

UL/cUL SYSTEM NO. C-AJ-4034

# MULTIPLE CABLE TRAYS THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

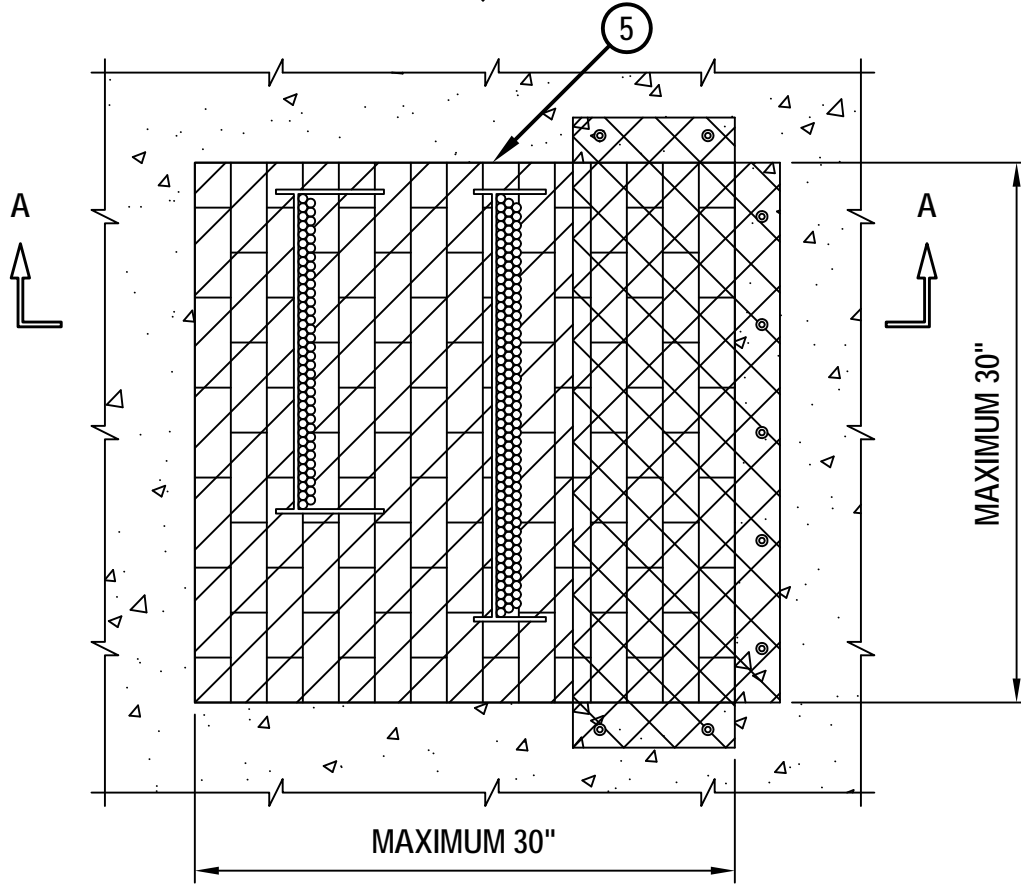
F RATING = 3-HR.

T RATING = 0-HR.

