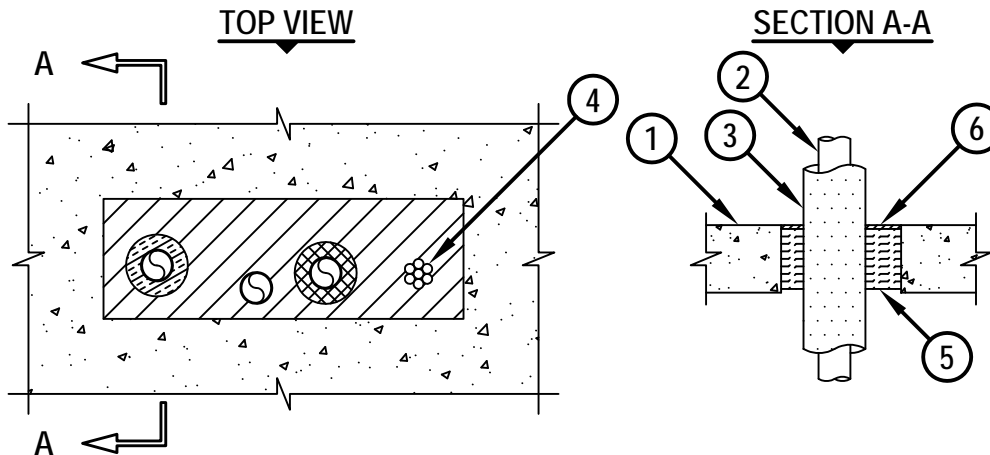


MULTIPLE PIPES THROUGH CONCRETE FLOOR ASSEMBLY

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



FA8027b.122013

1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK) (2-HR. FIRE-RATING).
2. ONE OR MORE OF THE FOLLOWING PIPES, AND IN ANY COMBINATION, MAY BE INSTALLED WITHIN THE OPENING :
 - A. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 2" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE OR TUBING.
 - D. MAXIMUM 2" NOMINAL DIAMETER STEEL CONDUIT OR EMT.
 - E. MAXIMUM 1" NOMINAL DIAMETER FLEXIBLE STEEL CONDUIT.
3. [OPTIONAL] ANY OR ALL PIPES MAY BE INSULATED WITH NOMINAL 1" THICK AB/PVC FOAM PIPE INSULATION OR NOMINAL 1" THICK GLASS-FIBER PIPE INSULATION.
4. MAXIMUM 2" DIAMETER CABLE BUNDLE TO CONSIST OF ANY OF THE FOLLOWING :
 - A. MAXIMUM 500 KCMIL POWER CABLE WITH PVC JACKET.
 - B. MAXIMUM 300 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
 - C. MAXIMUM 7/C NO. 12 AWG POWER CABLE WITH PVC JACKET.
 - D. MAXIMUM 1/2" DIAMETER FIBER-OPTIC CABLE (24 FIBER) WITH PVC JACKET.
 - E. MAXIMUM 3/C NO. 12 AWG STEEL METAL CLAD CABLE.
5. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
6. MINIMUM 1/4" DEPTH HILTI CP 604 SELF-LEVELING FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT FLUSH WITH TOP SURFACE OF FLOOR.

ANNULAR SPACE	MINIMUM	MAXIMUM
BETWEEN BARE OR INSULATED PIPES AND PERIPHERY OF OPENING	1/4"	5"
BETWEEN CABLES AND PERIPHERY OF OPENING	2"	4"
BETWEEN BAR OR INSULATED PIPES	1"	3-1/8"

NOTE : MAXIMUM AREA OF SQUARE, RECTANGULAR OR CIRCULAR OPENING IS 192 SQ. IN. WITH A MAXIMUM DIMENSION OF 24".



HILTI, Inc.
Tulsa, Oklahoma USA (800) 879-8000

Sheet	1 of 1
Scale	5/64" = 1"
Date	Dec. 20, 2013

Drawing No.
FA 8027b