

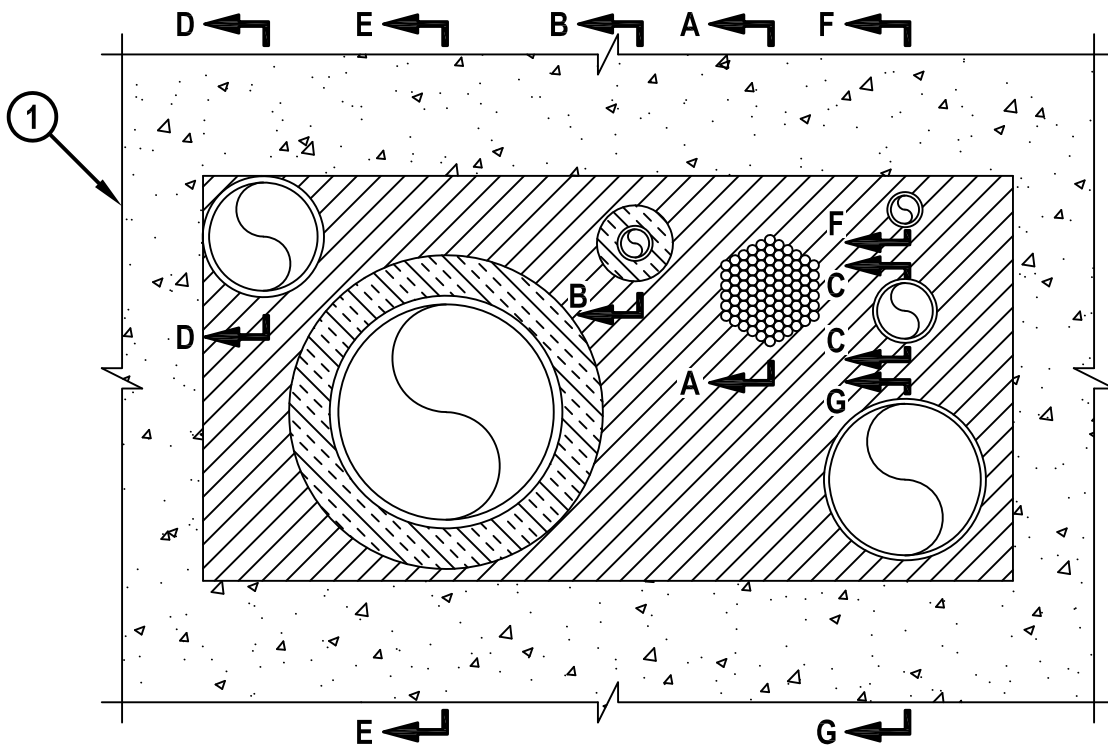
UL/cUL SYSTEM NO. W-J-8017

MULTIPLE PENETRATING ITEMS THROUGH CONCRETE WALL OR BLOCK WALL

F-RATING = 1-HR. OR 2-HR.

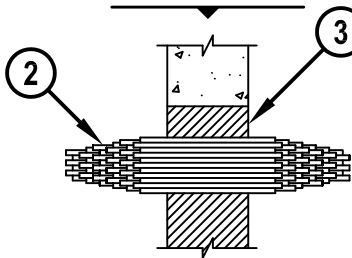
T-RATING = 0, 1/2, 1, 1-1/2 OR 2-HR.

