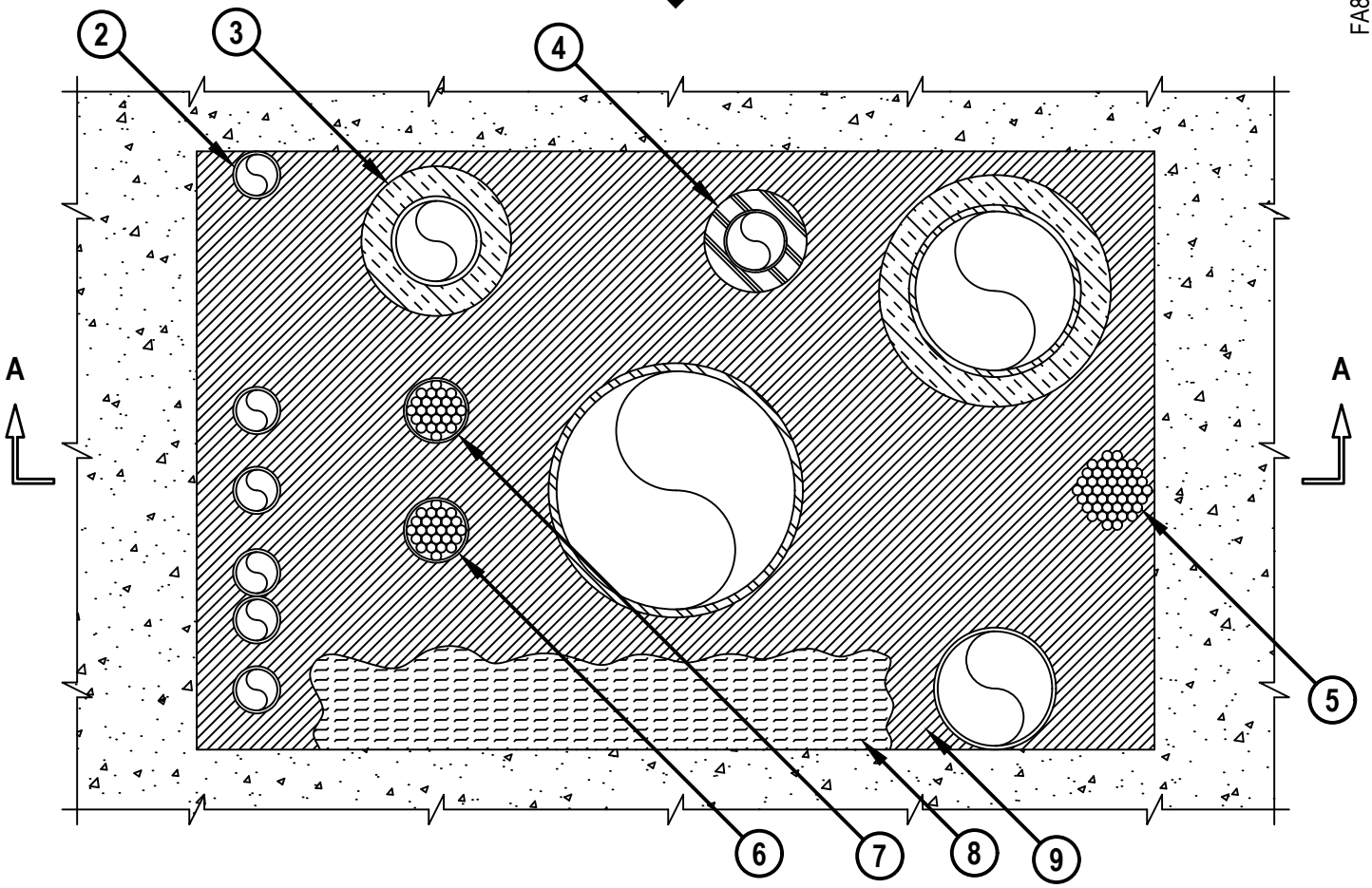
UL/cUL SYSTEM NO. F-A-8012

MULTIPLE PENETRATIONS THROUGH CONCRETE FLOOR ASSEMBLY

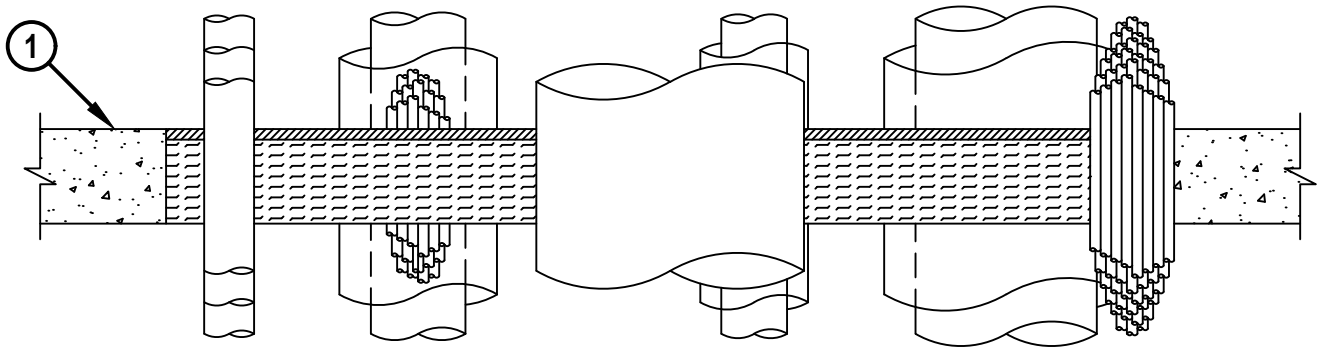
F-RATING = 2-HR.
T-RATING = 0-HR.

FA8012c.062917

TOP VIEW



SECTION A-A



Hilti Firestop Systems	HILTI, Inc. Plano, Texas USA (800) 879-8000	Sheet: 1 of 2 Scale: 7/64" = 1" Date: June 29, 2017	Drawing No. FA 8012c

Saving Lives through Innovation and Education

UL/cUL SYSTEM NO. F-A-8012

MULTIPLE PENETRATIONS THROUGH CONCRETE FLOOR ASSEMBLY

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

FA8012c.062917

1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK) (2-HR. FIRE-RATING).
2. ONE OR MORE OF THE FOLLOWING PENETRATING ITEMS (ITEMS 2-7) AND IN ANY COMBINATION MAY BE INSTALLED WITHIN THE OPENING :
   - A. MAXIMUM 24" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
   - B. MAXIMUM 24" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
   - C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   - D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
   - E. MAXIMUM 4" NOMINAL DIAMETER EMT.
