

PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

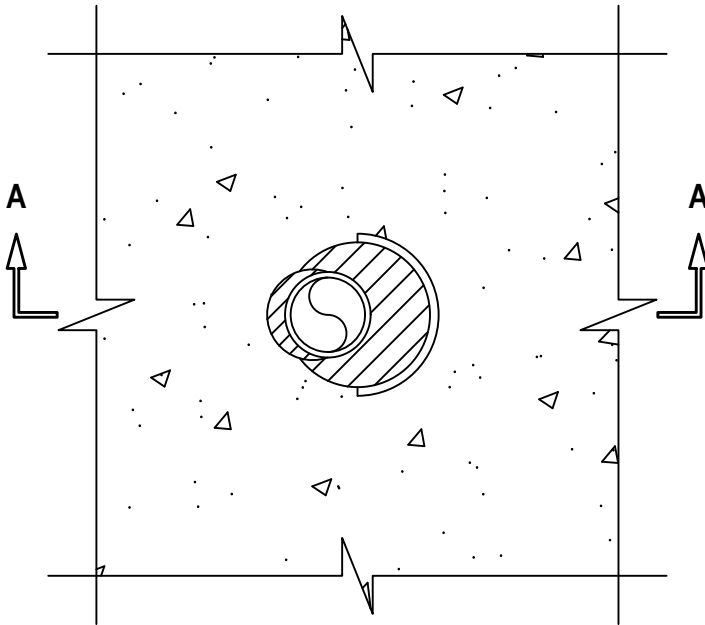
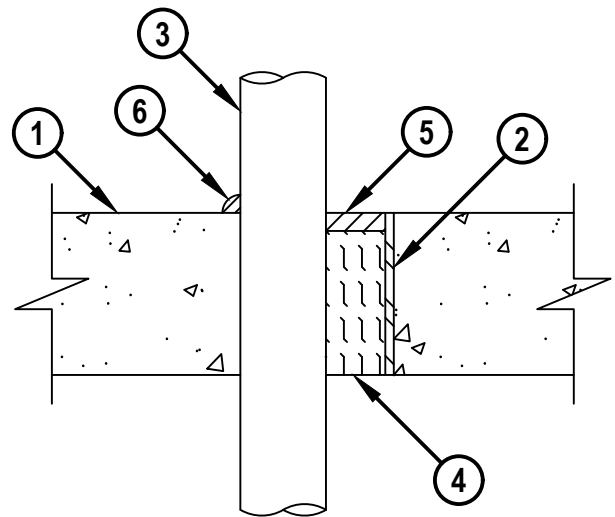
T-RATING = 0-HR., 1 1/4-HR., OR 2-HR. (SEE NOTE NO. 5 AND TABLE BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT

L-RATING AT 400°F = 4 CFM / SQ FT

W-RATING = CLASS I (SEE NOTE NO. 7 BELOW)

CAJ2567i.062325

TOP VIEW**SECTION A-A****1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING).**

A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).

B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).

C. PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).

D. ANY UL CLASSIFIED CONCRETE BLOCK WALL.

**Hilti Firestop Systems**HILTI, Inc.
Plano, Texas USA (800) 879-8000

Sheet	1 of 3
Scale	3/16" = 1"
Date	June 23, 2025

Drawing No.

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2. [OPTIONAL] SLEEVE TO BE ONE OF THE FOLLOWING :

- A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER) MAY EXTEND MAXIMUM 3" ABOVE FLOOR, OR BOTH SIDES OF WALL.
- B. MAXIMUM 4" NOMINAL DIAMETER SHEET METAL SLEEVE (MIN. 26 GA) WITH NOMINAL 2" OVERLAP ALONG THE LONGITUDINAL SEAM. SLEEVE TO BE FLUSH WITH ASSEMBLY SURFACES AND CAST OR GROUTED IN PLACE.

3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :

