH WITH BOTTOM SURFACE OF FLOOR.
- 4. MINIMUM 1-1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT INSTALLED FLUSH WITH TOP SURFACE OF FLOOR (SEE NOTE NO. 3 BELOW).
- 5. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT INSTALLED ON TOP SURFACE OF FLOOR WHEN ANNULAR SPACE EQUALS 1/16".
- NOTES: 1. MAXIMUM DIAMETER OF OPENING = 3".
  - 2. ANNULAR SPACE = MINIMUM 1/16", MAXIMUM 9/16".
  - 3. IN HOLLOW-CORE FLOORS, APPLY ADDITIONAL MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT FLUSH WITH BOTTOM SURFACE OF FLOOR.
  - 4. CLOSED OR VENTED PIPING SYSTEM (PVC = SCHEDULE 40; CPVC = SDR 11 OR 13.5).



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Sheet	1 of 1
Scale	3/16" = 1"
Date	Jan. 16, 2015

Drawing No. FA2009f