3. [OPTIONAL] ANY OR ALL PIPES (4" OR SMALLER) MAY BE INSULATED WITH MAXIMUM 1-1/2" THICK GLASS-FIBER PIPE INSULATION.
4. [OPTIONAL] ANY OR ALL PIPES (2" OR SMALLER) MAY BE INSULATED WITH MAXIMUM 1" AB/PVC PIPE INSULATION.
5. MAXIMUM 4" NOMINAL DIAMETER CABLE BUNDLE OR INDIVIDUAL CABLE TO CONSIST OF ANY OF THE FOLLOWING :
   - A. MAXIMUM 500 KCMIL SINGLE COPPER OR ALUMINUM CONDUCTOR 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 WITH PVC JACKET.
   - E. MAXIMUM 3/C NO. 12 AWG STEEL CLAD CABLE.
6. MAXIMUM 3/C NO. 2/0 AWG COPPER CONDUCTOR PVC JACKETED ALUMINUM OR STEEL CLAD TECK 90 CABLE.
7. MAXIMUM 4/C NO. 750 KCMIL ALUMINUM OR COPPER CONDUCTOR WITH ALUMINUM OR STEEL CLAD WITH OR WITHOUT PVC JACKET.
8. MINIMUM 4" THICKNESS MINERAL WOOL (MINIMUM 4 PCF DENSITY) TIGHTLY PACKED.
9. MINIMUM 1/2" DEPTH HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT.

ANNULAR SPACE	MINIMUM	MAXIMUM
BETWEEN CABLE BUNDLES AND OTHER PENETRANTS	6"	12"
BETWEEN METAL PIPES LARGER THAN 2"	2"	12"
BETWEEN 2" AND SMALLER PIPES	0"	12"
BETWEEN INSULATED PIPES AND THE PERIPHERY OF OPENING	1/2"	12"
BETWEEN ALL OTHER PENETRANTS AND THE PERIPHERY OF OPENING	0"	12"

NOTE : MAXIMUM SIZE OF OPENING = 48" x 30".