- A. MAXIMUM 2" NOMINAL DIAMETER POLYVINYL CHLORIDE (PVC) PIPE (CELLULAR OR SOLID CORE) (SCHEDULE 40) (CLOSED OR VENTED PIPING SYSTEM).
 - B. MAXIMUM 2" NOMINAL DIAMETER POLYVINYL CHLORIDE (PVC) PIPE (CELLULAR OR SOLID CORE) (SCHEDULE 80) (CLOSED PIPING SYSTEM ONLY).
 - C. MAXIMUM 2" NOMINAL DIAMETER CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE (SDR 17) (CLOSED OR VENTED PIPING SYSTEM).
 - D. MAXIMUM 2" NOMINAL DIAMETER CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE (SCHEDULE 40 OR 80) (CLOSED PIPING SYSTEM ONLY).
 - E. MAXIMUM 2" NOMINAL DIAMETER RIGID NONMETALLIC CONDUIT (RNC).
 - F. MAXIMUM 2" NOMINAL DIAMETER CROSSLINKED POLYETHYLENE (PEX) TUBING (SDR 9) (CLOSED PIPING SYSTEM).
 - G. MAXIMUM 2" NOMINAL DIAMETER AQUATHERM GREENPIPE POLYPROPYLENE (PP-R) PLASTIC PIPE (SDR 7.4 OR 11) (CLOSED PIPING SYSTEM).
 - H. MAXIMUM 2" NOMINAL DIAMETER AQUATHERM BLUEPIPE POLYPROPYLENE (PP-RCT) PLASTIC PIPE (SDR 9, 11 OR 17.6) (CLOSED PIPING SYSTEM).
 - I. MAXIMUM 2" NOMINAL DIAMETER NUPI AMERICAS NIRON POLYPROPYLENE (PP-RCT) PLASTIC PIPE (SDR 7.3, 11, OR 17) (CLOSED PIPING SYSTEM).
 - J. MAXIMUM 2" NOMINAL DIAMETER AQUATECHNIK NA FUSION-TECH POLYPROPYLENE (PP-RCT) PLASTIC PIPE (SDR 7.4, 11 OR 17.6) (CLOSED PIPING SYSTEM).
 - K. MAXIMUM 2" NOMINAL DIAMETER UPONOR POLYPROPYLENE (PP) PLASTIC PIPE (SDR 9 OR 11) (CLOSED PIPING SYSTEM).
- 4. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED TO ACCOMMODATE SEALANT.**
- 5. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CFS-SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-SIL SL FIRESTOP SILICONE SEALANT (FLOORS ONLY) (SEE TABLE BELOW).**
- 6. MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT OR HILTI CFS-SIL GG FIRESTOP SILICONE SEALANT APPLIED AT POINT OF CONTACT (SEE TABLE BELOW).**

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Sheet 2 of 3

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PENETRATION TYPE (ITEM 3)	FIRESTOP SEALANT (ITEM 5)	OPENING SLEEVED	DOES THE SLEEVE EXTEND BEYOND ASSEMBLY SURFACES	T-RATING	W-RATING
ALL	FS-ONE MAX	NO	N/A	2-HR.	SEE NOTE 6
ALL	FS-ONE MAX	ITEM 2 USED	NO	1-1/4-HR.	SEE NOTE 6
ALL	FS-ONE MAX	ITEM 2 USED	YES	0-HR.	SEE NOTE 6
B & D	CFS-S SIL GG CFS-S SIL SIL	NO	N/A	2-HR.	YES
B & D	CFS-S SIL GG CFS-S SIL SIL	ITEM 2 USED	NO	2-HR.	YES
B & D	CFS-S SIL GG CFS-S SIL SIL	ITEM 2 USED	YES	0-HR.	YES
F	CFS-S SIL GG CFS-S SIL SIL	NO	N/A	1-1/4-HR.	YES
F	CFS-S SIL GG CFS-S SIL SIL	ITEM 2 USED	NO	1-1/4-HR.	YES
F	CFS-S SIL GG CFS-S SIL SIL	ITEM 2 USED	YES	0-HR.	YES

- NOTES :** 1. MAXIMUM DIAMETER OF OPENING = 4".
 2. ANNULAR SPACE [WITH SLEEVE] = MINIMUM 1/4", MAXIMUM 1-3/8".
 3. ANNULAR SPACE [WITHOUT SLEEVE] = MINIMUM 0", MAXIMUM 1-5/8".
 4. WHEN HOLLOW-CORE FLOOR ARE USED, MINERAL WOOL MUST BE INSTALLED FLUSH WITH BOTTOM SURFACE OF FLOOR.
 5. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT OR HILTI CFS-SIL GG FIRESTOP SILICONE SEALANT IS REQUIRED ON BOTH SIDES OF A WALL.
 6. [OPTIONAL] FOR W-RATING WITH HILTI FS-ONE MAX, RECESS FS-ONE MAX 1/4" FROM TOP SURFACE OF FLOOR AND APPLY MINIMUM 1/4" DEPTH HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT, FLUSH WITH TOP OF FLOOR. MINIMUM 3/16" ANNULAR SPACE IS REQUIRED TO OBTAIN W-RATING.



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Sheet 3 of 3

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