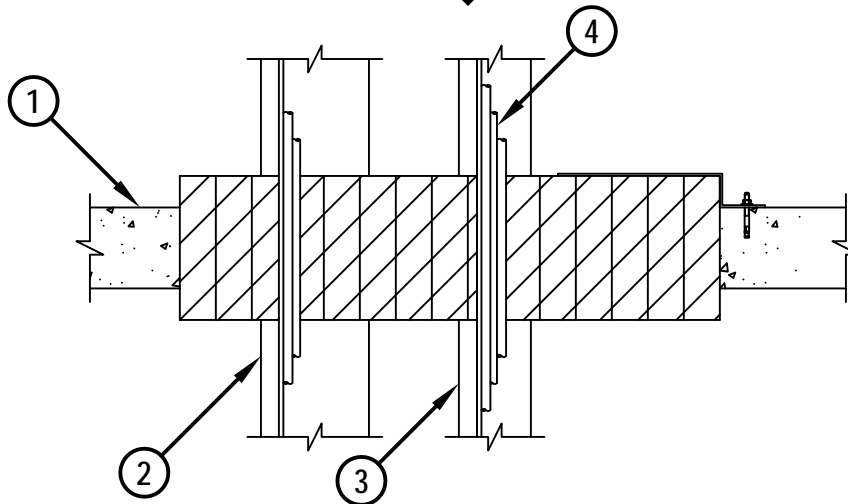
L RATING AT AMBIENT = 5 CFM / SQ FT

L RATING AT 400° F = 2 CFM / SQ FT

TOP VIEW



SECTION A-A



CAJ4034d.010615



Hilti Firestop Systems

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

Sheet 1 of 2

Scale 3/32" = 1"

Date Jan. 06, 2015

Drawing No.

CAJ  
4034d

**Saving Lives through Innovation and Education**

**MULTIPLE CABLE TRAYS THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

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L RATING AT AMBIENT = 5 CFM / SQ FT

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1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
  - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 18" x 6" ALUMINUM OR STEEL OPEN-LADDER CABLE TRAY.
3. MAXIMUM 24" x 4" ALUMINUM OR STEEL OPEN-LADDER CABLE TRAY.
4. ANY OF THE FOLLOWING TYPES OF CABLES MAY BE USED :
  - A. MAXIMUM 7/C NO. 12 AWG COPPER CONDUCTOR CABLES.
  - B. MAXIMUM 300 PAIR NO. 24 AWG TELEPHONE CABLES.
  - C. MAXIMUM 350 KCMIL SINGLE CONDUCTOR POWER CABLES.
  - D. MAXIMUM 500 KCMIL SINGLE CONDUCTOR POWER CABLES.
  - E. 24 FIBER-OPTIC CABLES.
5. HILTI CFS-BL FIRESTOP BLOCK OR HILTI FS 657 FIRE BLOCK (2" TALL, 5" WIDE, 8" DEEP, REFERENCE : TOP VIEW) FIRMLY PACKED. EITHER ONE OR A COMBINATION OF THE BLOCK TYPES MAY BE USED.

NOTES : 1. MAXIMUM AREA OF OPENING = 900 SQ. IN., WITH A MAXIMUM DIMENSION OF 30".  
 2. FOR A 18" x 6" CABLE TRAY, MAX. AREA OF CABLES SHALL BE 20% OF THE CROSS-SECTIONAL AREA. FOR A 24" x 4" CABLE TRAY, MAXIMUM AREA OF CABLES SHALL BE 40% OF THE CROSS-SECTIONAL AREA.  
 3. ANNULAR SPACE = MINIMUM 1-1/2", MAXIMUM 13-1/2".  
 4. SPACE BETWEEN CABLE TRAYS = 5".  
 5. APPLY HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT INTO INTERSTICES OF CABLES BETWEEN CABLES AND CABLE TRAYS, AND ANY VOIDS TO MAXIMUM EXTENT POSSIBLE.  
 6. IF THE ANNULAR SPACE IS GREATER THAN 5", THEN ATTACH A STEEL WIRE MESH (NOMINAL 2" SQUARES, NO. 16 SWG) WITH 1/4" DIAMETER x 1" LONG STEEL CONCRETE ANCHORS AND 1-1/2" DIAMETER FENDER WASHERS (SPACED MAXIMUM 8" C/C) ON TOP SURFACE OF FLOOR, OR ON BOTH SIDES OF WALL. STEEL WIRE MESH SHALL BEGIN MAXIMUM 2-1/2" FROM THE PENETRANT AND OVERLAP MINIMUM 3" BEYOND THE PERIPHERY OF THE OPENING.



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