FRONT VIEW

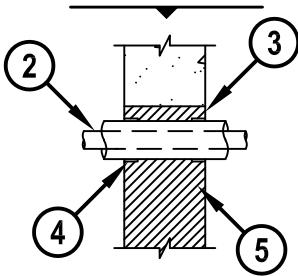


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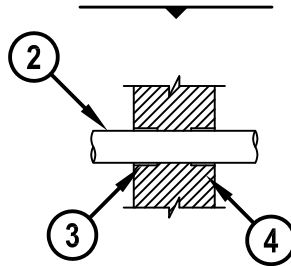
SECTION A-A



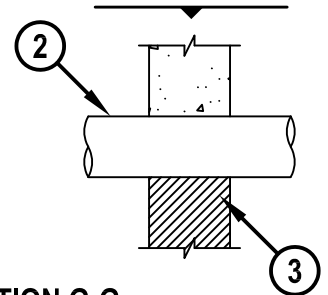
SECTION B-B



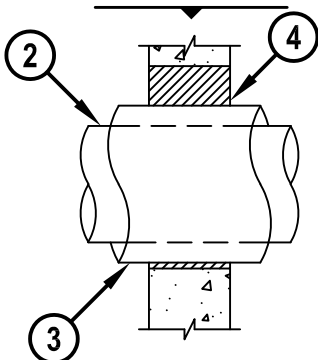
SECTION C-C



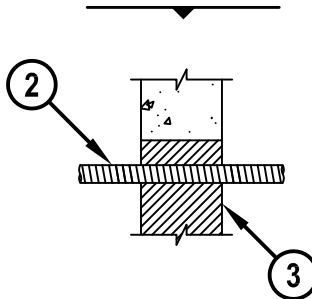
SECTION D-D



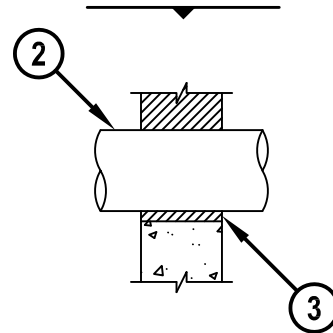
SECTION E-E



SECTION F-F



SECTION G-G



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Plano, Texas USA (918) 252-6000

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Scale 9/64" = 1"
Date Jan. 23, 2019

Drawing No.
WJ
8017e

Saving Lives through Innovation and Education

MULTIPLE PENETRATING ITEMS THROUGH CONCRETE WALL OR BLOCK WALL

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0, 1/2, 1, 1-1/2 OR 2-HR.

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1. CONCRETE WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 4-3/4" THICK, FOR A 1-HR. FIRE-RATING).
 - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 6" THICK, FOR A 2-HR. FIRE-RATING).
 - C. ANY UL/cUL CLASSIFIED SOLID OR FILLED CONCRETE BLOCK WALL.

FIRESTOP CONFIGURATION A

2. MAXIMUM 4" DIAMETER CABLE BUNDLE CONSISTING OF ANY OF THE FOLLOWING CABLES :
 - A. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
 - B. MAXIMUM RG 59 COAXIAL CABLE WITH PVC JACKET.
 - C. MAXIMUM 7/C NO. 12 AWG POWER CABLE WITH PVC JACKET.
 - D. MAXIMUM 3/8" DIAMETER FIBER-OPTIC CABLE WITH PVC JACKET.
 - E. MAXIMUM 3/C NO. 12 AWG METAL-CLAD CABLE.
 - F. MAXIMUM 3/C NO. 8 (+ GROUND) ROMEX POWER CABLE WITH PVC JACKET.
3. HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF THE WALL :
 - A. MINIMUM 4-3/4" THICKNESS, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 6" THICKNESS, FOR A 2-HR. FIRE-RATING.

NOTE : MINIMUM ANNULAR SPACE BETWEEN THE CABLE BUNDLE AND THE PERIPHERY OF THE OPENING AND BETWEEN ADJACENT PENETRANTS = 3/8" AND 4", RESPECTIVELY.

FIRESTOP CONFIGURATION B

2. MAXIMUM 1" NOMINAL DIAMETER COPPER PIPE OR TUBING.
3. NOMINAL 3/4" THICK AB/PVC PIPE INSULATION.
4. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE INSULATED PIPE, ONCE, AND HELD IN PLACE WITH TAPE, FLUSH WITH BOTH SURFACES OF WALL.
5. HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF THE WALL :
 - A. MINIMUM 4-3/4" THICKNESS, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 6" THICKNESS, FOR A 2-HR. FIRE-RATING.

NOTE : MINIMUM SPACING BETWEEN INSULATED PIPE AND PERIPHERY OF OPENING AND ADJACENT PENETRANTS = 3/8" AND 1-1/2", RESPECTIVELY.

FIRESTOP CONFIGURATION C

2. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (SCHEDULE 40, SOLID OR CELLULAR CORE) (CLOSED OR VENTED PIPING SYSTEM).
3. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PLASTIC PIPE, ONCE, AND HELD IN PLACE WITH TAPE, FLUSH WITH BOTH SURFACES OF WALL.
4. HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF THE WALL :
 - A. MINIMUM 4-3/4" THICKNESS, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 6" THICKNESS, FOR A 2-HR. FIRE-RATING.



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MULTIPLE PENETRATING ITEMS THROUGH CONCRETE WALL OR BLOCK WALL

F-RATING = 1-HR. OR 2-HR. T-RATING = 0, 1/2, 1, 1-1/2 OR 2-HR.

FIRESTOP CONFIGURATION C (continued...)

NOTES : 1. MINIMUM SPACING BETWEEN PVC PIPE AND PERIPHERY OF OPENING = 3/8".
 2. MINIMUM SPACING BETWEEN NONMETALLIC AND METALLIC PENETRANTS = 1" & 3-1/2" RESPECTIVELY.

FIRESTOP CONFIGURATION D

- 2. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE, CAST IRON PIPE, COPPER PIPE, STEEL CONDUIT, OR EMT.
- 3. HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF THE WALL :
 - A. MINIMUM 4-3/4" THICKNESS, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 6" THICKNESS, FOR A 2-HR. FIRE-RATING.

NOTE : MINIMUM SPACING BETWEEN COPPER PIPE AND PERIPHERY OF OPENING AND ADJACENT PENETRANTS = 0" AND 3-1/2", RESPECTIVELY.

FIRESTOP CONFIGURATION E

- 2. MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
- 3. NOMINAL 1-1/2" THICK GLASS-FIBER PIPE INSULATION.
- 4. HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF THE WALL :
 - A. MINIMUM 4-3/4" THICKNESS, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 6" THICKNESS, FOR A 2-HR. FIRE-RATING.

NOTE : MINIMUM SPACING BETWEEN INSULATED PIPE AND PERIPHERY OF OPENING AND ADJACENT PENETRANTS = 3/8" AND 2", RESPECTIVELY.

FIRESTOP CONFIGURATION F

- 2. MAXIMUM 1" DIAMETER FLEXIBLE STEEL CONDUIT.
- 3. HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF THE WALL :
 - A. MINIMUM 4-3/4" THICKNESS, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 6" THICKNESS, FOR A 2-HR. FIRE-RATING.

NOTE : MINIMUM SPACING BETWEEN STEEL CONDUIT AND PERIPHERY OF OPENING AND ADJACENT PENETRANTS = 3/8" AND 3-1/2" RESPECTIVELY.

FIRESTOP CONFIGURATION G

- 2. MAXIMUM 6" NOMINAL DIAMETER SHEET METAL DUCT (MIN. 28 GA.).
- 3. HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF THE WALL :
 - A. MINIMUM 4-3/4" THICKNESS, FOR A 1-HR. FIRE-RATING.
 - B. MINIMUM 6" THICKNESS, FOR A 2-HR. FIRE-RATING.

NOTE : MINIMUM SPACING BETWEEN SHEET METAL DUCT AND PERIPHERY OF OPENING AND ADJACENT PENETRANTS = 3/8" AND 1-1/2", RESPECTIVELY.

NOTES : 1. MAXIMUM SIZE OF OPENING = 30" x 30".
 2. A MAXIMUM OF SEVEN FIRESTOP CONFIGURATIONS MAY BE INSTALLED WITHIN THE OPENING.

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